

CHAPTER-1

INTRODUCTION

1.1 Background of the Study

Nepal is one of the least developed countries in the world. This country has been facing various health problems such as prevalence of communicable disease, lack of immunization, high maternal mortality and child mortality rate, malnutrition and lack of basic health care facilities. Environmental pollution is one of the causes which have adverse effect on health status of human being. Proper sanitation is essential to reduce the effects of such activities on the environment. The rapid growth of population and the tendency of migration to the urban areas have magnified the problem of environmental sanitation.

A good health is considered as a basic human right. It is thus no exaggeration to say it as, student, and family and community asset. Until and unless an individual possesses good health, smooth running of daily task remains ideal. Perhaps, it justifies the significance of talking health as an asset. Due to these reasons mere focus is seen in implementing health promotional program nowadays. Sound mind exists in sound body thus it is said that he who has health has everything. In this connection, it implies to greater extent only a healthy child can achieve good results. So each, school should launch special program to make them healthy and efficient (Bhurtel, 2012)

Especially the students in the primary school are not sufficient enough aware about their health nor they are able to adopt healthy their rules and behaviors, rather they are found more careless, enthusiastic and spending most of their time in playing and other entertaining business. They also don't know the effects created in gaining of quality education due to unhealthiness. "Health is a basic human right and a worldwide social goal. Health is not mainly an issue of doctors, social services and hospital. It is an issue of social justice" (Park, 2007).

Today's children are the foundation of development in future as well as they are policy maker and intellectuals of the nation. So, any negligence over their health now is not acceptable. Students spend most of their time in school. So, it is the responsibility of a school that it should conduct a comprehensive program to protect and promote the health of school children this program can be taken as SHP.

"prevention of health problem is not only role of SHP rather the SHP should have a comprehensive framework where in the overall purpose or ultimate objectives is to project, promote and improve the health of children"(Chetri, 2012). The knowledge and behavior of an individual regarding this/her cleanliness determines individual's levels of personal hygiene. On the other hand, it can be the union of determining his/her level of health, "Sanitary is a way of life"(National sanitary foundation of the USA) in the sense; the school may be the important place to study it. Though different studies have been conduct regarding sanitary time to time but only few studies can be found in this topic.

Scientist and researcher have already detected that poor environmental sanitation and lack of safe drinking water are responsible for high incidence of communicable disease. The imbalance between the natural resources, food production and the rapid growth of population are the causal factors for environmental degradation. Poverty, malnutrition, prevalence of disease inadequate supply of pure drinking water, illiteracy, depletion of resources is worsening the quality of the human life (MoH, 1997).

In Nepal, the standard of sanitary facility is poor. Drinking water facilities are also inadequate, a small fraction of population are enjoying piped drinking water facilities. The rest of the population use wells, rivers and ponds as the sources of drinking water, so poor sanitation and polluted water are the major factors that led to the incident of diarrheal as well as several skin disease like cholera, hepatitis, hook worm, whipworm, typhoid and dysentery; which are common in Nepal (MoH,1997)

Health education is a key component of all environmental and sanitation programs. It involves motivation, counseling and advertisement in Medias on basic hygiene education. Health is a valuable property of human beings. It plays a vital role for good health of an individual. Human resource is an important source of construction and development of a country. It is related to good education.

Sanitation constitutes an important and critical dimension of the living environment. Its ignorance leads to major costs of human suffering and economic losses. Sanitation is increasingly recognized as a wider concept that include practice of hygiene at personal and household levels, system of human waste disposal, management of solid and liquid wastes, cleanliness in public space, pollution created due to the inadequate conventional treatment on the disposal of human, animal and other wastes.

School can share health education experience to its recipients in the society by organizing awareness campaigns regularly. This campaign can include several components those help promoting healthier living. A modal school can follow similar ways out. Thus, sanitary facilities of a school depend on effective management and resource of the school. At present situation, students spend five to seven hour daily in the school. During this period, school needs to provide safe and healthy environment in which student and faculty live. Not only affects their health but also provides a laboratory for learning about health practices and attitudes. Only atmospheric school environment improves the physical, mental, social and emotional health of pupil and gets chances to take healthful practices among them (Sapkota, 2001).

Anderson (1972), on his book school health practice, stated that "SHP should appraise the student's personal hygiene and plan should be developed and implemented accordingly". Only at the time, healthy learning or healthy student is possible. It is no doubt that student's knowledge and behavior regarding personal hygiene and sanitary practice and sanitary practice are the determinant of his or her sound health that problems his/her health their living focusing resources on effective. School health (FRESH) is the recent approach of health hygiene and nutrition program. It is joining together of the concept of "Child friendly school of UNICEF" (Baidha and Devkota, 2013).

Generally, many research tasks have been done on sanitary issues at the national and international level although, very few institutional research tasks are done on related existing school sanitation. Thus, the secondary level public school of Itahari Sub Meropolitan of Sunsari was selected for the study. The researcher attempted to investigate the existing condition of sanitary facilities and their practice of the public schools (Five public schools). At last it would help to provide better sanitary condition and practices to the student's recommendation for the future.

1.2 Statement of the Problem

Nepal is an under developed country and 83% people are living in rural area of Nepal. Sanitation practice and level of awareness on it is also very poor. Sanitary practice is the key of the well being of any societies or schools. Only a healthy student can understand and appreciate the subject matter. So the study of sanitary facilities and its practice that affects his/her sound health is a must. Health is more precious than the money. To develop positive health attitude and behavior on them is indispensable to

successful life. Healthy child can learn better and perform better than that of unhealthy one.

There are 3157 VDCs and 204 Municipalities, 12 Sub Metropolitan, 1 Metropolitan, most of the municipality and sub Metropolitan have poor practice of managing wastage. Among Metropolitans, Itahari is one. Itahari Sub Metropolitan is situated in eastern part of Nepal, which lies in Sunsari district. There is problem related to sanitary facilities such as pure drinking water, waste disposal drainage system, poor physical environment etc. as the major problems. More or less it is sure that there is impact of Sub Metropolitan on surrounding schools.

Sanitary condition of school and surrounding area directly effect on health of the students. The school surrounding directly affect to teach health habit to the students specially studying in the public school. The public schools of Itahari Sub Metropolitan are not isolated from this problem. In this regards this study focus on the following problems/questions. :

- i. What are the condition of the sanitary facilities and practices in public schools of Itahari Sub Metropolitan?
- ii. What are the problems such as physical environment, sanitation, drinking water supply, cleanliness of the public school?
- iii. Do they follow sanitary facilities and it's practice in their daily life?
- iv. How is the condition about practical knowledge, skills and attitudes to students, teacher's member of school management committee and the people of the areas about the sanitation and their practice system?

The public school in Nepal is not resourceful the government has failed to provide with aid in this context, schools are struggling to maintain their existence. The focus on student's health is difficult to search because, teachers are not well trained. Thus, this study will be valuable.

1.3 Objectives of the Study

The general objectives of the study were to assess the sanitary facilities and its practice of public school's students of Itahari Sub Metropolitan. In this study specific objectives are as follows:

- i. To find out the condition of water supply, toilet, waste dispose and school physical plant.

- ii. To find out the role of headmaster and community people in sanitary management of school.
- iii. To find out the problems faced by the schools in sanitary Practice.
- iv. To find out the impact the lack of sanitary facilities.

1.4 Significance of the Study

This study depends on the need of sanitary facilities and its practices in public school are very important to improve the existing situation. Very few studies have been conducted with regarding sanitary facilities and practices of public school effectiveness. There is absence of data regarding competency of sanitary facilities and practice. Therefore this study will concern instituting to identify the realities of school sanitation and provide ideas for the improvement of the sanitation programs. So, this study will help to concerned in the following ways.

- i. This study will be helpful the concerning for headmaster, school staff, student and schools personnel to create a sound physical facility and sanitary environment in their schools.
- ii. This study gives the real picture about physical facility and sanitary management practice in existing time in the schools under study area.
- iii. This study will be used as base line data to those people who want to make a detailed study on the various aspect of school sanitation.
- iv. It will help to motivate the concerning agencies to formulate the plan and policies to conduct and health education program in particular area or schools.

1.5 Delimitations of the Study

The delimitations of the study are marked by time, area, financial and research materials. Its delimitations are as following:

- i. This study would be delimited only five public schools situated Itahari Sub Metropolitan, Sunsari district.
- ii. This study represents only school pan, water supply, toilet facility, waste disposal and problems in sanitary management/practice in targeted schools.
- iii. Questionnaires administrates to the headmaster and students only.

1.6 Operational Definition of the key Terms

These terms that are specially used in this study are defined as following;

Attitude: Way of feeling or thinking about anything.

Behaviour: Personal way to act.

Community: a group of people lives together in a particular area.

Environmental Sanitation: The control of all those factors in many physical environment which exercise or may exercise a deleterious effects on this physical development, health and survival (WHO, 1997).

Facilities: Quality, Which makes doing or harming things easy or simple.

Health: A state of complete physical mental and social well being and not merely absence of disease or infirmity.

Knowledge: Information, understanding and skills gained through learning or experience.

Land fill site: Land fill site is the disposing of garbage by spreading it layer and then covering it with dirt to depth at which it will not be disturbed.

Latrine: Pit or Trench to receive human urine excrement.

