

SCHOOL HYGIENE EDUCATION AND SANITATION
IN 22 PRIMARY SCHOOLS IN
MADRAS, INDIA



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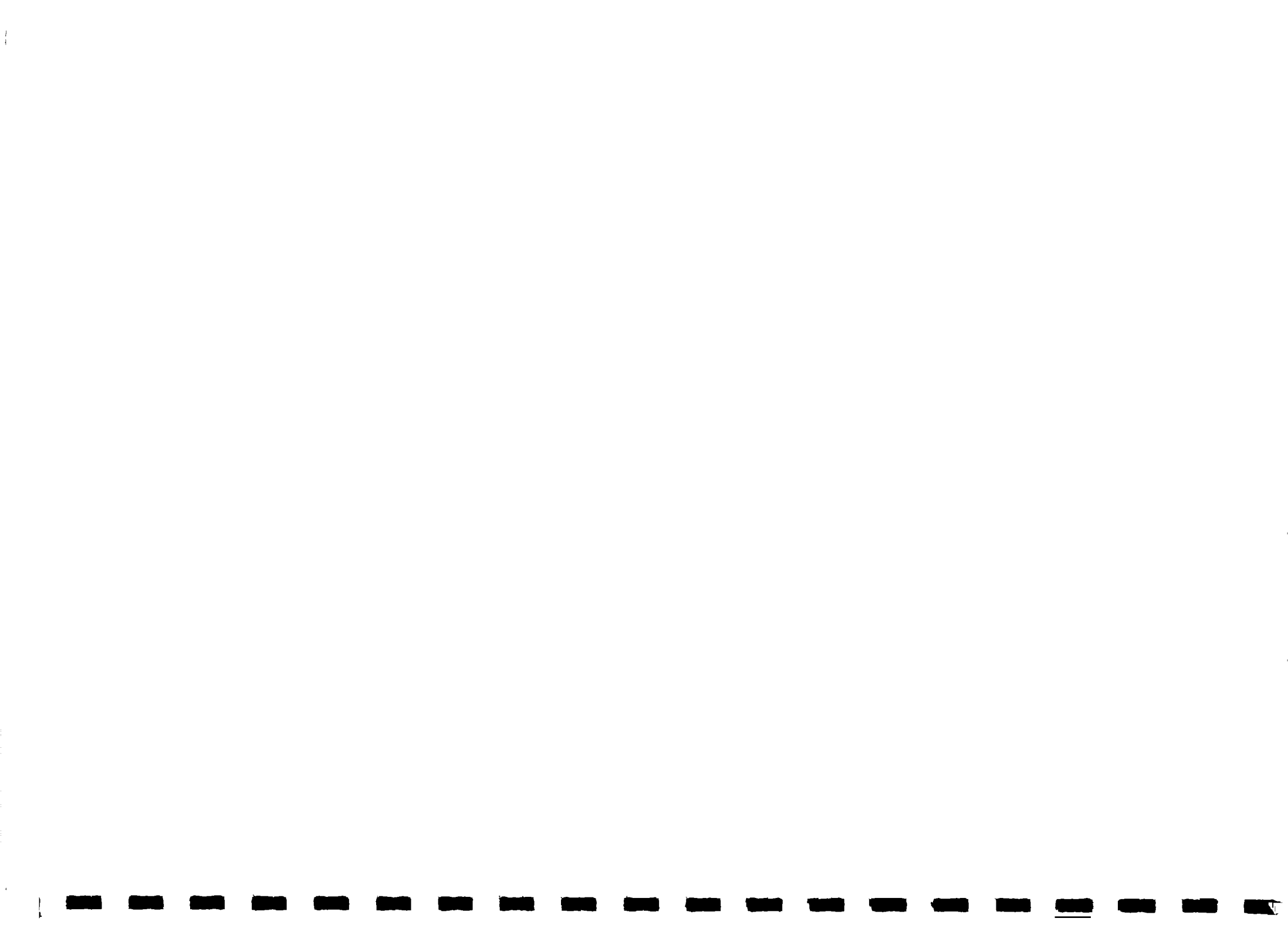


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PREFACE

In the spring 1991 I planned for my traineeship and final thesis within the General Social Science, at the University of Utrecht. I wanted to study something where I could use and further develop my knowledge of health education and development issues. India seemed to be a good place for a study on health education, since I am familiar with the country, its culture and its people. I contacted Dr Rao, a health education specialist in Madras, India. Dr Rao works for a voluntary organisation, Women's Voluntary Service(WVS), and she accepted me as a trainee within WVS.

Dr Rao came on a visit to The Netherlands in summer 1991. Dr Rao visited IRC International Water and Sanitation Centre, The Hague, which she worked for in 1984, in Madras. During a meeting with Ir Visscher, Ir Burgers, Dr Rao and myself, the idea to study sanitary conditions and hygiene education activities in primary schools in India emerged. IRC, which collaborates with WHO and other organisations, is in the process of initiating a project on school sanitation in primary schools in different regions of the world. This project is a part of a wider program on hygiene education, which WHO is developing with support from Swedish International Development Authority (SIDA).

The intention is that the case studies undertaken in different regions of the world will be reviewed in regional meetings. Practitioners from the field, Ministry of Health staff and water and sanitation experts will together examine the problems and innovative approaches identified in the case studies, to identify possible solutions and establish action plans to stimulate an improvement of school sanitation and hygiene education.

Dr Rao and IRC agreed on the preliminary review of twenty schools in and around Madras. Dr Rao, consultant for IRC, supervised the data collection and wrote a proposal for action plans on school sanitation in India. I was included to assist Dr Rao and IRC. I reviewed several documents related to the field of water supply, sanitation and hygiene education, before I left for Madras in January 1992. In the field I interviewed teachers, children and administrators concerned



with primary schools and observed the sanitary conditions of the schools. The data I recieved during the two months in Madras are presented in this report.

Many teachers and headmasters explained to me their school hygiene problems and how they thought it might be possible to solve them. The teachers and pupils were very motivated to strengthen the school hygiene and their hygiene behaviour. It is my belief that they are very eager to improve the sanitary conditions and hygiene education activities, if they get the possibilities to do so. I hope this report will stimulate the development of improved school sanitation and hygiene education in India.

Finally, I wish to thank the people who made this study possible. Dr Rao, whose immediate response to my traineeship was positive. During the field work Dr Rao, as well as Mr Srinivasan and Mrs Padmani Sivsubramaniam, at Women's Voluntary Service(WVS), continued to encourage my work. The amount of help and support I got from the field workers at WVS, the teachers and the pupils in the schools reviewed is impossible to describe. Especially my thanks go to Mrs Saraswathy Babsubramaniam and to Mrs Vidyakumari Seker, for their great patience in explaining things I saw and heard about in the schools, and for their genuine interest in our work.

Just as WVS was the backbone during my field study in Madras, IRC has been it while preparing and writing the report in The Netherlands. The people at IRC have been contributing to my report in different ways both by adding valuable questions and by their input in the report. For the same reason Ir Lizette Burgers should be thanked more than once. Not only for guiding the progress of the study, but also for encouraging me to write a simple and practical report. My thanks also go to Mr Nigel Browne, who kindly agreed to correct the language in the report. Last but not least I want to mention Dr Marja Gastelaars, the university supervisor of the report. Dr Gastelaars has continuously given suggestions to improve the report.



CHAPTER 1

INTRODUCTION OF THE REPORT

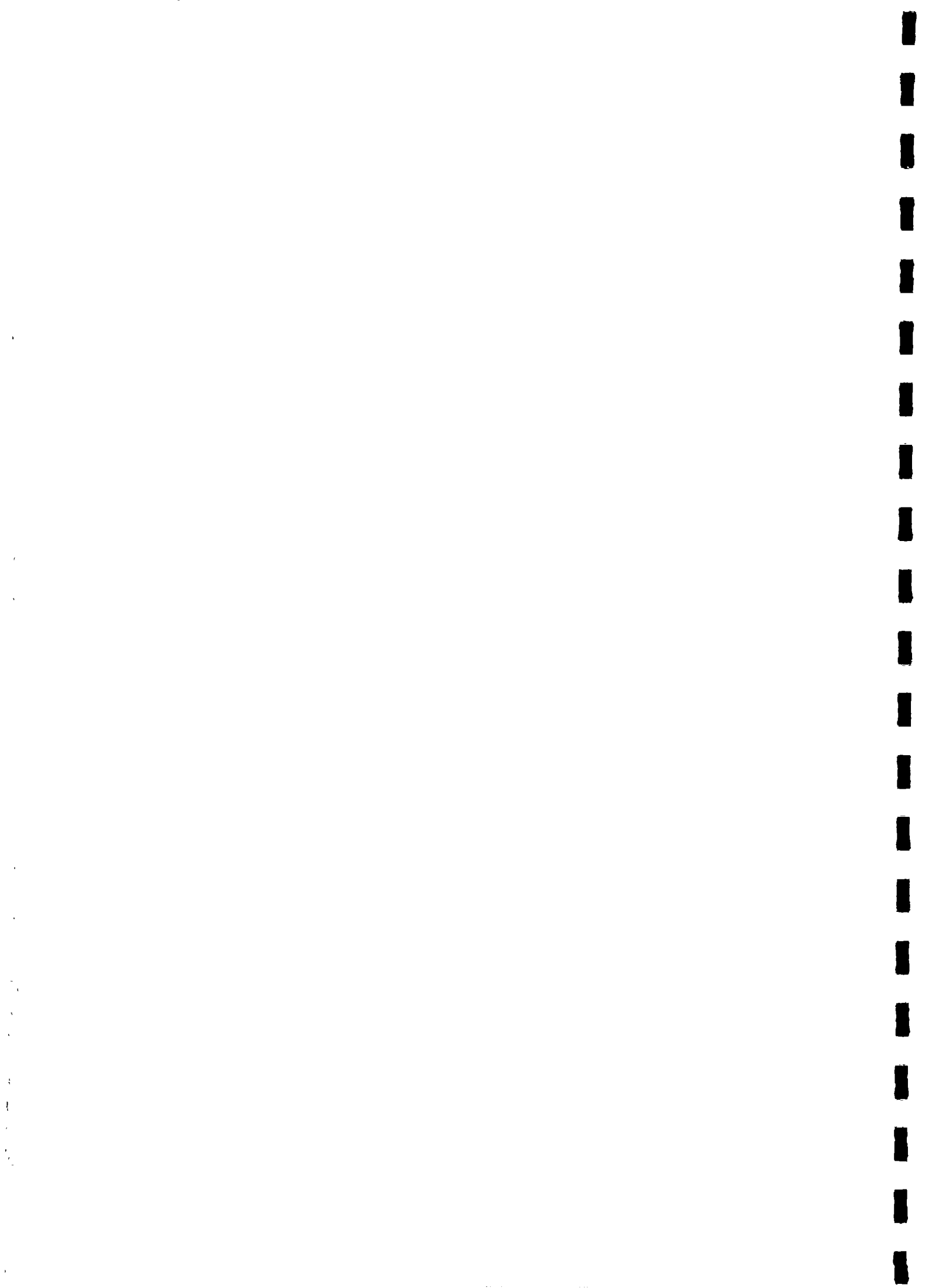
1.1. Outline of the study

This is a review of the sanitation and the hygiene education in twenty-two primary schools in India. Ten schools have been reviewed in the city of Madras and twelve schools have been reviewed in villages, located about forty kilometres from Madras (Padappai block). (see maps, appendix 1) The field-study in the schools took place in January and February 1992. The report presents results of the field study, and gives an indication of the key-elements of sanitation and hygiene education in Indian schools.

A literature study prepared the ground for the field study. The main concepts of the research were defined, with the help of the literature. **Sanitation** in schools has been defined as, sites or facilities for defecation, the disposal of human waste and waste water, water supply, garbage disposal facilities, the use, operation and maintenance of the systems. In the text "hygiene facilities" refers to latrines, water supply and garbage disposal facilities. **Hygiene education** has been defined as all activities aimed at encouraging behaviour and conditions which help to prevent water and sanitation-related diseases. (9, Boot) In this text a differentiation is made between theoretical hygiene education, which is taught in the classroom, and practical hygiene education, which is linked to hygiene activities of the school.

On the basis of the literature study and an orientation in the field, four main areas of sanitation and hygiene education have been selected for the study. These are;

- 1 availability of sanitary facilities, such as latrines, water supply and garbage disposal
- 2 operation and maintenance
- 3 hygiene education, both theoretical and practical
- 4 the attitude towards school hygiene among the teachers.



According to the literature, the general idea concerning a successful contribution to hygiene and sanitation in schools is that hygiene education, latrines, water supply, garbage disposal and operation and maintenance should be provided and linked together. These elements should also be adapted to the conditions and cultural norms of the school and of the local community. Therefore the focus of this study became to identify the key-elements of the four selected areas and how these are linked together, in the twenty-two schools. During the field study it turned out to be very difficult to get an indication of how school hygiene is linked to cultural and socio-economic values and norms. This aspect has therefore been left out.

1.2. Background of the study

The field study is a part of a wider project on school sanitation and hygiene education in different countries of different regions, by IRC International Water and Sanitation Centre, with collaborating institutes like WHO. IRC has initiated preliminary reviews of school hygiene education and sanitation in a number of countries. The intention is to bring information to a state-of-the-art school hygiene, which will contain information about sanitary conditions in schools and different ways of giving hygiene education in schools. The results from the study of the schools in India, will probably be reviewed with other case studies, during a regional meeting with practitioners from the field, Ministry of Health and water and sanitation experts. The intention being to examine problems and innovative actions identified, to identify possible solutions and establish action plans for the nearby future.

1.3. Problem definition

In order to identify the key-elements of school hygiene the following general problem definition has been used.

Which factors can be considered to be the key-elements of school hygiene in twenty-two schools in Madras, India?



To limit the study of school hygiene, the following sub problems were selected.

- 1a. Concerning the availability and conditions of latrines, water supply and garbage disposal, what are the key-elements, in the twenty-two schools?
- 1b. Concerning operation and maintenance of the hygiene facilities, what are the key-elements, in the twenty-two schools?
2. Concerning hygiene education, what are the key-elements in the twenty-two schools?
3. Concerning the attitude towards hygiene among the teachers, what are the key-elements in the twenty-two schools?
4. What are the links between the four selected areas of school hygiene in the twenty-two schools?

1.4. Methodology

The field study has been undertaken by the local health education specialist(Dr Rao), a sanitary technician, the translator, a field worker and the trainee from IRC. Dr. Rao has been the key-person for the trainee. Discussions have continuously been held between the local resource persons and the trainee, to make the trainee aware about the local perspective of the data.

The study is an exploratory study of hygiene standards in schools in India. IRC wanted to get an **indication** of the sanitary conditions of the schools and hygiene education and of what school staff and children think about hygiene and sanitation in India. Thus it can be considered a **qualitative pilot-study** to indicate key-elements of school hygiene for further research.

1.4.1. Collection of data

Each school has been visited once or twice and each visit took about five hours. At least one teacher and two pupils were interviewed in each school. The interviews varied from half an hour to one hour and a half.

The methods for the collection of data have been:

- literature study



- participatory observations/check-list
- open-ended interviews/questionnaire
- diary

The methods were flexible and it was possible to adjust the data collection process to the schools. One major change was introduced during the study. It turned out to be difficult to get an indication of the links between the school hygiene and cultural norms and values. The observations and interviews seemed to be too superficial to collect this kind of data. One reason was the language problem. The trainee decided to pay less attention to values and norms, since the answers to the questions concerning values etc became diffuse.

In further studies it will be important to include in-depth interviews with a researcher, who knows the local language. There should also be more time spent on participatory observations. Only then it seems possible to indicate the influence of cultural values and norms on school hygiene.

Literature study

Before the field study a literature study about sanitation and hygiene education in general and in India in particular, took place. The main concepts of the study, the problem definition and chapter two are based on information from this literature study.

The participatory observations

The first week of the field study was taken up with participatory observations. The intention being to check the relevance of the problem definition and the questions (for the interviews) concerning the actual setting, areas of taboo and special contact persons. The orientation week also paid off during the following months, because the translator, the field worker, the sanitarian and the trainee had got to know each other well and developed good working relationships.



After the first week the participatory observations became complementary to the interviews in each school. The trainee usually had a short look at the school environment, before starting the interview. In this way the questions could be more practical, since examples were taken from the school itself. After the interview trainee and teacher(s) took a look together at the school. It was then possible to ask more direct questions and the answers of staff and children could be checked with reality.

However it was sometimes difficult to make these observations, since the trainee got much attention from pupils and teachers. It was often not possible to examine the daily behaviour of the pupils, such as hand-washing. When the trainee came to look at this activity all pupils wanted to wash their hands. Thus the cross-checking was more concerned with the conditions of the hygiene facilities.

Open-ended interviews

One of the advantages with open-ended interviews was that aspects of school hygiene, which the trainee had not thought about, could come up in the interview. Secondly, it seemed to motivate the teachers and pupils that somebody was interested in their opinion on the school hygiene. Thirdly, it often started a discussion among the teachers about what and how things could be done.

The first persons who were interviewed were so called resource persons(project leaders such as Dr Rao, Deans of the schools, etc.) These persons gave information how to approach teachers and children and which questions were important or not suitable. The interviews(with staff and children) were conducted in groups of two to three persons. It was expected that small group interviews should be productive. Cross-checking(finding out if anybody agrees with a certain statement) was done during the interviews and the people motivated each other to describe the school hygiene.



The teachers were asked about thirty questions and the interview took about forty five minutes. The teachers were in the most cases happy to explain the hygiene problems of the school. In many cases it seemed to be frustrating for the teachers to be aware about the problems, but not being able to consult anyone or to get financial support. Even though the trainee could not offer any help after the interview, the teachers were glad to discuss it with someone.

The pupils were asked about fifteen questions and their interview never lasted longer than half an hour. It was expected that the pupils would feel embarrassed over questions about defecation etc, but this was not the case. The pupils freely told about where they defecate and why they wanted to have latrines. The interviews with the children often took the form of discussion, with the intention of keeping them interested. The questions were put differently depending on the age of the pupils.

The questionnaire and the check-list

Before the actual interviews took place, the questionnaire and check-list were discussed with Dr Rao. They were also tested in a few preparatory interviews. Questions, which turned out to be irrelevant for the setting were taken out, some questions were added and others were made more practical. Especially the later was important. For instance asking the teachers: "Why did you decide to get this kind of latrines to the school?" seemed to be too abstract and did not provide any actual answer. Another question was added: "Do you have any latrine facilities?". But in general the questionnaire and the check-list turned out to be satisfactory.

The questionnaire and check-list were translated for the translator. (see appendix 6) It was sometimes useful to let the teachers read the questions themselves, when they did not get the meaning of the question.



Diary

A diary was written from the outset until the last day. The information is about what the trainee saw in the school, what attitudes she found towards hygiene, what possibilities she thinks school had to improve its hygiene and sanitation and how it could be done.

The sample

Dr Rao has arranged that twenty-two schools were contacted and prepared for the research. The schools are situated in the city(10), Madras, and in neighbouring villages(12). Dr Rao chose the schools with following criteria in mind: distance to the schools, acceptance of the teachers to participate in the interviews, a variation of urban and rural schools(10 and 12), the variation in the available hygiene facilities and of the number of students. The fact that the teachers were prepared for the interviews saved a lot of time for the trainee, who could almost immediately start conducting interviews, after arrival in India.

Originally it was expected that different kinds of teachers should be interviewed. But during the actual field trips head masters, teachers and students were selected according to their interest in the interviews. A major consideration was that the number of persons interviewed was not actually important for the study, as the main aim was to get an indication of the key-elements of school hygiene. But in a follow up study it might be interesting to check how representative the found key-elements are for Indian primary schools in general.

1.4.2. Processing of data

Structuring of data

All the twenty-two schools have been separately described. The descriptions are based on eight factors, which are connected to the titles of the questions in the check-list and the questionnaire(see appendix 6). The factors are: general information about the school, latrines, water supply system,



noon-meal, garbage disposal, hygiene education, attitude and awareness of hygiene education and sanitation among the teachers, general impression of the hygiene education and sanitation. Each factor contains specific information. General information has to do with finance of the school, location, construction, number of pupils and teachers, opening hours etc. Latrines has to do with availability of latrines, alternative sites, construction, use, operation and maintenance, foot-wear and latrines at home. Water supply systems describes availability, kind of facility, water storage, drinking water and hand-washing. Noon-meal is about place of cooking, storage of food, place of eating and washing of plates. Garbage is about nature of facility, use of facilities, collection and disposal of garbage. Hygiene education is about content, kind of material and teacher's training. Attitude and awareness of hygiene towards school hygiene among the teachers, is about their ideas and contributions for the school hygiene. General impressions of school hygiene describes the idea the researcher has about the school hygiene, the possibilities to improve etc. Another five factors turned out to have a great influence on the school sanitation and hygiene of the pupils, such as community members defecating in school latrines and wearing of foot-wear.

To simplify the overview of all schools a matrix was made(see appendix 4). The matrix provides a description/summary of the sanitary conditions and hygiene education activities, with a few key-words. The data has also been structured into tables to show the frequency of the answers. The frequencies have been used as objective verification in the analysis.

The analysis

The analysis has been based on detailed descriptions of all the schools, the matrix and the tables. The eight original factors (derived from the titles of the check-list and questionnaire) have been the focus of the analytic description. With this focus several key-elements to the four areas were identified. A few important links between the areas turned out to have a great



influence on the school sanitation and hygiene education activities as well.

During the analysis it became clear that the four original areas of the study do influence school sanitation, but in very different ways. To be able to give a detailed description of how these areas are influenced by various key-elements, the areas were separated into three chapters. Availability of hygiene facilities and operation and maintenance became one chapter, since these areas are linked to each other in many ways (chapter 4). Hygiene education became chapter 5. The attitude and awareness of school hygiene among teachers became chapter 6. It was necessary to give some background information about the general situation of the schools, for the understanding of the development of school sanitation and hygiene education. The general information about the schools became chapter 3. The conclusions made about the key-elements influence on the four areas of sanitation and hygiene education, as well as the links between the areas are explained in chapter 7.

The character of rural and urban schools turned out to differ to such an extent that they were described separately, except the area of "attitude towards school hygiene among teachers".

Working plan for the study

Oct. - Dec. 1991	Preparation for the field study Briefing programme about water supply, sanitation and hygiene education with emphasis on schools Literature study at the library of IRC Writing a check-list and questionnaire based on the literature study Designing an outline for the field study
Jan. - Mar. 1992	Field study in Madras, India
8 Jan. - 17 Jan.	Structuring the field study with Dr Rao, the translator and the sanitarian



	Making a time schedule for the field study
	Pretesting check-list and questionnaire
21 Jan. - 29 Feb.	Interviews and observations
2 Mar. - 9 Mar.	Feed-back discussions with Dr Rao and a few teachers
Apr. - July 1992	Report
15 Apr. - 25 May	Processing the data
26 May - 1 July	Writing the report

1.5. Presentation of the report

Chapter two is a review of a literature study about the general situation of sanitation and water supply in India and hygiene education in primary schools in general. Chapter three covers general information on the twenty-two schools, like financing, number of students, location etc. Chapter four is a discussion about the availability of hygiene facilities and the operation and maintenance of them in the schools reviewed. Chapter five is about the hygiene education in the schools reviewed. Chapter six is about the attitude of teachers towards school hygiene in the schools reviewed. The final chapter describes the key-elements of school hygiene, which have been indicated in this study and linkages between the key-elements. A few recommendations to teachers and policy makers concerned with school hygiene are the end of this report.



CHAPTER 2

INTRODUCTION TO THE FIELD OF THE STUDY

This chapter will give you an idea about the policies of the Government of India concerning sanitation, water supply and hygiene education. An overview of the general conditions of sanitation and water supply in India and an explanation why school-age children are targeted for hygiene education will also be given.

2.1. Policies on water supply and sanitation in India

The government of India wanted to reach all people in India with water supply before 1991. (4, Dabadghao) But the water supply conditions are still limited in India, in 1992. 21-40 per cent of the people in rural India have access to safe water. (1, Cairncross) Ten to fifteen per cent of the people in rural India have access to some kind of latrines for urination/ defecation. (6, Mukherje)

The policy of the Government of India is to provide safe drinking water for its entire urban and rural population. The government is trying to provide sanitary facilities, which include toilets, adequate drainage and garbage disposal services. But the policies are not put into practise in many areas. A major cause of morbidity in India is the high prevalence of diseases brought about by unsafe disposal of faeces and the lack of drinking water. (5, Mishra) It is estimated that 50 million persons are infected every year due to poor sanitation, of whom 5 million die. (4, Dabadghao)

At the end of 1980 policy makers in India started to enforce improvement in public health through changing people's behaviour related to the use of water and sanitation. (6, Mukherje) About the same time the Government of India's Technology Mission on Drinking Water together with UNICEF developed strategies for improvement of hygiene. The two organisations have delivered water supply systems and sanitation services. Simultaneously they deliver the technical facilities, they try to involve the local people in the procedure. (6,



Mukherje) The organisations try to inform the people and adjust the facilities so they fit the customs of the people. This kind of policy is derived from the experiences of earlier projects. The organisers have realized that it is not possible to expect a hygienic environment and hygienic behaviour, through simply providing the villages and cities with water supply systems and hygiene facilities. (6, Mukherje) To make the technical facilities useful hygiene education has to be presented to the people. The education ought to be planned with and adapted to the local people, where the facilities will be provided. Otherwise the technical facilities might not be used in a hygienic way or might not even be used at all.

