CHAPTER I

INTRODUCTION

1.1 Background of the Study

Education is the pillar of development. The social, cultural economic and political aspects of a nation flourish upon a sound education system only. Sound education also makes the wholesome development of an individual. An individual's wholesome development is his physical, social mental, moral and emotional development. This all round development of a person depends largely upon his sound health . Education should also aim, besides others , at providing sound health to the individual.

Health is a basic human right and a world social goal. It is an integral part of every education system. For achieving good health, a school can play a vital role. A school is a complied social setting of various aspects and these aspects are to be directed and coordinated into a productive whole through and effective school management, which deals effectively with all these aspects.

Health education is a key component of all environmental and sanitation programmes. It involves, motivation, counseling and advertisement in media on basic hygiene education. Health is a valuable property of human beings. It plays a virtual role for physical, mental and social development of human beings. Human resource is an important source of construction and development of a country. It is related to good education system.

The educational institutions play important roles to achieve a good health and hygienic practices. They pass the knowledge of good health and hygiene through the kids to the elder relatives at home. However, if the kids in the school are not properly educated on how to use the latrine, if the school latrines are not maintained properly, this leads to the negative impact at the home and the entire community.

Sanitary management, besides other important aspects of an institution like school, in school come under the preview of overall school management. A school without proper sanitary environment and its suitable management remains breeding grounds for various type of infectious disease, which are the largest killer diseases of the country.

The National Sanitation Foundation, U.S.A. has defined sanitation 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 ideal in human relation."

Sanitary management is a materialized scheme, which aims at the prevention of disease .Promotion of health and imparting great potentialities for physical and mental exertion and render the child to a stage of sound physical and mental health, specially in the school going age. Thus, sanitary management creates interest among the parents in the development of the school. Through it, students get valuable support to correct their unhealthy habit and to overcome some social problems.

Environment sanitation, nowadays, has become a worldwide concern. The world of today is highly polluted by radioactives, industrialization, modernization, war etc. These polluting agents are directly connected to the physical environment. The explosion of population and the presence of different new causative agents are directly or indirectly decreasing the human health. All the concerned authorities are, therefore, trying their best to protect the world from such problems.

The United Nations Conference on the Human Environment held in Stockholm, Sweden in 1972 stressed the need to improve health by improving environmental sanitation. The Rio De Janeiro conference (June, 1992) on "Save the World" was an important turning point on environmental sanitation. This conference has

declared to organize different activities in order to curb environmental pollution. This declaration has encouraged many local, national and international agencies andorganization to be involved in the fight against the degradation of environment. Despite many research work done on environmental issues at the national and international front, very few institutions researchworks are done on schools' environmental sanitation. Very little or negligible works are done in Nepal to provide proper directions to sanitary management. Schools children pass valuable time at school and schoolsare generally required to provide safe, sound and health environment to them. Provision of such desirable environment is possible, only when the school has effective management. Thus sanitary facilities of a school depend on effective management and resource mobilization. At his present situation, students spent five to seven hour daily in schools. During this period. school's need to provide safe and healthy environment to them. The study, therefore, attempts to investigate sanitary facilities and their proper management and practices in the three Higher Secondary Schools of Rajbiraj MunicipalityCity.

1.2 Statement of the Problem

Nepal is facing a remarkable environmental sanitation problem. Most of the people are poor, uneducated and unaware in sanitation. People are following the same traditional practices in keeping the environment clean and healthy. Most of the people have no knowledge about sanitation system. Majority of the people still use open latrines and the water they drink is highly polluted and contaminated. School are usually expected to play very important role in improving environmental sanitation. In other worlds most schools provide the students with proper knowledge, skills and attitude of environmental sanitation. Despite this urgent need to educate, the students about environmental sanitation have been formulated and implemented in the schools of Nepal.

Sanitary facilities are main part of school. School sanitation facilities depend on better management of concerned personnel. But in our country sanitary facilities, either in the society or school are overlooked. Most of public and private schools have not managed in healthy mannel. Many environmental problem are seen such as toilet facility, unhygienic conditions, dust and other wastage scattered on the school area and unsafe storing process of drinking water, classroom cleanliness and ventilation and lighting are also poor.

The present condition of sanitary facilities should be studied and the information derived should be utilized to improve the current situation of concerned schools. Thus the present problem is stated as *Sanitary Facilities and their Proper Management and Practices in the H.S. Schools*.

1.3 Objective of the study

The general objective of the study to examine the sanitary facilities and their proper management and practices in the H.S. School are as follows:

- i. To identify sanitary facilities available in the schools.
- ii. To elucidate how sanitary management and practice is adopted in the school.
- iii. To provide suggestion for the better management of sanitary facilities.

1.4 Research Questions

The research questions are the backbone of the study. They explore the research problem in the simplest way. The research questions give clear way to reach valid conclusion. Thus, research questions of the study are stated as follows:

- i. How does the management correspond with sanitary facilities of the school?
- ii. Are all the schools managing their sanitary facilities properly?
- iii. How does physical facilities affect the school management?

1.5 Significance of the study

This study will generate basic information and data about knowledge and skill of sanitation. This study, I expect, will concerned instituting to identify the realities

of school sanitation and provide ideas for the improvement of the sanitation program me.So, this study will help the concerned in the following ways.

The result of the study would be the guidelines for schools' headmasters, subject teachers, students and school personnel to create a sound sanitary environment in their schools.

Moreover planners, policy maker, administrators, researches will also be benefited from such study while developing policies, plans and programmers for the proper management of necessary sanitary facilities in school.

It would provide positive health attitude and practices among the people.

This study will be used as baseline data to those persons who want to make further detailed study on various aspect of school sanitation.

1.6 Delimitation of the study

Delimitations are the boundaries of the study. Due to the time and other available sources, the present study was delimited in following points.

- The study was delimitated only three public higher secondary schools situated in Rajbiraj Municipality City. The study has been limited in 3 schools like Public Bindeswari H.S.S., Happyland H.S.S., and Laligurans H.S.S.
- ii. Mainly headmasters, subject teachersand students of grade ten were chosen as the respondents of the study.
- iii. The study focused school plant, water supply, toilet facility, water disposal and sanitary management in targeted schools.
- iv. Simple statistical tools and techniques such as percentage and average calculation were used in the process of data analysis.

1.7 Definition of the terms used

The terms that are specifically used in this study are defined as following.

Sanitation:

Sanitation is a way of life. It is the quality of living that is expressed in the clean home, the clean farm, the clean business the clean neighborhood and the clean community.

Environmental sanitation:

Environmental sanitation is the control of all those factor in mans physical environment which exercise or may exercise a deleterious effect on his physical development, health and survival.

Healthful school living:

Healthful school living means condition and manners of existing and experiencing that permit effective accomplishment and joy experiences.

Sanitary:

The condition affecting health especially with reference to cleanses. precautions against disease, etc, favorable to health free from dirt, bacteria etc.

Management:

Management may be defined as a technique by means of which he propose and objectives of a particular human group are determined, classified and effectuated.

Sanitary facilities:

It includes such facilities in these reference provided by school for their students and school personnel which may be helpful in their sound health in the control of schools physical environment like as, adequate land, proper internal road, drainage, dustbin, gardening, planting, classroom, ventilation, lighting and cleanliness water supply and latrine.

Sanitary landfill:

Sanitary landfill is the depositing of garbage by spreading it in layer and then covering it with dirt to depth at which it was not be disturbed.

Sanitary management:

The above facilities should be constructed and organized in this way that it never disturbed, hampered and also could be completely controlled the health hezards of school family.

Safe water:

Safe water is one which when taken does not harm the consumer.

Ventilation:

It is a small window, which is situated at the roof of a room. It may be top of the general window, door and wall.