Malnutrition: It is a pathological condition resulting from a relative or absolute, efficiency or excess of one or more essential nutrients in the diet. It includes under nutrition and over nutrition.

Sanitary: Sanitary is the hygienic condition that secure health free from the influences that deteriorate health.

Safe Water: Safe water is that which is safe and free from germs and harmful substance.

Waste Disposal: It is a technique of collecting and removing of dust, ash foliage, paper and packing of all kind of rage and other foliage glass etc.

CHAPTER-II

REVIEW OF THE RELATED LITERATURE AND CONCEPTUAL FRAME WORK

This chapter highlights the literature that is available in concerned subject as to my knowledge, research work and relevant study on this topic; review of journals and articles, newspapers, annual reports internet and review of this work. There is limited number of previous studies in this field. The literature survey thus provides the students with the knowledge of the status of their field of research. Thus, previous studies cannot be ignored as they provide the foundation of the present study. Main objective of this chapter is to find out the earlier designs, methods findings to enlarge the depth and breadth of knowledge on public school's sanitation and practices activities. A few studied and research works had been done in the field of community sanitation, school health program solid waste disposal management & latrine problems in Dhankuta, Dharan, Biratnagar, Jhapa, Ilam and Udaypur Municipality.

2.1 Review of Theoretical literature

The sanitary is the key of the well being of any society of school because small children are like a blank sheet. They must be studied from different angles. They can be moulded in desired shape, if they are studied from page to page. It has been already mentioned that the status of health of a child affects his/her achievements and status of health is determined by the status of sanitary facilities that the child has. So, there is mutual relationship between sanitary facilities and good achievements. It is the same issue that the researcher wants to explore. To give the study a defined shape; the researcher has tried to study different schools, educationists, and organization views theoretical literature. Some of them as follow:

"Sanitary is as a way of life. It is the quality of living style that is expressed in the clean home, the clean farms, the clean business, the clean neighborhood and a clean community. Being a way of life, it must come from within the people. It is nourished by knowledge and grows as an obligation and an idea in human relation"(Park, 2007). WHO-Geneva (1986),"Water supply and sanitary decade international action from health". An adequate supply of clean water is fundamental of individual family and community health statistic shows that about half of the world population without reasonable access on and adequate supply of water and that even more people are without proper means of sanitary. These two factors poor sanitary facilities, personal hygiene and household and directly responsible for in number causes of preventable

disease. The most seriously affected are people learning in rural areas and poverty stricken part in urban areas. The main obstacle to use and maintain the improved water supply and sanitary system is not quality of technology but the failure of unqualified human resource and management and organizational techniques including a failure to capture community interest.

2.2 Review of Empirical Literature

Lamichhane (2010) conducted a research on role of physical environment in creating healthful school living in public secondary school of Udaypur District. He found that only 20 percentage school had proper ventilation and lighting system, most of the schools (80%) were used window for ventilation purpose. In the study area 50% of school used incineration method, 40% school used dumping and composting and 20% schools used landfill site method to dispose the wastage. In that study area it was also found that 80% school were not managed drainage facility, 70% school had used raw water from, Tubel, 25% school used tap water. In that study most schools had been facing the problem of pure drinking water and supply of water in toilet.

Koirala (2012) Conducted a research on sanitary facilities and management in public secondary schools of Biratnagar Sub Metropolitan of Morang District found that the public secondary schools have not boundary wall and 75% school have not own sources of water, they (87.50) depends on public tap or well, they collect water through clay pot, bucket and tank; which was directly distributed to students without purification. Most school had their own toilet having schools 12.50% schools had good condition and remaining 87.50% toilet were very poor physical facility. The condition of student toilet was found very unsatisfactory and about 75% schools were found throwing waste haphazardly whereas only 12.50% use incineration for appropriate management of school's wastage.

Neupane (2005) on his study healthful environment in public and private schools of Dhankuta district found that 33% of public and 80% of private schools indicate the area of land is not sufficient, 19% of public and 10% of private secondary school have less rooms than other, 20% private school have their own building, 40% of private and 17% public school had canteen facility and 60% private and 83% public schools had not canteen facility 83% public and 70% private school applying in incineration as waste disposal system.

Sapkota (2014) conducted a study on sanitary facilities and their management on secondary school at Jhapa District. She found that the public secondary schools were found to have more land than private secondary schools. The waste disposal system and frequency of sanitary activities were found unsatisfactory. Both private and public schools used tap water but the taps were insufficient to the total number of students. The handling system of water was found better in private schools. The adequate numbers of toilets were found in both types of schools. All the public and private schools were generally satisfactory regarding the condition of classrooms. Comparatively private school's sanitary facilities were found slightly better than the public schools.

Chaudhary (2067), conducted comparative study on sanitary facilities between government and private school in Dangdeukhuri valley found that all schools used filter for purification of teacher's drinking water only. It was found that most of the headmaster (57.14%) of the government school and all private school principal responded that they lacked the land field side for disposal of waste materials. Majority of the government and few of the private schools were found in poor condition that they had a lot of dust, stone, paper, plastics and unwanted herbs in to the school complex.

Baral (2000) had done study on sanitation facilities and their management in public primary school of Ilam municipality reported that the cause of not proper supply of water lack of toilet, lack of waste disposal area. In this study he found that they are carelessness to composting the waste materials. Out of total 58.33% school were dump below the mount and rest were found to have thrown the waste materials haphazardly.

Devkota (2014) conducted comparative study on health environment of public and private school in kirtipur municipality found that most of school had not been following scientific method for disposing waste. They had been incinerating and throwing the waste haphazardly in public area. They reported that the problem of waste disposing were land field, drainage facilities.

Mahato (2013) studied on sanitary practices and their management in university campus, T.U. Kirtipur. The main objective of the study was to find out the condition of sanitary practices and their management in University Campus T.U. the population

comprises chief of the central department of the education. Random sampled procedure had applied for the collection of the study 100 students. Chairman of HPE and Department of education were selected as respondent's questionnaire and observation chart were main tools applied for the collecting necessary information. In this study the researcher found that the cleanliness condition of the classroom was found very poor ventilation and lightening of classroom was satisfactory but the campus had very poor water supply facilities. Latrine facilities were not properly managed. The condition of the building was satisfactory, campus had practiced waste removal classroom cleaning, toilet cleaning, keeping water clean etc. for sanitary management but due to lack of budget campus had not been able to provide better sanitary management.

Adhikari (2013) studied on sanitary facilities and its management in public secondary school of Khandabari municipality. He found that maximum (80%) schools are made by mud and stone; boundary wall of the school is very poor. Only 20% of the schools have their own sources of water also not found satisfactory although 40% of the school have more or less using filter. 60% schools have financial problem to manage pure drinking water and 40% have problem of water sources. The study reveals that 80% schools have toilet facility only one school has facilities in to the toilet. There is no any management of the waste disposal system in the school. There should be toilet facility in the school. One toilet for each 50 students should be made. Separate toilet for boys, girls and teacher is must.

2.3 Implication of the Review for the Study

The literature review has helped in my study in following ways.

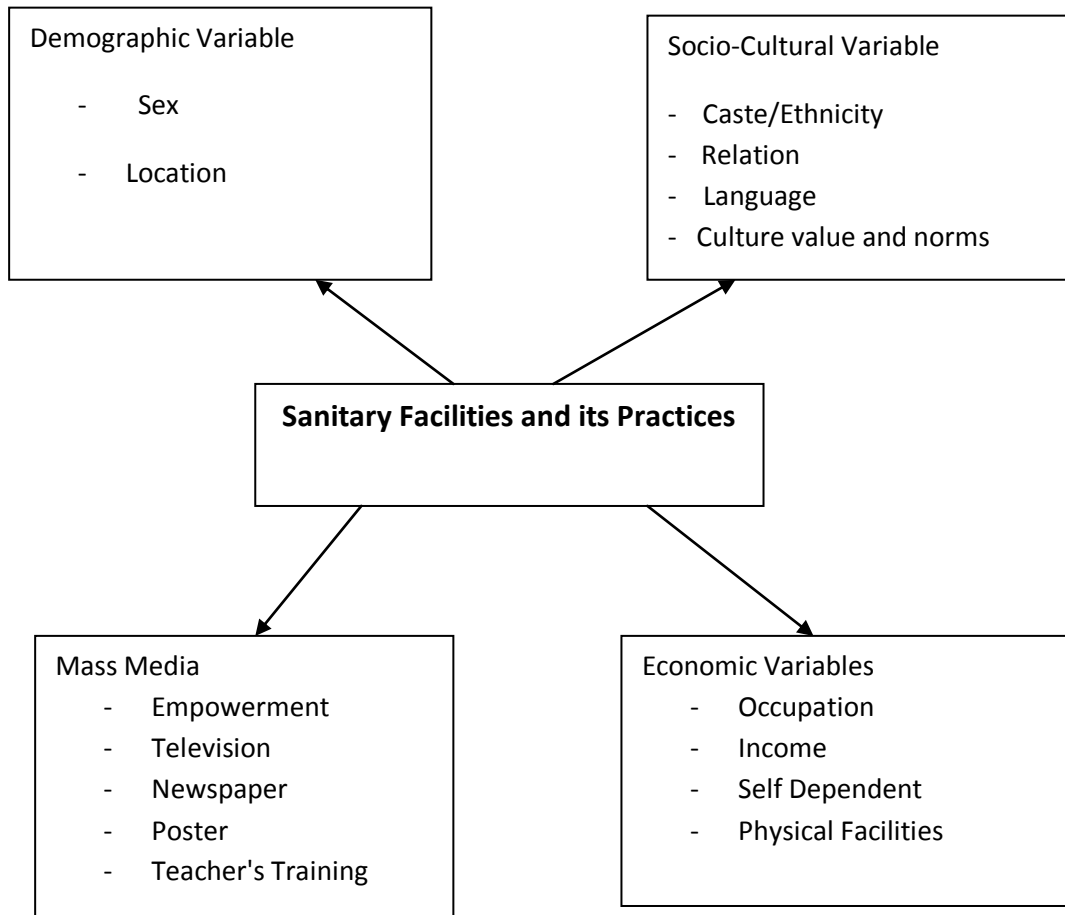
- i. To implement various programs to the concerned field.
- ii. To determine the topic of the study.
- iii. To identify the related filed for the study.
- iv. To compare the old finding of the study with the present one.
- v. To evaluate the recent research.
- vi. To gain additional knowledge about research methods.
- vii. To give reference to the further studies related to the topic.