2.2. An overview of water and sanitation in India

The following is mostly taken from a report by Indian Marker Research Bureau(IMRB) in 1988-89. Seven thousand nine hundred individuals in villages of 22 districts in eight states were covered. (6, Mukherje)

Water supply systems

Traditional open dug wells continue to be the most common source of water for all purposes, including drinking. The handpump comes as a close second. The India Mark II handpump was launched in a nationwide campaign to provide the rural population with safe water. This was expected to lead to an improvement of the water supply systems of the schools. The India Mark II handpumps are made of steel and supposed to be very hard wearing, able to take knocks, from water buffalos scratching their backs against them to children playing around them. Each handpump can serve 250-500 persons per day, which makes the pump suitable for the school environment. (3, Action for children) Nearly 10 per cent of all households collect drinking water from exposed surface sources like lakes, ponds, canals or rivers. It has become evident that even if there are handpumps available they are not always used. One of the reasons why they are not used has been, the salinity of the water from the handpump.

Water is usually kept in the same vessel in which it is



collected. Only 4 per cent of the people boil water before storing it. In 68 per cent households the people take drinking water, from vessels, with mugs that do not have handles. Therefore their hands are often dipped into the water.(6, Mukherje)

Promotion of hand-washing in India is reaching more and more people. The prevention of diarrhoeal diseases is possible through, such a simple procedure as hand-washing. But as Martin Beyer said, "...hand-washing is one of the most effective means to keep diarrhoea incidence down. Just plain hand-washing. But,..., you can't wash hands or anything else, if you do not have water".(3, Action for children)

It is important that the water supply system is placed near to the latrines, since the Indians use water for anal cleansing. When the latrine and water supply system are sited in close vicinity to each other, it becomes important to ensure that the disposal water from the latrine does not seep through to the groundwater.

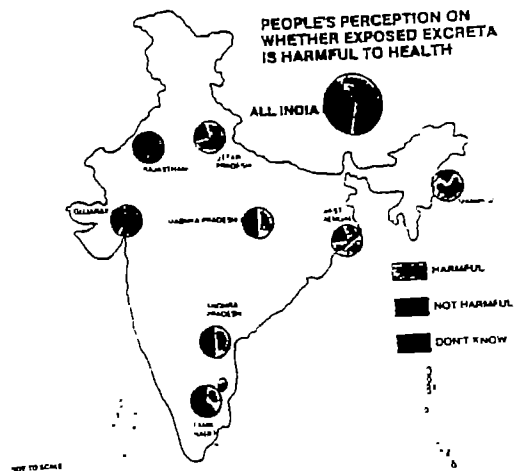
Human waste disposal in India

In rural India the ground(mud, grass) is left to absorb human waste. Ninety-two per cent of the people defecate outdoors. About one tenth express a preference of having water, such as a water basin or vessel filled with water, close by. Privacy is an overriding concern for the place of defecation/urination.

The majority of latrine owners and users usually belong to upper income households. Only 2 per cent of the illiterate people use latrines, compared to 13 per cent for people who can read. Public latrines are used by less than 10 per cent of those who have access to them. The maintenance of the public latrines is poor. More people would use the public latrines, if they were regularly cleaned. Almost all who own private latrines use and clean them regularly. Pour-flush latrines are most common in the households with latrines.(see different kinds of latrines in appendix 8) 40% of those who have latrines have pour-flush latrines. It is a general custom in India to use water as anal cleansing. Therefore the people prefer the pour-flush latrines.



Thirty per cent do not know how often the pit will have to be cleaned out/emptied. Almost all who defecate outdoors do not cover or dispose of their excreta in any manner. The people usually do think it is not harmful to leave excreta uncovered.



Washing of hands after defecation is a universal practise.(6, Mukherje)

Garbage disposal in India

More than 80 per cent households throw garbage into a private or public garbage pit. The rest of the people throw it anywhere within or outside their courtyard. Water generated in the household(sullage) is simply let out into the village street or outside the house boundary by 62 per cent families. Only 5 per cent mentioned that they were using a soak pit. Twelve per cent of the people drain the waste water into a kitchen garden.(6, Mukherje)

2.3. Cultural and socio-economic values, which have an influence on hygienic behaviour in India.

It is important to understand the underlying values and attitudes of hygiene of the Indian people, to understand their hygienic behaviour. For a successful hygiene education, where the



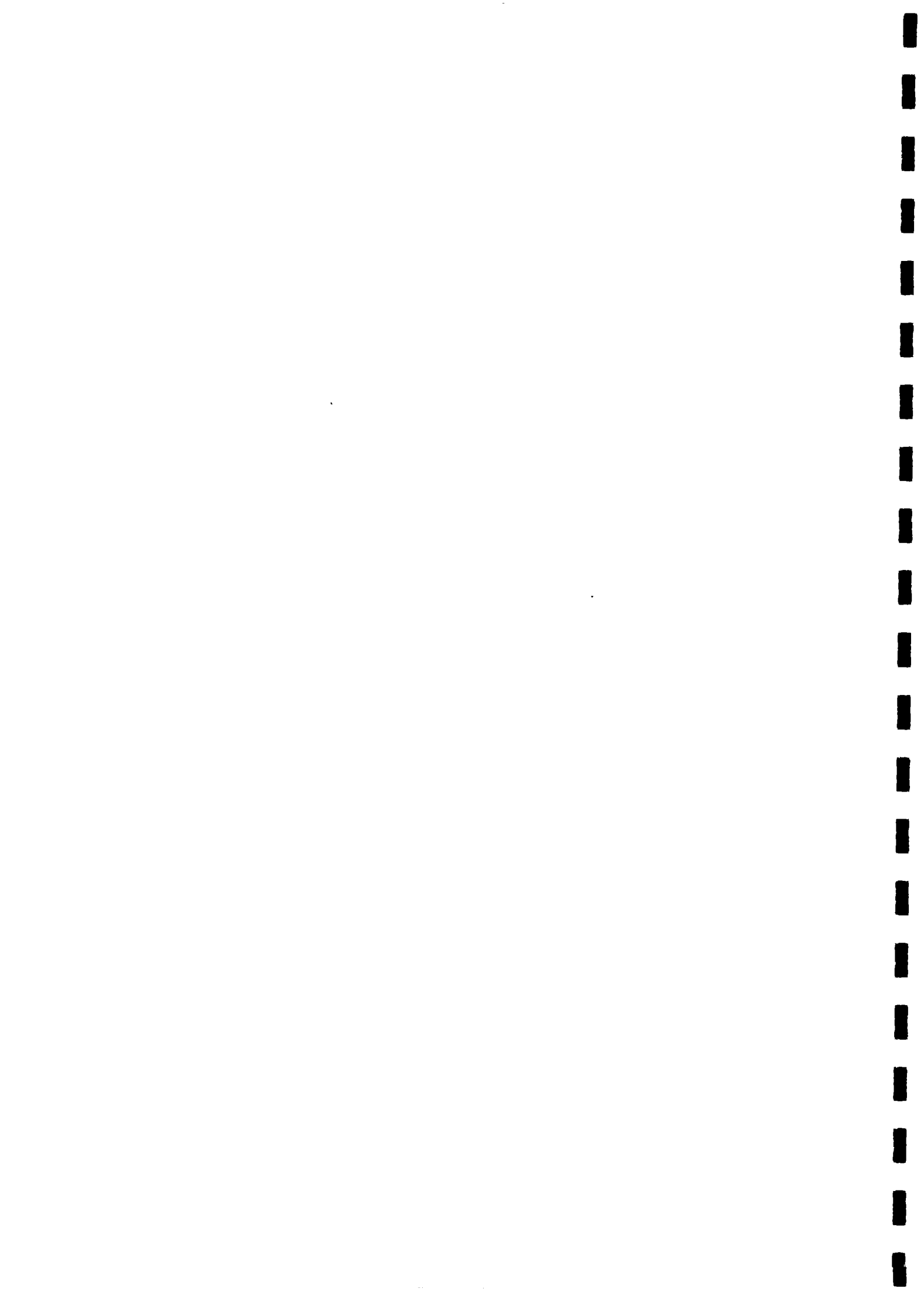
intention is to contribute to the hygienic behaviour of the target group, it is necessary to know how they look at hygiene. "Hygiene education that is not based on the local culture cannot possibly be effective in changing people's behaviour and practices".(9, Boot, page 12) The reason being that cultural values and beliefs largely determine what people consider as appropriate hygienic behaviour.

The traditional norms of hygiene in India

The concept of personal, domestic and environmental hygiene in India is closely related to the main religion in India, Hinduism. Two important idioms in the Hindu philosophy are purity and pollution.(14, Kochar, 16 UNICEF) In the Hindu scriptures it is described how people shall look after their personal hygiene to keep themselves clean and pure. The cleaning procedure is therefore concerned both with the physical and spiritual aspects of the human. An example is the daily bath in the morning. Many Hindus say mantras(prayers) while showering, shaving etc. (14, Kochar)

It is also described how the women are responsible for looking after the cleanliness of the household, such as sweeping the floors in the kitchen every day. The importance of cleanliness of the rooms of a house differ. Traditionally, the kitchen has the highest priority, followed by the bedroom. (14, Kochar)

By tradition public waste is taken care of by a certain group of people, called scavengers. The scavengers were forming a special group of people in traditional India, who were always in charge of the environmental sanitation. But their role has changed during the colonisation and the time after that. Today there is no clear definition of who is responsible for the public sanitation. (15, Rebers) At the same time it seems the tradition, that the individual is not responsible for his/her garbage, still exists. Because most people throw this garbage on the road side and then they usually expect public workers to fetch it. (6, Mukherje, 14, Kochar) But there are also other reasons explaining



why some people might not take care of their own garbage. As poor people in the villages, work to get food for the day, looking after their garbage, has a low priority. (6, Mukherje, 16, UNICEF) The values of personal and domestic hygiene in India are therefore high, even though they cannot always be expressed. (16, UNICEF) The people try to follow their norms of daily bath, etc, but for many Indians it is difficult to keep the cleanliness they want to have, since they lack time and money. (6, Mukherje) Thus the attitude towards hygiene is in general, that the people want to keep a proper personal, domestic and environmental hygiene. But they are often limited to practise their ideas of proper hygiene, since they often have no time for hygiene activities nor money for hygiene facilities.

2.4. The need for hygiene education in schools

There are different reasons, according to the literature, to explain why children in primary schools should be taught hygiene education. One reason is to improve the hygienic conditions of the school (use of latrines, water supply system) and the health of the pupils.

Hygiene education aimed at the pupils might increase the hygiene of the community in general. An example is how the children have the opportunity to spread the hygiene messages to other groups in the society, such as their parents, sisters and brothers. (10, IRC & 12, Demehin & 13, Kakade) The involvement of school-aged children has often been stressed, since they are the generation of the future. (7, Burgers, et.al.)

But one must keep in mind that the schools do not reach all children. Many children in developing countries do not have the opportunity to go to school, since they have to work to earn money for the family. Thus reaching the school children does not mean that all children in the country are reached. (7, Burgers et al)

From a psychological point of view hygiene education should be practical for pupils in primary school, because children aged five to ten years think in a practical (operational) manner. This operational thinking means that they



have difficulties to understand anything, which is described in an abstract way. The children therefore learn better through seeing what is explained to them.(17, Hughes and Noppe)



Drinking water supply in Ayanavaram school(U7)



CHAPTER 3

GENERAL INFORMATION ABOUT THE SCHOOLS REVIEWED

Introduction

The intention of this chapter is to give information about the general situation of the rural and urban schools. This information will make it easier to understand the circumstances of hygiene education and sanitation. This chapter is reminding us that there are more factors, influencing school hygiene, than the ones which have been studied in this field study.

3.1. Rural schools

School authorities and finance of the schools

All the rural schools, which have been reviewed, have to do with some kind of authority. The authorities are supposed to financially support and direct the activities of the school. Most of the schools are directed and financially aided by the Panchyat, which is the government of each village. (10 out of 12 schools). Very few of the Panchyats can actually finance activities or facilities of the schools. One school is aided by a private person and by the Panchyat. The private person is the manager of the school and she is giving as little financial aid as the Panchyat does(R5). Another school is funded by private donors, who give the school the donations their needs(R8).

There is a big difference in how the twelve schools are directed by their authorities. A few Panchyats direct the schools through planning and organising the hygiene activities together with the school staff. Other Panchyats do not have any contact with the schools and leave all the responsibility for the school to the headmaster and teachers. In such cases it is important that the school staff is able to and motivated enough to take on this responsibility, otherwise the general condition of the school will suffer. The partly privately aided school does not get any direction either from the manager or from the Panchyat. The school board of the private school is regularly coordinating the activities of the school together with the staff. The way in which the school authorities approach the school staff, seems to



have an influence on the attitude of the teachers. Some of the teachers are left without guidance and backing and seem to consequently be less involved in contributing to the hygiene of the schools (R2, R7, R9,) than those who get backing from the authorities(R5, R8). In few cases where the authority is not supporting the school (R1), the staff motivate each other to contribute to the hygiene of the school(R1, R3).

Location and construction of the schools

Almost all the schools are situated centrally in the villages. Houses of the pupils and fields usually surround the schools.

The school buildings are usually made of cement(9 of 12) and in a few cases of bricks(3 of 12). In many of the schools the buildings were in need of repair. All schools have a playground for the pupils, but the size differs. In general the schools are overcrowded. New buildings and hygiene facilities have not been built at the same rate as the increases in the number of pupils. In a few schools the students have to sit outside in temporary sheds, because of lack of space in the other classrooms(R1, R3, R4, R7). The classrooms usually hold about two hundred pupils. The classrooms are then divided in two to three sections with about seventy pupils in each section.

Pupils and teachers

The number of pupils in the schools varies widely. From 75 to 1400 pupils, but most of them have between 100 to 300 students (6 of 10). All schools have a mix of boys and girls. The age varies from four to ten years but in some schools it includes those aged up to twelve. Most of the schools have pupils studying from grade one (five years) to grade five(ten years). There is in average of one teacher per seventy students. There are almost as many female teachers as male teachers. All schools have a headmaster, who is teaching but also coordinating the activities of the school. The headmaster is in some schools a key-person for the organisation of hygiene activities.

Most of the schools are open between ten and four o' clock, from Monday to Friday. There are no shifts in the rural



schools. The students are coming regularly to school. After the noon meal was introduced in the schools, pupil attendance increased. Especially parents under the poverty line have been convinced of the need to send their children to school, since their children get a meal every day. This means one burden less for the parents to take care of.

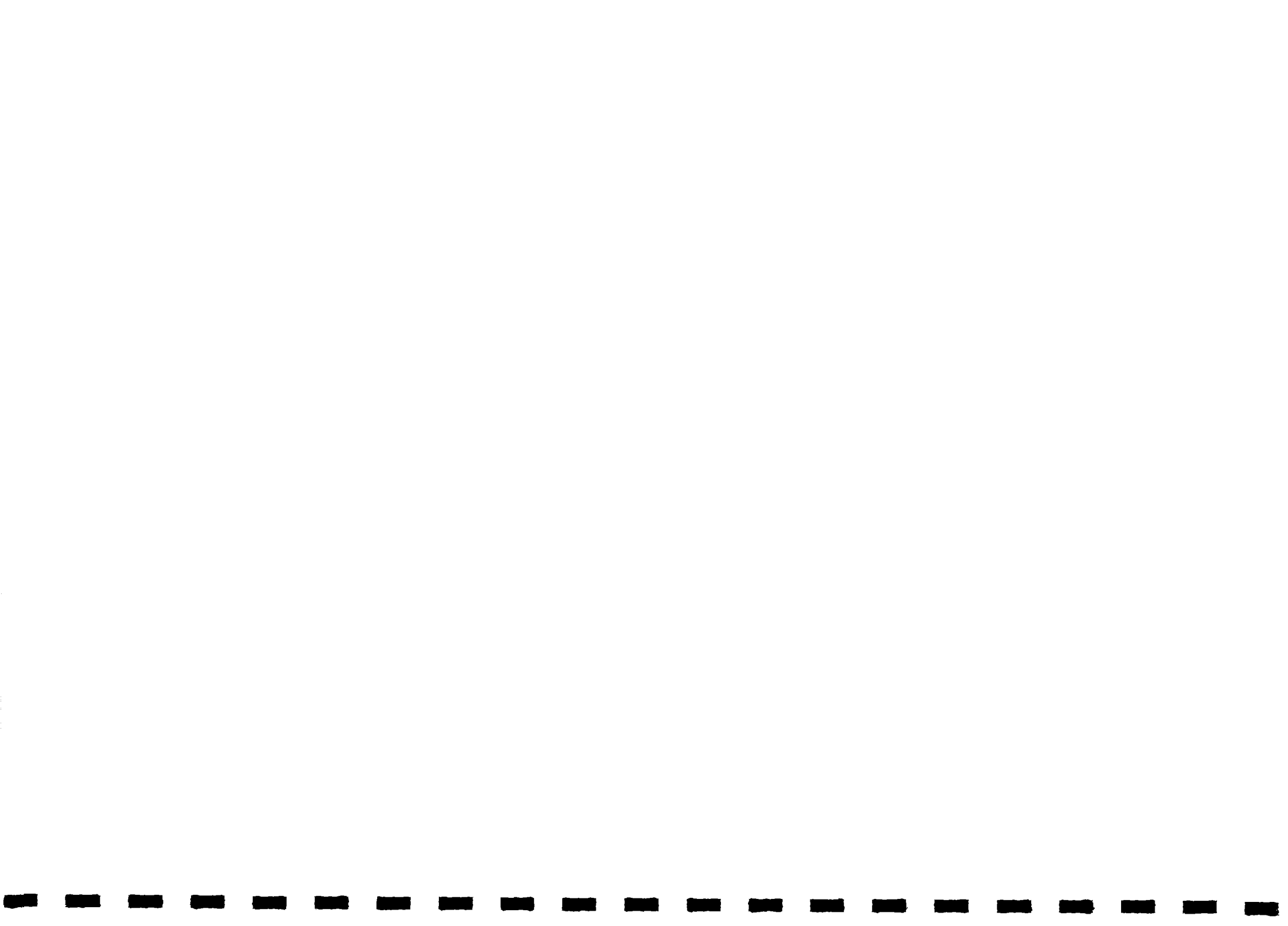
It was difficult to assess precisely the number of students who do not come to school, because they are working to earn money. The number of drop-outs from the school is also unknown.

Population of the village

Most of the people in the villages reviewed are farmers or weavers, in one village there are also fishermen.(R8) Many of the children help their parents with their work. The children in the schools are from different economic groups in the village. The teachers emphasize that the pupils do not make any distinctions due to caste or economic position, therefore there are no tensions. But in one school the teachers have had problems to mix students from two different castes.(R8) The parents who are farmers did not want their children to study with children from fishing families. The problems were solved when the mothers of the pupils, from both castes, were following a literacy course. The non-governmental organisation (NGO), which was responsible for the program, got to know about the problem in the school and discussed it with the mothers. Afterwards the teachers no longer felt any tension between the two groups of pupils.

Education for the adults in the villages

In most of the villages there have been literacy, self employment and health education programs. The health education program had concentrated on explaining environmental sanitation to the villagers. The result of the health programs could especially be seen in two of the villages(R3, R4,). In these villages the public environment was much cleaner than in the other villages.



3.2. Urban schools

School authorities and the finance of the schools

Most of the urban schools reviewed are supposed to be financed and directed by the Corporation of Madras (the municipality) (7 of 10). But the Corporation has very little money and therefore the schools cannot count on its authority for funds. Two of the schools have private management boards, which are directing and financially supporting the schools (U1, U7). One school is directed and financed by the Lions Club of Madras (U2). All these privately funded schools are provided with money when they need it.

The staff of the schools which are directed by the Corporation, think that the communication with the Corporation is poor. The teachers think they do not get any help in planning and organising hygiene activities of the school, such as providing facilities for hand-washing. Some teachers seem to be frustrated by the fact that they are left with the full responsibility for the school. A few teachers even appear to feel helpless in the face the hygiene problems of the school (U4, U8). All teachers know that the Corporation is lacking money, but they want to at least discuss if there are any alternative solutions.

Location and construction of the schools

Almost all schools are located in the busy centre of Madras. Half of the schools are situated in or nearby slum areas. Small houses or huts, made of coconut leaves, are located next to three schools (U2, U3, U8). The neighbouring people lack hygiene facilities, such as latrines and water supply. Therefore the school is an attractive place for them, to take care of their personal hygiene. The teachers think, they have to cooperate with the Corporation and the community to be able to do something about this situation, such as by building public latrines. (see further 4.1) The other schools are located next to small shops and streets with busy traffic.

Most of the schools are built of cement and are in a better condition than the rural schools. The urban schools seem



to be less overcrowded with pupils than the rural schools. One reason for this might be the shifts a few of the urban schools have. The schools have separated the pupils in one morning school(nine to twelve o' clock) and one afternoon school(one to five o' clock). All schools have a playground, which is surrounded by a cement wall. The compounds are usually dirty, with faeces laying next to the school wall. The compounds are in these cases, used as open-air latrines by the pupils and/or the local people(U2, U8, U10). A fence and a gate, which can be locked, are important for schools which need to stop the community members from using their facilities (U5, U7, U9).

Students and teachers

Most of the schools have a mix of boys and girls, who are in the age range of five to twelve years. One school is a boys school(U9) and another one is mainly a girls' school(U5).

The number of pupils in the schools ranges from about one hundred to seven hundred. Most of the schools have five to six hundred pupils. There is usually one teacher per seventy to hundred pupils. There is no difference in numbers of male and female teachers. All schools have a headmaster. The headmaster is in charge of organising the activities of the school, including those linked to hygiene education. In a few schools he/she comes to the school very rarely, which influences school hygiene. The teachers said in those cases, that since the Corporation does not intervene in the activities of the schools, the circumstances would probably not change.

Population of the people in the areas of the school

The people in the region of the school usually have irregular jobs. This means that the income of the pupils parents is very unstable, since most of them work as servants or daily workers(kuulis). The Corporation schools (as the Panchyat schools in the rural areas) are schools for poor families. The parents do not need to pay any fee for having their children in school. Since the noon-meal was introduced in the schools, a lot more pupils have started to attend.



The teachers have not detected any caste feelings among the students and their parents. The people, who all are very poor did not seem to make any distinction among themselves.

Conclusion

The economy of the local Panchyats and the urban Corporation is generally very poor. Therefore the schools, which have these two institutions as supervisors and financiers, usually have difficulties to get the hygiene facilities they are asking for. The situation has been like this for a long time and it does not seem to change. It is therefore important to find out whether there are other channels the schools can use to get funds for the hygiene facilities.

Another problem with the budget of primary schools of the Panchyat and Corporation, is the low priority hygiene facilities get. There is neither a State policy nor local policies that the primary schools should be provided with latrines. It is therefore difficult for the teachers to put pressure on the Panchyats and the Corporation to arrange hygiene facilities, like latrines. The Institute of Public Health confirmed that there is no rule that primary schools should have latrines, but that the rule is there for the high schools. This indicates an attitude of policy makers and decision makers, in Madras and surrounding villages, that latrines are not a necessity for the younger students. Whether they have considered hygiene and health problems in relation to this rule is not clear.

The number of teachers in the schools, seems to have an influence on the school hygiene. When there are very few teachers (three or less) in a school, they seem to have difficulties to organise the school hygiene activities. This is especially the case when they do not get any support from the other institutions linked to the school (Panchyat, parents). Usually the parents of the students are poor and are working most of the day. They lack hygiene facilities and they can not always look after the personal hygiene of the students. The teachers can therefore usually not expect any help with funds for things for the schools and sometimes they can not expect that personal



hygiene of the students is taken care of.

Urban schools, which are situated in very poor areas, and have hygiene facilities (latrines, water supply) are usually getting problems with the community. The problem is that the local people, do not have any hygiene facilities and instead they make use of the facilities of the school. The schools, that have a proper fence and gate, which can be locked, do not get any uninvited guests. This is the root of the hygiene problems of a few urban schools and needs to get attention in further studies.



Playground in an urban primary school



CHAPTER 4

HYGIENE FACILITIES AND OPERATION AND MAINTENANCE

Introduction

Availability of hygiene facilities and its operation and maintenance have a major influence on school hygiene, according to this study. Lack of latrines and sufficient water supply is not only affecting the actual hygienic standard of the schools, but it also affects the hygiene education activities. The factors influencing hygiene facilities are very complex. Therefore the text might be repetitive, but it is to ensure that the reader does not get the impression that one problem can be solved in isolation.

It has been suggested that schools with hygiene facilities and well organised and defined hygiene activities, have adequate school hygiene. But this is not the case in many schools, for a variety of reasons, which we will now look into.

4.1. Latrines in the rural schools

Availability of latrines

Half the schools have latrines for the teachers. In four of the schools with latrines for the teachers, there are also latrines for the pupils. But in two of these schools the pupils latrines can not be used(R3, R7). Thus two schools, of the twelve rural schools reviewed, have latrines which are functioning. The pupils in the ten other schools are defecating and urinating in the open air, such as on the play ground or on the roadside. How the teachers manage without latrines in six of the schools is not fully clear. In some cases they use the latrines of neighbours adjacent to the school or they go to their homes(R3, R7).

The two schools with latrines for pupils have separate latrines for boys and girls. There are approximately one to three latrines for the teachers. The number of latrines is not sufficient for the number of pupils, in one of the two schools.



Table nr 1. The four of twelve rural school with latrines for pupils

School	No of pupils	No of latrines	Works/ not
R1	1400	2	works
R3	125	1	does not work
R8	75	4	works
R7	284	1	does not work

In the school with 1400 pupils the latrines get dirty quickly and the pupils tend to use the compound instead. Another reason explaining why the latrines get dirty quickly, might be the infrequent cleaning of the latrines(once a week). In the school with four latrine sites for 75 pupils, the pupils use only the latrines.

It appears as if school staff and other people responsible for the hygiene facilities, do not consider the number of latrines per pupil to be very important. The teachers do not seem to consider latrines that are highly over used, to be a health risk. Instead the teachers seem to think that availability of latrines, ought guarantee good school hygiene. If this is ever to be the case, the cleaning of the latrines has to correlate to the number of users and frequency of use of the latrines, as in Enjambakkam school(R8).