Waste Disposal:

It is a technique of collection and renoval of dust, ash, foliage, paper and packing of all kinds, rags and others fabrics, glass etc.

Refuse:

Refuse is defined as the solid or solid wastes other than sewage occurring through the normal activity of community.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

A few studies and research works had been done in the field of sanitationespecially in the field of community sanitation, school health programme, solid wastedisposal management and latrine problems in Kathmandu, Banepa, Kirtipur Pokhara, Birgunj, Bharatpur, Gorkha, which were not directly, related to the study. However, they could give the research to lunch this study properly. Those related literature materials have been reviewed below.

According to WHO- Geneva (1986)"water supply and sanitation decade international action for health" "An adequate supply of clean water is fundamental to individual, family and community health statistics shows that about ½ of the world's population are without reasonable access to an adequate supply of water and that even more people are without proper means of sanitation. These 2 factors: poor personal hygienic and household are directly responsible for innumerable cases of preventable diseases. The most seriously affected are people living in rural areas and in poverty stricken parts of urban areas.

"The main obstacle to use and maintain the improved water supply and sanitation system is not the quality of technology but the failure of unqualified human resources and management and organizational techniques including a failure to capture community interest"

G-T-Z (1992), published the poster of a cooperation project about environmental health and hygiene with a specific purpose to improve public health through environmental care involving peoples participation regarding waste collection and disposal. It highlighted the environmental knowledge with a view to minimize population and to promote public health.

According to Baidya, Hari Bahadur (1997), studied "The sanitary facilities and their management of secondary schools of Birganj Municipality" He found in his study, the types of daily waste produces found in these schools included mainly papers leaves, wood, stone, bricks, plastic etc. Besides, sand, dust etc are also found in these schools. The causes of not proper handling of wastage were found lack of land, lack of budget, lack of cooperation and lack of containers in the schools concerned. The cleanliness of classroom condition was found generally satisfactory. The existed ventilation problems were lack of fans, poor and improper fitting of fans, inadequate and insufficient windows, lack of transoms and small size of rooms. The problems existed at schools on water supply management were lack of sufficient taps and storing system.

According to Adikari, Madhab (1998), Studied the "Solid waste management on Banepa Municipality. He found in this study, the per capital waste generation in Banepa Municipality is 0.267 k.g. per day which being to volume daily waste generation 3.55 tons per day, Dumping of solid waste into the river near it may give rise to pollution problem. The farmers themselves that lead to environmental improvement have composed the same on the solid wastes" Drinking water facilities and sewage system are in sufficient in this area.

According to Neupane, Ishwor Prasad, (1998), In his dissertation on "Knowledge Attitude and practice of teachers regarding the school health programs of Kathmandu district secondary school, "Found that 96.82 percent of the respondents believed that clean drinking water was essential for sound health. It was also noted that the majority (90.42%) of respondents could realize that clean environment was essential for effective teaching learning activities. Similarly, all the teachers had positive attitude regarding to the management of healthful environmental aspect such as heating, ventilation and hygienic snacks.

According to Baral, Ghanshyam (2000),had done study on "A study on sanitary facilities and their management in public primary school of Ilam municipality", reported that the causes of not proper water supply,lack of toilets, lack of waste disposal area. In this study, he found that they are carelessness to composting the waste material. So, 58.33% schools would dump below the mount and the rest were found to have thrown the waste materials haphazardly.

According to Devkota, Tika Ram (2000),Studied on "A comparative study on Healthful Environment of public and private school in Kirtipur Municipality. He found in his study, the existing environment of public and private schools were not unitary. The considerable factors while constructing the school building such as site, land, playground, lighting and ventilation and garden, however were better management in public school. The wastage and drainage system, were not sufficient in both of school. The both of schools had indequate number of drinking foundation as compared to the student numbers. The inadequate numbers of toilets were found in both of school but the cleaning and water supply process was better in private school.

According to Tripathi, Krishna prasad (2001), had conducted "teachers attitude in implementation of school health program in kaski district," found that 95.23% respondents belived that clean drinking water is essential for sound health, 10.71% school haven't any toilet, 42.85% schools participated for cleaning the community and school health service and healthful school living is very poor which affect school personnel directly and indirectly.

According to Sapkota, Garima, (2001) studied on "Sanitation facilities and their management on secondary school at heatuda municipality", findings that public schools were found to have more land that private schools. Only (33.3%) public schools had sufficient land to run the school programmes and other schools did not have sufficient land to run the programmes. It was also noted that altogether (33.3%) public schools, and (20%) private schools used

colleting method to manage thewastes. (66.71%) public schools and (60%) private schools used burning method to dispose the wastes. 20% private schools, opted dumping method to manage the wastes. Generally, both types of schools stored water in tank but the water was not found sufficiently clean.

According to Basnet, Amrit Bahadur, (2003) conducted a research on "sanitary facilities and management in public primary schools of prithivi narayan municipality of gorkha". The major findings of this study should that poor economic condition is reported as the main factor for unmanaged and poor condition of water collection, storage, cleanness and purification of water. And also reporting the waste production in primary school is found ranged from 1 to 5 kgs of waste per day. However, in an average 4 kg of waste in generating per day.

According to Shrestha, Bishnu Lal, (2004)studied the "Sanitary facilities and there management and practice in the secondary school of Bharatpur municipality. He found in his study the types of daily waste production found in these school includes mainly paper, leaned, brick, plastic etc, Beside sand dust etc are also found in there school. The condition of cleanliness, ventilation in schools were windows, electric fans, transform but these facilities were not found equally distributed in each and every classroom and they also found insufficient in number. All school had latrine facilities but they were found insufficient.

From the above literature review it can be generalized that all the communities and schools have the problems of school sanitary management. So, theresearcher intended to study the sanitary facilities and their proper management and practices in the higher secondary school of Rajbiraj Municipality city.

CHAPTER III METHODOLOGY

3.1 Research design

The study is basically of a descriptive and exploratory design and involves both quantitative and qualitative information. The required data for this study is collected from primary sources. The primary data were taken from the Higher secondary school. Head masters, Subject Teachers, Students with the help of interview schedule and observation schedule. The methodology of the study includes study site selection sample population and sample size, data gathering tools/instruments, data collection procedure and analysis and interpretation of data that are described below.

3.2 Population of the study

This study is purely based on sanitary facilities and their proper management and practice in Higher secondary schools of Rajbiraj MunicipalityCity. Rajbiraj is the development city of Nepal. It lies in Saptari district of Sagarmatha zone, which is in the eastern development region of Nepal.

The rationale behind the selection of this study is, that research is a local resident and teaching at various colleges. So the researcher knows much about the Higer secondary schools of Rajbiraj Municipality city. Therefore, the researcher selects this area for the study. There are mainly four groups of population in the present study. They are:

- a. Schools
- b. Head masters
- c. Subject Teacher and
- d. Students

The sample size of the schools taken for the study were Public Bindeswari Higher Secondary, Laligurans Higher Secondary and Happyland higher secondary school of Rajbiraj municipality. The research consulted with the Headmasters and subject Teachers of each of the schools during the study. As the same way fifteen students of class 10 from each of the schools were selected and interviewed for this

propose. So 3 headmasters, 3 subject teachers and 45 students were taken as sample size of this study.

3.3 Sampling procedure

In order to meet the sample size for the study, the following procedures was used:

- i. Collection of the list of Higher Schools from the district education office in Rajbiraj.
- ii. Identification of all the government aided or privately funded H. secondary schools of Rajbiraj Municipality city.
- iii. Selection of the public H.S.S. of Rajbiraj Municipality city the study.
- iv. The derived number of class x students (search from 3 schools) was random, picked up by taking the alternate role numbers of the three schools, until the needed sample size of the student is met.