2.4 Conceptual Framework

To improve the knowledge and practice of sanitary facilities and it's practice among the public school's students, different variables play the key role. These variables are

the facilities, demographic variables, socio cultural variables, knowledge and practice available of information sources and role of different sectors. This has been described in the following framework.

Conceptual Framework of the Study



This study has been concentrated only about the sanitary facilities and its practice on public schools where as it depends demographic, socio-cultural, mass media and economic.

CHAPTER-III

METHODS AND PROCEDURES OF THE STUDY

Methodology is the main part of the research work study method refers to the methods/way that is used for conduction of study or performing study operation. Study methodology may be defined as "A Systematic process that is adopted by the studier in studying a problem with certain objective in view". In other words, study methods are those methods which are used by the studier during the course of studying his/ her study problem. Study methodology is a way to solve the study problem systematically. The study methodology is wider than that of study methods. Study methodology highlights about how the study problem has been defined what data have been collected, what particular method has been adopted and why hypothesis has been formulated etc.

3.1 Research Design

Research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and to objective of this study. To achieve the objective of this study, descriptive research design has been used.

3.2 Population and Sample

Total numbers of public schools of study area are 30 and the total number of students in those schools is 10875 (According to School Resource Centre Itahari). This study is limited 5 public schools on Itahari Sub- Metropolitan City. Shambhu Nath Secondary, Sarswati Jabdi Secondary, Parwati Lower Secondary, Sarbajanik Primary number and Sarswati Primary Schools total numbers of students are 455, 396, 254,150 and 120 respectively. 100 students were selected from each school.

3.3 Sampling Procedure

The sampling process of this study was being carried in two stages. At first the researcher selects five public schools out of 30 located in Itahari Sub- Metropolitan City by simple random sampling method. Automatically five headmasters are select as respondent according to the nature of study. Total 100 students (out of 20 Students, 10 male and 10 female) from each school was selected randomly.

3.4 Data/Information Collection Tools

Data about the physical facilities and its sanitary practice of schools are collected from the questionnaire which includes the water supply, school physical plant, waste

disposal and latrine etc. Separate structure questionnaire for headmaster and students are used to obtain the information about physical facilities and sanitary management practice condition of the schools.

3.5 Data/Information Collection Procedure

For data collection procedure, the researcher submitted request letter of Janta Multiple campus to respondent schools for official authority, after getting authority from school administration the researcher was be visited the selected respondents. Before distribution of the questionnaire guideline and some clarification will gives by researcher. Separate interview schedule was given to headmaster and students of selected schools.

3.6 Data Analysis and Interpretation Procedure

After collecting the whole information through questionnaire, it was checked, verify manually to reduce possible errors and questionnaire be categorized in different relevant headings and sub headings. The collecting data be process and place in different tables and will be analysis in terms of percentage and frequency table. After data analysis, the interpretations were making accordingly with the help of review literature and observe facts.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

School is the most important place for students and teachers. Especially, students are like as raw soil, school gives them specific shape then they are changed in socially accepted human being. Schools are also taken as mini society, from where students learn various social norms and values which help them to make civilized personnel. School not only teaches them moral and theoretical knowledge to the students but also it gives physical environment to move and grown up in favorable condition. This chapter is mainly concerned with the analysis and interpretation of the collected data. After collection the data they were tabulated and calculated in percentage regarding each items of the interview schedule. It was kept in sequential order to the need of the study.

4.1 Existing Condition of School Plant

School is the most important place for students and teacher, both of them stay at school at list six to eight hours every day. The place wherever they stay for a long time that should be sound and hygienic from the health point of view. The main objective of this study was to find out the existing physical facilities and role of various personnel on managing it. School building, furniture, ventilation and lightning into the classroom, compounding wall, toilet facilities, and supply of drinking as well as cleaning water are the most important factors of the school plant. Proper selection of school site, availability playground and greenery are also most important factors for the creation of healthful.

School plant is essential for wellbeing of the students as well as personnel of that school. School health program which is expected to deal with the diversity of factors and situations related to human well-being must have basic pattern or framework. It should be sufficient and flexible to adapt any situation or need. To be functional it must be practical. It should be adjust to the needs of the students and must be harmony with the background of both the school and the community. Basically school plant denotes school site or location, availability of land and playground, building and rooms, sports facilities and equipments, furniture and gardening etc.

4.1.1 School Building

A building structure is important factors for teacher and student of school. School building save students and schools personnel's from heat, cold, sun light and other unnecessary hazards. Buildings also give psychological satisfaction to the concerned people. Building must be strong and safe to the natural calamities like storm and earthquake. Buildings are basically based on local materials, nowadays rod and concrete are must used to build building. Cooperatively rod and concrete are more durable to construct building. Below given table 1 shows the actual situation of the building.

Table 1: Types of Schools Building

Types of schools buildings	No. of School	Percentage (%)
Concrete	5	100.00
Total	5	100.00

Above given table 1 shoes the materials used for the construction of the school building. According to the data 100% school used concrete.

4.1.2 Boundary Wall of the School

For strengthening of school and for control of outgoing students, entry of unnecessary people as well as animal boundary wall in the school is needed. If the school has no boundary wall in such case the disturbance from community and surrounding environment should be faced by the school. Open tiding animals can enter into the school ground, destroy the gardening, playground and playing instrument. For the controlling these external disturbances as well as beauty of the school every school should be made boundary wall. In the study are the status/situation of boundary wall is presented in the table 2.

Table 2: Situation of Boundary Wall

Situation of boundary wall	No. of school	Percentage (%)
Haves	5	100.00
Total	5	100.00

Table 2 shows that all five public schools had managed boundary wall.

After the analysis of the data we can conclude that all school is safe side from external forces.

4.1.3 Land of School

Sufficient land is one of the basic requirements of better healthful school environment. The main uses of land for school is to construct building, playground, gardening, perform practical activities. When students enter into the school they should feel easiness and happiness. If the school area is wider students can play in wider playground, environment is open and attractive also. School is not only area of giving knowledge on course of study but also it gives entertainment for students. Mostly students get entertainment through playing; playing needs enough ground and space into the school. Actual situation of land of the school is given below in figure 1.

Figure No. 1 Land of School

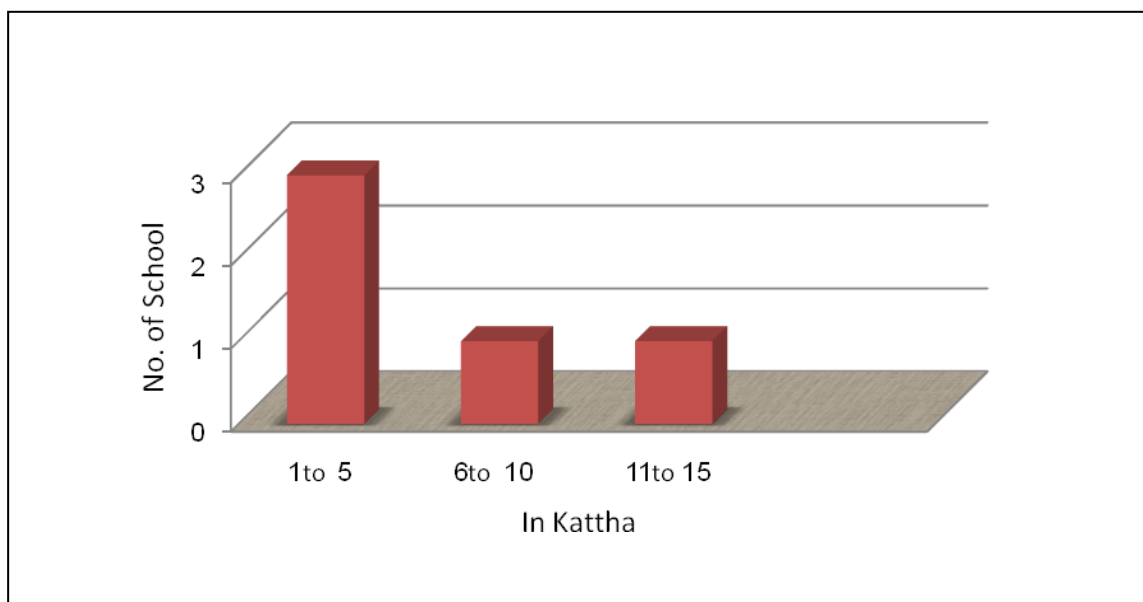


Figure 1 revealed that among five schools 20 percentage school had 10 to 15 Kattha of land which was used for play ground, garden and other purposes where as 60 Percentage of them had less than 5 Kattha land and 20 percentage school had 5 to 10 Kattha of land which was insufficient for playground and they did not have garden. School level is the playing age, most students like to play, to play they need playground. If there is insufficient land, the possibility of being playground is impossible.