Type of and construction of the latrines

Almost all of the schools with latrines have pour-flush latrines connected to a septic tank. One school has two twin-pit VIP latrines for the students(R8). The superstructures(see appendix 8) of the latrines are usually made of cement, but a few are made of brick. The roofs and doors are usually made of wood. The floors are made of cement(4 of 6) or of mud(2 of 6). The slabs are made of cement or of porcelain.(see appendix 8) The platform is mostly above ground level.

The two latrines, which had broken down were made of



brick. A tree had fallen on one of them(R3) and the other had more or less fallen apart(R7). It is not clear whether bricks is less appropriate, compared with cement, for building the superstructures.

Alternative sites

The pupils in schools with no latrines or with latrines, that do not work, urinate and defecate in the open air(11 out of 12). This means that the pupils use school compounds, playgrounds and/or road sides. The pupils are often found next to the school wall, as they can get some privacy there. But because most pupils go to this place there is a considerable amount of faeces and urine covering this area. This makes the pupils look for new places close to the schools. It is therefore not possible to define one place where the pupils defecate/urinate. They usually look for a place which is as private and clean as possible.

In all schools the pupils have access to water, which is used for anal cleansing. The problem is to carry the water to the spot they have chosen, since there are not many or any buckets to carry it with. It is not clear what the pupils do if they do not bring any water.

Nobody is responsible for cleaning these areas. In some of the schools there is a distinct stench of urine and faeces, the human excreta are left to slowly mix with the mud and grass.

The areas, which are used as open-air, are also walking and playing areas. The risk of catching water-borne diseases at these areas is therefore assumed to be high, like hook-worm(see appendix 7). Thus at almost 90 per cent of the reviewed schools exist a health hazard for the students.





Pour-flush latrine with water supply for the teachers(R6)

Use of the latrines

The teachers, who have latrines, seem to use the latrines neatly. Most of the teachers latrines and the pupils latrines in Enjambakkam are provided with water, which is placed in a basin outside the superstructure of the latrine. The water is used for anal cleansing and to flush away the faeces and urine. The water is essential for proper use of pour-flush latrines and in these schools the system seems to work, since water is always available. The ayas fill the basins regularly with water. Why is it that the latrines of the pupils in the other school are not clean? This school is also provided with a water basin outside the superstructure. However there appeared to be no water for anal cleansing and flushing. This results in faeces and urine, which the pupils do not flush away; filling the slabs. Therefore many pupils are using the compound. The reason why water is missing is not clear. It might be due to intensive use(1400 pupils) or that the aya does not fill the basin with a sufficient amount of water. This points at another factor which influences the hygiene of their latrines, the operation and maintenance(see page 29).

Some of the teachers with latrines and the teachers and pupils without latrines, complain about the distance to a water source. When they want to defecate/urinate they have to go to a water source, which is located about twenty meters away. Then they have to carry the water in a bucket to the place, where they want to sit. The teachers think some of the children decide not to fetch water, because of this inconvenience. It is not clear



what they use instead of water. But for the rest of the pupils and all teachers water is only used for anal cleansing.

In the school with proper pupils latrines (R8), the pupils are not supposed to defecate unless it is urgent. The intention of this rule is to decrease faeces in the latrines of the school. The mothers of the pupils were asked to ensure that their children defecate at home. After a while the students got used to emptying their bowels before coming to the school. The school staff are very pleased with the pupils, since the latrines are easy for the aya to keep clean.

In nine of twelve schools almost all pupils wash their hands after defecation. In the rest of the schools 50 to 80% of the students wash their hands, following the teachers. Only water is used for hand-washing.

Operation and maintenance of the latrines

The schools are cleaned by female cleaners (called aya). The majority of the latrines are cleaned once daily. Most of the teachers, who have been provided with latrines, are happy with the work of the ayas, since their latrines are clean. The ayas ensure that the latrines do not have any foul smells, hardly any flies and that the slab is shining.

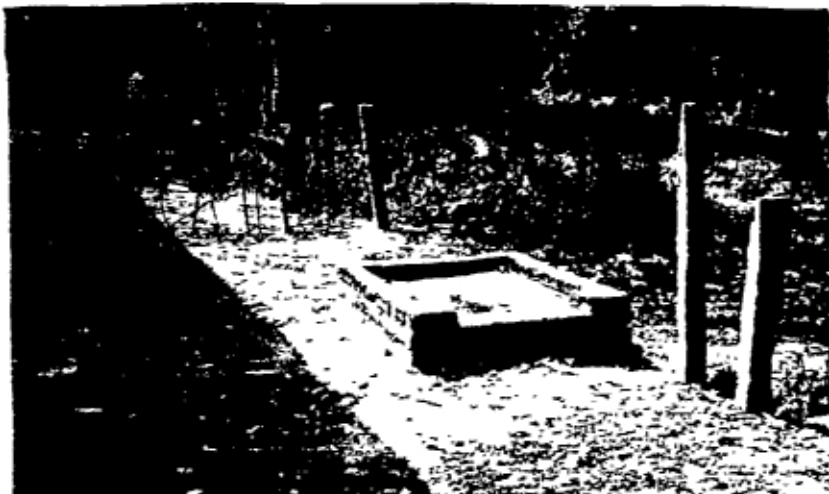
But in the school with 1400 pupils the cleaning of the latrines does not work at all. Even though the usage must be very intensive the aya only cleans the latrines once a week. The teachers think that the children should be able to keep the latrines clean themselves. The teachers hold the view that the pupils can flush away the faeces and urine properly after having used the latrines. But this is problematic, since there often is lack of water for the latrines. Why they did not ask instead the aya to come more often, did not become clear. In some schools the frequency of cleaning depends on the budget of the school from the Panchyat. Thus the Panchyat usually pays for the service of the aya. But in one school the teachers pay the aya with their own money (R4). These teachers think they get a better service, when they pay the aya directly.

The aya is responsible for the cleaning. It seems nobody



is responsible for maintaining the superstructure, roof etc of the latrines. This might be one reason to why nobody has repaired the latrines, that have broken down.

The pupils and teachers never participate in the operation and maintenance of the latrines.



Pupil's latrines(R3,R7)

Foot-wear

Almost half of all students walk bare-foot to school. These children are running a risk of getting infected by infectious worms as hook worms, from the mud(see appendix 7). But in four schools, which do not have latrines for pupils, the children are provided with chapels(open shoe). The teachers view this as a short-term solution, for the period until they get latrine facilities. In three of the cases the Panchyats have agreed to pay the cost of the chapels. The children, without chapels, in the remaining six schools, without latrines, are in danger of becoming infected.

The providers and organisers of latrines

An administrator at The Institute of Public Health explained, that there is no rule or policy for primary schools to have latrines. The budget for building a school does therefore not provide money for the cost of a latrine. There is however a rule for providing latrines in high schools. The administrator



explained, that younger pupils do not mind if there are no latrines, whereas older ones object.

Many teachers and headmaster have problems in arranging latrines for themselves and their pupils. Some teachers (R4) believe that if there had been a ruling that all schools must have latrines(see chapter 2), they would be able to convince the Panchyat to provide latrines for the pupils. As it is now the Panchyat can ignore the request for latrines from the school, which they also usually do, according to some teachers (R4). But some Panchyats and villagers have sponsored and built latrines, mostly for the teachers. They have probably arranged latrines for the teachers first, since their need for privacy is greater than the students.

The teachers in most schools, that are lacking latrines, are trying to convince their Panchyat, parents, Institute of Public Health or villagers to help them finance and build latrines for the children. Most of the teachers want to arrange latrines, to prevent the students from becoming infected by various water-borne diseases. Sometimes it seems as if the teachers want to become practically involved. As in one school where the teachers said, they were looking for funds for latrines for the pupils. But at the same time the teachers did not let the pupils use a couple of their own three latrines(R4). The teachers always mention a lack of money as a reason for the lack of latrine facilities. Even in the two schools where the latrines had broken down, the teachers said a lack of money was the problem. It seems the teachers have the opinion that if they get money, the problem of latrine facilities will be solved. But it has been made clear in three schools(R1, R3, R8) that also operation and maintenance of the latrines influence whether the latrines will be used or not.

Latrines at home

All teachers have latrines at home. The teachers expressed having latrines as being a necessity. Far from all the pupils seemed to have latrines at home. The teachers assumed that approximately 25 per cent of the parents of the pupils have latrines.



4.1.1. Latrines in urban schools

Availability and type of facility latrine

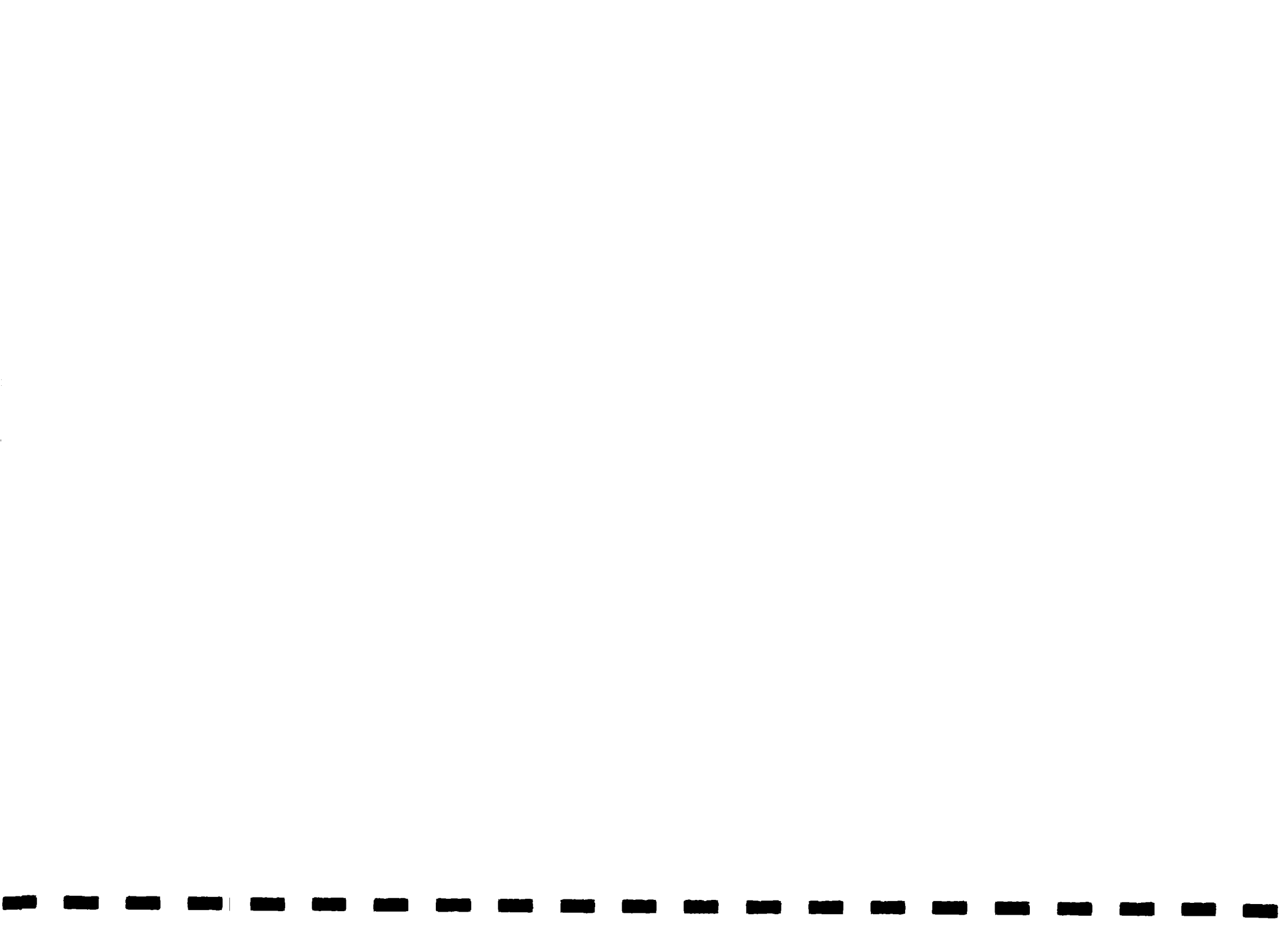
All the urban schools are provided with pour-flush latrines, which either are connected to the metro(city) sewerage or to a septic tank. All schools have latrines arranged for both the teachers and the pupils. All the latrines of the teachers are functioning. There are approximately two latrines for the teachers per school. The latrines of the pupils are functioning less well.

Table nr 2 Latrines for the pupils in the twelve schools

School	No of pupils	No of latrines	Works/not
U1	500	2 + urinal	works
U2	75	2	works
U3	762	8	works*
U4	633	2	does not work
U5	572	6	works
U6	479	4	works
U7	685	4	works
U8	320	8	are not used
U9	700	8 + urinal	works
U10	179	5	are not used

* the pupils between five and seven years are not allowed to use the latrines(see appendix 2, U3)

From the table we can see that in Perumbur(U10) there are five latrines for 179 pupils, but none of them are used. The latrines are locked and the pupils have to defecate in the open-air. While in Ayanavaram (U7) there are four latrines for 685 pupils, which are used by all pupils and the latrines are functioning perfectly. This seem to suggest that factors like operation maintenance, water shortage and the surroundings have an influence on the latrines. In most of the schools there are separate latrines for teachers and pupils(8 of 10). In half of



the schools the latrines are separated between boys and girls.

Alternative sites

The pupils, who can not use the latrines of the school, use the compound for open defecation. The pupils usually sit close to the wall/fence to get some privacy. This place has been used for squatting for a long time and the faeces are visible everywhere in that area. Therefore the pupils are starting to sit more towards the middle of the compound. Especially the younger children sit in the centre. On the compound of the Perumbur and Habibullah road schools the open-air latrine and the play ground are the same area. In these schools there are no water facilities available for the pupils. It is unclear what the pupils use instead of water for anal cleansing.



Pupils defecate in open air (playground), since latrines are filled with faeces(U8).



Playground is used for playing and as open-air latrine(U8).

Construction of latrines

Almost all of the superstructures of the latrines are made of



cement, only in one case it was made of wood(U7). The roof and doors in all latrines are made of wood. The floors are usually made of cement, more or less with a polished surface. One floor was made of mud. Usually the platform is above ground level(6 of 10). In general the superstructure of the latrines is in a good condition. In one school there is a problem, since the roof has come off the superstructure. It would cost 1000 rupees to repair it, but the teachers cannot find any funds.

Use of latrines

In more than half of schools the pupils can not use the latrines. In one school the number of latrines for the pupils is not sufficient, since the people from the neighbourhood are using the latrines(U3). There are eight latrines for 762 pupils. But since the community members use the latrines, the school staff has told, half of the pupils defecate in the open-air. In two other schools the teachers have locked the latrines, because of locals using them and because there is no water for flushing and anal cleansing(U8, U10). The consequences are that the pupils and the local people use the playground instead of the latrine. In three of the schools the operation and maintenance is so poor that the pupils also use open-air latrines, such as the roadside or the compound of the school(U1, U4, U6).

Many of the schools have a scarcity of water, which is making it difficult for the pupils to keep themselves and the latrines clean. This is especially the case in the Perumbur school (U10). The school has built a new latrine on five sites for 179 pupils, but they cannot be used due to lack of water. The reason is that the school has special opening times for taking water(6 to 9 am). Locals fetch water from the school, which the school staff tries to stop through locking the water pump. But the consequence is that the pupils do not have any water for anal cleansing or for flushing. Whether the teachers have access to water is unclear.

In the Nungambakkam school (U7) they have decided that the pupils shall defecate, in the latrines of the school, only when they really need to. The pupils are therefore supposed to



have been to the latrine, before they come to school. The headmaster said, that both teachers and pupils are happy with the situation as it is now. Earlier the latrines stank of faeces, before the aya came to clean them, a problem which they have now overcome.

Operation and maintenance of the latrines

The same kind of female servants, as in the rural schools, are cleaning the schools. The frequency of the ayas cleaning of the latrines varies between the schools. In three of the schools the aya is coming once or twice daily(U5, U6, U9). These are the schools, which have very hygienic latrines. The cleaning of the latrines in the remaining schools is not sufficient considering the intensive use by pupils and in some cases by community members. In these schools the latrines are cleaned about two times a week. In the period between the visits, faeces are collected in the slabs as well as on the floor. From these latrines there is spreading a strong stench of human excreta and there are plenty of flies.

According to the teachers, the ayas can not clean the latrines more often because of the lack of money for their salary.

In general pupils and teachers never participate in the operation and maintenance of the latrines. But there is one exception, which is the Nungambakkam school. When the headmaster came to the school ten years ago the locals were using the school compound as a lavatory and the hygienic conditions were very poor. The headmaster was determined to change the environment of the school, with the help of teachers and pupils. In ten years time the headmaster has managed to make the school neat and full of plants. The headmaster's overwhelming enthusiasm has spread to teachers, pupils the aya and the watchman. Together they are contributing to the cleanliness of the school.(see appendix 12)

Foot-wear

In almost all of the schools more than half of pupils are walking



bare-foot. The idea of promoting chapels to decrease the risque of hook worms is not established in the urban schools, like in the rural schools.

Latrines at home

All teachers and headmasters have latrines at home. Approximately 25 per cent of the pupils have latrines at home. The schools with proper latrines have the possibility to introduce the children to healthy behaviour. In this study it turned out that pupils appreciate using latrines. The pupils in schools with good latrine facilities said, that they want to have latrines at home.

4.2.1. Water supply in the rural schools

Availability and kind of water sources

All schools are supplied with water. Mostly the board of the school has provided the water supply. Either the board has asked the Panchyat for permission to use the public water or the board has arranged a private supply for the school.

Table nr 3 Kind of water sources in the rural schools

The water supply systems are ;

private well,	(R8)
private hand pump	(R6, R8)
private bore pump	(R5)
public hand pump	(R4, R3, R9, R10)
public water tank with tap	(R1, R11)
public tap water	(R7, R8, R12)
public bore pump	(R2)

(One school has three water sources(R8))

Fetching and storing water

The public water supply systems are usually within a distance of ten to fifty meters from the schools. The ayas are employed to bring the water to the school. The aya is usually responsible for storing the water, but sometimes also pupils and



teachers(very rarely) are bringing water and carrying it to the classrooms.

Both water for drinking and hand-washing is usually stored in vessels(5 of 12), buckets(2 of 12) or tanks(1 of 12). In a few cases the water is taken directly from the water source, as from the hand pump on the compound(3 of 12). The vessels etc are stored in the classrooms and in the cooking hut. In one of the schools the water is stored next to the garbage heap(five meters distance).

The drinking water is usually covered with something(8 of 12), such as an aluminium cover, a piece of wood or a stone. Sometimes the covers were missing or were only covering half of the hole of the vessel.

Drinking water

All schools provide the pupils with drinking water. One school is boiling the water before serving it(R8). Another school is filtering the water(R9). The water is filtered with a small technical tool, which is adjusted to the tap. The other ten schools serve water without boiling or filtering. There is a general opinion among the teachers that the water from the Panchyat is clean.

The pupils usually take and drink the water from the vessels with one mug. The mug does not have any handle, which often makes the students dip their fingers into the water. All pupils use the same mug(7 of 12). In the other cases the children are drinking directly from the taps or hand pumps, using their hands as a mug.

Hand-washing

In more than half of the schools the pupils wash their hands after defecation. Almost all pupils and all teachers wash their hands before/after eating, the teachers said. This is very important, since all pupils eat with their hands. In two of the schools with very many children(1070 in R11 and 1400 in R1), the teachers think not all pupils manage to wash their hands during before/after lunch. Their teachers think that there are not



enough facilities for washing hands, although all pupils are supposed to do it.

Hand-washing with teachers, who guide(R8).

Drinking water supply(R2).



Drainage system

In very few schools the water is drained away from the water source. The water is usually drained into the sand, mud or grass next water resources, such as handpump and well.

4.2.1. Water supply systems in urban schools

Availability and kind of water source

The main sources of water in urban schools vary from a well, a handpump or water tank. Most of the schools have a private water supply, but two of the schools rely on the public water supply system(U3, U6). Many urban schools usually have problems with water quantity, since there is not sufficient water in relation to the number of pupils. In some cases the community members also make use of the school's water supply system. In two of the schools the water supply systems are only open a few hours per day(U8, U10). The reason why the water sources are closed during the rest of the day, is that the schools want to stop the local people from using their water. The neighbouring people are otherwise coming to fetch the water, which disturbs the classes



at school.

Fetching and storing water

It is the aya and/or the pupils, who fetch(es) the water from the water supply and bring it to classrooms and cooking hut. Usually they take the water from the water source and carry it with an aluminium vessel. The water is poured into another vessel in the classroom and in the cooking hut. The aya or the pupils then cover the vessels with a cover, usually made of aluminium or wood. The covers seemed to be properly placed on the vessels in the urban schools.

It is usually the older pupils, who help the aya with fetching and storing the water. The pupils did not seem to have any resistance against doing this work.

Drinking water

In none of the schools the drinking water is boiled or filtered. One school boils its drinking water, but this water is served only to the teachers(U3). In three schools the pupils are told to bring drinking water from their homes. These three schools have shortage of water, which makes it difficult to regularly keep water in the classrooms. The pupils, who bring water, carry it in small plastic bottles with proper covers. It is not known whether the water is boiled at home.

In the rest of the schools drinking water can be fetched from a vessel in the classroom or from a hand pump or water tap in the school compound. In most of the schools the pupils take the water from the vessel with a mug. None of the mugs have handles, which means that everybody, who drinks the water probably will dip his/her fingers into the water. All pupils use the same mug. The risk of transmitting diseases is supposedly high, since many of the pupils dip their fingers into the water and/or touch the mug with their lips.

The other way of taking and drinking the water is directly from the water tap or the hand pump(U1, U7, U9). In these cases the pupils drink either the water with their hands or with a mug(U1, U7). In one of the schools there is more than



one mug provided. The pupils rinse the mugs under the taps before they drink from them.

Hand-washing

The rate of hand-washing among the pupils varies in the schools. But all the teachers say they always wash their hands before/after eating and after defecation. In most of the schools the pupils wash their hands before/after eating and after defecation(7 of 10). In the rest of the schools only a few pupils wash their hands after defecation (U3, U8, U10). The reasons why they do not wash their hands differ. In one school the water supply is not sufficient for the amount of pupils(U3). In the other two schools the pupils cannot wash their hands, since the water supply systems are locked. In Perumbur there is water provided in buckets for hand-washing and drinking purposes, but it is not sufficient for the number of pupils in the school. Although the hand-washing after defecation is poor in these three schools, the teachers try to let all pupils wash their hands before/after eating.

But it is not only in these three schools where the pupils have difficulties washing their hands. In one school the pupils have to take the water from a well, which is too high for most of the pupils. The pupils must therefore find the aya to help them fetch water from the well(U1). Even in Nungambakkam school, which has very good water facilities, the taps are still not sufficient when 600 boys need to wash their hands before/after lunch(U7).

In all schools where the pupils wash their hands, they use water, no soap or ashes. Some of the pupils said that they use these two cleansing products, together with water at home.

Pupils in some schools said, that they want to wash their hands, but it is difficult since water is lacking or the facilities are not easy to take water from.

Drainage system

In four schools the water is drained to some trees or to a kitchen garden. In the other schools the water is drained into



sand or mud surrounding the water supply system. In a few cases there are stagnated water ponds next to the water source(U4, U6). It was not known what the school or Corporation are planning to do with such problems.

4.3.1. Garbage disposal in the rural schools

Nature of garbage facilities

Most of the schools keep paper bins in the classrooms. The main garbage is usually kept in a dustbin on the outside of the school. The aya throws most garbage of the school in this dustbin, including vegetable left overs, papers etc. The dustbin is made of cement and is one by one meter. In three of the schools the garbage is thrown on the side of the road(R1, R2, R10). And in one school there is a pit in the ground, for keeping the garbage(R11).

Use of the garbage facilities

In most of the schools pupils and teachers use the paper bins and the dustbins neatly, which means that the garbage is collected at one spot. There is usually no garbage within the school compounds. But in some schools garbage has been thrown on the outside of the dustbin and therefore has spread around the dustbin. In some of these cases the dustbins have been full, but this has not always the case. Thus the dustbins are in a few cases not used properly, instead the garbage is thrown beside an empty dustbin.

In some cases it seems that the community is also using the dustbin or the school garbage area. It is not clear if this influences the conditions of the dustbin or garbage area.

Collecting and final disposal of school garbage

The aya and the pupils are usually collecting garbage in the school(8 of 12). The pupils in these schools are carrying the paper bins to the dustbin, roadside or pit, where they empty the bins. In a few schools the students also sweep the compound and classrooms and then throw the garbage in the dustbin. The pupils do this cleaning and emptying of bins in turns. There are



schedules for duties, such as sweeping the compound etc. Usually the pupils do this work in groups of about three to five pupils.

In 50% of the schools the aya is responsible for getting rid of the garbage. In five schools the garbage is burnt. Four of the five ayas manage to keep the areas around the dustbins clean, but in one case the area around the bin is full of garbage. The school with a pit has a clean garbage area.

In the rest of the schools, workers, employed by the Panchyat, fetch the garbage. In most of these cases the garbage area is very dirty(4 of 6). It seems that the tasks and responsibility of keeping the area clean have not been properly defined between the aya and the Panchyat workers. It seems that the Panchyat workers have to come more often or the aya has to burn the garbage when it is necessary.

The school which has a pit, for final disposal, has another way of getting rid of its garbage. When the pit is full of garbage it is covered with earth and a new pit is dug. The area of the pit is very clean. After the garbage has been kept in the pit for a certain period, it is used as manure. It did not become clear, who is responsible for the pit.

4.3.b. Garbage facilities in the urban schools

Nature of garbage facilities

The schools have usually paper bins inside the classroom. The garbage is later thrown in a dustbin or on the road side outside the school. The dustbin is made of cement and is one by one meter.

Use of the garbage facilities

The aya and/or the pupils(5 of 10) empty paper bins and collect other garbage inside the school compound. In two schools the pupils have taken the initiative to clean the floors of the classroom and to empty the paper bins(U3, U5). In the other schools the teachers were directing the cleaning of the pupils. Like in the rural school the pupils are following a schedule, which stipulates who is next to clean and take care of the



garbage.