3.4 Data and Collection Technique

Two set of research tools as mentioned below were developed and tried out in the non-sample public H.secondary school before finalizing them. They are

a. Observation checklist

The researcher personally visited allthree schools to observe directly the sanitary facilities, their condition and their proper management and practices with the help of a pre development checklist. Observation was concentrated in water supply, school physical plant, waste disposal, toilet etc.

b. Interview schedule

Three types of interview schedules, one for headmasters, other for the subject teacher and the third one for the students, were used as the main research tools for the study. These interview schedules,' nature was different due to the nature and responsibility of the respondents.

The researcher collected primary data on sanitary facilities and their proper management by using the interview schedules for the headmasters, subject teacher and students. Among these a few were open types.

3.5 Data collection procedure

First of all the researcher requested the health department of SukunaMultiple Campusto write a letter to the concerned schools requesting them to offer their support to the researcher for the collection of the necessary data about this study. All the following procedures were to collect required data.

- i. Sanitation management was observed and made as a in checklist
- ii. With the help of observation checklist the data about existing physical facilities
- iii. The interview schedules were filledconcerning related respondents

3.6 Data Analysis and Interpretation

After gathering the data, the researcher tabulated them on different tables and figures according to the purpose of study. Data were tabulated in frequencies in the master chart and converted in to percentages analysis. The study is based on simple statistics.

CHAPTERIV

RESULT & DISCUSSION

This chapter presents an analysis and interpretation of data. Necessary data for the study were collected from the headmasters, subject teachers, students and field observation of researcher. The data were tabulated and placed in sequential order according to the nature of the study. The analysis and interpretation of data are made with the help of tables and figures to make the presentation more effective and clear. After tabulating the data responses are grouped in terms of their basic nature.

The following are four main headings of the presentation:-

- 4.1 Available sanitary facilities and their management in the school.
- 4.2 Provision and management of water supply facilities.
- 4.3 Provision and management of toilets (Latrine).
- 4.4 The facilities and condition of ventilation and lights.

4.1(A) Available sanitary facilities and their management in the schools:

The aim of questionnaire was to identify the sanitary facilities available in the school and to fulfill the objective of this study. Therefore, the researcher collected information on the availability of land, school boundary, playground, garden, classroom and waste disposal facility. All the information sought on sanitary facilities are described in table, texts, figures and graph.

4.1.1 Available land in the school:-

Sufficient land is one of the basic requirements of schools better healthy environment. The main purpose of land in school is for providing, playground gardening, practical purpose etc. Land and play ground serve the needs and interests of the students. Every

school should provide enough play ground facilities for the student. The information about available land in every school is presented below in Table No .1

Table No-1

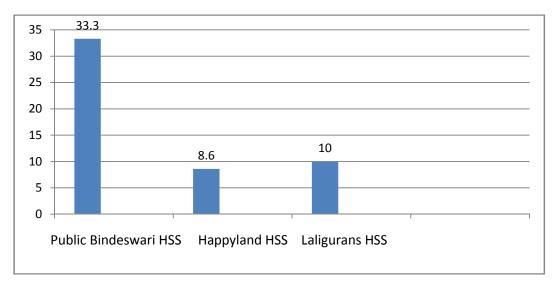
Available land in the school

Name of the school	Landing in bigha/kaththa
Public Bindeswari . H.S. School	1-13-3
Happyland .H.S. School	0-8-6
Laligurans H.S. School	0-10-0
Total	2-11-9

The above table No 1 shows that Public Bindeswari H.S. School occupies 1 bigha 13 kaththasand 3 dhurs land Happyland H.S. School 8 kaththasand 6 dhurs land and Laligurans H.S. School 10 kaththas land. Total of the three schools land is 2 bighas 11 kaththas, 9 dhurs. The availablilty land area in the schools is also represented in figure No 1.

Figure No. 1

Available land in the school in kathtas



The above figure No.1 also shows that Public Bindeswari H.S. School have more sufficient land than Happyland and Laligurans H.S.S.

4.1.2 Boundary wall of the school:-

For strengthening of school and for control of out going students, boundary wall of the school is needed. If the school has no boundary wall, the outer disturbance from community and surrounding environment face by school and open tiding animals can enter into the school ground and destroy the gardening, play ground, playing instrument and so on. To control these external disturbances as well as beauty of the school so the boundary wall is necessary. In the study area the status/situation of boundary wall is presented in the table No 2.

Table No – 2
Situation of Boundary wall

Condition	No. of School	Percentage
Haves	3 (Public Bindeswari, Happyland,	100%
Have Not	Laligurans)	
	0	
Total	3	100%

The table No-2 shows that all of the H.S. School have fullythe managed boundary wall. It also shows that there are not outer disturbance from community and surrounding environment.

4.1.3 Garden of the school:-

Good sanitation facilities promote the health status of the school as well as community. Garden is main factor of school environment. The absence of garden facilities creates unpleasant sight and unhealthy environment in the school. The information about school garden facilities is presented in the following table No 3.

Table No :3
Garden of the school

Condition	No of School	Percentage
Haves	0	100%
Have Not	3(Public BindeswariHappyland ,	
	Laligurans)	
Total	3	100%

The above table No 3 indicates that no schools have their own gardens. Due to the lack of budgetsPublic Bindeswari H.S.School, Happyland H.S. School and Laligurans H.S. School have not managed the gardens.

4.1.4 Availablilty of buildings:-

The building is an essential factor to create the healthy school environment. The building of a perfect school must have all the facilities for the students and teachers. The planning of building and rooms of different purposes are closely related to healthy school environment. The information about buildings is presented with helps the table No 4.

Table No-4

Available Building in the Schools

Buildings	No of School	Percentage
One storied	0	-
Two storied	3 (Public BindeswariHappyland ,	100%
Three storied	Laligurans)	-
	0	
Total	3	100%

Table No 4 points out that all the schools studied storied building. The schools which have two and these storied buildings are risky for small children.

4.1.5 Availability of classrooms in the schools:-

School should have spacious class rooms that become comfortable and hygienic for the small children. The three schools have the following condition of the availability of classroom as given the table No.5

Table No 5

Available classrooms in the school

Name of the school	Total classroom	Percentage
Public Bindeswari H.S.School	42	54.55
Happyland H.S. School	20	25.97
Laligurans H.S.School	15	19.48
Total	77	100.00

The above table No 5 indicates that Public BindeswariH.S.School has 42 classrooms, i.e. 54.55 percentage, HappylandH.S.School has 20 classrooms i.e. 25.97 percentage and LaliguransH.S. School has only 15 classrooms i.e. 19.48 percentage. The table No 6 also shows that Public BindeswariH.S.S. has sufficient classrooms in comparison to the other two schools.

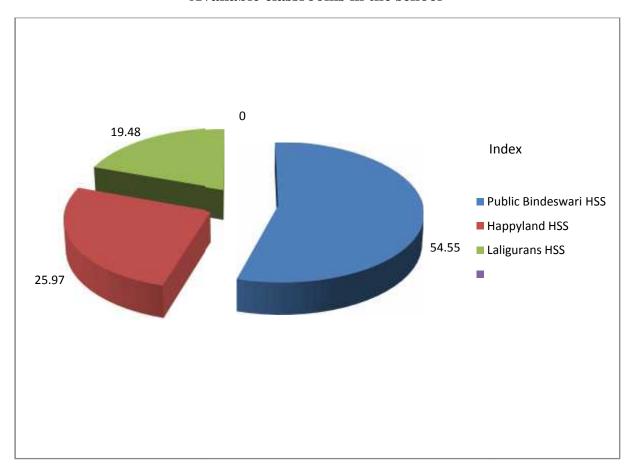


Figure No. 1

Available classrooms in the school

This pie chart present the picture that Public Bindeswari Higher Secondary School has 54.55 percentage of classroom, where has Happyland and Laligurans Higher secondary schools have 25.97 and 19.48 percentage respectively.