4.1.4 Area of the Playground

Land of the school is most important to create healthful school environment. School building, compounding wall, playground, canteen, library and facility of the pure drinking water are the most important components of the healthful school environment. Generally students of the school level are in rapidly growing period; during this period physical growth and mental development is directly related to play. Play is possible if there is enough play ground in to the school. Football and cricket are the most favorable game for Nepalese youth; these games required enough land area for play. Following table 3 shows the actual situation of the playground of the study area.

Table 3: Area of the Playground

Name of the Games	No. of schools	Percentage (%)	Area of playground in school (In Kattha)
Badminton	1	20.00	< 1
Skipping	5	100.00	
Long Jump	2	40.00	1-2
Volleyball	1	20.00	1-3
Football	1	20.00	3-9
Running	1	20.00	3-10

Table 3 revealed that out of five schools 20% school had badminton, volleyball, football and running playground. The area of playground for badminton, skipping, long jump, volleyball, football and running is less than 1, 1-2, 1-3, 3-9 and 3-10 Kattha respectively. It is concluded that most of the schools have no sufficient playground. Data indicates that there is not sufficient playground for major games like.

4.1.5 Availability of Standard Furniture

Furniture is that thing which is most important in every organization. School is that place where students, teaching and non-teaching staffs are there. Mostly students need furniture to stay and write in right way and position. Mainly furniture denotes bench

and desk according to age and height of the students. Furniture plays most important role for the physical growth and development of the students. If furniture is enough students get chance to have sit write without any disturbance which effects on result of the students. Space between desk and bench, height of the desk and bench should be scientific. If the height of the desk is more than the student's height it directly effects on vertebra of the student. It may cause bent of the bone and sometimes unnecessary long bone. The availability of standard furniture surely reduces the problems and helps to create favorable school environment. Following table 4 shoes the actual situation of the study area.

Table 4: Availability of Standard Furniture

Height of Desk (in feet)	No. of school	Percentage (%)	Height of bench (in feet)	No. of school	Percentage (%)
<2	1	20.00	<1	2	40.00
2-2.20	1	20.00	1.0-1.4	1	20.00
2.20-2.40	2	40.00	1.4-1.8	1	20.00
2.40-2.60	1	20.00	1.8-2.00	1	20.00
Total	5	100.00	Total	5	100.00

Above mentioned table 4 shows that 20% schools have less than two feet desk. 20% schools have 2-2.20 feet desk, 40% of the schools have 2.20-2.40 feet desk and remaining 20% schools have 2.40-2.60 feet desk. Similarly 40% schools have less than 1 feet bench, remaining 60% (20% each) schools had bench having the height of 1.0-1.4 feet, 1.4-1.8 feet, 1.8-2.00 feet respectively.

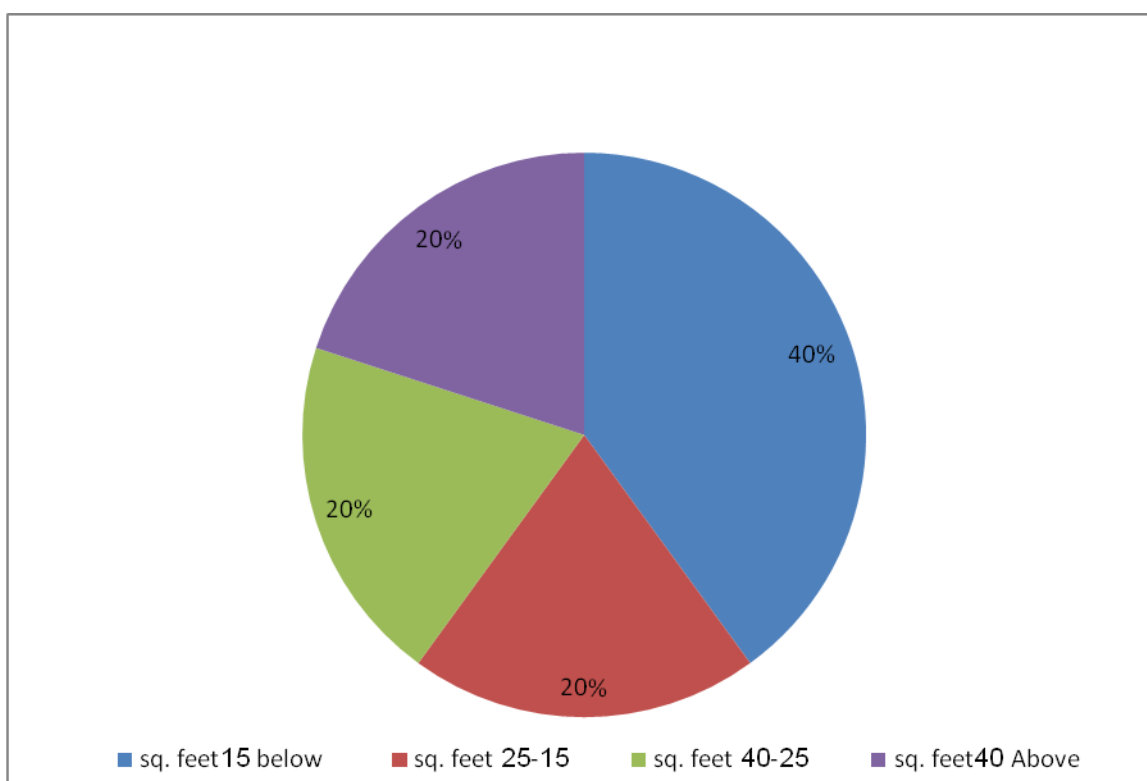
It is concluded that the practice of appropriate size of desk and benches is not satisfactory because of lack of knowledge. School management committee and administration officials of the schools should be oriented about the management of furniture in the schools.

4.1.6 Size of Whiteboard

Whiteboard is one of the most important instructional materials for teaching learning process. Mostly whiteboard is used to write something which makes easy to understand words phrases and description. Drawing picture and hanging some things

on the boards make easy teaching learning process. It is difficult to make teaching learning process effective without whiteboard. Size, quality and hanging place (distance between student and whiteboard) should be appropriate, if the distance of the whiteboard is far students cannot see whatever written on the whiteboard. If it is so near from the students it creates the problems on eye of the students. In this study, the size, quality and distance of whiteboard were studied which is presented in the following figure 2.

Figure: Size of Whiteboard



The figure 2 shows that 40% of school had the whiteboard below 15 sq. feet, 20% school had 15-25 sq. feet, 20% school had 25-40 sq. feet area of whiteboard and remaining 20% school had more than 40% sq. feet area of the whiteboard. The size which was found in the study area was not fully satisfactorily.

4.2 Water Supply

The water supply is one of the most important factors in healthful school management. In school mainly water is used for drinking purpose. The school should manage pure and safe drinkable water. There are more than 80% diseases which are water born. It is sure that if we can provide pure drinking water in the school is such situation we can control 80% diseases. Water not only used for drink but also it is

used for cleaning canteen, bathroom and etc. if drinking water is not clean it affects the school personnel health. So the researcher had introduced and observed the different sources of water pot and its cleaning practices in different school. Then information and facts were collected water supply and observed the relevant practices of using water, they are given below.

4.2.1 Sources of Water

Water is life. Water regulates our body in proper way. Without water we cannot go ahead in everyday life. Whatever water we use it is found or carried from any one source of water. There are various sources of water; rainfall, ground and underground water are the major sources of water. Schools can manage water from any sources. The water which is carried from any source must be pure and safe for drink. If source itself is contaminated then whole water is automatically contaminated. Generally remote area of our country is not polluted till the date so we can assume that sources of water in the study area are not shows the real source of water in schools.