The pupils seem to throw the garbage on the garbage heap, when they have collected it from the school compound and classroom.



Garbage spot next to the school building(rural).

Team of pupils, sweeping the school compound(U5).



Collecting and getting rid of the garbage

The aya burns the garbage(4 of 10) or the Corporation workers come to fetch it(6 of 10), when it has been put outside the school.

Compared to the rural schools there does not seem to be any difference whether the aya or the Corporation disposes the garbage. Only in 30 per cent of the schools, the garbage area is clean. The tasks of handling the garbage do not seem to be sufficiently defined. A few teachers believed that generally the Corporation, is failing. An example is how Corporation workers concerned with Thirumangalam school(U1) do not come as often as has been agreed upon. When the headmistress complained to the Corporation, they did not react. This has also been the case for other schools. It seems as there is a big gap in the communication between the schools and the Corporation, concerning this question. This might be one of the reasons, to explain why the roadside of the schools have garbage spread around the dustbin or the collection site.



Conclusion

The lack of latrines is often linked to a lack of money, but it is also linked to poor operation and maintenance. In most of the rural schools it is a question of a lack of funding. In these cases the school staff try to pressurise the Panchyat/ Corporation to arrange funds. It has been mentioned earlier how small the chance is that the Panchyat/ Corporation will give money for latrines. It therefore seems as the situation will not change before the schools find new channels for funds.

The second category of schools, which lack latrines, are those with a poor operation and maintenance. Often the tasks of the operation and maintenance are not defined, which leads to people thinking that others than themselves are responsible. Another common reason is that the frequency of cleaning of latrines is not in proportion to the number of users. This has several times lead to the closing down of the latrines, since they have been overfilled with faeces. The reasons, why the cleaners do not clean the latrines and dispose the garbage more often, may differ. Some schools lack the money for paying more frequent cleaning of the latrines or nobody is directly responsible for the organisation of the hygiene activities, which means that the problem is not identified. But the condition of the latrines is not only influenced by the operation and maintenance and lack of money.

The use of the latrines is also influencing the conditions of the latrines. In a few urban schools there is a major shortage of water, which makes it impossible to use the pour-flush latrines properly. These latrines have been closed down. Thus the schools do actually have latrines, but since there is a water shortage, they cannot be used. It is important to look at the reason, why the schools have this water shortage. The locality is using their water supply system. The schools want to avoid this and have therefore closed the water supply system. Most of the schools have latrines for the teachers, but not for the pupils. In further studies the pupils needs should therefore be looked into.



There is usually water for pupils and teachers in the schools. But the quality of the water is usually poor. Very few schools boil or filter the water. The water is often stored in vessels, which are not properly covered. When the pupils want to take water to drink, they usually dip their fingers into the water. There is usually nobody responsible to guide and look after the pupils, to ensure that they make proper use of the water.

How the garbage is taken care of is usually a question of organisation of people involved in the operation and maintenance. In the rural schools it is indicated that, when the aya alone is responsible for operation and maintenance the latrines and garbage area are usually clean. This relationship could not be found in the urban schools. The operation and maintenance are equally poor when the aya alone, as well as the aya and the Corporation workers take care of the garbage.

Pupils are often participating in collecting and disposing garbage. This is one of the few activities where the hygiene education of the pupils is linked to the hygiene facilities of the schools.

The pupils seem to appreciate the active participation in the hygiene activities. In some of the urban schools the cleaning is at the initiative of the pupils themselves. None of the pupils, who were interviewed, complained about having to clean and empty garbage. Instead they said that they want to have a clean school. It has therefore been shown with these activities that a positive attitude towards sanitation and hygiene can be developed with simple and inexpensive methods.

Very few teachers are participating in the operation and maintenance of the hygiene facilities.



CHAPTER 5

HYGIENE EDUCATION IN THE SCHOOLS REVIEWED

Introduction

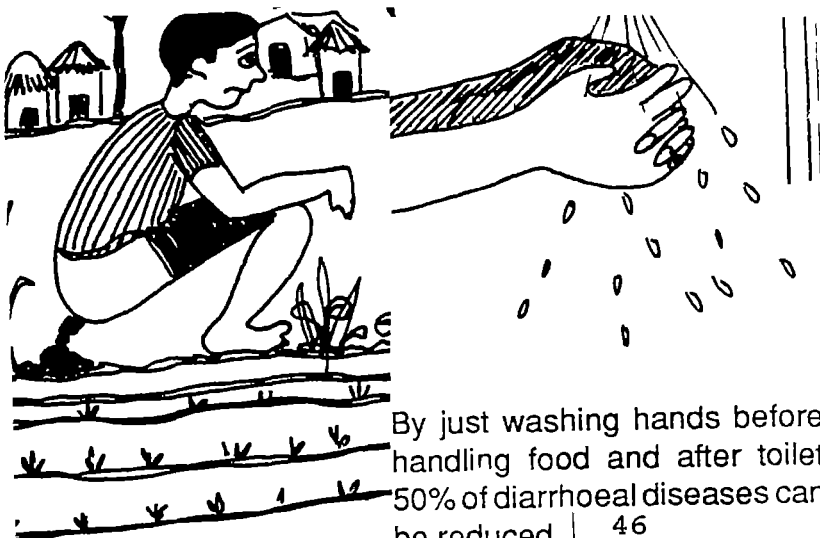
Hygiene education has been defined as all activities aimed at encouraging behaviour and conditions which help to prevent water and sanitation related diseases. (9, Boot) To have a successful hygiene education it has been explained that technical facilities, operation and maintenance and the hygiene education shall be linked with each other. During the field study we tried to find out to what extent the hygiene education in the school prevents the pupils from catching these diseases and if/how the hygiene education is linked to the hygiene activities.

5.1. Hygiene education in the rural school

Hygiene education

All the schools reviewed teach issues on hygiene education. It is an obligatory subject in the curricula of all schools. The hygiene education is mostly taught as an independent subject, but in some cases it is integrated in other subjects, like Tamil or Science.

Environmental sanitation and personal hygiene are the most central issues of the hygiene education in the rural schools. Environmental sanitation is explaining the relations between hand-washing and prevention of diarrhoea, eating outside food and diarrhoea and open-air latrines and risk of hook worms (see appendix 7).



Education material
for pupils in
primary schools.

By just washing hands before
handling food and after toilet
50% of diarrhoeal diseases can
be reduced. | 46



A few schools link hygiene education with hygiene activities at the school. Examples include schools where the pupils are explained why they should wear chapels (since there are faeces on the ground) and the teachers see to so the pupils really wear chapels. But in general the content of the environmental sanitation issue is not linked to the practical situation and therefore cannot be practised by the pupils in the school. (see Practical hygiene education, page 36)

The topic personal hygiene describes the importance of a daily bathing, tooth-brushing, clean clothing and cutting nails etc. It is especially this information, which the teachers pass on to the parents, since these are activities which are mainly done at home. This topic is almost hardly ever linked to the hygiene activities of the school.

The teachers are responsible for teaching the subject in school. In five of the schools the teachers are supported by the parents-teachers association for planning the hygiene education. The parents and the teachers usually meet once a month. The parents of these schools are supposed also to teach the pupils at home. In one of the schools the teachers get help from health workers to teach the pupils about personal hygiene and environmental sanitation.

It seems the hygiene education is usually taught by conventional methods, whereby the teachers lecture to the pupils about unhygienic conditions and how they can be prevented. The pupils are supposed to listen to the teachers and answer questions. The hygiene education as such does not seem to be practical nor active. (See further Hygiene education and hygiene activities) One school is teaching hygiene with alternative didactic methods, such as drama and music(R8).

Material and methods of teaching hygiene

The most common material used in the hygiene education are books, charts and posters. (see appendix 9) A few schools do not have separate books on hygiene, instead the information is taken from a chapter of another book, on Tamil or Science. One school borrows books from a library of a nearby NGO(R2). Some schools



have films and tapes as additional information channels(R1, R6, R8, R12).

It seems that the type of material a school has, depends on the financial sources of the school. The audio-visual material some schools possess are provided by the headmasters or the parent-teachers association. It seems the schools, which are only funded by the Panchyat cannot afford this type of material. Many of the teachers are dissatisfied with their hygiene material. Teachers in Mangadu(R5) think that they could teach the children more, if they would have audio-visual material to teach with. The teachers often express the need of more material to be able to improve the hygiene education. Though many of them manage to have a creative hygiene education without a lot of material. An example is the school in Thandalam (R3). The teachers think they lack material for the hygiene education. But their pupils are very much involved in the hygiene activities and the pupils are told why they are participating. This might be an indication that the teachers generally consider the theoretical part of hygiene education as more essential than the hygiene activities.

Teachers knowledge of hygiene education

Most of the teachers have learnt about hygiene during their teachers' training(10 of 12). In five of the schools the teachers have also received extra training. The teachers followed courses about health, in which information about hygiene is integrated. The courses have been given at the Institute of Public Health. The courses usually last ten to fifteen days and the teachers are paid for coming. All the teachers have been satisfied with the course and they want to follow more of them.

The effect of the hygiene education of the teachers on the general hygiene of the school is not clear. Those schools with teachers who have followed several courses, do not have a better hygiene than other schools. On the contrary it seems that these schools with teachers, who have not had any extended training, have the best hygienic conditions(R1, R3, R8). This can be interpreted as an indication that, for the contribution to hygiene in the schools, the teachers attitude and motivation are



more important than their theoretical knowledge.(see chap. 6,)

There are some signs however teachers without training in hygiene lack knowledge about the causes of water-borne diseases. The example being the school in Mowlivakkam(R11). Where the teachers did not know of the possible causes of these water-borne diseases. Thus some knowledge is essential for any contribution to hygiene. But other factors have an influence on what the teachers do with their knowledge(see chapter 6).

Practical hygiene education

In most of the schools the pupils are involved in some hygiene activity, such as fetching water(2 of 12), washing their own plates by a handpump or other water resource(12 of 12) and/or emptying garbage bins(8 of 12). In a few schools the teachers are guiding the pupils. But in most schools the pupils have to manage on their own. It seems that these pupils also take good care of such activities. It is therefore assumed that the pupils take responsibility for the hygiene activities they are involved in.

The hygiene education is usually indirectly linked to the hygiene activities. It is assumed that the hygiene education can be linked much more to the practical activities of the school.

There are many hygiene activities of the school which could be improved, through explaining to the pupils how they could achieve a hygienic behaviour. An example is the way the pupils take and drink water from the vessels. It has been detected that they often dip their fingers into the water. With information and a few simple improvements, such as a mug with a handle, this procedure could become more hygienic. Usually the hygiene education material give examples of how to make these improvements, but it has not been put into practise in the schools reviewed. It seems therefore as many teachers have not realised yet the potential of changing certain practises in contributing to school hygiene.

Another important reason why the hygiene education is not practical is the lack of hygiene facilities. Many pupils cannot take care of operation and maintenance, since the



facilities are very poor or are absent. Thus in many schools the hygiene education becomes pragmatic. The teachers have to speak in "if terms", as "if you have a latrine you should maintain it like this".

The pupils seem to enjoy taking part in the hygiene activities, such as cleaning the floors and washing plates. There is usually laughter during these activities, when the pupils take care of them. It is therefore assumed that it ought not be a problem to make the hygiene education more practical, as far as the pupils are concerned. Some pupils, who were interviewed, said they are pleased that the schools environment is cleaner now.

The teachers teach about how contaminated water/mud leads to different diseases. But many of the schools do not provide the pupils with the facilities they are taught to use. An example is how pupils usually are aware that they should not drink not boiled water. But most of the schools do not provide their pupils with boiled water(11 of 12). The link between the hygiene education and the activities is essentially missing in many of the rural schools reviewed.

Teachers teaching parents hygiene

In a number of schools the parents are also taught about hygiene. The teachers want to involve the parents because they have the main influence on the children's behaviour. The parents are taught about hygiene during the monthly parents-teachers meeting. The parents are taught personal hygiene and environmental sanitation just like the pupils.

The teachers say that, most of the parents are interested in taking responsibility for teaching hygiene at home. But many of the parents do not have time to do so.

Pupils opinion about hygiene education

All pupils who were interviewed find the subject hygiene education interesting and/or important for themselves to learn. Even the young pupils are aware of the effects of good hygiene behaviour and are trying to follow the instructions of the teachers. When asked all pupils wanted to learn more about



hygiene. The pupils also gave many ideas of how they can contribute to the hygiene of the school, such as helping to clean the school.

Pupils practising their knowledge about hygiene

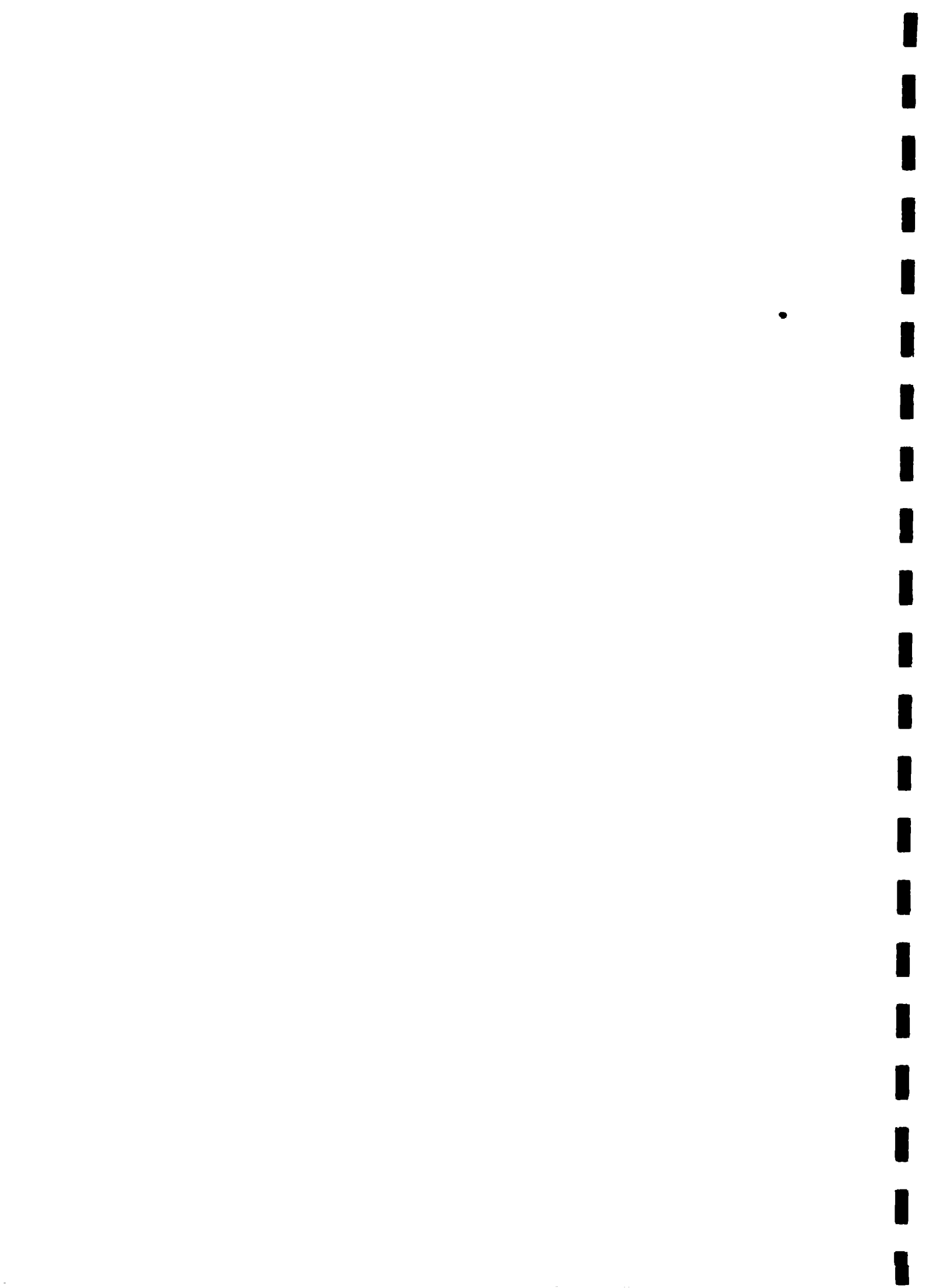
The pupils seem to have learned about the effects of poor sanitation, water-borne diseases and prevention of the diseases. In one school, with good hygiene facilities, the pupils are making use of the facilities in a proper way(R8). The hygiene facilities are the same as the teachers teach the pupils to use to have a hygienic behaviour. But the other eleven schools not have appropriate hygiene facilities compared to the hygiene education the pupils receive. Therefore the pupils cannot put their knowledge into practise. The pupils said that they want proper latrines both in school and at home(R1, R3, R7). Thus it seems they have the motivation to use the facilities, but that they are often hindered from doing so.

5.1.2. Hygiene education in urban schools

Hygiene education

The hygiene education is an obligatory subject in the urban schools, as in the rural schools. Though teachers of one school said that, it was their choice to teach hygiene(U4). It is not clear to what extent the teachers determine the design of the curricula in general. But they seem to have some influence, since the hygiene education is given in different ways. It can be a separate subject, a part of another subject like Environmental Sanitation or can be integrated in all subjects, such as reading stories about hygiene during the Tamil classes.

The teachers and headmasters are responsible for teaching hygiene to the pupils in all schools. In a few schools the school staff is planning and organising hygiene education with the parents(U3, U4, U6). Some of the other schools like Perumbur (U10) and Thirumangalam(U1) wish that the parents could help teaching the pupils hygienic behaviour. The teachers in the two schools think that they can not encourage personal hygiene among the pupils, without the support of the parents.



The most important issues of the hygiene education are personal hygiene and environmental sanitation. In a few schools the environmental sanitation has got such a strong status that it has become a subject of its own. In the classes of environmental sanitation, issues such as contamination of water, spreading of diseases through animals and insects and appropriate methods to prevent such diseases are discussed. In a few schools this information is linked to the hygiene activities of the school(U5, U7, U9). An example is how the students are told why they should wash their hands and the teachers follow up the hand-washing activities.

The second issue, personal hygiene, is concentrating on the hygiene of the pupils. They learn how, when and why to brush teeth, take a daily bath etc. A few schools have problems with the contribution to the pupils' personal hygiene. Many of the pupils do not have the possibility of taking a daily bath at home, since they lack water facilities. In these schools the teachers especially want to cooperate with the parents to contribute to the pupils' hygiene behaviour.

Material

Half the schools use books and charts as teaching material for hygiene.(see appendix 9) The rest of the schools use audio-visual material such as tapes, radio and film. One school, which is lacking material, let the students make the material themselves, as charts(U8). In one school the students learn about hygiene through drama(U5) and in another school they play games, which have to do with hygiene(U7).

The teachers, which only have books and charts were expressing their need of more types of material. The teachers think that the lack of money was limiting the hygiene education. A number of teachers are therefore looking for sponsors to fund the material.

Teachers knowledge of hygiene education

All teachers got training in hygiene, during their training. More than half of the teachers were also given extra training



(6 of 10). The follow-up training lasts for ten to fifteen days. All the teachers were paid during the course. The teachers are pleased with this course and they are asking for more courses of this kind. The teachers believe that new diseases, as well as preventive methods, are discovered regularly. Therefore the teachers want to be more up-to-date with what is happening within the area of hygiene and sanitation. Many of the teachers said that they would follow courses on hygiene, even if they are not paid for it. This is seen as an indication of high motivation among the teachers to learn about hygiene.

But the hygiene education, which the teachers get, does not seem to teach them how to create a practical hygiene education for the pupils. According to the teachers, the education they get is theoretical. This might be one of the reasons why the teachers do not link the hygiene education more to the hygiene activities of the school.

Hygiene education linked to hygiene activities

In almost all schools the pupils participate in at least one hygiene activity, like washing their plates after the noon-meal. And in a few schools the hygiene activities are integrated in the hygiene education. In these cases the pupils are divided into teams, and are given a schedule for cleaning the floors, emptying garbage and fetching drinking water to the classrooms (U3, U5, U7, U9). The pupils seem to be proud over their participation in the hygiene activities and they perform their tasks seriously. The teachers believed that the pupils are enthusiastic in doing these activities. In one school the pupils are less involved in the hygiene activities, since they are quite young. But they are nevertheless washing their own plates after the meal (U2).

But there is one school, which does not have any hygiene activities for the pupils (U8). This school has very poor hygiene conditions. The pupils cannot use the latrines and the water supply system is open only a few hours per day. The teachers find it therefore difficult to let the pupils participate in hygiene activities. It seems to be very negative for the pupils, that they can not learn a practical way of handling these poor



hygienic conditions. Simultaneously the pupils are taught how to in general avoid out-side food, not boiled water and eating with unwashed hands. The hygiene education and the actual hygiene behaviour of the pupils in this school is therefore contradictory.

Teachers teaching parents about hygiene

Half of the schools have managed to involve the parents in promoting hygiene among the pupils. The schools have reached the parents either through parent-teacher meetings (U3, U7, U9) or through medical camps(U2, U10). In these schools there is communication between the parents and the teachers on how to improve the hygiene of the schools. Whether it is thanks to the teachers or to the parents, that the parents are engaged in the activities is difficult to say. It would appear that those teachers, who have introduced the parents with practical programs, have managed to interest the parents. The frequency with which parents are coming to the information meetings or medical camps, depends on how much they have to work.

Pupils opinion about the hygiene education

The pupils who were interviewed said they like to learn about hygiene. Most of them think the subject is important and they try to follow the instructions of the teachers. The paradox of the situation is that the schools often are unable to provide the pupils with the basic facilities they need for conducting safe hygienic behaviour.

Conclusion

It is indicated that a practical hygiene education is depending on the availability of hygiene facilities and the attitude of the teachers.

Schools with hygiene facilities, such as latrines and garbage facilities can tell the pupils what and how to do and follow up the activities. Schools, which are lacking essential hygiene facilities such as latrines, tell the pupils how to keep themselves from catching diseases. But at the same time the



pupils are left to defecate in the open air, which they are taught not to do.

However possibilities the teachers and headmaster see for making the hygiene education of the pupils practical also depends on the attitude of the teachers towards school hygiene.

It seems to be essential that the teachers have an understanding of the pupils socio-economic background, to be able to give a useful hygiene education. In the cases where the teachers do not understand the pupils hygiene behaviour, they can not inform the pupils properly.

The pupils seem to be interested in the hygiene education. Pupils, who are involved in the hygiene activities, seem often to come up with new ideas how to contribute to hygiene. It is therefore indicated that the practical activities make the pupils think in terms of how they can contribute to hygiene.

It has been indicated, that teachers, who included the parents in the hygiene education see a progress in the personal hygiene of the pupils. Thus including the people outside the school in the hygiene education can have positive effects on the school hygiene.

The hygiene activities the students usually take part in are not seen as actual hygiene education. This is because there is no actual link in most schools between the theoretical education and the hygiene activities. Only a few schools, show examples of genuine practical hygiene education. The Nungambakkam (U9), Ayanavaram(U7) and Enjambakkam(R8) schools are examples of how the hygiene education can contribute to hygiene behaviour of the pupils. There are certain factors however, which are of good standard in these schools, such as proper hygiene facilities.

Some schools with few facilities have nevertheless managed to create an active hygiene education, as in Valluvar(R1), Thandalam(R3) and South Boag road school(U3). None of these schools have proper latrine facilities and one of them also has shortage of water(U3), but still the schools have a practical hygiene education. Thus hygiene facilities have an influence on the hygiene education, but it need not determining the practicality of the hygiene education. Factors such as the



attitude and motivation for school hygiene of the teachers, also play an important role.



CHAPTER 6

ATTITUDE AND AWARENESS OF SCHOOL HYGIENE AMONG TEACHERS IN THE SCHOOLS REVIEWED

Introduction

In this chapter the attitude and the awareness of teachers towards school hygiene, will be described. Schools, have been found, which have the same poor hygiene facilities and the same poor finance for the school, but they have had different kinds of hygiene education and school hygiene. It has been indicated that one important factor influencing these variations, is the way the teachers handle school hygiene. The teachers organise the hygiene activities differently, some find short-term solutions to the lack of facilities and some bring out the hygiene education in a practical way, even though the hygiene facilities are lacking.

But the attitude of the teachers seems to be influenced by different factors and these factors increase or decrease the attitude towards making school hygiene work.

6.1. Attitude and awareness among teachers in the rural and urban schools

The way the teachers see and handle the hygiene issues of the school is supposed to be based on their attitudes (defined as, a way of perceiving subjects for a long period of time). It seems that the actual training in hygiene has less importance, for the way the teachers link hygiene education to hygiene activities. There are schools where the teachers have had very little training in hygiene, but still have practical hygiene education (R1, R3, R11, U3, U9). It is therefore assumed that depending on the attitude towards school hygiene, the teachers do teach the pupils. Depending on how the teachers think the pupils best can learn about hygienic behaviour in the school, the education will be active or passive.

It has been indicated that different factors influence the attitude of the teachers, like availability of hygiene facilities and support from other institutions in contributing



to school hygiene.

The availability of hygiene facilities has an effect, since the teachers see different possibilities for the pupils in participating in the hygiene activities. Teachers in schools with very few facilities, tend to think that the pupils only can participate in few activities. But there are exceptions. One school, whose hand pump is only open for a few hours, collects water in barrels for the pupils to use while washing their plates. Another school with the same opening hours, lets the aya wash all plates instead. It is indicated that schools with few hygiene facilities can let the pupils participate in hygiene activities, only if the teachers see a possibility of organising it. The teachers can arrange this if they organise the activities together with the people, who are involved with the school hygiene, such as the aya.