4.1.6 Cleanliness condition of the room:-

Classroom cleanliness plays a vital role in health of the students. If it is not managed properly, it definitely affects health of the teachers and students. Therefore the researcher collected information about cleanliness condition of the classroom. The information is given following table No.6

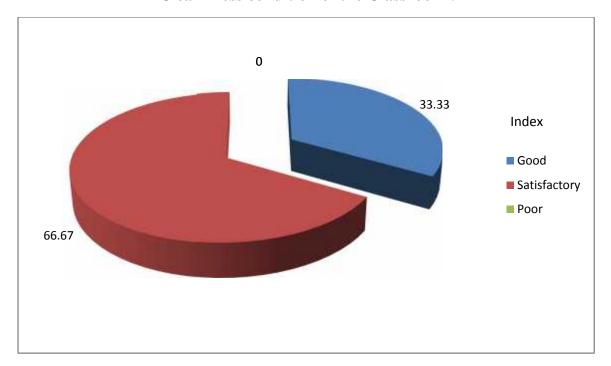
Table No 6
Classroom Cleanliness

Cleanliness	No of school	Percentage
Good	1 (Public BindeswariH.S.S)	33.33
Satisfactory	2 (Happyland &LaliguransH.S.S)	66.67
Poor	-	-
Total	3	100.00

The table No. 6 shows that 33.33 percentage Public BindeswariH.S.S classrooms were generally clean. In 66.67 percentage school were satisfactory clean. None of the schools are poor regarding the conditions of the classroom. The using condition of classroom cleanliness has also been presented in the following figure.

Figure No.3

Cleanliness condition of the Classroom .



According to pie chat 33.33% of the concerned persons say that the condition of classrooms' cleanliness good but 66.67% say it is satisfactory.

4.1.7 Waste disposal system:-

Proper disposal of waste materials is one of the rules of environment health today. However, school needs basic knowledge and practice about the proper way of the waste disposal system. It helps to generate the sound and happy environment of the school compound and reflects the adaptation of sanitation among the school family and community widely . The waste disposal system in the studied school is show in table No.7

Table No 7

Method of waste disposal

Methods	No of School	Percentage
Collecting	1 (Public Bindeswari H.S.S)	33.33
Dumping	1 (Laligurans H.S.S)	33.33
Burring	1 (Happyland .H.S.S)	33.34
Total	3	100.00

The above table No 7 shows that Public Bindeswari h.s. School uses collecting method for waste disposal. LaliguransH.S.School uses dumping method for waste disposal and HappylandH. S. School use burning method for waste disposal. The using method of waste disposal has also been presented in the following figure No.4

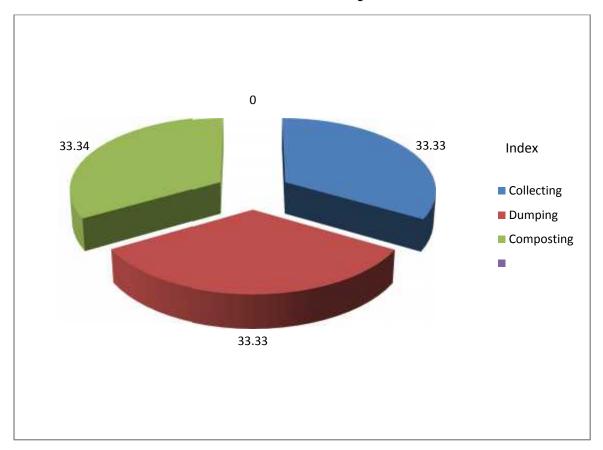


Figure No.4

Method of waste disposal

The pie chart shows the cleanliness the fact that Public BindeswariH.S.S has collected 33.33% of waste materials, HappylandH.S.S has the system of burning 33.34% of wastage and LaliguransH.S.S. dumps 33.33% of it waste.

4.1 (B) The Student:-

The students of grade ten were given questionnaire to fill. Altogether the number of selected students were forty five. Fifteen students' from each H.S.School (Public Bindeswari, Happyland,Laligurans) were selected on the basis of sequence. Their response of the waste disposal system in each school is also presented with help of table No.8

Table No 8 Waste Disposal System

Description	Condition	No of student	Percentage
1. Waste disposal /system	Yes	42	93.33%
	No	3	6.67%
Total		45	100%
2. Methods of waste	collecting	15	33.33%
disposal	dumping	15	33.33%
	burning	15	33.34%
	composting	-	
Total		45	100%
3. wastage product	paper	40	88.89%
	stone/brick	3	6.67%
	leaves	2	4.44%
Total	-	45	100%%
4. Wastage disposal	Regular	23	51.11%
	Sometime	19	42.22%
	None	3	6.67%
Total		45	100%

(Source : Field survey,2072)

The above table No 8 shows that 42(99.33%) schools' students answered 'yes' for the question of whether waste disposal system, exists in the school; 3 (6.67%) of them answered 'No' for It.

In question No.2 method of waste disposal 15(33.33%) schools students said that they have implemented collection methods to manage the waste, 15(33.33%) of them told the dumping method and 15(33.34%) of them told the burning method.

The third question was about wastage product. In this question, their answers were different as 40(88.89%) schools students, focused on paper waste, 3(6.67%) of them focused on stone/brick waste and 2(4.44%) of them focused on leaves waste.

From the table No 8we know that 23 (51.11%) schools, students said that they collect waste regularly, 19(42.22%) of them said that they collect waste occasionally and 3 (6.67%) of them answer entirely negative in collecting waste materials.

4.2 Provision and Management of Water Supply Facilities :-

The water supply is one of the most important factors in school management. Water is needed for different proposed in schools. Mainly the water is used for drinking. The school should manage clean and drinkable water. If drinking water is not clean, it affects the school's personal health. So, the sources of water and ways of using water should be effective and good. The researcher has introduced and observed the different sources of water available like tapsystem of water collection and condition of water supply.

4.2.1 Source of Water:-

The headmasters and subjects teachers of three schools were interviewed and also the researcher observed the sources of water of these schools. All schools have their own taps . With the help of the respondents and observation found different sources of water in the school is presented in the table No.9

Table No. 9 Sources of water

Method	No of School	Percentage
Tubewell	3 (Public Bindeswari, Happyland, Laligurans)	100%
Public Tap	-	-
Other	-	-
Total	3	100%

The above table No 9 points out that all schools havetubewell as the sources of water. Public taps and other sources of water are not used in any school.

4.2.2 Availability of its owntaps:-

Every school should manage sufficient drinking water to their students. The drinking water should be made easily available though constructing their own taps. The researcher visited the schools and found the availability of drinking water as shown in the following table No.10

Table No.10

Availability of own tap

Name of School	Number of Tap	Percentage
Public Bindeswari H.S.School	20	80%
Happyland H.S.School	2	8%
Laligurans H.S.School	3	12%
Total	25	100%

The above table No 10 clarifies that Public Bindeswari H.S. school has 20 taps, Happyland H.S. school has 2 taps and Laligurans H.S. school has only 3 taps. The Public Bindeswari H.S. school has managed sufficient taps for the student to provide them to drinking water. The availability of the owntapshas also been presented in the following figure No 5.