Table 5: Sources of Water

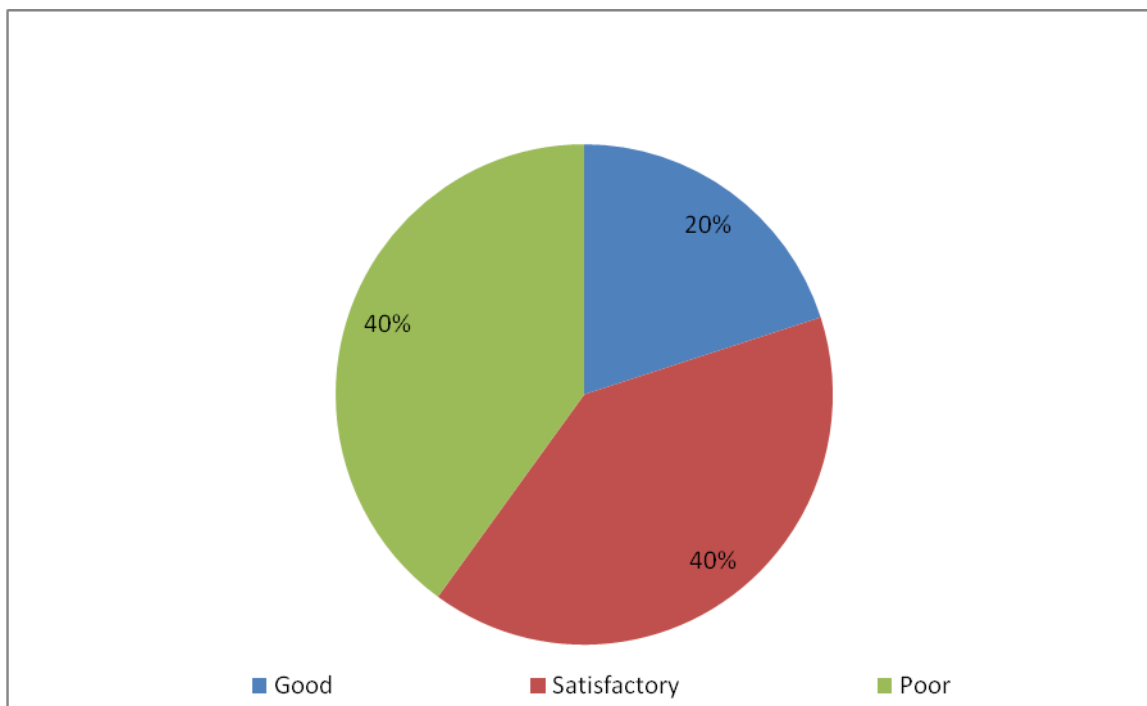
Sources	No. of School	Percentage (%)
Tube well	5	100.00
Total	5	100.00

Above given table 5 show that all schools had their own source that was tube wells.

All of the students used tube well water for drinking sufficiently but storage system was not found for the students. Evidence was there to prove that the water was clean. It looks clean so, the condition of water was regarded to be satisfactory.

4.4.2 Clearness of Water

Water is most important element to run our body in appropriate way. We need pure and safe drinking water for betterment of our body. Always we need to drink safe water. Water has some features like; color, sent and smells less. These features can be observed by our necked eyes. Clearness is another feature of water although it denotes only absence of visible foreign particles. From the scientific point of view only clean and clear water cannot be safe and sound. The using condition of drinking water was also presented in the following figure 3.

Figure 3: Clearness of Water

According to the figure 3 the condition of drinking water was good in 20% school, 40% schools had satisfactory and 40% had poor condition of drinking water. Clearness indicates the quality of water free from unnecessary substance. To be clear water must be free from foreign things. Good and satisfactory condition indicates clear water.

4.2.3 Purification of Water

If we use purified water our health will be good otherwise different kinds of disease may attack us. The water which we used may have some germs, insects and other particles which may effect on our health therefore; we must use the purified water. There are various ways of purifying water. Filter, boiling, sedimentation and using chemical are common methods. Using filter in large scale is difficult to manage and use of chemical may harm less or more to our health. Situation of purification of water in the study area is given below in table 6.

Table 6: Purification of Water

Description	No. of School	Percentage (%)
Yes	1	20.00
No	4	80.00
Total	5	100.00

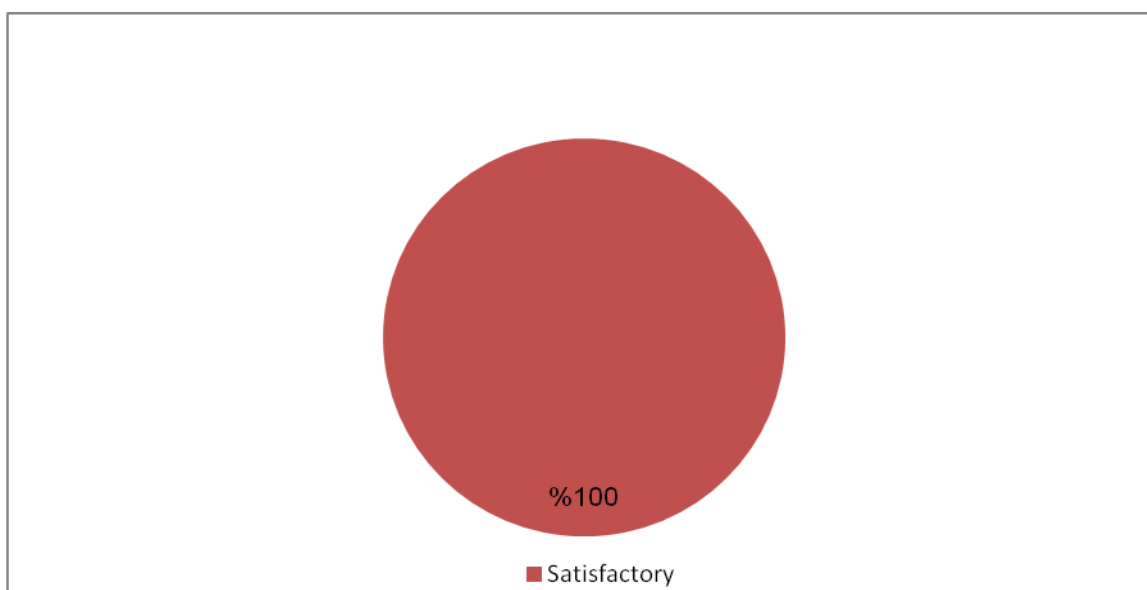
Above mentioned table 6 shows that 20% school use purified water and remaining 80% school use water without any purification. We can conclude that the school which used purified water use filter water only. Only one school uses filter water. Analysis of the data revealed that purification process is very poor. Only filter cannot purify water although most schools don't filter drinking water. The filtrate water is used only for teacher not for student.

4.3 Toilet Facilities

An unavailable and important element of school is toilet. If there is no any latrine in school; students go everywhere for toilet. Then the environment of school may be polluted that effect directly to the student's health. The use of latrine is very important aspect in one hand and in another hand its cleanliness is challenging. In very school the number of toilet should be enough. There should be separate toilet for teachers and students. Toilet for girl's students and boy's students also should be separate for senior classes. Toilet facilities mean not only pit, slab and compound wall as well as roof but also it indicates water for flush and washes hand.

4.3.1 Availability of the Toilet

Every school should have toilet facilities compulsorily. Without toilet the school families has so many problems and directly effect on the health and study of the students. There should be at least one toilet in every school. If the number of student is more than 100 there should be toilet in the ration of 100:1. Separate toilet for staff and student is must. For senior level students there should be separate toilet for boys and girls. Below given figure 4 show the availability of the toilet in the study area.

Figure 4: Availability of Toilet in the School

According to the figure 4 show that 100% or all school had availability of toilet facility.

There was found pit and water sealed toilets and separate for the teachers, boys and girls in study area. There was no any toilet for special students or others.

4.3.2 Condition and Types of Toilet

Toilets are built in different ways. The purpose of building toilet is to keep the school environment clean and for the formation habit using toilet to the child. It is necessary to build the toilet for the defecation and urination. It is necessary to build permanent or temporary toilet in every school. There are various types of toilet. Borehole, pit latrine and water seal are the common types of latrine used in Nepal. Available water, land and financial resources are the basic fundamentals to build toilet. According to data the condition or types of toilet is maintain below in table 7.

Table 7: Types of Toilet

Types of toilet	No. of School	Percentage (%)
Water Seal	5	100.00

Above mentioned table 7 shows 100% school had water seal toilet. The findings of the study indicate that most of them had water seal toilet. Water seal latrine is easy to keep clean.

4.3.3 Facilities inside the Toilet

Water, toilet brush, soap, bucket etc. are the necessary materials of toilet facilities. It is necessary to clean the toilet otherwise there is possibility of spreading flies, germs and stool cause pollution. Supply of water is most important thing to keep toilet neat and clean. Following table 8 shows the reality of facilities inside the toilet.

Table 8: Facilities inside the Toilet

Condition	No. of School	Percentage (%)
Yes	1	20.00
No	4	80.00
Total	5	100.00

According to the data only one school had facilities in the toilet and 80% school had not facilities in the toilet. According to the study there were 20% water seal latrines although 80% of them had not facilities inside the toilet. If there are facilities inside of the toilet that indicates the cleanliness of the toilet, instead of these facilities keeping toilet is impossible.

4.3.4 Student Toilet Use Practice

Anderson has prescribed one toilet for hundred people as minimum requirement from the facilities point of view. But Nepal government prescribed one toilet for fifty pupils. Every school should have toilet facilities compulsorily. Without toilet the school families have to face so many problems which directly affect on the health and study of the students. There should be at least one toilet in every school. If the number of student is more than 100 there should be toilet in the ratio of 100:1. Separate toilet for staff and student is must. For senior level students there should be separate toilet for boys and girls. Below given table 9 shows the students ratio of the toilet use practice in the study area.