The support(advice/finance) from other people, as the Corporation/Panchyat, Institute of Public Health and parents seems to have an influence on the attitude of the teachers. If the teachers get support from any of these groups, they seem to be more motivated to contribute to the school hygiene. It is assumed that, since these teachers get feed-back for what they do, they feel motivated to continue contributing to the school hygiene. It was indicated in a few schools, where the teachers do not get support from any group, that they feel left with all the problems. As a result of this the teachers seem to be overwhelmed of hygienic problems, which they cannot resolve.

The teachers participation in the hygiene education

Most of the teachers are aware what needs to be done within the schools to make them hygienic. Many teachers are concentrating on looking for funds to buy facilities, trying to convince the Panchyat to help the school and/or organising the hygiene activities of the school. But in none of the schools the teachers are directly contributing to the improvement of garbage facilities, water supply system etc. All teachers speak about the necessity of the students participation in hygiene activities. But usually the teachers do not involve themselves in cleaning



etc. It is not clear if the teachers nonparticipation has anything to do with their values of cleaning, taking care of garbage etc. The teachers explained it, as a question of work delegation in the schools. Teachers do not sweep and sweepers do not teach. But in one school teachers and headmaster participate in the cleaning of the school(U9). The intention behind their participation is to function as models for the pupils. The teachers explain why and how the pupils should have a hygienic behaviour and they give examples themselves of hygienic behaviour. There are therefore possibilities to make the hygiene education very practical, but then the teachers and headmaster need to be motivated.(see appendix 10)

Motivation and creative solutions for hygiene among teachers

There have been a few school staffs, which have had a special motivation for school hygiene. The Nungambakkam school is one example(U9). The hygiene education in this school is creative and the teachers are looking for effects, which will enforce the hygiene behaviour of the pupils. The teachers and headmaster have among many things encouraged the pupils to bring plants from home. The school is therefore all green and the pupils take a lot of interest in their school compound(see page 60).

The school has also employed a watch man to guard the school from strangers during closing times. Since the school is situated close to a slum area it is feasible that the people from the slum will try to use the water facility and/or latrines. The headmaster pays the watchman.(see appendix 10)

There are many schools which would like to solve the problem with the community like the Nungambakkam school has done. Why they have not done so, is not fully clear, but one reason is the lack of money for a salary.



The green and clean
Nungambakkam school(U9)



The teachers understanding of the pupils' socio-economic and cultural background in relation to hygiene

A few teachers do not seem to be aware of the difference of their own economical status and that of their pupils. In one of the schools the headmaster was talking about parents that do not understand how to keep their children clean. This school has a rule that the pupils shall come with clean clothes. When the pupils come with dirty clothes, they are sent home. There are other ways of handling this kind of problem, as for instance the teachers in Nungambakkam school do. They have the same rule, but when the pupils come with dirty clothes to this school the teachers first ask why. The teachers in Nungambakkam said, that usually the answer is that the mother is working and cannot wash the child's clothes. These teachers are aware about this fact and they therefore suggest that the children go and wash their own clothes. Thus depending on the approach of the school staff towards the hygiene of the pupils, the teachers can contribute to the hygiene behaviour of the pupils.



Indicated cultural norms of the locality, which have an influence on the school hygiene

A few of the urban schools have problems with the community members, who are defecating on the school compound. One of the reasons why the locals defecate on the compound, might be their habit of doing it in this way. Many of the people in the slums are urbanised farmers. These people from the countryside are not used to public latrines nor to any latrines at all, according to an administrator at the Institute of Public Health. Therefore they search for an open area, where they can sit and squat early in the morning and in the evenings. The schools are at these times empty, therefore the farmers can use the compound as latrine. A mother who was interviewed said, that it is mostly the men and children who defecate on the school compound (U10). The ladies go to a public latrine, since they prefer more privacy. Thus the hygiene of the school is closely interlinked with the locality and its habits.

Conclusion

It is indicated that school hygiene is highly influenced by the motivation of the teachers to contribute to the hygiene. Schools have been found where the hygiene facilities are very poor, but where the operation and maintenance is so well organised by the teachers that the hygienic conditions reach a fairly good standard. It seems that this is not a question of the specific skill of teachers, but rather of an interest of the teachers in school hygiene. But it has also been indicated that there are factors, which influence this interest.

In schools where the teachers do not get any support from other institutions in their work, their interest for school hygiene seems to be suffering. But in schools where the teachers can delegate the work and take responsibility for different tasks, the organisation of school hygiene is functioning.

Schools with few or no hygiene facilities have usually less practical hygiene education, since the idea of the teachers is that the pupils cannot participate in the hygiene activities when the facilities are lacking. But in a few schools it has been



proven that this does not need to be the case, since there are alternative ways of solving the hygiene problems.

The training in hygiene of the teachers does not seem to influence the hygiene education very much. Not all teachers, who have followed several hygiene courses, give practical hygiene education.

It seems that most of the teachers have something against directly participating in hygiene activities, since hardly anyone of the teachers participate in cleaning, fetching water etc.

Teachers with a good understanding of the pupils socio economic background seem to be able to give more relevant hygiene education than those without this understanding. It seems to be important that the teachers try to put themselves into the shoes of the pupils. Pupils, who are punished for not having the proper hygiene behaviour (in the teachers eyes) are assumed to lose interest in the hygiene education.

In some schools there are tensions between the teachers and the locals. This is the case in schools, where the locals use the hygiene facilities of the school and the teachers try to stop the locals using the water supply and latrines. This has then been met with protests from locals, who think that the teachers only tell them to stop but do not give any alternative solution.

It is important to remember that hygiene behaviour is related to habits and values. It has been indicated that the males, who have moved from the countryside to the cities, prefer to defecate in open-air instead of public latrines. They want fresh air and places where they are not disturbed, which the compound of the school is providing when the school is closed. To be able to stop their use of the compound relevant alternatives and information need to be offered to them, to solve the problem.



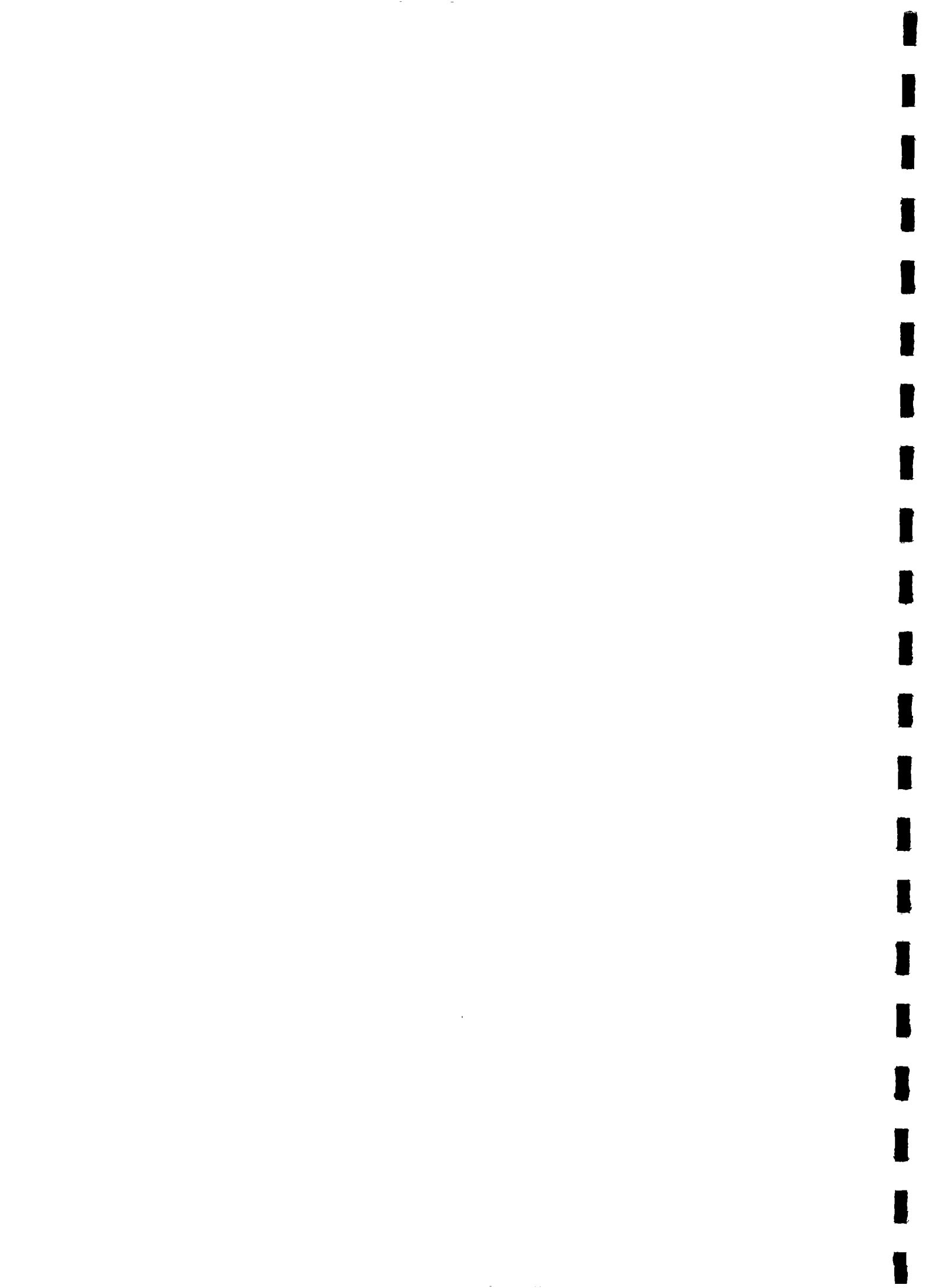
CHAPTER 7

CONCLUSION

7.1. Indicated key-elements of school hygiene in the schools reviewed

The result of the study shows that proper school hygiene depends on four key-elements in particular: proper hygiene facilities, a well organised operation and maintenance of the facilities, a positive attitude towards school hygiene among the teachers and a practical hygiene education. These four key-elements have been identified as the appropriate conditions of each of the four selected areas of school hygiene, for the development of proper school sanitation and effective hygiene education activities. For the development of proper school hygiene there should also be specific links between the four areas. These links are: 1. availability of proper hygiene facilities for an efficient practical hygiene education, 2. proper operation and maintenance for the sustainability of proper hygiene facilities, 3. involvement of the teachers in organisation of operation and maintenance and 4. a participatory approach of the teachers in practical hygiene education activities with the pupils.

The schools Nungambakkam(U9), Ayanavaram(U7) and Enjambakkam (R8) are examples of schools, where such appropriate conditions and specific links exist. Imagine three schools where there are latrines which are clean, there are no excreta on the school compound, there is sufficient water for the pupils, the garbage is properly collected and disposed of, the pupils put into practice what they learn during the hygiene education classes and they are involved in operation and maintenance, the teachers act as models for hygienic behaviour and they try to solve potential problems to contribute to school hygiene and the pupils' hygienic behaviour. One essential link between these conditions is the availability of latrines which makes it possible for the pupils to practise the hygiene education they receive and another important link is that the teachers are very much concerned about the operation and maintenance of the hygiene facilities.



It seems worthwhile to pose the question "What contributes to the high hygienic standard of these few schools?". Whereas the other nineteen schools reviewed do not have good hygiene and the pupils show less hygienic behaviour in the schools.

In the three schools having proper latrines and a functioning water supply system, some key-elements could be identified; 1. a financier, who gives priority to hygiene facilities in the school budget and 2. provision of latrines and water supply systems which correlates with the number of users. Availability of sanitary facilities is not only essential for the school because of its enormous influence on the general hygiene of the school environment, but also because good facilities influence the practicality of hygiene education for the pupils. This link is very important for successful hygiene education programme in the schools reviewed. Schools with poor hygiene facilities usually had limited hygiene activities, since the pupils were lacking facilities.

Operation and maintenance is an essential element for a sanitary environment at school. Proper operation and maintenance makes sure that the sanitary facilities are in good condition. This is another link which has a big influence on the school sanitation.

The way the sanitary facilities are being operated and maintained is very much influenced by the organisation of school hygiene activities, such as defining tasks for cleaning. The state of sanitary facilities seems to depend on how well the tasks of operation and maintenance have been defined for the people, especially in terms of who is responsible for what. Schools with a well organised operation and maintenance systems are usually those having teachers who enthusiastically try to contribute to the hygiene of the schools. Teachers who take interest in and organise operation and maintenance of the sanitary facilities, are strengthening the school hygiene. This is the third link, which I find to be of great importance for school hygiene in the schools reviewed.



Motivated teachers contributing to the hygiene of the school and to pupils hygiene behaviour, play a major role in development of school hygiene. A few teachers have managed to improve their school's hygienic standards with simple, practical solutions to hygiene problems. The solutions are hardly costing any money but are often based on team work among the teachers.

The basis for this positive attitude towards school hygiene is an interest in the matter, which most teachers have. What differentiates the teachers influence on school hygiene is their capability of putting it into practice. To enable the teachers to use their ideas in practice appears to require some important key-elements: a need of proper hygiene facilities and support with planning/organising of hygiene activities from some group, such as from parents, Corporation, Panchyat. The attitude of the teachers towards school hygiene does influence the activities of hygiene education. Teachers with a very positive attitude towards hygiene education look for alternative solutions, to involve the pupils in hygiene activities. Their intention being to strengthen the hygiene behaviour of the pupils. These teachers take also part themselves in the hygiene activities, which encourages the pupils to adopt hygienic behaviour. This is the fourth link, which has an essential influence on the school hygiene, in the schools reviewed.

The four selected areas of school hygiene, which have been studied, did not take into account the influence of the community on the school hygiene. It was found that factors outside the school can have a major influence on school hygiene. In schools where community members defecate/urinate, in school latrines or on the compound, the hygienic standards of the schools are considerably reduced. A few schools have actually good opportunities to create proper hygiene, but this has been hindered by the community members. It is therefore important to not only look into the hygienic problems of the school, but also of the community, when trying to contribute to school hygiene.



7.2. Recommendations for further studies on school hygiene in India.

It was found that a few key-elements and links between them, have a major influence on the school hygiene in twenty-two schools in Madras, India. In further studies and projects about school hygiene it might be valuable to focus on the following issues: provision of hygiene facilities, their operation and maintenance, support and help to teachers in order to contribute to the organisation of operation and maintenance and to find creative ways of involving pupils in hygiene activities. It is suggested that an experimental study is undertaken in a few schools where these issues are put into practice and where the results are studied/quantified.

Recommendations to the teachers in the schools reviewed, on how to contribute to school hygiene.

1. General

Define the most problematic sanitary conditions of the school and see what they as teachers can do to contribute. Develop a plan of action with short-term and long-term solutions of sanitary problems, such as promoting the distribution of chapels to the pupils, while simultaneously trying to provide latrines. Divide the tasks and responsibilities concerned with school hygiene for an effective development.

2. Operation and maintenance

Defining and coordinating the operation and maintenance of hygiene facilities, by discussing with the aya and those Panchyat/Corporation workers, whose responsibility it is to keep the garbage spot clean.

3. Hygiene education

Arrange for the pupils to put into practice the hygiene education they learn in the classroom, such as sweeping the compound. The teachers can try to improve tools, which are



used in hygiene activities through simple means. An example is to provide one mug with a ladle to prevent that the pupils dip their fingers into the drinking water. The pupils can develop educational tools, such as paintings which show the links between unsanitary conditions and water-borne diseases. These can be used while informing the parents about hygiene.

4. Parents and community

Informing and involving the parents in contributing to hygiene, especially concerning the personal hygiene of the children. Discuss with the community members about the sanitary problems and involve them in the school's sanitation.

Recommendations to policy makers, who work with school and hygiene issues in Madras and Padappai block.

1. Investigate the sanitary problems, develop guidelines for schools and make a policy statement about latrines. Look critically at the operation and maintenance and make sure that somebody is employed to regularly clean the latrines.
2. Provide or try to find sponsors to finance hygiene facilities for schools.
3. Provide the teachers with information about school hygiene and support them, while planning and organising for hygiene facilities and activities.
4. Provide community members with proper latrines facilities and water supply systems, so they do not use the hygiene facilities of the schools.



GLOSSARY

aya	the lady, who cleans and cooks in the school
chapel	an open shoe
Corporation	elected to govern the city Madras
kuuli	daily paid worker
Panchyat	elected to govern a village
slab	a platform, where the squatting pan is located
superstructure	the "house" of the latrine
tablar	an aluminium cup

INITIALS

IRC	International Reference Centre on Water and Sanitation
NGO	Non Governmental Organisation
SIDA	Swedish International Development Authority
WHO	World Health Organisation
WVS	Women's Voluntary Service



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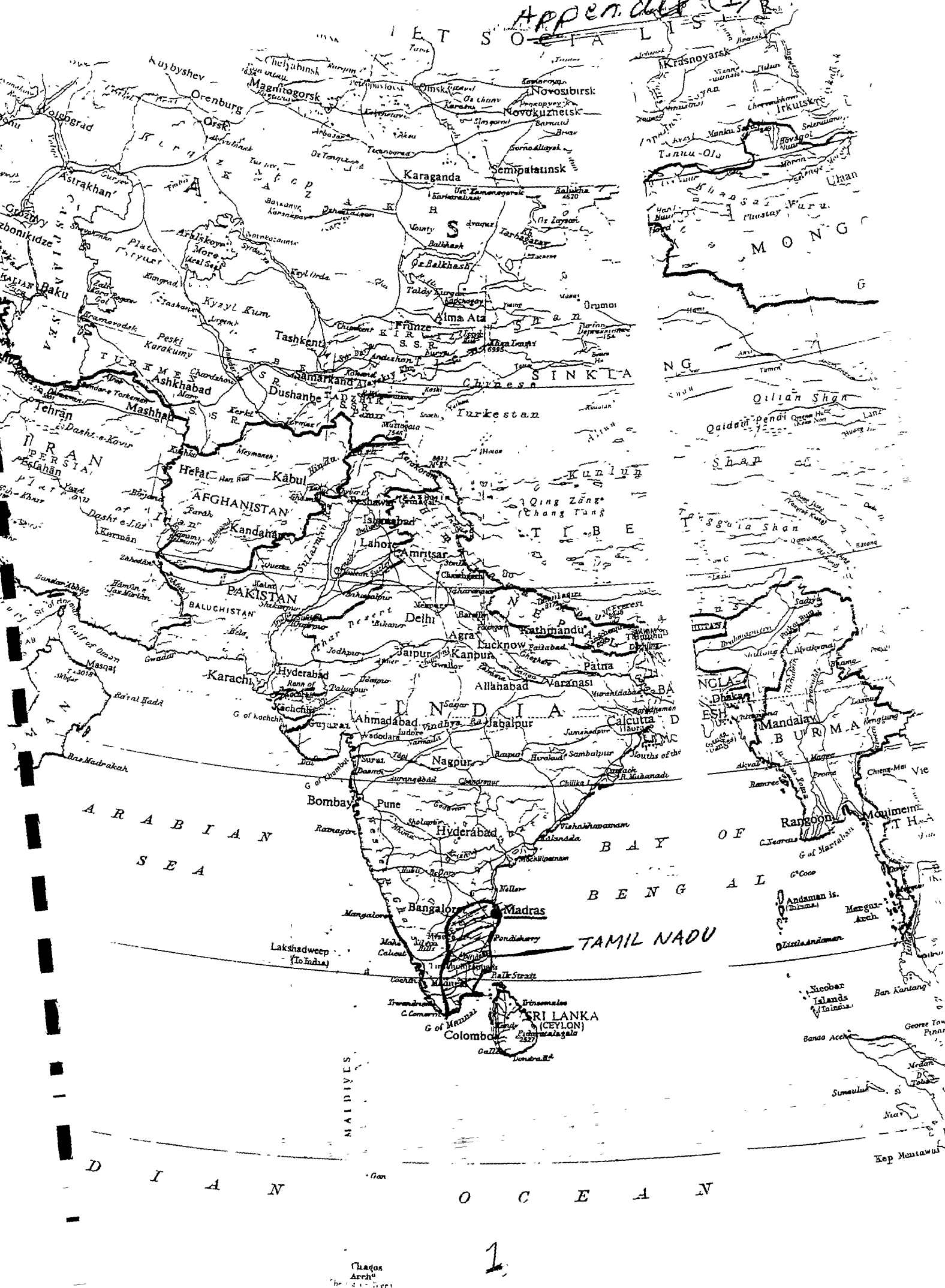
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APPENDIX

U.S.S.R. / TURKISTAN

Krasnoyarsk, Novosibirsk, Omsk, Karaganda, Sempataunsk

Alma Ata, Tashkent, Dushanbe, Samarkand

Turkistan, Chinese Sinkiang, Qilian Shan

Afghanistan, Kabul, Kandahar, Herat

Pakistan, Lahore, Amritsar, Delhi, Agra

India, Lucknow, Kanpur, Calcutta, Bombay, Madras

Arabian Sea, Bay of Bengal, Tamil Nadu

Madras, Bangalore, Hyderabad, Pune

Colombo, Sri Lanka (Ceylon)