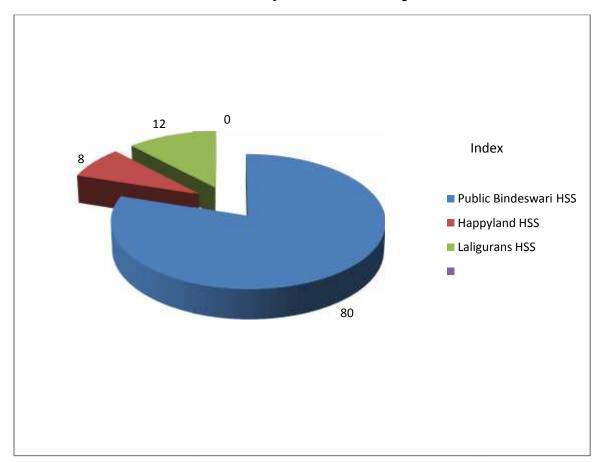


Figure No. 5

Availability it's their own tap

According to the figure No 5: Public Bindeswari H.S. school has 80%, Happyland H.S. school has 8% and Laligurans H.S. school has 12% of their own taps.

4.2.3 System of water collection:-

The drinking water should be collected and preserved in the water tanks or reservoirs; so that it can be easily flowed though taps. The researcher found the following situation of the system of water collection in the schools as shown in the table No.11.

Table No . 11

System of water collection

Container	No of School	Percentage
Tank	3 (Public Bindeswari, Happyland, Laligurans)	100%
Drum	-	-
Filter	-	-
Total	3	100%

The data given in the table No 11 show that all schools have stored drinking in tanks. Drum and filter were not used to store the water in any school.

4.2.4 Purity of water supply:-

The drinking water should be pure; so that it becomes hygienic for health. The water supply should be regular reservoirs be kept clean. The researcher found the following situation of the purity of water system in the schools as in the table No 12.

Table no 12 Purity Of Water Supply

Condition	No of School	Percentage
Good	1 (Public Bindeswari)	33.33%
Satisfactory	2(Happyland ,Laligurans)	66.67%
Poor	-	
Total	3	100%

The above table No 12 clearly shows that one school (Public BindeswariH.S. school) has good condition of drinking water. The condition of other two schools (HappylandH.S. school and LaliguransH.S. school) have satisfactory. The table also indicate that Public Bindeswarihas 33.33% and other two schools Happyland&Laligurans have 66.67% satisfactory condition.

4.2 (B) The student :-

Table No 13 shows the students' reaction about the provision and management of water facilities in the schools as below table No 13.

Table no.13

Management and condition of drinking water

Description	Condition	No of student	Percentage
1. Source of drinking	Tap	45	100%
water	well	-	-
	Spring/pound	-	-
Total		45	100%
2. Enough of drinking	yes	45	100%
water available in	No	-	-
school			
Total	-	45	100%
3. Water storage	Tank	45	100%
	Bucket	-	-
	Drum	-	-
	None	-	-
Total	-	45	100%
4. Cleanliness of	sufficient	-	-
drinking water	Satisfactory	45	100%
	Poor	-	-
Total	-	45	100%

The table No -13 indicates that according to all student's, the schools' main source of water supply are their own taps. All students (100%) said that they have enough drinking water available for everyday use .Table No 13 also points out that all schools students (100%) said that the drinking water is stored in tanks . lastly all (100%) schools students said that the drinking water was satisfactorily clean.

4.3 Provision and management of toilet (latrine)

Toilet facility is an unavoidable and important part of any school. If there is no any latrine in school the students go anywhere for toilet use. Then the environment in and around school may be dirty that effects directly to the students education, study and health. The use of latrine is very important aspect on the one hand and its cleanliness and preservation on the other. The headmasters and other teachers must check their students for their good habit using toilet properly time to time.

4.3.1 Available Toilets in the schools

Every school should have toilet facilities compulsorily. Without toilet the school family have so many problems and it directly affects their health and study. The researchfound that every school has toilet but it is not used properly. The availability of toilet facilities is presented in the table No. 14

Table No . 14

Available toilets in the schools

Name of school	No of Toilets	Percentage
Public Bindeswari H.S.School	20	74.07%
Happyland H.S.School	2	7.415%
Laligurans H.S.School	5	`18.52%
Total	27	100%

Tha above table No 14 shows that Public Bindeswari school has got 20 toilets, Laligurans 5 and Happyland only 2 toilets.

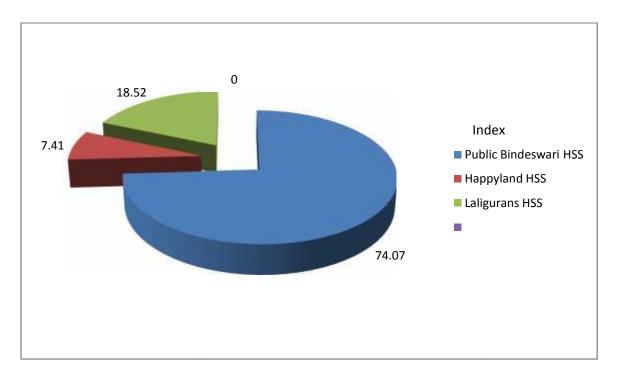


Figure No. 6
Available toilets in the schools

The piechart present that Public Bindeswari H.S. School has 74.07 percentage of toilet facility Laligurans Higher S.School has 18.52 percentage and Happyland has 7.41 percentage.

4.3.2 Types and condition of toilet

Toilets are built in different ways. The Propose of buildings toilets is to keep clean the school environment clean and for the habit formation of using toilet to the little children. It is necessary to build the toilet for defecation and urination. It is necessary to build permanent or temporary toilet in every school. It this research, the researcher studied the types and condition of toilets in different schools. The researcher found the types and condition of toilets as shown in table No.15 and 16.

Table No :15

Types of toilet in the school

Types of Toilets	No of School		Percentage
safety Tank	3	(Public	100%
	Bindeswari, Happyland, Laligurans)		
Water seal	-		-
Pit	-		-
Borehole	-		-
Total	3		100%

The table No.15 shows that all the schools studied have safety tanks for the disposal of toilet materials.

Table No.16
Condition of toilet in the school

Condition	No of School	Percentage
Good	-	-
Satisfactory	2(Public Bindeswari, Happyland)	66.67%
Poor	1 (Laligurans)	33.33%
Total	3	100%

Table No 16 indicates that the cleanliness condition of toilet was satisfactory in 66.67% schools. The poor condition of toilets is poor in Laligurans H. S. schools only 33.33%. The researcher found that in both condition of the schools do not use fenaile in toilets. It is observed that the cleanliness condition of toilet is not so fine in any school.

4.3 (B) The Student

The researcher asked questions to the students to find out the conditions and management of toilets in different schools. The students' answer are given in the following table No 17.

Table No.17

Condition and management of toilet

Description	Condition	No of student	Percentage
1. Toilets	yes	45	100%
	No	-	-
Total		45	100%
2. Types of Toilets	Safety Tanks	45	100%
	water seal	-	-
	Pit	-	-
Total	-	45	100%
3. Availability of water in	yes	45	100%
the Toilets	No	-	-
Total	-	45	100%
4. Toilets cleaned Regularly	Yes	30	66.67%
	No	15	33.33%
Total	-	45	100%

The table No.17 indicates that forty five (100%) schools students said that the schools have toilet facilities. In question No 2, types of toilets, forty five (100%) schools students said that the schools have managed safety tanks for disposal of toilet materials. The third question was availability of water in toilets. In this question their answer is the same. Forty five (100%) schools students said that the water is available in their toilets. Thirty (66.67%) schools students said that the toilets cleaned regularly but fifteen (33.33%) schools students answered negatively.

4.4 The Facilities and Condition of Ventilation and Light

Proper heat, ventilation and lighting in the classroom make the school atmosphere effective and enjoyable. Proper heating and ventilation in the school are not life or death matters because students should not be exposed to a classroom situation in which the oxygen content will be inadequate for survival, yet heating, ventilation and lighting are important for effective and enjoyable school staying. Therefore, attempts were also made to-gather information on management of these aspects.