Table 9: Students and Toilet Ratio

Name of School	Total Student	No. of toilet	Ratio
Shambhu Nath Secondary School	445	15	1:30
Sarswati Jabdi Secondary School	396	8	1:50
Parwati Lower Secondary School	254	5	1:51
Sarbajanik Primary School	150	3	1:50
Sarswati Primary School	120	3	1:40
Total	1365	34	1:40

According to the table 9, it is seen that Shambhu Nath Secondary School had 445 students 15 toilet and the ratio of toilet is 1:30, Sarswati Jabdi Secondary School had 396 students 8 toilet and the ratio was 1:50, Similarly Parwati Lower Secondary School had 254 students 5 toilet and the ratio of toilet was 1:51. Sarbajanik Primary School had 150 students and 3 toilets and the ratio of toilet was 1:50. Sarswati Primary School had 120 students 3 toilet and the ratio of toilet was 1:40. According to department of education there should be one toilet for every 50 students.

The above table shows that all schools had sufficient toilet facility. If we compare the number and ratio of the toilet prescribed by government of Nepal; not found vast difference. In this schools due to the negligence of the school management and the administration. To manage proper number of toilet government should make hard rules and control all the school of Nepal.

There was found water sealed toilets and separate for the boys, girls and teachers in the study area but due to unavailability of water, it was found dirty. Such poor condition was also seen due to lack of sufficient numbers of toilets for students. Similarly excreta were detected in the open spaces around toilet area and backside of school building. Such practice in the environment undoubtedly causes different disease; and it also proves that there was low level of sanitation practice in students of study area. School administration was not paying attention about it, so very bad sanitation practice is going on.

4.4 Waste Disposal

Waste disposal is one of the significant problems to create healthful school environment. Hence the management of waste disposal is considerate as the major part of sanitary practice. This section deals the sources of waste production, availability of dumping area, quantity of waste production and method of waste disposal.

4.4.1 Sources of Waste Product

The waste material refers to useless and unwanted materials that arise from student quantity for example waste paper, dust leaves of plant, plastic pipes, stone and bricks pieces are the prominent waste material of school table 10 shows the source of waste production in public school of Itahari Sub Metropolitan City.

Table 10: Sources of Waste Product in Secondary Schools

Source	No. of School	Percentage (%)
Paper	5	100.00
Dust and mud	4	80.00
Leaves	3	60.00
Stone, pieces of damage furniture	1	20.00

It is seen from table 10 that piece of paper was dominate source of waste in secondary school. All the school's informed that piece of waste paper is the major sources of production of waste and these materials were generated by the activities of the student, about 80 % schools reported that dost and mud are also dominant sources of waste production. Leaves are reported as the other significant sources of waste production in schools. The role of leaves as waste material is mostly due to the natural factor rather than school activities.

4.4.2 Quantity of Every day Waste Product in School

Wastages are such things which are thrown here and there without use. Wastage not only creates health problems but also gives threaten for civilization of the society. The amount of the waste is depending on number of student in the school, its garden and condition of the waste management system. If school is under the process of

construction in such situation there is more amount of waste. Table 11 shows the quantity of waste production in schools.

Table 11: Quantity of Waste Product in School

Quantity (in kg)	No. of School	Percentage (%)
1-2 kg	1	20.00
2-3 kg	1	20.00
3-4 kg	2	40.00
4-5 kg	1	20.00
Total	5	100.00

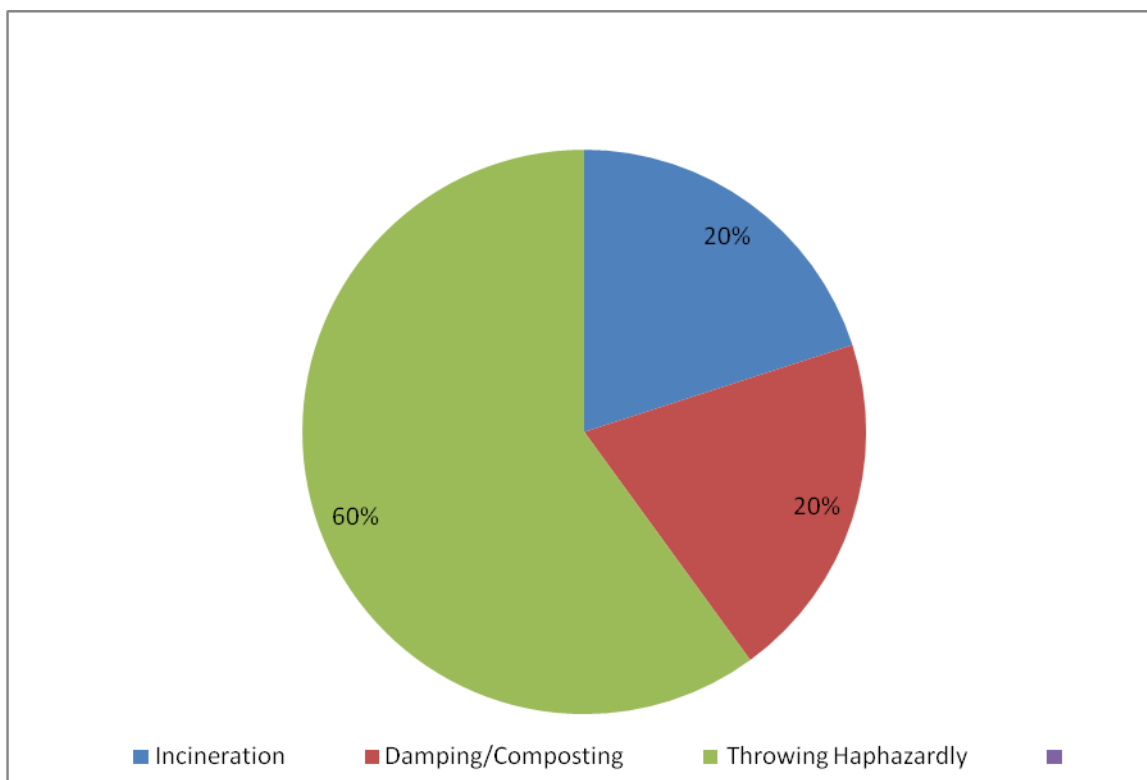
According to the table 11, it is seen that 20% school produce one 1-2 kg., 20% produce 2-3 kg., 40% produce 3-4 kg., remaining 20% produce 4-5 kg. waste every day. The variation in the quantity of waste production is found mostly influenced by the condition building availability and condition of drainage, location of schools surrounding environment and poor management.

4.4.3 Methods of Waste Disposal

Most of the waste materials are harmful to health. It is therefore necessary to dispose them properly in proper place. There are various ways of waste dispose. Dumping, manure pit, incineration, reuse, recycle. Replace and reduce in amount are the common methods of waste disposal. Incineration is the method which creates environmental pollution so nowadays is not prescribed as common method. Reuse, recycle, replace and reduce which are called principle of 4 R's is common methods of waste disposal.

Figure 5 clarifies the existing methods of waste disposal in the study area.

Figure 5: Method of Waste Disposal



The schools headmaster's were asked about their method of waste disposal. Above given figure 5 shows that 20% school use damping/composting to dispose the waste materials, 20% use incineration method and 60% school throw wastage haphazardly without any management. Findings indicate that there is not good provision of managing wastage. Throwing haphazardly creates the problems of breeding and spread of diseases in the surrounding community.

4.4.4 Classroom Cleaning Person

Classroom is the most important place where students live for whole day. Condition of the classroom plays important role on health and learning environment of the students. If classroom is well managed and clean it keep favorable environment for student instead of this classroom will be burden for students and teachers also. Daily cleanliness of classroom, keeping dustbin into the classroom are the ways of keeping classroom clean. Below given table 12 shows the responsible person for classroom clean.

Table 12: Classroom Cleaning Person

Description	No. of School	Percentage (%)
Peon	3	60.00
Students	1	20.00
Student and peon	1	20.00
Total	5	100.00

Table 12 shows that 60% school had managed peon to clean classroom, in 20% school students were responsible to clean classroom and in 20% school students and peon both were responsible for the cleaning of the classroom. According to the findings of the study we can conclude that there is participatory approach in class room cleaning. If it is happened knowingly, it would be long lasting otherwise in won't be continue and durable.

4.4.5 School Cleaning Time

To keep school neat and clean it should be cleaned time and again. Everyday activities of the students and nature process are also responsible factor to make environment dirty. Falling old leafs from the trees nearby the school creates the environment polluted. Classroom should be cleaned daily and surrounding can be clean alternative day. Actually cleaning time of the school is depends on the surrounding of the school, season of changing leafs by trees and classroom management. Following table 13 shows the actual situation of the cleaning time.

Table 13: The School Cleaning Times

Description	No. of School	Percentage (%)
Daily	1	20.00
Weekly	2	40.00
Sometimes	2	40.00
Total	5	100.00

Table 13 shows that 20% school clean their surrounding and classroom daily, 40% clean weekly and 40% clean sometimes. The researcher observed that the condition of classroom cleanliness is better where the classroom cleaned by joint effort of student and peon. According to the findings we can conclude that frequency of school cleaning is not good and it should be changed and schools should be cleaned daily.

4.5 Sanitary Practice in School

The topic includes the sanitary practice of school in respect of waste dispose water supply, toilet facilities, classroom cleanness and play ground to find out practice in the public school of Itahari Sub Metropolitan City.