Indian Ocean, Maldives

Sumatra, Java, Celebes

Indonesian Archipelago

Sumatra, Java, Celebes

Indonesian Archipelago

Sumatra, Java, Celebes

Indonesian Archipelago

Sumatra, Java, Celebes

Indonesian Archipelago

Indonesian Archipelago

MONGOL

Qilian Shan

Shan

Mandalay

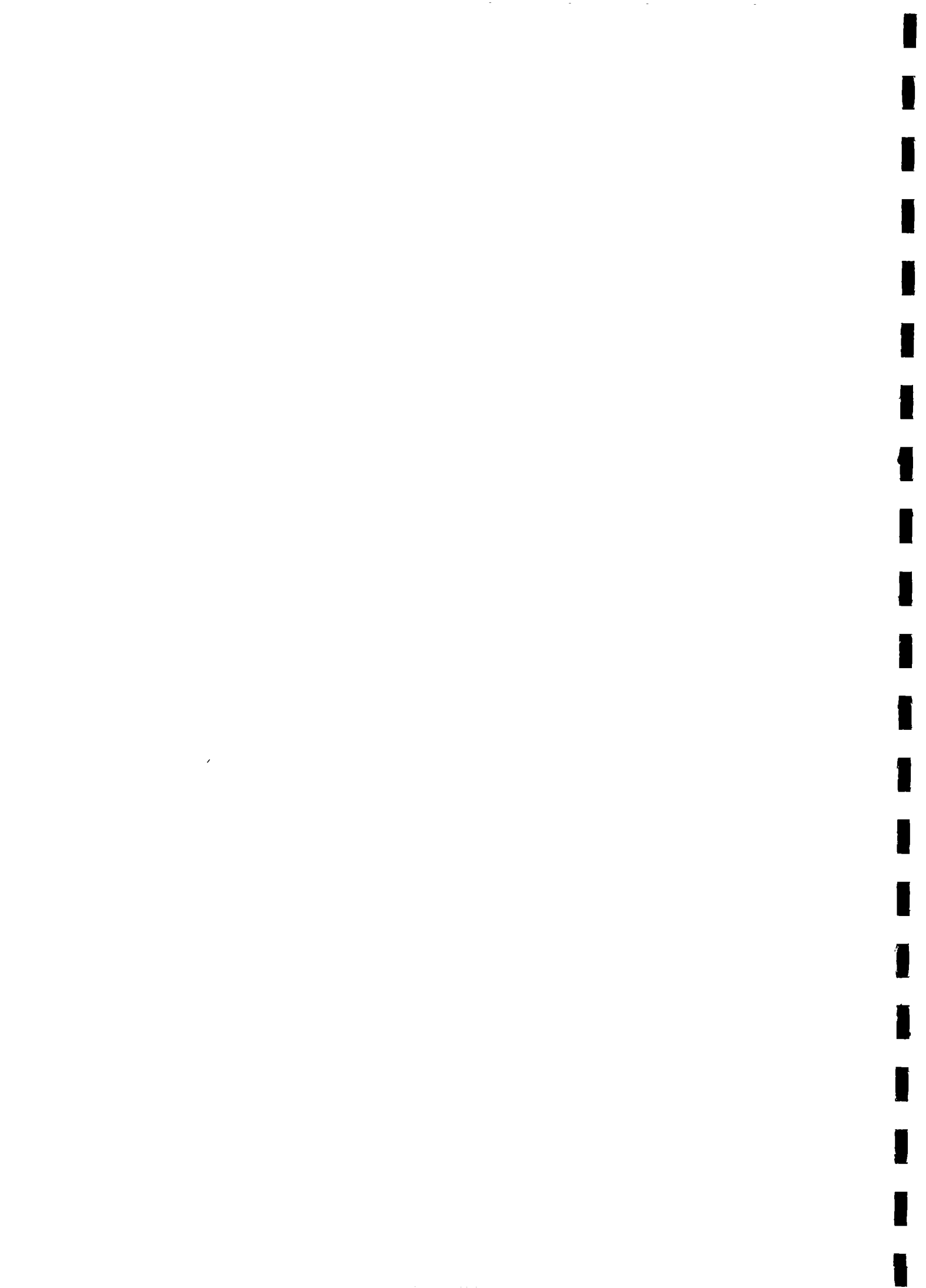
BURMA

Rangoon

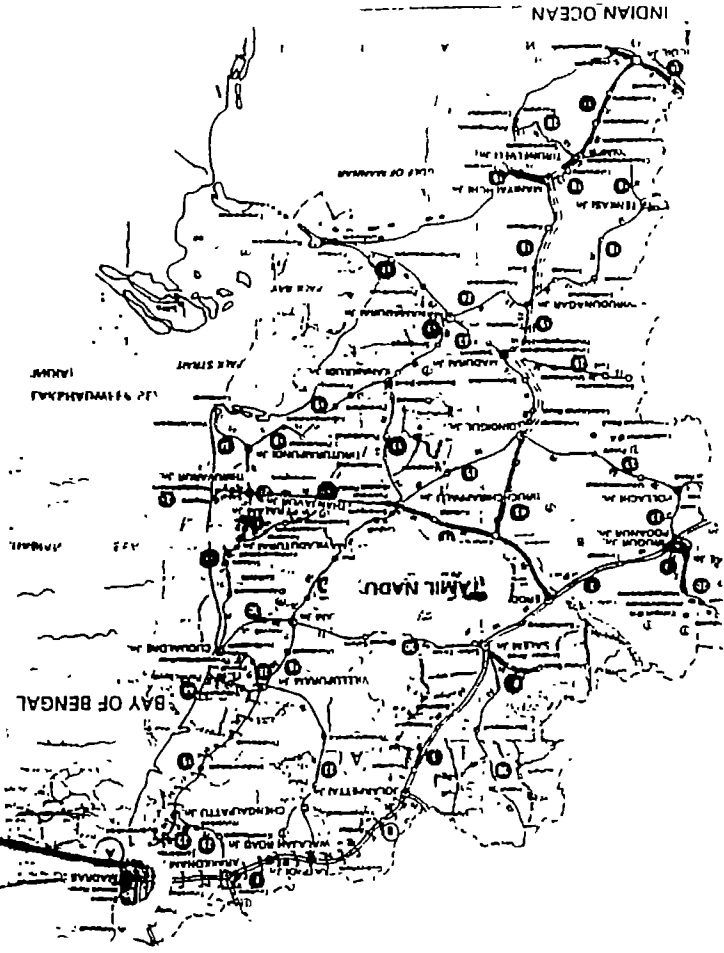
Sumatra, Java, Celebes

Indonesian Archipelago

Indonesian Archipelago



TAMIL NADU

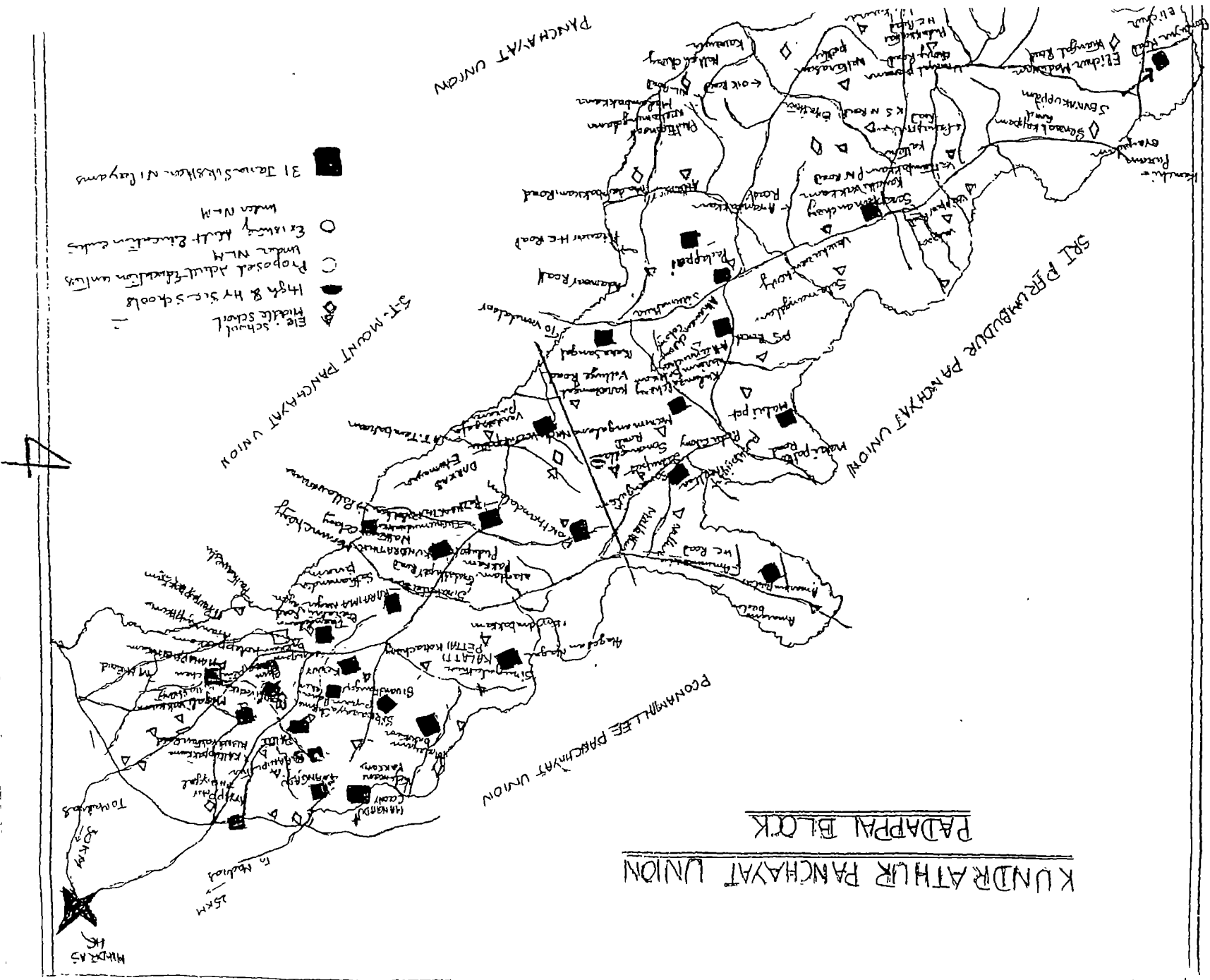


Madras city
Pondappai block

2







Appendix (2)

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VALLUVAR MIDDLE SCHOOL(R1)

General information of the school

The school is directed by a private management board and aided by the Panchyat. A lady from Madras is the main financial sponsor and manager.

The school is situated in a calm area with houses surrounding it. The school compound is small in relation to the number of students. There are three major buildings, each one is divided in four or five classrooms. About hundred children are sitting in each classroom, plus another hundred children are sitting on the compound itself. The school has not been rebuilt for several years, although the amount of children has increased enormously.

The school has 1400 students and about twenty teachers plus a headmaster. The school is open from ten until four o'clock, five days a week.

Latrines

The school has pour-flush latrines, two latrines for the teachers and two for the students. The amount of latrines for the children are not sufficient. The latrines are made of cement, superstructure as well as floor.

The sweeper is weekly once coming to clean the latrines. The latrines of the teachers are clean, but the latrines of the children are dirty. Some of the children avoid the latrines and instead they use the compound. The teachers meant that it should be possible to keep the latrines clean, since there is enough water to flush with. The water source was not far away from the latrines, so they could easily take the water for flushing and anal cleansing.

The teachers try to convince the manager that the school need more latrines, but they have not get any response from her.

The children are wearing chapels in school. Therefore it seems the teachers have tried to find a short-term solution for the latrine problem, until it is fully solved.

Water supply systems

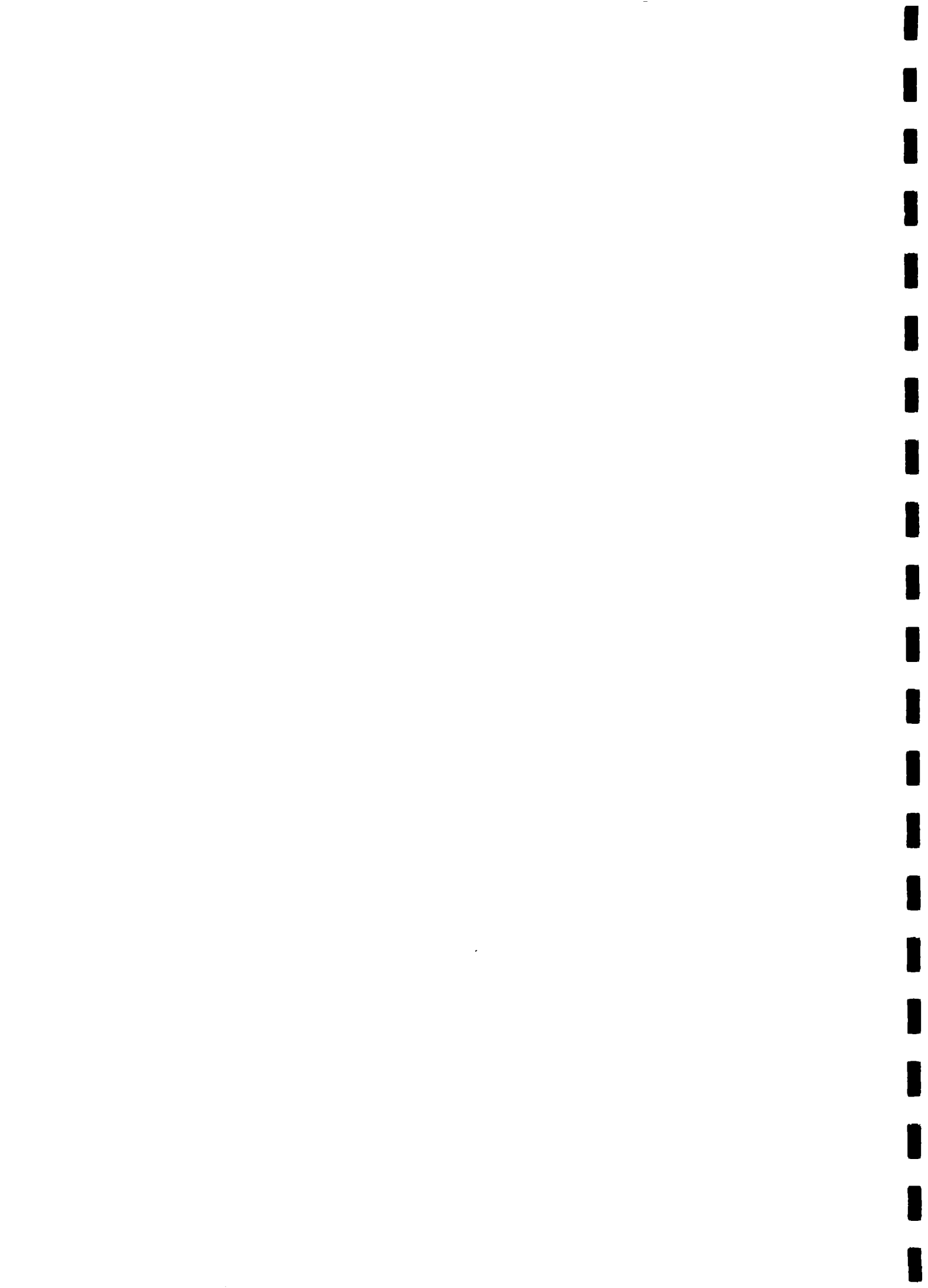
The water sources are a well and a closed drum(with taps) with water from the panchyat.

The students bring the water from the drum to the classroom. The water is stored in buckets without cover. The children use the same mug to take and drink the water with. The teachers think it is not necessary to boil the water, since it is coming from a panchyat water source.

All children and teachers wash their hands after visiting the latrines. Half the number of the students wash their hands and all of the teachers before/ after lunch.

The waste water is not used. There are a few ponds of water to be seen, but most of the water seems to drain into the sand.

The most frequent diseases among the students are fever and diarrhoea. The teachers think, the mosquitos and flies are



spreading these diseases. If the teachers have realised the risk with mosquitos breeding in the water ponds did not become clear. Three percent of the children are staying at home because of these two diseases.

Noon-meal

1180 children get noon-meal at the school. The other students go home to eat or bring their own food.

The food is cooked in a hut. There are a few flies around the food, which is stored in clean vessels. The students eat in the classrooms or on the compound. There is mud laying everywhere, so the place where they are eating is not clean. They eat with their hands, which are clean. After the meal the students clean plates and hands with water.

Garbage

The students are collecting and looking after the garbage. Having the amount of children in mind and the big amount of rubbish coming from 1400 children, this garbage spot is neat. The garbage is saved on one side of the school compound. The Panchyat comes and brings away the garbage twice a week.

Hygiene education

The teachers told, that hygiene education is an obligatory part of the curricula of the primary schools in Tamil Nadu. In this school teachers and parents are responsible for the hygiene education.

The children are passively listening to the education of hygiene. The children said, that it is interesting with hygiene education. They accept what the teacher is saying about hygiene. They know they can avoid diseases if they do as the teacher says concerning hygiene and diseases.

The teachers use radio, television, books and charts in their education. The teachers themselves pay the material, since they do not have any other funds.

The teachers got their hygienic education during their teachers training period. The teachers are interested in following more courses on hygiene. They are especially interested if they will be paid for it.

Awareness of hygiene among teachers/ children

The teachers show a lot of interest and concern in improving the hygiene of the school. It was obvious that the teachers are proud of their students and school. The teachers seem to try hard to improve the hygienic circumstances of the students. The teamwork of teachers and head master seemed to be working well. They are obviously discussing conditions of the hygiene and they have many ideas of how to improve them. The school staff blames the manager for hindering them to do something about the restoration of the school buildings and arranging more sanitarian facilities. The teachers suspect that if the manager gives money, it will only be for the restoration of the buildings. The manager has shown least interest in improving the hygiene facilities. It did not become clear why the manager does not make any effort to approach and discuss with the teachers.



It has often been the case that, when schools have been built or restored, the hygiene facilities have got low priority. Let us say that the teachers will get an amount of money to improve the conditions of the school. The fact is that there are so many things that need to be done, that a priority list is needed. Where do the latrines stand on such a list? Even if the teachers are aware about the effects of poor sanitation, there might be other things which have higher priority, as a roof. Thus the teachers in this school have an actual awareness of hygiene. But they can not put it into practise because of their manager.

The children bring home the information of hygiene to their families. The students seem to know how they shall prevent themselves from disease. The question is if they have the possibility to do so in Valluvar primary school. The students know that they should avoid drinking water, which is not boiled, but the school is only providing them with not boiled water.

There is a parents-teachers association, which is meeting once a month. They have not done any actions for improving the hygiene. The teachers have not done any promotion of hygiene to the parents or locality, who is included in the parents-teachers association. The teachers want to include this group in some way in the future.

General impression of the hygiene education and the sanitation

The teachers are linking the hygiene education to the hygiene activities, as collecting garbage and storing water. The teachers have a practical way of bringing the students into hygiene and sanitation. The students seem to get an idea what they can contribute themselves to the hygiene of the school.

The hygienic problem of the school is the shortage of latrines for the children. The teachers have overcome this problem for a while, since they are promoting the students to wear chapels. The children seem to understand that they can avoid diseases if they follow these instructions of the teachers. Most of the students wear chapels and are avoiding areas of faeces and urine. The problem of the latrines do not seem to be solved before the communication between the teachers and the manager has improved.

The organisation of people involved in hygiene activities is well defined. As an example is how the aya and the panchyat workers manage to split the work with the garbage and keep the garbage area clean.

The school staff and students have a proper operation and maintenance of their facilities. Even though the school has to many students for its hygienic facilities they manage to keep up the hygiene standards.

PATTU ELEMENTARY SCHOOL(R2)

General information of the school

The school is directed and financed by the Panchyat.

The school is consisting of two buildings laying in an area with living houses. There is no compound of the school.



But the children have still much place to play on, since they can use the space between the houses.

The buildings are made of cement and are in a good condition. Each building has one room and one veranda. There is no electricity.

145 children are studying in the school (66 boys and 79 girls). The children are in the age five to ten years old. Four teachers and one head master are running the school.

The children are coming to the school between nine and four a clock, five days a week.

Latrines

The school has no latrines, neither for the children nor for the teachers. But there is one urinal for the teachers, though it is only for the male teachers. How the female teachers manage without any latrine facilities is unclear.

The children are using the yard at the backside of the school as an open-air latrine. The area is full with garbage, mud and old grass. It looks dirty and very unhygienic. Many children are walking bare-foot, only a few have chapels. Thus the hygienic circumstances are not in favour for the students at all. The teachers have tried to convince the parents to buy chapels, but without success.

The super-structure and the floor of the urinal are made of cement. The floor is sloping towards one side of the urinal. In this way the urine is collected at one side of the square. From that side the urine pours out, through small holes in the wall, into the grass and mud. There is water, which the teachers shall flush away the urine with, but still a stink of urine is left. It is not clear if there is to little water or if the teachers do not use the urinal properly.

All of the teachers have latrines at home, but only 10% of the children have latrines, following the teachers. The teachers meant that the children's parents were poor farmers and could not afford having latrines.

Water supply system

The school has a public bore pump next to the school buildings, which is their water source. The children is drinking the water direct from the hand pump and from vessels, which are kept in the classroom. They drink the water from the hand pump with their hands. The water from the vessels is taken drunken with a mug, which all children share. The teachers said that the water is not contaminated and it is therefore not necessary to boil it before drinking.

The teachers said, the children do not wash their hands after using the open-air latrine, but they wash their hands before eating. Before and after the noon-meal the teachers follow the students to the hand pump to check that their hands are washed.

The waste water from the hand pump is properly drained to a soakage pit.

Noon-meal

The school does not provide the children with noon-meal. It is



another department of the panchyat, which is responsible for the noon-meal. But still the children get served at the school at lunch time.

The cooking hut is placed fifteen metres from the open-air latrine and the garbage.

The students sit and eat on the floor of the classrooms or on the veranda. It is not very dirty where they are sitting. The students eat with their hands. It is therefore very useful that the teachers carefully are following up the hand-washing at lunch.

After lunch all children are standing in a cue to wash their plates and hands by the hand pump. The plates are kept in baskets at the backside of the school.

Garbage

The garbage is thrown at the side of the road, next to the school. The school aya brings the garbage from the classrooms to the road side.

The panchyat union workers come to collect the garbage, once a week. But it seemed it could take longer time, before they come. Because a there was plenty of garbage thrown on the specific spot. But is could also be a place, where the public also throws their garbage.

Hygiene education

Hygiene education is an obligatory part of the curricula. The teachers and the parents have the responsibility for the hygiene education.

The hygiene education is a part of the topic Science. The teachers think, the hygiene education is more oral then practical at the school. They want to change this, but first they need to improve the sanitary facilities, the teachers said.

The hygiene material is some chapters in the science book, posters and pictures. The school has got a radio from the panchyat union to use in the education. The radio program ALL INDIA RADIO is broad casting many programs about hygiene, health etc. The teachers sometimes borrow books from the public library for the hygiene education. Basically the material is about environmental sanitation, but also about personal hygiene.

The teachers learnt about hygiene during their teachers training. Apart from the teachers training have they also got a 15-days course in hygiene, which the panchyat union arranged. The teachers are interested in learning more about hygiene and to get to know the last findings about prevention of diseases. If they follow a course they want payment for it.

Awareness of hygiene among teachers, children and parents.

The relation between the teachers seem to be good. It was obvious that they had discussed the hygiene problem several times and that they wanted to improve the hygienic conditions together. The teachers are aware about the hygienic problems of the school as, lack of sanitary facilities, proper garbage facilities etc. The teachers want the Panchyat union to come and arrange what they are missing. But so far the Panchyat has



not answered their requests. The teachers themselves have not done any actual contribution to the hygiene of the school. Why the teachers have not tried to arrange better garbage facilities, as arranging a dustbin, is not clear. Thus the teachers have awareness about the hygienic problems, but it seems they do not consider it as their responsibility. It has often been the case in the schools that the responsibility for the school hygiene has not been defined.

The children seemed to be interested in the hygiene education. Though it probably is frustrating to learn something, which you can make much about. The children find the hygiene education interesting and they try to follow what the teachers is teaching them. The children say, that they can avoid diseases if they accept what the teachers say.

The children thought that too much sweets, raw rice and hair in the food led to diarrhoea and worms. The reasons they gave are also right, but they are not the main causes. (The causes the children are mentioning are typically the ones parents give, when the children are over eating what they like as sweets. Or is important that the adult warn the children for the risks that are really hurting the children and not warn them for everything. The effect is best when there is a few but powerful messages.)

The relation between the school and other groups/ institutions

The relation between the parents and teachers seems to be functioning well. The parents are interested in coming to school meetings and hear about how to improve the hygiene of the school and the students. Half the number of the parents are coming to the parents-teachers meetings. The other parents can not come, since they have to work, said the teachers. Therefore the teachers try to keep the meetings at days, when the parents are free as, the Republic day and Independence day. The teachers have seen an increase in the hygiene standard of the children, since the parents started to come to the hygiene information meetings. The teachers see this as an encouragement. But the school staff was also hoping that the parents could help with some funding of the hygiene facilities. But the parents can not get five rupees, from each family, since they are so poor.

The relation with the panchyat is working less well. The teachers feel neglected by the panchyat union.

The school does not have any problem with the neighbouring houses. The school and the locality are sharing the hand pump and garbage area without any tensions.

General impression of the hygiene education and sanitation

The school has problems with the availability of latrines and proper garbage facilities. The teachers are aware about the problems and have tried to get help from the panchyat union. The panchyat has answered that it is not their problems to solve the sanitation problem of the school. The teachers do not seem to be of the idea that they shall start contribute to the garbage facilities etc. The picture of the school is that



there are many enabling factors for improved hygienic standards. To solve these factors, somebody has to take full responsibility for them and follow them up.

The children are interested and know a bit about why they get different diseases, but they can not put their knowledge into action, since the basic facilities are lacking. Until the sanitary facilities are provided the hygiene education wont have any real effects.

THANDALAM PRIMARY SCHOOL(R3)

General information of the school

The panchyat (village government) Thandalam is financially responsible for the school.

The primary school is laying in the outskirts of the village next to the fields. The area around the school looks neat.

The school is one building, which is made of cement. There is one big classroom, which is divided in three parts with moveable walls, and one veranda. The children are sitting studying at any spot where they can find a place for themselves and their books.

The school has 125 students, three teachers and one head master. The children are in the age five to ten years old. The school is open from ten to four, four days per week.

Thandalam has been connected to an adult literacy/health program for a long while. The effects can be seen in the clean environment between the houses.

Latrines

There is one pour-flush latrine each for the teachers and the children. But the childrens latrine is not used, since it is in a very bad condition. The latrine is in ruins, extremely dirty, far to water source and has no privacy. The super-structure has broken down, only the mud floor and slab make the latrine. The slab is blocked with leaves. Instead of the latrine, the children use the backside of the school. The backyard is filled with faeces, is highly unhygienic to walk on and flies are in plenty. Another problem for the children is the long distance for them to get water for anal cleansing.

One sweeper(scavenger) cleans the latrine of the teachers once a week. It seems to be sufficient, since only four people use the latrine. The sweeper is paid by the panchyat.

The Institute of Public Health comes and checks the hygienic facilities every Tuesday. Why IPH has been coming regularly without initiating any actions to improve the latrine of the children, did not become clear.

The teachers said, that most homes of the children and the teachers have RCAP latrines. Thus most of the children are used to using latrines in their homes, but in the school they have to use poor sanitarian facilities. Thus the school in itself is a health risk for these children. The public is prepared to help to improve the latrines of the school, following the teachers. It was not told in what way they



wanted to help.

The children wear chapels or are bare-foot. Since the sanitation of the school is very bad there is a risk for the children to get infections from the flies and worms (from the mud). Which the difficulties are for the teachers/parents to make the children wear chapels could we not find out. There are indications that money is a problem and that the children do not wear chapels even if they have a pair.

Diarrhoea, fever and worms are the most frequent diseases among these children. The diseases are water-borne (diarrhoea) and water based. The contamination of the school yard might be one of the reasons to the diseases. (see annex Cairncross p13)

Water supply system

The water is taken from a panchyat handpump fifteen meters away from the school building. A servant (aya) is bringing the water from the handpump to the school. She is boiling the water before serving it. The drinking water is kept in an almost covered vessel on the veranda. The cover does not fit the hole of the vessel. The children are using one mug to take and drink the water with.

All children are washing their hands with water after visiting the latrine, before/after eating, said the teachers. They walk to the handpump and take the water directly from it.

The waste water from the handpump is not used. But it gets soaked in the area around handpump.

The teachers say, that the water and the weather are the main reasons to the diseases. Thus the teachers know that the hygienic conditions of the school need to be improved. Why IPH has not reacted on the link between the kind of diseases and the sanitarian conditions of the school was not clear.

Not very many children are staying at home due to diseases. (The fact that not very many children are absent from school, might give IPH the impression that, the school does not have many health risks. It would be interesting to know how IPH judges the health conditions of the school).