The data given in table No.18present the headmasters' and subject teachers' reply and researchers observation.

Table No.18

Management of Ventilation in the School

Used for Ventilation	No of School	Percentage
Windows	3 (Public Bindeswari, Happylar	ad 100%
	,Laligurans)	
Electric Fan	-	-
Small hole	-	-
Total	3	100%

The above table No. 18 points out that three (100%) schools use windows for ventilation. It means that all schools possess natural ventilation.

Table No.19
Condition of Ventilation in the School

Condition	No of School	Percentage
Fine	1 (Public Bindeswari)	33.33%
Satisfactory	2(Happyland ,Laligurans)	66. 67%
Poor	-	-
Total	3	100%

The table No.19 points that the condition of ventilation of Public Bindeswari school is fine ie. 33.33% but the condition of other two schools (Happyland &Laligurans) is satisfactory i.e. 66.67%.

 $\label{eq:condition} Table\ No\ .\ 20$ Condition of light in the classroom

Condition	No of School	Percentage
Well	1 (Public Bindeswari)	33.33%
Satisfactory	2(Happyland,Laligurans)	66. 67%
Poor	-	-
Total	3	100%

The above table No. 20 shows that Public BindeswariH.S.S. (33.33%)has good provision of light in the classroom. Happyland and LaliguransH.S.School (66.67%) have satisfactory situation.

4.4 (B) The student

The researcher asked questions to the students for taking more information about light and ventilation of the schools. The students gave different answers as in the table No 21.

Table No .21

The Amenities and Condition of Ventilation and Light in the School

Description	Condition	No of student	Percentage
1. Is there ventilation in the	yes	45	100%
school	No	-	-
Total		45	100%
2. Management of	well	15	33.33%
ventilation	Satisfactory	30	66.67%
	Poor	-	-
Total	-	45	100%
3.Light management in the classroom	Well	15	33.33%
Classiooni	Satisfactory	30	66.67%
	Poor	-	-
Total	-	45	100%

The data presented in the table No 21 indicate that all students say. There are sufficient ventilation provision in the schools. fifteen (33.33%) schools students, accepted that schools ventilation that system are well. Thirty (66.67%) schools students said that the schools ventilation system is satisfactory. Similarly, fifteen (33.33%) schools students accepted that the schools have managed properly regarding light in the classroom. Thirty(66.67%) schools student said that they have satisfactory lighting provision in their classroom.

CHAPTERV

SUMMARY, FINDING, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The school plays a vital role in achieving the educational goals, it is possible if there are adequate sanitary facilities and their proper management and practice available in the school. The schools should have adequate land area, proper management of waste product, proper management of classrooms, water supply and management of latrine. The students of today are the backbones of a nation. Therefore, students should be provided the good sanitary environment in schools for protecting them from different types of physical and mental disturbances and diseases.

The present study focuses on *Sanitary Facilities and their Proper Management and practice in the higher secondary schools*. Sanitary facilities form the main part of the schools. Their sanitation depends on better management system of schools. So, the major objective of the study was mostly concerned with the presentsituation, practices and suggestion from the improvement in sanitary facilities and their management for school family.

Three Higher secondary school (Public Bindeswari, Happyland &Laligurans) of Rajbiraj were selected as the study area of the present study where headmasters, subjects teachers and students of each school were taken as subjects of the study. They were asked questions on different aspects of sanitary facilities and management and practices. The researcher also used an observation method to observe the real situation of the schools.

After gathering all information and data, they are tallied and prepared for analysis. Some tables and figures also are made for the purpose of analyzing and interpreting the data.

5.2 Finding

The Researcher has derived the following major findings in the study:

- 1. The total land of all school is found 2 bighas 11 katthas and 9 dhurs. Public BindeswariH.S.school has sufficient land to run the school programmers and other schools do not have sufficient land to run the programmers.
- 2. All schools have managed boundary walls properly.
- 3. All schools have good physical conditions of buildings .
- 4. All three school's classrooms are 77 in totality and, the available classroom facilities are found to be satisfactory.
- 5. The types of daily waste products found in these schools include mainly paper ,leaves,stones,bricks,plastic etc. Besides, sand,dust etc are also found in these schools.
- 6. In all schools, the waste disposing system and frequency of sanitary activities are not found satisfactory.
- 7. All the schools usedtheir own tap water but the tapes are insufficient to the total number of students .
- 8. Every school has stored water in tank but the water is not found sufficiently clean and drinkable.
- 9. The condition of cleanliness, ventilation in schools were windows, electric fans, transform but these facilities are not found equally distributed in each and every classroom and they are also found insufficient in number.
- 10. The condition of light in classroom is found satisfactory in all of the schools

5.3 Conclusion

Based on its above findings, it is concluded that the physical facilities of schools have been seen satisfactory. Every school has managed the water supply system and water storage in tanks. And also managed sufficient taps for the students to provide them drinking water. Normally all the schools have satisfactory running condition of light and ventilation.

The solid wastes as well as sewage disposal system and drain are not found satisfactory that lead to many health problems to students, teachers and school personnel's . The schools' headmasters and teachers feel the necessity of more sanitary management but the lack of budget is the major cause of their failure in providing better sanitary management .

5.4 Recommendations

On the basis of the overall insights and vision of the study, the following recommendations are suggested.

5.4.1 Policy Level

- 1. The schools should practice sanitary activities to keep the school environment wholesome.
- 2. The headmasters and teachers of schools should be trained in sanitation aspects.
- 3. The school must run school sanitary programmers at least once a month to manage the better sanitary facilities.

5.4.2 Practice Level

- 1. Student should be encouraged to apply sanitary practices in their daily life and create the healthy environment in their homes and schools.
- 2. Health education should be provided to all personals related to schools especially of sanitary management which will help in maintaining good sanitary condition.

3. The schools should be encouraged to put the dustbins in the classrooms for collecting the waste materials and keeping the classrooms clean.

5.4.3 Research Level

- 1. A school health committee can be formed selecting the members from community,too, in order to manage sanitary facilities in joint venture.
- 2. Concerned personnel's should invite scavengers to collect paper, plastics and other useful waste Materials .
- 3. Finding of this study can be utilized by planners, policy makers and programmers implementers as guideline for such programmers in future .

REFERENCES

- Acharya, Krishna Prasad (2059) *Community health*, Dikshanta Pustak Bhandar, Kritipur Kathmandu
- Adhikari, Madhav (1998), *A study on solid waste management in Banepa Municipality*. Thesis for HPE department. TU. Kritipur
- Baidya, Hari Bahadur (1997), Thesis an analytical study of sanitary facilities and their management in the secondary school of Birgunj Municipality. Submitted to health and physical education, Dep FOE, T.U. Kritipur
- Baral, Ghanashyam (2000)A study on sanitary facilities, and their management in public primary schol of Ilam municipality. An unpublished thesis submitted to HPE Dept, FOR, T.V. Kritipur
- Basnet, Amrit Bahadur, (2003) Sanitary Facilities and Management in Public Primary School of Prithivi Narayan Municipalty of Gorkha, summited to H.PP. ed. T.U.
- Chhetri, H.S.S. and Tulsi Ram Bhandari (2004) *Management and supervision of school health program*, Kshitiz prakashan, Kirtipur Kathmandu.
- Chhetri, Hem Singh (2058) School health programme, Shova Prakashan, Kathmandu.
- Devkota, Tika Ram (2000). A comparative study on Healthful Environemnt of public and private schools in kirtipur municipality.
- GTZ, (1990), Manual for proper waste handling Environmental sanitation and Hygience in urban Area.
- Khanal, S.P. and Naba Raj Mudwari (2059) $Education\ Research\ Methodology\ 2^{nd}\ ed,$ Kshitiz Prakashan , kirtipur , kathmandu .
- Neupane, Ishwor Prasad, (1998) Knowledge, Attitude and Practice of Teachers

 Regarding the School Health Programmes of Kathmandu Districts Secondary

 School, An unpublished dissertation submitted to health & physical education dept T.U. Kritipur.
- Sapkota Garima,(2001)Sanitary Facilities and their Management on Secondary School at Hetauda, Municipacity, Kritipur, Kathmandu.