4.5.1 Waste Disposal Practice System

Waste is an unnecessary as well as unwanted thing emerges from different kind of household and other activities. In Nepal a grange of 0.25 to 4.5 kg waste produced per person out of total waste 75% organic (MoLD, 2003) some waste we can destroy by different method such as composting, burning etc. If the waste is not disposing properly different health problems would be seen. Wastage is produced from various activities of the human activities of the human activities. Production of the wastage can be reduced although it cannot be eliminated. Management is the term which indicates the whole system and process of appropriate disposal of wastage.

On the basis of observation during data collection it was found that peon was responsible to clean classroom and surrounding area of the school. During observation of the classroom rarely dustbin were found into the classroom although such dustbin were made by plastic (Cartoon of the various goods were used as dustbin). Sometimes students were also mobilized to clean school environment. Especially after long vacation like Dashain and summer vacation students and helper of the school clan the environment otherwise nothing was found as wastage practice system.

4.5.2 Practice System of Water Supply

Water is life if it is pure and drinkable to health. So water supply practice system is very important for healthy school environment and for the creation of sound, safe and healthier body for brighter future. The researcher observed all five secondary school in the study area. It was found that most of the schools had poor water practice system. Though there was availability of water by different sources. Only few schools had managed the filtration of water but it was not enough for all member of the

school, it was managed only for teachers. More schools had not facility of drinking water for the student; that they were compelled to go out of the school to drink water. It was matter of worried that there was no provision of bringing water by students on bottle or other types of pot.

4.5.3 Toilet Practice System

The researcher found that the number of toilet in school was satisfactory. But there was lack of water in toilet. Mostly student toilets were very dirty. Most schools complained that they have not budget to build toilet. Lack of economic source and helper is another problem to manage toilet in appropriate way. The researcher had asked questions about toilet practice system as well as importance of it to school personnel; most of them were unknown about it. The student toilet ration was not maintained. Most of the toilet had not door, ventilation, sufficient lighting system. Some girls reported that it created great. In menstruation time they had to go bushes instant of toilet. It is due to the poor management system of the schools administration. It affects the schools as well as surrounding environment. There was lack of water inside the toilet in most of the schools and the pan of toilet found jammed due to use of paper and leafs to weep anus.

4.5.4 School Plant Management/Condition

The school management should create better environment in the classroom. Classes should small ventilated, well-furnished door and windows, clean environment and availability of teaching learning materials. In the Itahari Sub Metropolitan City public school have such types of facilities. Some schools clean classroom by themselves.

4.5.4 Role of Headmaster on Sanitary Practice

Headmaster is the master of the master. Headmaster plays the most important in a school. Headmaster is the teaching personality although he has to do as administrator and manager also. Headmaster is taken as executive head of the school. Teaching learning activities, administration, account, exam-curricular, activities are the major activities of a school. A headmaster should be able to handle these activities. Headmaster himself doesn't involve in sanitation practice but being manager and head of the institution he has to manage sanitary condition into the school. Table 14 shows the role of headmaster to manage sanitary.

Table 14: Role of Headmaster to Sanitary Practice

Description	No.	Percentage
Proper use of resources	2	40.00
Take support from any agencies	1	20.00
To mobilization student and peon to sanitary practice	1	20.00
To inform problem with DEO	1	20.00
Total	5	100.00

The above mentioned table 14 shoes that the role of headmaster for proper use of resources was 40%, take support from any agencies was 20%, to mobilization student and peon to sanitary practice was 20% and to inform problem to district education office was 20%. Headmaster has dual role as teacher and administrator. As an administrator he should manage sanitation into the school.

4.5.6 Role of Community People on Sanitary Practice System

School is a part of any community wherever it is established. School is taken as mini society. School and community have mutual understanding between each other. Students come from school and learn more knowledge and skill from there and they came back to the community and practice whatever knowledge and skill they learn from the school. Always school provides knowledge and skill according to the demand of the society. School plays vital role to change the society through knowledge. School is run under the supervision and management of community people. To run school in appropriate way school management committee is formed; the member of that committee are from the same community. Sanitation practice is one of the most important tasks for management committee. Whenever community people show interest and affection towards school; it canot run in appropriate way. School is the common property of the community so all community people should protect it then sanitation will be mentioned into the school. Table 15 shoes the role of community people on sanitary practice.

Table 15: Role of Community People to Sanitary Practice

Description	No.	Percentage
To conduct sanitary program in school	3	60.00
To coordinate school and community on sanitary practice	2	40.00
Total	5	100.00

Above given table 15 shoes that the role of community people was 60% to conduct sanitary program in school and 40% to coordinate school and community sanitary practice. It is known that instead of community support school cannot run in its own pace. School is learning centre and community is a practical field where students practice whatever they learn in the school. So, relation between school and community is must.

4.5.7 Main Problem faced by School for Sanitary Practice

Sanitary practice is one of the most important factors to create healthful school environment. Lack of adequate personnel in the school, lack of budget and interest of the school personnel are common problem faced by school for its improvement. Keeping dustbin, construction of toilet and provision of pure drinking water are the common activity of sanitary practice. Community support, reduce political influence and motivation for the school personnel are the common solutions for better practice of any school. The main problems faced by school to sanitary practice are as below in table 16.

Table 16: Main Problem faced by School for Sanitary Practice

Description	No. of School	Percentage
1. No. of toilet facilities 2. No. water facilities 3. No. Boundary wall	3	60.00
No community help on sanitary practice Government has not managed sufficient fund to sanitary management	2	40.00
Total	5	100.00

Table 16 shows that 60% schools had been facing problem toilet facilities; water supply, boundary wall student as well as teacher coordination and remaining 40% had been facing the problem of no community help on sanitary practice. Government had not provided sufficient fund to sanitary practice. According to the findings we can conclude that additional support from various agencies is required for appropriate management of the wastage.

4. 6 Summary and Findings

4.6.1 Summary

Nepal is one of the least developed countries in the world. This country has been facing various health problems such as prevalence of communicable disease, lack of immunization, high maternal mortality and child mortality rate, malnutrition and lack of basic health care facilities. Environment pollution is one of the causes which have adverse effect on health status of human being. Proper sanitation is essential to reduce the effect of such activities on the environment. Sanitary condition of school and surrounding directly effects on health of the students. The public schools of Itahari Sub Metropolitan city are not isolated from this problem so the problem is state as sanitary facilities and there management is public secondary schools of Itahari Sub Metropolitan City. The objective of this study is to find out the problems faced by schools in sanitary management in water supply, toilet, waste dispose and school physical plant and role of headmaster and community people in sanitary management of school.

Descriptive research design was used in this thesis study. The population of the study was the total number of headmaster and students of Itahari Sub Metropolitan City. Total numbers of public schools of study area are 30 and the total number of students in those schools is 10875 (According to School Resource Centre Itahari). This study is limited 5 public schools on Itahari Metropolitan City. Shambhu Nath Secondary, Sarswati Jabdi Secondary, Parwati Lower Secondary, Sarbajanik Primary number and Sarswati Primary Schools total numbers of students are 455, 396, 254,150 and 120 respectively. 100 students will be selected from each school. The simple random sampling method was applied. Data was collected from the questionnaire. Before finalizing the questionnaire these were administered fro pilot study in of previous Ekamba VDC of Sunsari. After getting authority from school administration the researcher himself visited the selected respondents. After collecting the whole

information through questionnaire, it was checked, verified manually to reduce possible errors and questionnaire were categorized in different relevant headings and sub-headings. The collected data were processed and placed in different tables and were analyzed in terms of percentage and frequency tables. After data analysis, the interpretations were made accordingly with the help of reviewed literature and observed facts.

4.6.2 Findings

From the above analysis and interpretation of collected information following findings are down.

- According to the data 100 percent school used concrete.
- According to the data all public schools managed boundary wall.
- Data that among five schools 20 percent school had 10 to 15 Kattha of land, which was used for playground, garden and other purposes where as 80 percent of them had less than 10 Kattha land.
- Out of five schools 20 percent school had badminton, volleyball, football and running playground. The area of playground for badminton, skipping, long jump, volleyball, football and running is less than 1, 1-2, 1-3, 3-9, 3-10 Kattha land respectively.
- Data 4 shows that 20 percent schools have less than two feet desk. 20 percent schools have 2-2.20 feet desk, 40 percent of the schools have 2.20-2.40 feet desk and remaining 20 percent schools have 2.40-2.60 feet desk.
- It was found that 40 percent of school had the whiteboard below 15sq. feet, 20 percent school had 15-25 sq. feet, 20 percent school had 25-40 sq. feet area of whiteboard and remaining 20 percent school had more than 40 sq. feet area of the whiteboard.
- Tube wells are the main source of water in study area. All of the students, teachers used tube well water for the drinking but storage system was not found for the students and teachers..
- According to the data 40 percent schools had satisfactory and 40 percent had poor condition, 20 percent schools had good condition of drinking water.