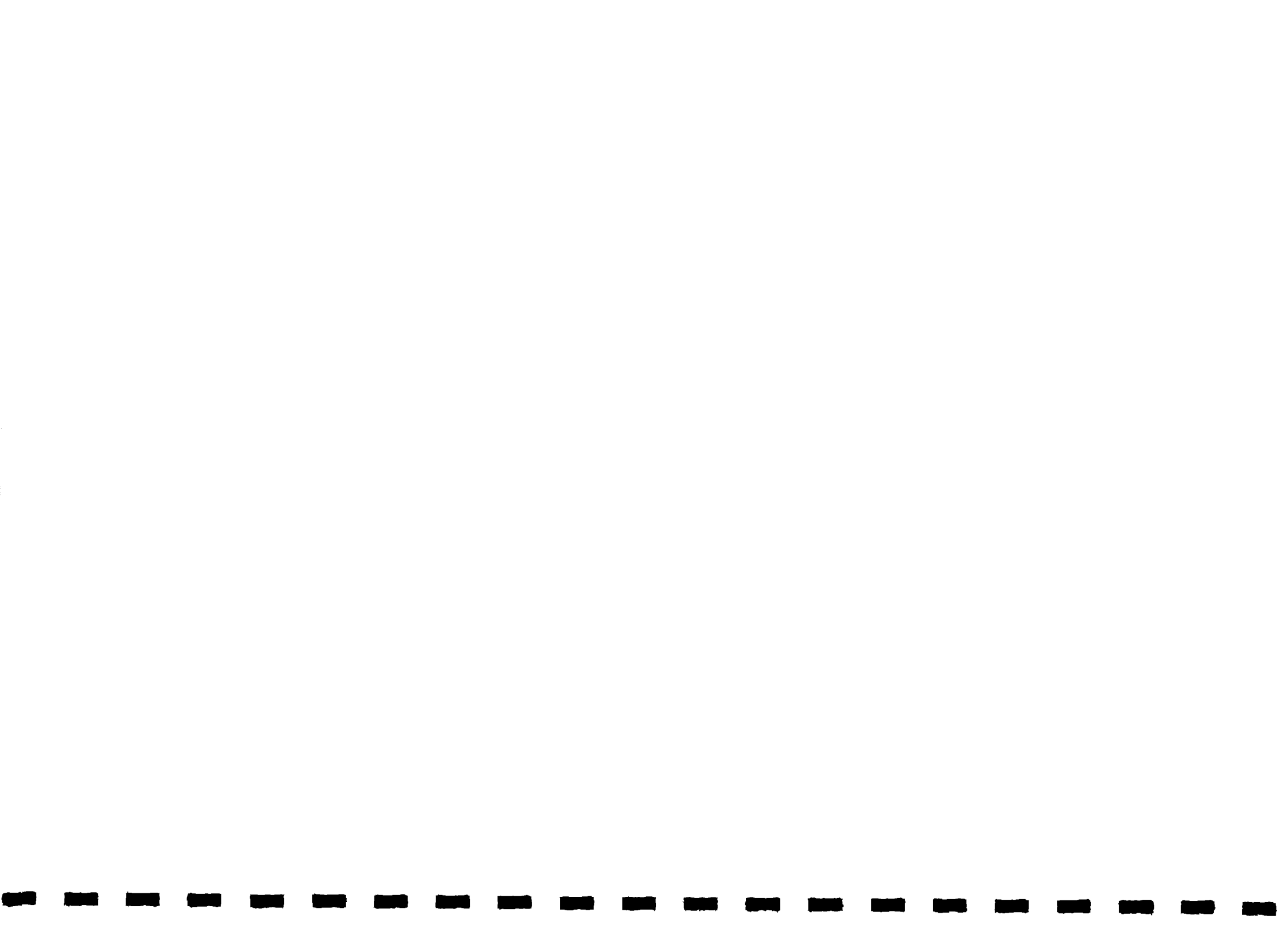
Noon-meal

The noon-meal is cooked in a hut, made of coconut leaves. The hut is dark and only two people fit into it. The aya is taking care of all activities linked to the noon-meal, as rinsing vegetables, cooking, washing dishes and cleaning the hut. The hut is dark and it is not clear how much she sees while rinsing etc. The people as aya and sweepers are key-persons of the hygiene activities of the schools.

All children are served noon-meal. They eat in classrooms or on an veranda. There are mud and sand on the floors, where the children are sitting. When they have finished eating there are rests from food laying on the ground, but it is swept away before the lectures take place again. After the meal the children wash their plates and hands by the handpump.

Garbage

In the classroom there are baskets for papers and rubbish. The children empty the baskets every day in a dustbin on the backside of the school. The aya burns the garbage, when the



dustbin is filled. The dustbin and the area around it was neat and gave an impression of being looked after well. The staff of the school has another kind of awareness of public environment than many other schools. In Kovoor the teachers did not consider garbage on the road as a problem of the school.

Hygiene education

The teachers are responsible for the hygiene education. They teach mostly personal hygiene as cleaning the body every morning etc, but also environmental hygiene as water contamination. The hygiene education has practical connections to hygiene activities, as how the children empty baskets of the classrooms and wash their own plates.

The school is lacking hygiene education material, but they have a few books, charts and posters. The teachers want to get more material, but has as yet not done anything about it. The teachers give the education most through reading and showing examples about hygiene and sanitation. The children find it interesting to listen to hygiene information, said the teachers. The children say themselves, that they bring home the hygiene information they hear about in school.

The teachers have learnt about hygiene in their teachers training, but they want to learn more. They want to learn about waterborne diseases and how one prevents oneself from them. It is not necessary that they are paid for a hygiene course.

Awareness of hygiene among teachers, parents and children.

Both students and teachers are aware of the lack of latrines in the school and that it is a major problem for the sanitation. Both groups want that something should be done about the latrines. When the students were asked what they wanted to their school, they answered "first get better latrines". The public is aware of the need of latrines of the school and is interested in helping them.

The teachers are going to ask the Department of Public Health about what has to be improved first in the school. But something practical has not been done about the latrines yet. Thus the awareness is there, but it has not been acted upon.

The relation between the school and other groups/institutions

The school has a parent-teachers association. They have discussions on how to improve the sanitation for the children, but nothing concrete has happened yet.

There seems to be a lack of communication between the Institute of Public Health(IPH) and the teachers. The teachers want to get more latrines installed, but their messages are not responded upon from IPH. Why the IPH does not notice the need of latrines, if they visit the school every Tuesday, has not become clear.

General impression of the hygiene education of the school

It is surprising that the primary school has such a poor sanitation, when the village itself is comparatively clean. The hygiene of the children at home seems to better than at



school. Thus the school itself might be a health risk for the children.

It is especially the lack of latrines for the students, which is the hygienic problem of the school. Why the IPH does not react on the request of the school, when they now about the circumstances, is unclear.

KOVOOR PANCHYAT SCHOOL(R4)

General information of the school

The school is supervised and financed by the panchyat of Kovoor.

The school is situated in the centre of the village, Kovoor. The area is calm, clean and surrounded with the farmers houses. The buildings of the school are mainly made of cement. The buildings have been built step by step as the amount of children has grown. But the last years there has not been more space arranged although the number of children has increased. The last built classroom is a small one with coconut leaves as roof, which sixty children are sharing. They are sitting closely to each other on the floor.

There are totally 404 students in the school, 214 girls and 190 boys. The children are between five and ten years old. Seven teachers and one head-master are running the school. The school is open from nine to four, five days a week.

Kovoor is one of the villages(in the study) which has had a long experience of adult literacy/ health programme. The farmers keep the public environment clean and many families in the village have private latrine.

Latrines

The school has one pour-flush latrine, which is connected to a septic tank, for the teachers. The superstructure is made of cement and the roof of wood. The latrine is made of porcelain and the floor of cement. The latrine is neatly kept and there are no flies in the latrine.

One person(aya) is coming daily to clean the latrine. This person is paid by the teachers. The teachers are satisfied with the work of the aya.

The latrine was donated by the villagers. The teachers are very satisfied for their sanitary facilities. But, they want to get latrines for the children also. The children use the road sides next to the school or they go home for urination and defecation. The teachers have tried many times to get latrines installed by the Public Health Institute, but they have not got any response. The teachers told that the budget, of the Department of Education, for building the schools does not mention the cost of latrines. Therefore the teachers meant that whether a school could have a latrine or not was fully depending on the school itself.

Half the number of students have latrine at home, while all teachers have latrine at home.

The children wear chapels or are bare-foot. The children who are bare-foot are walking to the open-air latrines(roadside) with bare feet. The risk is big that the ground is



containing bacteria from faeces and urine, which will lead to worm infections.(Cairncross)

Water supply systems

The school gets its water from a public handpump. The panchayat is responsible for the water of the school. The school is allowed to take water two hours/day. There is an aya (lady servant) employed to fetch water from the handpump and carry it to the school. During the opening hours the aya must get enough water for hand-washing, drinking, cooking and for the latrine of the teachers.

The aya takes the drinking water direct from the handpump. She keeps the water in covered water drums. The water is neither filtered nor boiled. Each class has one mug, which the students share to drink with.

10% of the students wash their hands with water before eating and all students wash their hands after eating or defecating. At home the children use soap, while washing their hands.

The waste water is drained to the kitchen garden.

The teacher thought that fever is the most common disease among the children. They said that about 5 per cent of the children are staying at home due to some kind of disease. The teachers gave the dirty water as the cause of the diseases. (It is worth noticing the fact that the water, which is used at the school is NOT boiled neither filtered. Thus the teachers have an indication about what might be the cause of the diseases, but nothing has been done about.

Noon-meal

285 out of 404 get noon meal every day. The 285 children have parents from the very low-income class. Some of the students bring their own food and the rest go home to eat.

The aya prepares the noon-meal in a small hut next to the school buildings. The hut is dark and it is difficult to see properly in it. Knowing that the rate of cockroaches is high in any Indian kitchen, there should be many in this hut. Before the students eat the aya stores the food in covered vessels.

The students are sitting in the classrooms and on the veranda while eating. The floors are full of sand and mud. The children are supposed to wash their plates and hands before eating, but ten per cent does it really. The students keep their plates directly on the floor and they are eating with their hands. When the students have finished eating they wash their plates with water. The plates are later kept in big fibre baskets for drying.

Garbage

The garbage is kept on one side of the school. There is a dustbin, but a lot of garbage is laying around it. The students and the aya collect the rubbish in the classrooms and on the compound. Afterwards they throw it where the dustbin is. Weekly once panchayat workers are coming to take the garbage away. (It has been a common problem in the study, to define whether it is the aya or the panchayat workers, who are responsible for the garbage laying outside the school) The



teachers meant that the panchyat workers do not come frequently enough, which leads to an over filled dustbin and the garbage falls on the sides.

Hygiene education

The teachers are teaching hygiene education in combination with the subject environmental sanitation. The teachers are responsible for the planning and organizing of hygiene education. The hygiene education is playing an important role in the curricula of the school, but it is to a small extent put into practise, following the teachers. The teachers are usually describing about the hygiene from book and charts. The students are helping the aya looking after the garbage, but the activities do not have any connection to the hygiene education.

The teachers have learnt about hygiene during their teachers training. The training was short and the information they got is not up-to date any longer. The teachers are interested in learning more about hygiene. They would definitely go for hygiene courses, and most preferably with a salary.

Books and charts are used in the hygiene education. The material is adjusted to the surroundings of the children. There are no funds for hygiene education material in the school budget of the panchyat. The parents-teacher association has therefore started to pay for the hygiene education material. The teachers want posters and tapes for the education.

Awareness of hygiene among the teachers

The teachers are aware about which the reasons are to water-borne and sanitarian diseases. They are informing the children how to prevent themselves against the diseases. But they have not done much about the actual sanitation of the school, as garbage spread around the school. They are aware about the effects of drinking dirty water, but still they do not prevent the students from diseases through boiling the water. Why they do not boil the water is unclear.

The teachers say they get support from the parents. Together they are trying to improve the surrounding and building of the school. It is mainly through the parent-teachers association the teachers have tried to promote hygiene. But the teachers say that the parents do not take any own initiatives to improve the hygiene of the school. Thus the parents are prepared to contribute to the hygienic conditions, but they are dependent on the teachers as initiators.

The children think it is funny and necessary to learn about hygiene. Manimekali, a ten year old girl, said "it is good to learn how to avoid cholera". Some of the students have a clear understanding of the link between a dirty environment and diseases. But the students are limited to put their knowledge into practise, since the school is lacking basic hygienic facilities.

The relation between the school and other groups/institutions

The relation between the school and the Institute of Public



Health(IPH) does not seem to be fruitful. The IPH does not react on the requests from the school. There shall be a sanitarian in each village, who is sent out from IPH. Why this man does not come to Kovoor primary school, did not become clear. But, anyhow it showed that the cooperation between the IPH is almost nonexistent.

The cooperation with the Department of Education and the school did the teachers describe as vague as with the IPH. The problem is that IPH and the Dep. of Education are responsible for different parts of certain hygiene activities within the school, as the affair with the latrine for children(see latrines). IPH is responsible to see to so that the school has latrines, but the Dep. of Education is responsible for the operation and maintenance.

General impression of the hygiene education and sanitation

At the first sight the primary school gives an impression of being clean and the teachers enthusiastically working for an improved hygiene. But at a closer look there are many factors missing to have a sanitary environment and hygienic behaviour at this school.

It seems nobody is responsible for following up the hygiene activities, which are suggested. None at the school or in the school institutions (IPH or Dep. of Education) is responsible to follow up ideas of teachers and parents.

The gap between awareness and practise of hygiene is known to the teachers and they say it is mainly a question of lack of money. But one can also ask why the operation and maintenance of the garbage and the water were so poor. This part of the school's sanitation does not have much to do with money.

The teachers seemed to give all their attention to the big hygiene problems as, lack of latrines. They have not done anything about the other problems, as garbage facilities, which does not need much time or money to be improved.

MANGADU ELEMENTARY SCHOOL(R5)

General information of the school

The panchyat Mangadu is financially responsible for the primary school. The school is laying next to a road with much traffic, road in the outskirts of Mangadu. The area around the school is busy, which limits the childrens possibility to play outside the school compound. The compound is small as well as the school building. The building is made of cement and is divided in three classrooms and one veranda.

634 students share the three classrooms(325 boys and 309 girls). The students are in the age five to ten years old. There are about eight teachers and one headmaster. There are almost only males teaching in the school.

The school is open from morning until afternoon, five days a week.

Latrines

The school has one pour-flush latrine with septic tank for the



teachers, but no latrine facilities for the students. The latrine of the teachers is constructed by the public. The teachers said, that the parents-teachers association was financially responsible for the latrines of the school.

The superstructure is made of cement, as well as the floor. The teachers, find the latrine neat and clean. A school aya is regularly cleaning it.

The children are using the area around the wall of the school for defecation and urination. It is stinking of urine from the wall and there are faeces laying next to it. The teachers think, it is necessary to get latrines to the children. They are trying to involve the parents, so that they will sponsor new latrines again.

To decrease the risque of worm infections from the faeces in the mud, chapels have been promoted. All students wear chapels, which the Panchyat almost solely has paid for.

The water source for anal cleansing is not far to the open-air latrine of the students or to the latrine of the teachers.

The teachers say, that all of the them have latrines at home. But, the teachers assume, that only 20% of the children have latrines.

Water supply system

The school has a bore pump, which the teachers had asked the Institute of Public Health to arrange. The school aya is bringing water with a bucket from the pump to the classrooms and to the cooking hut. The water in the classrooms is used for drinking purpose. The water is stored in covered vessels. The children use one mug, without handles, to take and drink the water with. The water is not boiled neither filtered. This is a paradox to the teachers idea of dirty water as of the reasons to the most common diseases of the school. Five per cent of the children are staying at home due to a disease.

Water for anal cleansing is taken directly from the hand pump, in small buckets.

The children wash their hands by the handpump. The teachers said, that half the numbers of the students and all teachers wash their hands after defecation. Almost all students and all teachers wash their hands before/after eating. They are using only water while washing their hands.

The waste water from the bore pump is drained to the kitchen garden.

Noon-meal

400 of 634 students get noon-meal. The other 234 students go home for lunch.

The food is cooked in a hut next to the school building. The food is stored in closed vessels, before it is served.

The students sit on the floor in the classroom, while eating. The floor is comparatively clean. The children eat with their hands and it is worth noticing that most of the students wash their hands. After the meal the students wash their plates by the handpump.



Garbage

Each class of the school has one paper basket. Every day a couple of students are responsible for emptying the paper baskets in the dustbin. The dustbin is kept outside the wall of the school. A lot of the garbage has fallen on the outside of the bin and is spreading on the road and in the school compound. The public is also using the bin, following the teachers. But it is the aya, who is responsible to burn the garbage, when the dustbin is full. (It would have been interesting to hear the aya's opinion, but unfortunately it was not possible to meet her).

Hygiene education

The teachers and parents (parents-teachers association) are responsible for the hygiene education of the children. The teachers want to include the parents in the education of hygiene. Their intention is to make the parents start taking more own initiatives to educate their own children at home.

The hygiene education is a topic in the subject Tamil. In the book about Tamil, hygiene education has got one chapter. Other hygiene education material are tapes, charts and posters. There are no special funds to buy material with, but the teachers are trying to arrange something.

The hygiene education is linked to the hygiene activities of the school. The teachers have explained for the students why it is important that they try to keep the environment and clean. The teachers are sometimes joining the students, while cleaning the classrooms or emptying the paper bins. The teachers believe the students need encouragement in their work.

The teachers learnt about hygiene/ sanitation during their teachers training. About five teachers have had extra health training during their vacation period, which was paid. All of them want to learn more about hygiene/sanitation and they do not need to be paid for coming.

Awareness of hygiene among teachers, parents and children.

The teachers in this school are aware about the importance of a hygienic and sanitary school. They have tried in different ways to contribute to the hygiene of the school, as getting a bore pump, chapels to the children and now they are pushing the IPH for latrines to the children.

These teachers are not only planning what they can contribute with, they are also putting it into practice. Though they still can contribute to the hygiene of the school, as the area of the garbage. But it is not clear how easy this is, since it seems the locality is involved.

The parents are involved in the parents-teachers association, but have not started to improve the hygiene of the school on their own.

The children have the idea that hygiene education is important for them. The teachers say, the children are interested to 100% in the hygiene education subject. Kartigajan, an eight year old boy said, "we need to learn" (hygiene). The children say that they are following what the teachers tell them, since "it is the right thing". The problem



is that the school does not respond to the awareness of the students. The students do not have any other choice then using the open-air latrine at the school.

The relation between the school and other groups/institutions
The parent-teachers association is working well and both parts have plans to expand it.

The school seems to have a better relation with IPH, then Thandalam and Kovoor. It is worth mentioning that the Public Health sanitarian in Mangadu is an ambitious man. He actually tries to investigate the state of the hygiene in the schools and then follows it up. The difference between inspectors of IPH might be one of the reasons to the differing relations IPH-primary schools.

The school has problems with the cleanliness of the dustbin outside the school, since the locality also uses it. It did not become clear if the teachers have discussed this with the locality.

General impression of the hygiene education and sanitation

The first impression of the school hygiene is that the school is too small and with garbage laying around the compound wall. But the negative impression becomes less negative, while listening to the teachers and seeing the activities of the students. It turned out that this school has a balanced hygiene education, what the hygiene education and hygiene activities are concerned. The teachers try to contribute to the hygiene of the school step by step. In this way they seem to have decreased the risque for different water-borne diseases. Thus it seems to be efficient to take care of the problems, which are manageable within the school, on the same time as concentrating on the major hygiene problems. In this way there is not only talk but also action. The effects which are coming after the actions might have a motivating effect on the teachers. This seems to have been the case in Valluvar, Thandalam, Mowlivakkam and Mangadu.

KUNDRATHUR PANCHYAT UNION SCHOOL(R6)

General information of the school

The school is directed and financed by the Panchyat. It is situated in the middle of the village. The school has four big cement buildings, a small compound and a wall surrounding it.

About 700 students are coming to the school and about fifteen teachers and one head master are working there.

The school is open between nine and four a clock, five days a week and saturday mornings.

Latrines

The school has three pour-flush latrines, which are connected to septic tank, for the teachers. The latrines are separate for gents and ladies. The latrines of the teachers are clean. An aya maintains the latrines. The aya is paid by the teachers.

There are no latrines for the children. The children are using the roadside of the wall of the school. Many villagers



are passing this place. The open-air latrine is therefore not only a health risk for the pupils, but also for the local people. The pupils and villagers walk mostly bare-feet. All people who are passing the wall of the school, run a risk of getting infected from bacteria in faeces and urine. There is an extreme stench coming from the wall.

The teachers are trying to get latrines for the children also. They are planning to discuss with the locals, to see if they can fund part of it. Why the teachers did not give a way two of their latrines to the pupils, is not clear.

The teachers and children use water for anal cleansing, but for the children, who is defecating outside the school, it is far away.

Water supply system

The school has a hand pump. The pupils and the teachers bring the water to the classrooms. The water is kept in vessels with cover. The drinking water is not boiled.

All pupils and teachers wash their hands before/after eating and after latrines, following the teachers.

The waste water of the school is not used. Instead there is a pond of stagnated water, where the hand pump is.

Garbage

The aya is collecting the garbage and throws it in a dustbin on the roadside. The roadside is full of garbage, since not only the school use the dustbin but also the locals. This is an example of how the school is closely linked to its locality what the hygiene is concerned promotion, if they shall manage to improve the school hygiene.

Hygiene education

The hygiene education is one of the subjects of the curricula. The teachers have formed a health education committee in the school to improve the education and the hygiene condition of the school. They especially teach about personal hygiene. Why the teachers do not focus on environmental sanitation also is not clear. It is assumed to have been useful, since there are many sanitarian problems in the schools environment.

The material is basically books and a tape recorder with tapes about hygiene. The teachers try to adjust the material so it fits the home environment of the children. The material is paid by the parents-teachers association and a few other private people.

The teachers have learnt about hygiene during their teachers training and in an additional course(15 days).

The teachers have formed health units, which train the parents in issues about hygiene in the parents -teachers association.

Awareness of hygiene among teachers, parents and children

The teachers are aware to about the hygienic conditions of the school. They have realised that there are many problems, but they do not seem to be aware which the real big ones are. During the interview the teachers did not mention the problem



of defecation at the roadside, which is the most unsanitary spot of the school.

But on the same time the teachers have many programs to inform the parents and they have provided a health team, which comes regularly to check the health of the students. Thus the teachers do contribute to the hygiene, but their priorities are could have been set in a different way.

The parents seemed to be interested and take active part in the promotion of hygiene. As an example they pay part of the hygiene education material. The relation between the teachers and the parents seemed to be practical and active. They meet regularly and have set up goals.

General impression of the hygiene education and the sanitation
The material side of the hygiene/ sanitation of the school is very poor. Though the teachers have a lot of knowledge about hygiene, they can not define which the most acute problems of the school hygiene are. Thus it seemed in the beginning of the interview as the teachers have a good picture of what was the problem of the school, but at a nearer look that picture changes. Why do the teachers not arrange that the pupils can use two of their latrine.

VETTUVANKANI PRIMARY SCHOOL(R7)

General information of the school

The school is directed and financed by the Panchyat.

The school is laying by a main road. The front side is facing the traffic and the backside is facing a big compound of sand. The school is one building with a classroom and a veranda, both are built of cement. The classroom is divided in three parts, with a few benches.

There are 284 children studying at the school(142 boys and 142 girls). The children are between five and ten years old. There are three teachers and one headmaster working at the school.

The school is open from ten to four a clock, five days a week.

Latrines

The school has one pour-flush latrine with septic tank, but it is not possible to use it. A tree had fallen down on the superstructure. The latrine is therefore missing roof and proper walls. The superstructure is made of bricks and the floor of cement. The slab is made of cement.

Instead of the latrine the children use the compound on the backside for defecation and urination. The compound is also the only area where the children can play. It is therefore especially unhygienic that they are defecating there. The teachers go to a neighbouring house to use the latrine, they have.

The teachers have asked the panchyat to come and repair the latrine, but they have not given any answer.

The children wear chapels or walk bare-feet. It is a health risk for the children, who are going bare-foot to be in



the school. The children do not have a choice where to spend their time during the break. They can only play at the backside of the school.

The most common diseases at the school is scabies. The teachers mean, that the children get scabies since they are playing in the contaminated mud. Ten per cent of the children were estimated to be at home due to some disease. The teachers do not know what to do about these circumstances.

The teachers think, that 40% of the children have latrines in their homes. All teachers have latrines.

Water supply system

The school has a public tap ten meter away, as its water resource. The school is aloud to take water between 6 am and 9 am every day. During this time the aya has to fetch drinking and cooking water. She does not boil the water. The teachers think the water is clean, since it is public water. The aya stores the drinking water in covered vessels and places them in the classroom. The students take the water with a mug, which does not have handles.

The children go to the tap, when they want to wash their hands. All children wash their hands after defecation. Most of the children wash their hands before/after eating. Some of the children go home to wash their plates and hands, since they live very nearby.

The waste water from the public tap is not used. Instead the water stagnates around the tap, since the drainage system does not work.

Noon-meal

All children get noon-meal. The food is cooked in a hut made of coconut leaves. The hut is a roof, which is held up with four sticks.

The hut is situated on the same compound as the children play and defecate. There are many flies around the hut. It is a very poor hygienic sight to see; the cooking hut and faeces laying on the ground and sand flying around everywhere.

The person who is responsible for the noon-meal has asked the panchyat for money to build a new hut somewhere else, but they have answered that they have no money.

The students are sitting on the veranda and in the classroom, while eating. The children eat with their hands. After the meal they wash their hands and plates with water from the tap, which the aya has taken in the morning.

Garbage

The school is using a panchyat dustbin for their garbage. The school aya and the children collect the garbage and throw it in the dustbin.

The area around the dustbin is full of garbage that has fallen out, since the bin is overfilled. It is difficult to say whether it is the people from the school or people in the locality who do not maintain the garbage properly.

The panchyat sweepers come every second day to fetch the garbage. If the sweepers actually are coming to empty the bin on time it seems to be misuse of the garbage facilities.



Hygiene education

The hygiene education is a part of the curricula. The teachers together with some health workers are giving the hygiene education. The hygiene education is a part of the subject Environmental science.

The panchyat hospital and the health workers are arranging material, as charts. Otherwise the main material is a few chapters of the book on environmental science.

The hygiene education does not seem to practically orientated. The hygiene activities, which the students take part in are not connected to the hygiene education as such.

The teachers have learnt about hygiene during the teachers training and an additional course about first aid. The last course lasted for ten days. The teachers are interested in following more of these kind of courses.

Awareness of hygiene among the teachers, parents and children.

The teachers are aware about the lack of hygiene facilities (latrines) of the school. They have been asking the panchyat about help to improve the condition of the hygiene facilities. But so far they have not got any response. Thus they are not sitting quiet and looking at the problem of the latrine. But on the same time they do not take actual care of the facilities, which could be in good condition, as the dustbin.

The relation between the awareness of the hygienic situation and taking own responsibility for it or giving the responsibility to someone else is an essential factor, which seems to influence the hygiene even in this school.

The children know what they should do to prevent themselves from diseases, but they can not do it in practise. Therefore it is difficult to say how they would behave, if they would have proper hygiene facilities. An example is how the students are aware about the risk of drinking water, which is not boiled water. But since the school serves the not boiled water, they do not have any other choice then to drink this. As Swaminattan(a ten year old boy) said, "avoid diarrhoea through drinking boiled water".

The relation between the school and other groups/institutions
The network of school staff and panchyat seems to be limited. The school staff thinks that the panchyat does not show any interest in the school. The teachers have almost given up contacting them.

The relation between the parents and the teachers is based on individual meetings. The parent and teacher meet when a child falls sick or does not do her/his duty of the cleaning in the school. Thus there are no joint meetings of all the parents, where they can discuss prevention of health etc.