- Shrestha, Bishnu Lal, (2004) Sanitary Facilities and their Management and Practice in the Secondary School of Bhaktapur Munacipality, to submitted to T.U. Kritipur Kathmandu.
- Telu Ram, Lily pritam (1993) *Environmental Health and Hygiene*, India Vikash publishing House Pvt . Ltd .
- Timsina, Tatwa (1985) *Environmental Pollution*, *Problem and Solution* Kathmandu: Yuba Patraka Samuha.
- Tripathi, krishna prasad, (2001) *Teachers Attitude in Implementation and School Health Program in Kaski District*. unpublished dissertation submitted to health and physical education dept. FOE, T.U. Kritipur.
- WHO, (1997)Information Series on School Health Document, on Geneva, WHO.

APPENDICES-I

Observation Check list

Observation chart for availability of sanitary facilities and their management and practice .

A. Provision and Management of Sanitary facilities inside the school boundary:

- 1. Is there a boundary wall around the school? Yes/No
- 2. If yes what is its condition? a) good b) Satisfactory c) Poor
- 3. Is there garden in the school? Yes/No
- 4. If Yes, What is its condition? a) good b) Satisfactory c) Poor
- 5. Are, there big plants in the school compound? Yes/No
- 6. If Yes what is their condition? a) good b) Satisfactory c) Poor
- 7. How many storey's are there in building /
 - a) one b) Two c) Three
- 8. What is the physical condition of the school building?
 - a) good b) Satisfactory c) Poor
- 9. Are there any cattle's seen at the time of observation? Yes/No
- 10. If yes, what kinds? a) Cows b) Pigs c) goats d)other
- 11. How many? a) a lot of b) few c) other
- 12. Is there drainage facility in the school? Yes/No
- 13. If yes, How is it? Open/closed.
- 14. What is the condition of drainage?
 - a) good b) Satisfactory c) Poor
- 15. What type of waste production is found there at the school?

B. Provision and Management and practice of water supply

- 1. If yes, what are the sources of it?
- 2. If there availability of drinking water? Yes/No

- 3. If yes, what are the sources of it?
 - a) piped water supply b) hand pipe c) well d) other
- 4. Where is water stored?
 - a) In clay pot b) in bucks c) in drum d) other
- 5. How do the school family handle the water pot?
 - a) Well b) satisfactorily c) poorly
- 6. The water pot is open/closed
- 7. What is the foundation of water pot interims of its cleanliness?
 - a) good b) Satisfactory c) Poor
- 8. The condition of surrounding of the area of water sources area:
 - a) good b) Satisfactory c) Poor
- 9. What is the distance of latrine pit from source of underground water supply?

C. Provision and Management and Practice of latrine.

- 1. Is there a latrine? Yes/No
- 2. If yes, what type?
 - a) Kachchi b) Pakki c) other
- 3. What is the system of latrine? a) Pit b) bore hole c) septic d) other
- 4. Is there a separate latrine for boys and girls? Yes/No
- 5. Is there separate latrine for the staffs? Yes/No
- 6. If yes, is there also separate latrine for male/female staffs? Yes/No
- 7. What is the physical condition of latrine?
 - a) good b) Satisfactory c) Poor
- 8. Is there provision of water in the latrine room? Yes/No
- 9. If not, how far distances do you have to go bring water for defecation purpose?
- 10. How is the cleanliness condition of the latrine?
 - a) good b) Satisfactory c) Poor
- 11. Are there any kinds of insecticides used in the latrine? Yes/No
- 12. What is condition of the light in the latrine?
 - a) good b) Satisfactory c) Poor

- 13. What is condition of ventilation in the latrine?
 - a) good b) Satisfactory c) Poor

D. The facilities and condition of ventilation , light and cleanliness in the classroom :

- 1. What men's are used are used for ventilation purpose?
- a) Window b) electric fans c) transom d) others.
- 2. What is the condition of ventilation in classrooms?
 - a) good b) Satisfactory c) Poor
- 3. What is the condition of light?
 - a) good b) Satisfactory c) Poor
- 4. What type of insects were present there in the classroom at the time of observation?
 - a) Mosquitoes b) flies c) spider d) other
- 5. What is the cleanliness condition of the classroom?
 - a) good b) Satisfactory c) Poor

Appendix II

	Interview schedule for headmasters	
	Name of the school:	Date:
	Name of the H.M:	Age:
	Academic Qualification:	Sex:
	Special Training:	
	Teaching Experience:	
	Service Duration of H.M.:	
A.	Provision and management of sanitary facilities	s and practice inside the
	schoolBoundary:	
	1. What is the land area of school complex?	
	Bigha. KathaDhur	Other
	2. Is there boundary wall in the school? Yes/No.	
	3. If not, why did you not construct it?	
	a)b)c)	
	4. What type of wastage is produced in your scho	ol?
	a) Wood b)Stone/Bricks c) Paper d) Other	
	5. How muxh its quantity?Kg.	
	6. What methods do you use for disposing this wa	astage?
	7. How often is it disposed?	
	a) Daily b) Weakly c) Monthly d) Other	
	8. Who cleans the school?	
	a)Sweepers b) Students c) Peons d) Other	
	9. Is there (Permanent) Provision of sweeper? Yes	s/No
	10. How Many students are there in each class?	
	(Class 1 to 10): boy and girls?	
	11. How many Students are there in class 9 and 1	0 . who have been taking
	health educations there optional subjects?	
	12. How many administrative staffs are there in yo	ur school?
	MaleFemale	

	13	. How many teaching staffs are there in your school ?
		MaleFemale
	14	. Is there separate provision of budgets for sanitary purpose? Yes/No.
	15	. If yes, How much? Rs
	16	. If not, how much do you spend in this purpose?
		Rs(annually)
	17	. What problems are there in disposing these wastes ? If
		any
	18	. What are the appropriate techniques for solution? please
		suggest
B.	Pr	ovision and management and practice of water supply:
	1.	Is there water available in the school? Yes/No.
	2.	If yes, how much? a) Sufficiently b) Satisfactory c)Poorly
	3.	How much water is available for cleaning Purpose?
	4.	How much water do you use for cleaning in different sectors ?
		a) Sufficiently b) Satisfactory c)Poorly
	5.	How is the availability of drinking water?
		a)Sufficiently b) Satisfactory c)Poorly
	6.	How much water is used per month?(in liter)
	7.	What are the sources of drinking water?
	8.	Where is the water stored?
		a) in water tank b) in mud pot c) in filter d) other
	9.	How often do you clean drinking water pots ?
	10	. What things do you use for cleaning drinking water pot?
		a)d)d)
	11	. How many taps are there in your school?
C.	Pr	ovision and Management and practice of latrine:
	1.	Is there latrines in your school? Yes/No.
	2.	If yes, what type?
	3.	How often is the latrine cleaned?
		a) Sweepers b) Students c) others