- According to the data 20 percent schools had used purified water and 80 percent schools had used water without purification.
- According to the finding 100 percent or all schools had availability of toilet facility.
- The data shows all schools had water seal toilet facility.
- According to the data only one school had facilities in the toilet and 80 percent school had not facilities inside of the toilet.
- It was found all schools had sufficient toilet facilities. If we compare the number and ratio of toilet prescribed by government of Nepal. The total number of the toilets was found to be 34 whereas students were 1365. The ratio of toilets and students were calculated as 1:40.
- Most 60 percent schools had managed peon to clean classroom, 20 percent students were responsible to clean classroom and remaining 20 percent school students and peon both were responsible for the cleaning of the classroom.
- Maximum 60 percent school throws wastage haphazardly without any system/management.
- The data shows that 20 percent school clean their surrounding and classroom daily, 40 percent clean weekly and 40 percent clean sometimes.
- It was found that 60 percent schools had been facing problem toilet inside facilities, pure drinking water as well as teacher coordination.
- In the context of the study area, there was not found the dustbin in the class in all sampled schools for the waste dispose.
- From observation, it was found that sanitary practice system of school in respect of waste dispose, water supply, toilet facilities, classroom cleanness and play ground not satisfactory as well as coordination of head master, teacher and community people too.

CHAPTER-V

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

After the research on sanitary facilities and its practice, the overall condition of sample schools building, boundary wall, toilet facilities and water source were found satisfactory but not well managed of these things. There was lack of land for garden and playground so some sports like, long jump, volleyball, football and running had not played. Water supply system were satisfactory but purification practice was very poor of study area. The researcher found condition of toilet facilities were satisfactory because there were water seal toilet in all sampled schools but inside facilities of toilet were very poor and dirty there were had not tap/water, soap and any other facilities.

Finally, classroom sanitation and condition of source of water in sampled schools were found satisfactory after observation; classrooms were seen being cleaned by students; so students and school family were found a bit conscious about classroom sanitation. But waste disposal practice system and cleanliness of toilet were very deteriorating as waste materials were thrown haphazardly and toilet were not cleaned properly; this condition indicates the carelessness in sanitation practice in general.

Thus, few of sanitary facilities and its practice were satisfactory, but most of the practices were discouraging and this fact easily proves that they had low level of conscious on importances of sanitary facilities and its practices. Existing policies about school health program should be amend and implement strictly by Ministry of Education.

5.2 Recommendations

On the basis of finding of this study the following recommendations are made for the government, non-governmental agencies and individuals that may be useful to formulate policies and programs to improve healthful school environment.

5.2.1 Recommendations for Policy Related

- The office of Itahari Sub Metropolitan should be modernized in sanitation system for all area.
- "National sanitation policy 2067" One home One toilet should be followed up every community.

- Government should strongly focus on the subject matter of sanitary facilities and its practice in the school curriculum.

5.2.2 Recommendations for Practice Related

- Health teacher should facilitate with the special health environmental training and be refreshed time to time.
- Health observation program should be given priority in schools regularly.
- Dust-bins should provide in each class.
- The school must be provided pure drinking water facilities, water for toilet, proper sanitation, and neat and clean school area.
- Parents should be made aware of importance of health and cleanliness.
- Health education for parents and community members is essential to create healthful school environment. Providing health education may help to make wider mind on managing school from the school health point of view.

5.2.3 Recommendations for Further Research Related

- This study is based on descriptive research design but it isn't sufficient for this topic, so experimental research should be conducted for this study.
- A comparative study on the sanitary facilities and its practice between public and private school.
- This study has included only previous Ekamba VDC or ward no. 15, 16, 17 of Itahari Sub Metropolitan this is not sufficient for this topic so one Sub Metropolitan should be included for this study.
- A comparative study between the healthful school environment of remote area and urban area should be conducted which will be more effective for policy maker.

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APPENDIX-I

**TRIBHUVAN UNIVERSITY
FACULTY OF EDUCATION JANTA MULTIPLE
CAMPUS, DEPARTMENT OF HEALTH ITAHARI, SUNSARI**

Questionnaire for Headmaster

Name of School: Date:

Address: Name of the Headmaster:

.....

Est.: Qualification:

A. Existing condition of School Plant

1. Do you have your own building and land of your school?
a) Yes [] b) No []
2. What is the total land of the school?
..... (Katha)
3. Is there boundary wall in the school?
a) Yes [] b) No []
4. If not why did not you construct it?
a)..... b)
c)..... d)
5. Have any agency helped to construct your building?
a) Yes [] b) No []
6. If yes, which agency has helped?
.....
7. Do you have your own playground of your school?
a) Yes [] b) No []
8. Is the playground sufficient for completing sports?
a) Yes [] b) No []
9. What kinds of material are used in construction of building?

- a) Concrete
- b) Both
- c) Mud and Brick
- d) Others

10 What are the sports facilities in your school?

.....

11 Do you have any sources of income in the school?

.....

12 How many classrooms are there in your school?

- a) Class rooms []
- b) Store rooms []
- c) Staff rooms []
- d) Library rooms []

13 Areas of the class room in square meter

Class	Length	Breath	Area of Classroom	Number of Windows	Number of Doors
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

14 Do you have enough furniture for school?

- a) Yes []
- b) No []

15 How many student sit in a bench?

.....

16 How many students are there in your school?

- a) Boys
- b) Girls
- c) Total

17 How many teachers are there in your school?

- a) Male
- b) Female
- c) Total

B. Existing condition of Waste Disposal

18 What types of Wastage is produced most in you school?

- a) Paper
- c) Dust and Mud

- b) Leaves d) Others
- 19 How much is its quantity?
.....
- 20 Which method do you follow for disposing wastes?
a) Incineration's c) Dumping/composting
b) Throwing out Haphazardly d) Others
- 21 How often is it's disposed?
a) Daily c) Monthly
b) Weekly d) Sometimes
- 22 Who cleans the schools room?
a) Sweepers c) Students
b) Peons d) Other
- 23 Has the school conducted any sanitation campaign in the village?
a) Yes [] b) No []
- 24 If yes, how often?
a) Weekly c) Seldom
b) Annual d) Sometimes
- 25 Do you have any problem to dispose the wastage?
a) Yes [] b) No []
- 26 What are the Suggestions to improve wastage management?
.....

C. Toilet Facilities

- 27 Is there toilet at school?
a) Yes [] b) No []
- 28 If yes, what kind of toilet you have?
a) Pit c) Bore Whole
b) Water Seal d) Other
- 29 Is there separate toilet for teacher and student?
a) Yes [] b) No []
- 30 Is there water supply inside the toilet?
a) Yes [] b) No []
- 31 Who does the toilet cleans?
a) Peon c) Teacher

b) Direct Use

d) Others

45 Are there any problems of drinking water in the schools?

a) Yes []

b) No []

46 If yes, what are they?

.....

47 Give suggestion to solve the problems.

.....

48 What type of work community people do to manage sanitary facilities in school?

.....

APPENDIX-II

TRIBHUVAN UNIVERSITY FACULTY OF EDUCATION JANTA MULTIPLE CAMPUS, DEPARTMENT OF HEALTH ITAHARI, SUNSARI

Questionnaire for Student

Name of School: Date:

Student's Name: Sex:

Grade: Age:

A. Condition and Management of Waste Disposal

1. Is there system of the waste disposal?
 - a) Yes []
 - b) No []
2. What are the ways to dispose waste?
 - a) Collection
 - b) Burning
 - c) Damping
 - d) Composting
3. What types of wastage produced in your school?
 - a) Paper
 - b) Chalk Dust
 - c) Stone
 - d) Others
4. How often is the wastage being taken away?
 - a) Regular
 - b) Sometimes
 - c) Non
 - d) Others
5. How would you plan for classroom cleanliness?
 - a) Sweeping
 - b) Picking
 - c) Wasting
 - d) Others
6. Do you feel any problem related to the management of the school sanitation?
 - a) Yes []
 - b) No []
7. If yes, what are the problems?

.....

8. Who is the responsible person to solve them?
- | | |
|---------------|---------------------------------------|
| a) Headmaster | c) Peon |
| b) Teacher | d) School Management Committee Member |
9. What are the suggestions to solve these problems?
.....
10. Do you try to demand to the headmaster for the facilities regarding to school sanitation?
- | | |
|-------------------------------------|------------------------------------|
| a) Yes [<input type="checkbox"/>] | b) No [<input type="checkbox"/>] |
|-------------------------------------|------------------------------------|

B. Condition and Management of the Water Supply

11. Is there drinking water in your school?
- | | |
|-------------------------------------|------------------------------------|
| a) Yes [<input type="checkbox"/>] | b) No [<input type="checkbox"/>] |
|-------------------------------------|------------------------------------|
12. Is there enough drinking water available in your school?
- | | |
|-------------------------------------|------------------------------------|
| a) Yes [<input type="checkbox"/>] | b) No [<input type="checkbox"/>] |
|-------------------------------------|------------------------------------|
13. In which container drinking water has been keep?
- | | |
|---------|-------------|
| a) Dram | c) Bucket |
| b) Tank | d) Clay pot |
14. Are drinking water pots covered?
- | | |
|-------------------------------------|------------------------------------|
| a) Yes [<input type="checkbox"/>] | b) No [<input type="checkbox"/>] |
|-------------------------------------|------------------------------------|
15. Do you have to be in wait your turn to drink water?
- | | |
|-------------------------------------|------------------------------------|
| a) Yes [<input type="checkbox"/>] | b) No [<input type="checkbox"/>] |
|-------------------------------------|------------------------------------|
16. If yes, how long?
- | | |
|--------------|--------------|
| a) 5 minute | c) 15 minute |
| b) 10 minute | d) Others |
17. How problems are the subsisted related to water supply?
.....
18. What problems are the subsisted related to water supply?
.....
19. What measure should be appropriate to solve these problems? Please suggest.
- -