	4.	What things do you use to clean the latrine?
		a) Daily b) Weekly c) Monthly
	5.	Who cleans the latrine?
		a)Sweepers b) Students c) others
	6.	How far is the latrine from the school building?
	7.	How far is the latrine pit from the source of underground if there is
		water?feet
D.	Th	e facilities and Condition of Ventilation/Light and cleanliness in
	cla	assroom:
1.	Ho	w many classrooms are there I your school?
	••••	
2.	Wl	hat is the size of classroom? (In average)
	Le	ngthwidthHeight
3.	Ho	w many students are allotted in a classroom?
	a)	30 b) 40 c) 50 d) Other
4.	Wl	hat means are used for ventilation?
	a)	Windows b) satisfactory c) Poor
5.	Wl	hat is the condition of sunlight in the classroom?
	a)	Windows b) satisfactory c) Poor
6.	Is t	there provision of electric bulbs in classroom? Yes/No.
7.	Is t	there echoing in classroom? Yes/No.
8.	Wl	hen do you clean the classroom?
9.	Wl	hat is the cleanliness condition of classroom?
10.	Wl	hat problems are you facing to manage? Ventilation, lighting and
	cle	eaning the classrooms?
	a).	b)d)d)
11.	Wl	hat are the ideal techniques for solving these problems?
	a).	b)d)d)

Appendix-III

Interview schedule for Subjects Teach	ers
Name of the school:	Date:
Name of the Subject Teacher:	Age:
Educational Qualification:	Sex:
Experience of Teaching H.E. Subject:	
Special Training:(if any)	
A. Provision and Management of sani	tary facilities and practice of the
school boundary:	
1. What is the sanitary condition of	sanitary facilities of the school? a)
Good b) Satisfactory c) poor	
2. What is the condition of drainage	in the school?
a) Good b) Satisfactory c) poor	•
3. What types of wastage are produc	ed daily in your school?
a) Paper b)Stone/Bricks c) le	eaves d) others
4. What is the quantity of it? (Per da	ny in kg)
5. What methods are being applied to	for proper disposing of the wastage
by the school?	
6. Which method do you think is the	he best for proper waste disposing
purpose?	
a)c)c)	
7. What problems are you give us to	solve these problems ?
8. What suggestion do you give us to	o solve these problems ?
a)b)c)	
,···································	

B. Provision and Management and Practice of water supply facilities:

- 1. What means are used for water?
 - a) Piped water b) hand pipe c) other
- 2. How much water is available for sanitary purpose?

a)Sufficiently b) Satisfactory c)Poor	
3. How much drinking water is available ?	
a)Sufficiently b) Satisfactory c)Poor	
4. What is the cleanliness condition in the classroom? Yes/No	
a)Sufficiently b) Satisfactory c)Poor	
5. How often are these water pots being cleaned by the school?	
a)Sufficiently b) Satisfactory c)Poor	
6. Are you satisfied with the work of cleaning water pots?	
a) Yes b)No c) Other	
7. Are these any problems related to management of water supp	ly?
Yes/No	
8. If yes, what are they?	
9. What measures should be take for solving these problems?	
C. Provision and Management and practice of latrine:	
1. How much latrine facility is available in our school?	
a)Sufficiently b) Satisfactory c)Poor	
2. What is the physical condition of latrine?	
a)Sufficiently b) Satisfactory c)Poor	
3. What is the cleanliness condition of latrine?	
a)Sufficiently b) Satisfactory c)Poor	
4. What is the cleanliness condition of latrine?	
a)Sufficiently b) Satisfactory c)Poor	
5. Have you ever taught or guide your students in proper use of latrin	e ?
Yes/No	
6. If yes, what types?	
7. If not, why types?	

- 8. Are you facing any problems related to provision and management of latrine ?Yes /No. If yes , what are they ?
- 9. What measures should be appiled to solve these problems? Please suggest

D. The facilities and condition of ventilation , light and cleanliness in the class room :

- What is the condition of ventilation in your classroom?
 a)good b) Satisfactory c)Poor
- 2. What is the condition of light in your classroom?a)Good b) Satisfactory c)Poor
- 3. What is the condition of the ratio between the number of students and the size of classroom?
 - a)Good b) Satisfactory c)Poor
- 4. What is the cleanliness condition of the classroom? a)Good b) Satisfactory c)Poor
- 5. Are any problems existed there related to ventilation ,lighting and cleanliness condition is the classroom? Yes/No?
- 6. If yes, what are they?.....
- 7. What measures should be taken for solving these problems?

Appendix IV

Interview Schedule for students.

observation of students)

The in	nterview schedule for those students whose	optional subject is
health	education and who are studying in class ten .	
Name	of the school:	Date:
Name	of the student:	Sex:
Level	/Grade	Age:
A. Pr	ovision and management of sanitary fac	cilities and practice
ins	side the school boundary .	
1.	What types of wastage are produced daily in	your school ?
	a) Paper b) Stone/bricks c) leaves d) other	
2.	How often is the wastage being taken away?	
	a) Regularly b) Sometimes c) None d) Oth	ner
3.	What kind of disturbance is created due	to the presence of
	wastage at the school?	
	a) Bad smelling b) Mental tension c) Other	
4.	What measures should be applied for dis	posing this wastage
	properly? Please suggest	
B. Pr	ovision and management and practice of w	ater supply :
1.	What is the condition of availability of drink	ing water ?
a)\$	Sufficiently b) Satisfactorily c)Poorly	
2.	Do you have to be in queen to drink water?	Yes/No.
3.	If yes, how long?	
	a) 5 Minutes b)10 Minutes c) 15 Minutes d) Other
4.	How often do you drink water at school?	
	quantity(in li	ter)
5.	How much is the cleanliness of drinking	ng water ? (Which

		a)Sufficiently b) Satisfactorily c)Poorly
	6.	What problems are the existed related to water supply?
	7.	What measures should applied to solve these problems?
		Please suggest
C.	Pro	ovision and management and practice of latrine:
	1.	Is there latrine facility? Yes/No
	2.	If yes, there separate latrines for boys/girls?
	3.	Is water available in latrine? Yes/No
	4.	If yes, how much?
		a)Sufficiently b) Satisfactorily c)Poorly
	5.	If not , how far do you have to go to bring water for defecation
		purpose?feet.
	6.	Does your school clean the latrine? Yes/No
	7.	If yes, how often?
		a) Daily b) Sometimes c) Monthly d) Others
	8.	What is the cleanliness condition of the latrine?
		a) Good b) satisfactory c)poor
	9.	Do you use your school's latrine? Yes/No
	10.	If not, why?
	11.	Do you wash your hand after defecation?(This question is for
		students who are using the latrine of school) Yes/No
	12.	If yes, what things do you use for washing hands?
		a) water+soap b) water+wash c) water+clay d) just water
	13.	What has been done by the school in keeping in the latrine
		clean?
		a)d)d)
	14.	What activities have you done for keeping the latrine clean?
	15.	What problems are existed about the well management of

latrines?

16.	What measures should be applied to solve problems?
	Please suggest
Th	e facilities and condition of ventilation , light and cleanliness
in	the class room :
1.	How is the ventilation managed in classroom for reading purpose
	?
a)S	Sufficiently b) Satisfactorily c)Poorly
2.	How is the light managed in the classrooms?
a)S	Sufficiently b) Satisfactorily c)Poorly
3.	In which month(s) do you feel hot and cold while staying in the
	classroom of your school ?
	a) Hot month(s)b)Cold month(s)
4.	Has any special management been conducted by the school to
	control physical environmental hazards? Yes/No
5.	If yes, what types?
6.	If not, why?
7.	What is the cleanliness condition of classroom?
a) (Good b) Satisfactory c)Poor
8.	What problems are there related to ventilation, lighting and
	anliness condition in classroom?
CIC	
9. `	What measures should applied to solve these problems?
Ple	ease suggest
	Thin 1. a) S 2. a) S 3. 4. 5. 6. 7. a) C 8. cle