It seemed the teachers are lacking support from the groups who also are responsible for the students. They seemed to not having much strength, fighting of their own, for an improvement of the hygiene of the school any longer.

The general impression of the hygiene education and sanitation
The staff of the school seemed to be tired and overworked. They did not get any response from the panchyat. It seemed a bit as they had given up hope, that they could contribute to



the hygienic situation. These might be the reasons to why the teachers did not take much interest in the garbage, food hut and stagnation of water around the hand pump. It seems the health workers, who are connected to the school, could take a bigger responsibility of the hygienic conditions, since the teachers seem to be overloaded. It did not become clear what the health workers actually contribute with to the school.

ENJAMBAKKAM MEDIUM SCHOOL(R8)

General information of the school

The school is directed by a health education specialist. During the study her influence on the school became obvious. The school is financed by a private board.

The school is situated in the outskirts of the village. There is a large compound surrounding the school building, which a classroom and a big veranda.

75 children are coming to the school(41 boys and 34 girls). The children are in the age four to eight. Two teachers and two assistants are the staff of the school.

The opening times are ten to four a clock, five days a week.

Latrines

The school has five latrines. The teachers have one pour-flush latrine with single pit and the children have four twin-pit VIP latrines. The board of the school has financed all the latrines.

The superstructure and floor of the latrines are of cement and the slabs are made of porcelain.

The latrines are very clean, since the aya is cleaning all latrines twice a day. The aya is paid by the board.

There is water just outside the latrine for anal cleansing

and for flushing. There is never lack of water for these purposes. This another reason to why the latrines are so clean, following the health education specialist.

Half the number of the students are wear chapels and the rest of the students are bare-feet. It is therefore extra valuable that the school has good latrine facilities.

The toilets are mostly used during the breaks and there are enough latrines for the students at these times.

The sweepers of the village is emptying the pit, which is about every third year.

The teachers say, most of the children have open-air latrines at home. All the teachers have pour-flush latrines. The students said, that they want latrines at home also.

Water supply system

The board of the school has provided a hand pump and a well on the compound. There is also a panchyat tap water just outside the fence of the school.

The aya is responsible for bringing the water from the hand pump to the classroom and boil it. The drinking water is kept in well covered buckets. The children use a few mugs,



without handles, to take and drink the water with. The students are dipping their fingers into the water, when are taking it from the bucket.

All teachers and students wash their hands before/after eating and after visiting the latrine. The teachers or assistants are checking so that the children wash their hands properly.

The waste water is used in the kitchen garden. The school has so much water that, the aya also can give plants and vegetables on the compound water to.

The most common diseases of the students at the school are diarrhoea and fever. The teacher do think it is the water in the students homes, which causes the diseases. In this school the hygiene is very good, but still the students fall sick. This is indicating the necessity of connecting the parents of the children in the promotion of hygiene and health among students.

Noon-Meal

The school is serving noon-meal to 65 of the children. The noon-meal is made in a small building made of cement. The building is clean. The aya is responsible for the cooking. She is washing vegetables and rice before using them. The cooked food is kept in vessels with aluminium covers before the meal is served.

Ten of the children bring their own food. Their food is kept in covered aluminium boxes. ****PICTURE****

The children sit on the veranda, when they are eating. It is clean, since the aya is cleaning the veranda twice every day. The children eat with their hands.

Immediately when the children have eaten, the aya is sweeping the veranda. The rests of the food is falling down on the sides of the veranda and gets mixed with the sand.

Garbage

The garbage is kept in two dustbins about five metres from the well. The short distance between the garbage and the well, is one of the few negative hygienic conditions of the school.

Some of the garbage is covered and left to become manure. The rest of the garbage is burnt. The area of the garbage looks clean.

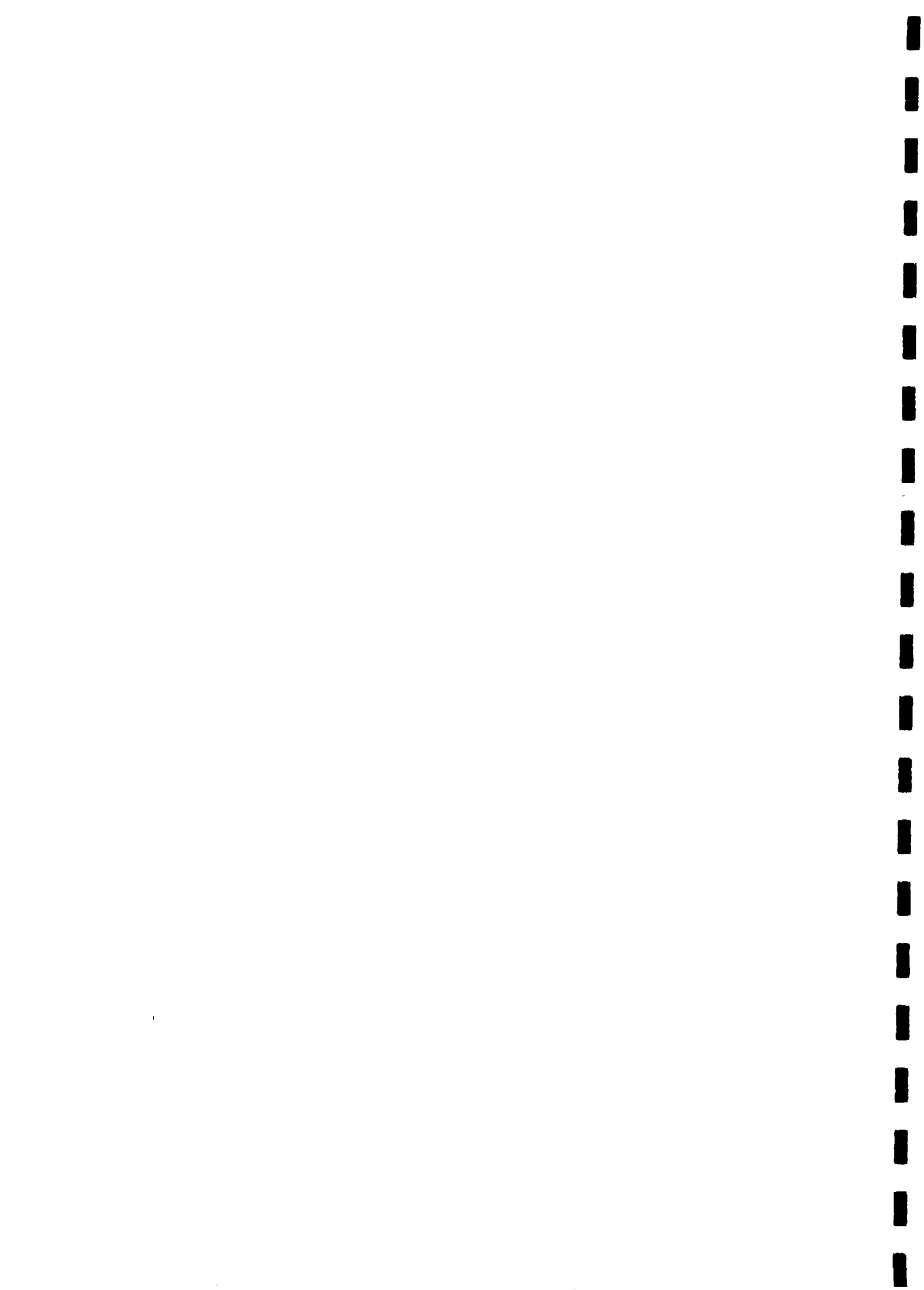
Hygiene education

The teachers have chosen to teach the children hygiene education.

The teachers use books, charts, drama and music to educate about hygiene. The students like the books, since they have many pictures. They are also fond of taking care in the dramas, which could be seen when they had their hygiene education lessons. The board is financing the material.

The teachers are concentrating on the subjects, personal hygiene, environmental sanitation and nutrition.

The teachers are also teaching the mothers the same subjects as the students. The teachers believe that to get an actual improvement of the school hygiene, the education also has to be linked to the families. Especially since the students in this school are young. The teachers have monthly



meeting the mothers, if the fathers want to come they are also welcome. Four times a year the school is getting all the parents and children together for some entertainment. On the same time a health worker comes and gives a speech about health prevention. The teachers are very interested and usually three fourth of the mothers are coming.

The teachers have got training in hygiene education from the health education specialist, who is running the school. They are interested in learning more so they can continue answer the questions of the mothers.

Awareness of hygiene among teachers, parents and children

The teachers are aware about their possibilities to contribute to an improved hygienic situation of the school. Since they have financial support, have they been able to put into practise what they have planned. Their hygiene education is practical, not only concerning the hygiene activities, but also the way the teachers inform the students. The music and drama motivates both teachers and students.

The teachers have realised that the community has to be involved in the promotion of the hygiene to get good result. They are also actively trying to involve them in the hygiene activities, through information meetings and small festivals.

The parents have realised that they can learn important things at the school. Therefore they try to come as often as possible to the meetings. The teachers think, they can see an improvement in the hygiene of the students and their parents, since they started the hygiene education.

The relation between the school and other groups/institutions

The teachers are working in close operation with the health education specialist. They are together evaluating the activities and are trying to improve the school hygiene on a continuous basis.

The network between the parents and the teachers is working better for every meeting. The parents have got trust in the teachers and are consulting them for not only hygienic problems, but also social and economic problems.

General impression of the hygiene education and sanitation

The school appears to be a model school when you enter the compound. There are plants growing, a lot of latrines, plenty of water and a good cooking place.

The hygiene education is very practical and it is natural that the teachers follow up the hygiene activities of the children, as washing their hands before the meal.

The school seems to have many advantages, it does not have many students, it has a lot of space and it has a founder, which spends money when the school staff explains the needs of the school.

The school does not seem to have any actual problem with the hygiene. It is important to have these schools in mind, to see that hygiene education CAN be practical, motivating and successful.



KARAIMANAGAR PRIMARY SCHOOL(R9)

General information of the school

The Panchyat of Karaimanagar is responsible for the finance of the school. The school is located in the outskirts of the village, next to the fields. The school is one building, which is made of brick. Earlier a second building was also used as school-building, but it had broken down. All children are therefore sharing one room. The buildings are made of bricks and cement.

109 children are studying at the school. The children are in the age five to ten. Two teachers are responsible for the education and the running of the school. The school is open between nine and four o'clock, five days a week.

Latrines

The school has one pour-flush latrine, which is connected to a septic tank, for the teachers. There is no latrine for the pupils and there has never been one for them at the school. The teachers have tried to convince the Panchyat to provide a latrine, but without success. The information of the teachers is not agreeing to the information of the health officer at the IPH. The officer said that all schools have been provided with latrines, when they were built. If there is no latrine in any school, it should mean that the school had not maintained the latrine properly. The teachers, who were interviewed in Karaimanagar have worked there, since the school started and they have never seen a pupils latrine.

The children defecate in the ditch of the field. Next to the ditch is the pupils play ground. About half of the children wear chapels and the other half are bare-feet. The school compound is a health risk for the children without chapels, since there are faeces and urine wear they are running. The teachers say, that scabies and sometimes fever are the common diseases among the pupils. They think the insufficient sanitation is one of the reasons to the diseases.

It is far between the hand pump of the school and the ditch. This makes it difficult for the children to bring water for anal cleansing.

Water supply system

The school is using a public hand pump, which is standing fifty meters from the school. The teachers think the water facilities of the school are good.

An aya brings the water from the hand pump to the classroom. The water is stored in plastic buckets, with a plastic cover. Though the cover did not seem to be on the whole time. The children share a tablar(aluminium mug) to take and drink the water with. The water is filtered, but not boiled before it is given as drinking water. Some of the children bring their own water from home. it is not known if the mothers have boiled the water. The pupils carry the water in small plastic bottles.

All children and teachers wash their hands before/after eating and after defecation. The hand pump is sufficient as water source for all the pupils, when they wash their hands



during lunch time.

The waste water is not used. It is drained into the grass and mud, which surrounds the hand pump.

Noon-meal

All of the children get noon-meal. The food is cooked in a kind of shed, which is made of cement. The aya is sitting on the floor preparing the food. The food which is ready is kept in covered vessels. The floor is filled with mud and sand. But it looks as the aya is managing to keep the food away from the dirt.

In the same shed as the aya is cooking, the children sit and eat. The pupils sit on small wooden bars on the floor. In this way the children do not have direct contact with the mud. The idea seemed to be cheap and would be worth spreading to other schools as well.

The children are cleaning their plates and hands by the hand pump after the meal.

Garbage

The children and the aya collect the rubbish of the school as papers in the classrooms, vegetable skin. The garbage is thrown in a dustbin next to the road. When it is full the aya burns the garbage. It is neat around the dustbin.

Hygiene education

The hygiene education is an obligatory subject. The teachers are responsible for teaching, but they get help with the planning of the education from the parents.

The most important issues, which are taught are personal hygiene and environmental sanitation. The teachers adjust the information so that it fits the living conditions of the children.

The most used material is book, tapes and charters. The teachers pay the material for the hygiene education.

The teachers learnt hygiene during their teachers training, but they have not got any additional training. Though they are interested in following some courses. It not necessary that they are paid.

The awareness of hygiene among the teachers, parents and children.

The teachers are aware about the problem of the schools poor sanitarian conditions. But they find it very difficult to solve the problem. The teachers have tried to get help from the Panchyat, but they have not got any response.

The parents are involved in the contribution, but they cannot provide money for the facilities. Therefore the teachers cannot do something about the lack of pupils latrines.

The children showed interest and motivation in improving the standard of hygiene at the school. One child said that they could clean the school and around and put plants.

General impression of the hygiene education and sanitation

The school is provided with very few hygiene facilities and the first impression of the school is that there is nobody who



is really responsible for the hygiene of the school. The teachers seem to not have the time and energy to take care of the hygiene problems. The staff (two teachers) of the school might be too small to have someone, who takes care of the contact with other institutions. It seems a bit as school staff with less facilities, get less motivation to contribute to the hygiene situation? In some schools this link seems to exist, since the teachers have tried so many times to get latrines but without any result, that they finally have given up. Though schools have been found where the teachers are highly motivated, although their facilities are very poor. It is not clear what makes the difference in handling the problem of lack of pupils latrines, but one indication is the support the teachers get either from each other or from some other groups.

PARANIPATHUR PRIMARY SCHOOL(R10)

General information of the school

The Panchyat of the village is financially responsible for the school. The school is located a bit outside the village, next to some fields.

The school is built of cement and it keeps 256 children. There are 122 boys and 134 girls. There are about four teachers and one headmaster running the activities of the school.

Latrines

The school does not have any latrine facilities, neither for the teachers nor for the children. The children defecate and urinate in the area around the school. Most of the children wear chapels and only a few children walk bare-feet, which is good, since there are faeces on the ground where the pupils walk. But the teachers think that the unsanitary conditions cause fever among the pupils. The teachers say that fever is the most common disease of the school.

It did not become clear how the teachers have solved the problem with no latrines available.

The teachers meant, that if they get financial support the sanitarian problem of the latrines would be solved.

Water supply system

A public hand pump is providing the school with water. They can take water during the whole day.

The teachers said, that all children and teachers wash their hands before/after eating and after defecation. The children use only water for hand-washing, no soap or ashes.

The servant of the school brings the water from the hand pump and stores it in the classroom. The water is kept in covered vessels, but it is not boiled.

Noon-meal

216 of the 256 children get noon-meal at the school. The other 40 children bring their own food. The home food is kept in clean aluminium vessels with cover. The food, which is cooked



in the school is also stored in covered vessels. In this schools(as in many others) it seems as food is more carefully handled and used than water. It seems they consider food as more vulnerable for bacteria, than water.

The noon-meal is eaten in the classroom, which is clean. The servant cleans the classrooms regularly.

The children eat their food on aluminium plates and they eat with their hands. After the food the children wash their plates by the hand pump. The aluminium plates are easy to get washed. One can immediately see whether there is something left/ or not on the plate after having washed it.

Garbage

The garbage is collected by students and the servant of the school. The garbage is thrown at the roadside of the school, where the servant burns it. The school compound is clean from garbage. The servant seems to take full responsibility for his work.

It appears that the schools, which have only one person responsible for the garbage also has the best operation and maintenance of it. In schools where the responsibility is divided between a servant and panchyat workers, is it often not clear who and when the two parts shall do what.

Hygiene education

The hygiene education is an obligatory subject of the curricula. The teachers have designed the content of the hygiene education, which is mostly focusing on personal hygiene and environmental sanitation.

The teachers think they can improve the hygiene of the school if the students are well taught about hygiene and sanitation.

The material is mainly books and charts, but sometimes students are showed films, which explain about hygienic conditions.

The teachers learnt about hygiene during their teachers training. They have also had additional training, which was two courses of ten days each. They were paid during these courses. They are interested in following more courses and it is not a must that they get a salary.

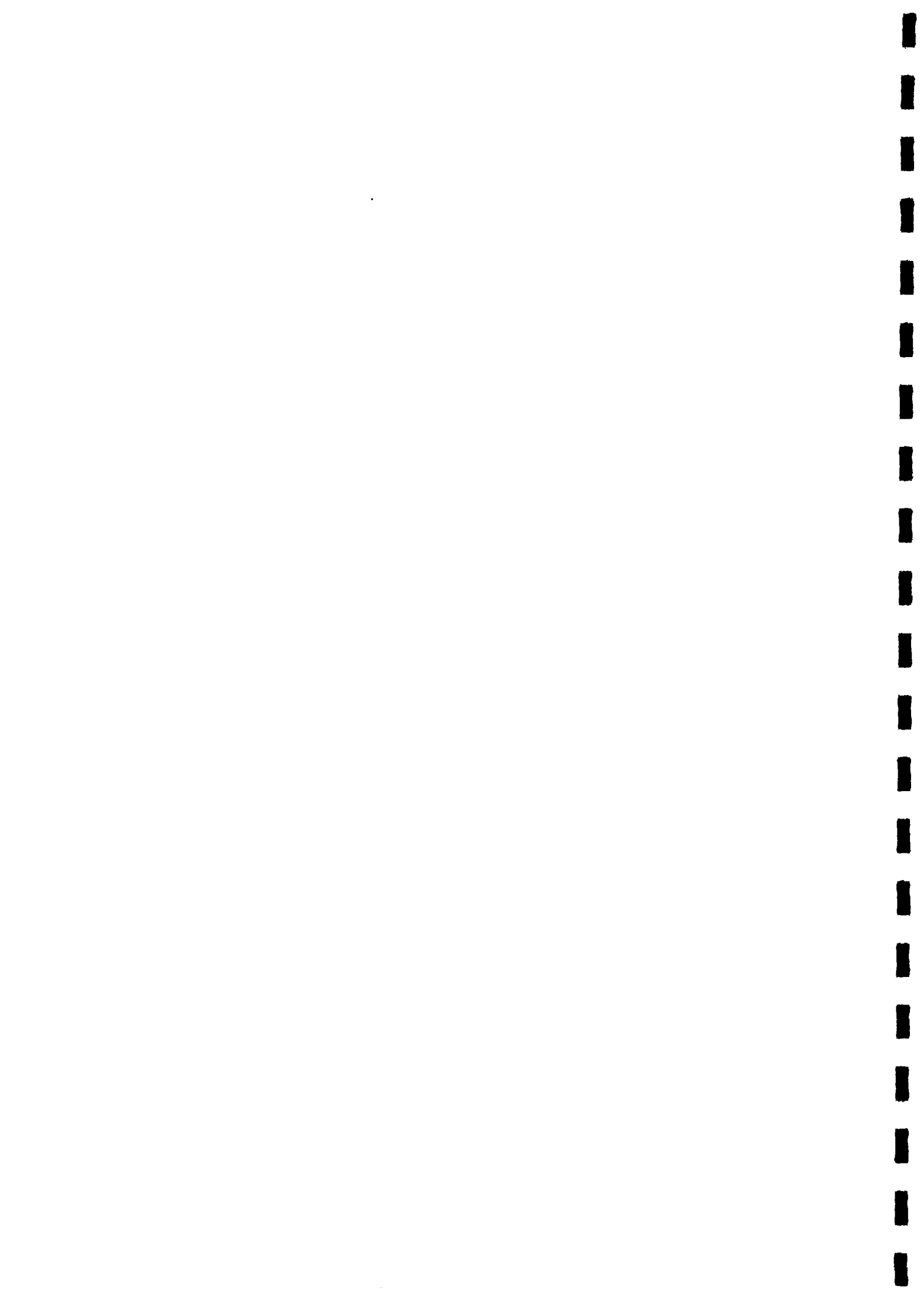
The teachers think the students find the material interesting and understandable. The teachers try to adapt the material and activities, so that the students can see the links to their own hygienic environment.

The students themselves say that the hygiene education is interesting and important to learn about.

Awareness of hygiene education and sanitation

The teachers try to keep good standards of the facilities they can do something about. Basically the operation and maintenance of the school was looked after rather well, as the garbage and the floors of the classroom.

Considering the teachers approach to the problem of the latrines, it is likely that they are aware about the problem, but have not found a way how to solve it. It is a common situation in the schools, that when it is a question of money



the problems become very difficult to solve.

The awareness of the parents is good, following the teachers. Not less than fifty per cent of the parent come for the parents-teachers meetings. The children also say that their parents are interested in hearing about hygiene, which they have learnt in school.

The general impression of the hygiene education and sanitation
The school seems to have a good operation and maintenance of the hygiene facilities they have. But it is not clear why they do not boil the water. Different reasons can be, the cost of fire wood, unawareness or that they think the water is clean.

The problem with the lack latrines is influencing the hygiene the whole school. What the teachers have tried to do about the problem did not become clear. It seemed though as the teachers have and are trying to get latrine facilities. They are looking for someone to fund the latrines, but so far they have not found anybody who is interested in giving them money.

MOWLIVAKKAM MIDDLE SCHOOL(R11)

General information of the school

The school is supervised and financially directed by the panchyat. The space of the school is sufficient for the number of students. There is a compound where the students can play.

The school has 1070 children coming everyday. There are about fifteen teachers and one head master teaching the children.

The school is open between nine and four o'clock, five days a week.

Latrines

The school does not have any latrine facilities for the teachers and the students. The students are using the compound as latrine. The faeces are laying visible in the sunshine. It is unclear where the teachers go for urination and defecation.

All students wear chapels. It is the panchyat, which has provided them with the foot-wear. The fact that the students are not walking bare-feet is decreasing the health risque of the open-air latrine.

The teachers and head master have left a proposal to the board of the school to get latrines. The school staff is now waiting for an approval of their request. Thus the school has both a short-term solution and a long-term solution of the problem of lack of latrines.

The teachers have pour-flush latrines with septic tank at home. The teachers assume that very few of the students have latrines at home.

Water supply system

A public water tank with pipe is the water source of the school. The tank was provided by the parents-teachers association.

The tank is made of cement and is fully covered. Teachers



as well as students are looking after the tank so it works.

The children drink the water directly from the tap with their hands. The water is filtered with a specific tool, which is adjust to the tap.

The teachers say that about half the numbers of the children and all teachers wash their hands after defecation. Almost all students and all teachers wash their hands before/after eating.

The waste water from the water tank is drained to the garden of the school.

Noon-meal

Three fourth of the children get noon-meal at the school. The other children bring their own food. The food from the homes is well stored in covered vessels made of aluminium. Also the food, which is prepared in the school, is taken good care of before serving it.

The children sit on the veranda, which is usually clean, while eating. They eat on plates they get in school and eat with their hands. After the meal the children wash the plates, by the water tank, and give them later back to the teacher.

Garbage

The garbage is looked after by an aya (school servant). She is collecting the garbage from the paper baskets in the classrooms and empties them in a pit. The pit is a hole in the ground, which has been dug out. When the pit is full they close it with mud and form a new one. (It never become clear who "they" were). It looked clean around the garbage pit. The teachers said, they are happy with this system, since there usually is no garbage spreading on the compound.

Hygiene education

The hygiene education is a part of the education program. The parents-teachers association, the panchyat and the board of the school are responsible for the hygiene education. But the Panchyat is the financier of the hygiene education material.

The teachers are focusing on environmental sanitation and personal hygiene in the education. It is unclear if there is any link between the environmental sanitation education and the hygiene activities of the school. But the students are washing their plates and are looking after the water tank.

Mainly books, pamphlets and games, are used in the education. The children take interest in the material and the teachers are satisfied with the kind of material they have.

The teachers have not taken part in any courses about hygiene. Though they were interested in doing so. If they would get paid for participating it would be a plus, but it was not necessary.

Awareness of hygiene among teachers, students and parents

The teachers are including the students in the operation and maintenance of the water system and cleaning of plates.

The teachers are trying to solve the problem of lack of latrines. While they are waiting for a solution of the



problem, they have arranged chapels to all children. The school staff seemed to be convinced that they soon would get a latrine constructed. How come this school staff could be so sure, when the others usually are pessimistic is not clear.

The teachers could not say what might be the causes of the diseases of the students (fever). This is the first school who did not give any suggestions of what could be causing the diseases of the students.

The children themselves think that the causes to diarrhoea and fever are outside eatable things or to much sweets.

The relation between the schools and other groups/institutions

The parents are involved through the meetings with the teachers. During the meetings they discuss how to improve the hygiene and sanitation together. It was not clear what they have managed to do with their plans.

Following the school staff, they have a good relation with the panchyat. The staff has managed to convince the panchyat to buy chapels to all the children and they seem to be willing to arrange latrines for them.

The general impression of the hygiene education and sanitation

The school is lacking certain important hygiene facilities, but the school staff seems to have control over the situation. It is assumed that the control depends on the smaller actions the school has done, as arranging filtering to the water, digging down the garbage and providing all children with chapels. Why the teachers have not managed to get more students to wash their hands, after defecation, is not clear. One reason might be the big number of students, which makes it difficult to check so it is done.

NATHAM PRIMARY SCHOOL (R12)

General information of the school

The panchyat is financially responsible for the school. The school is laying in a small village. The buildings are built of cements and there is a small compound where the students can play.

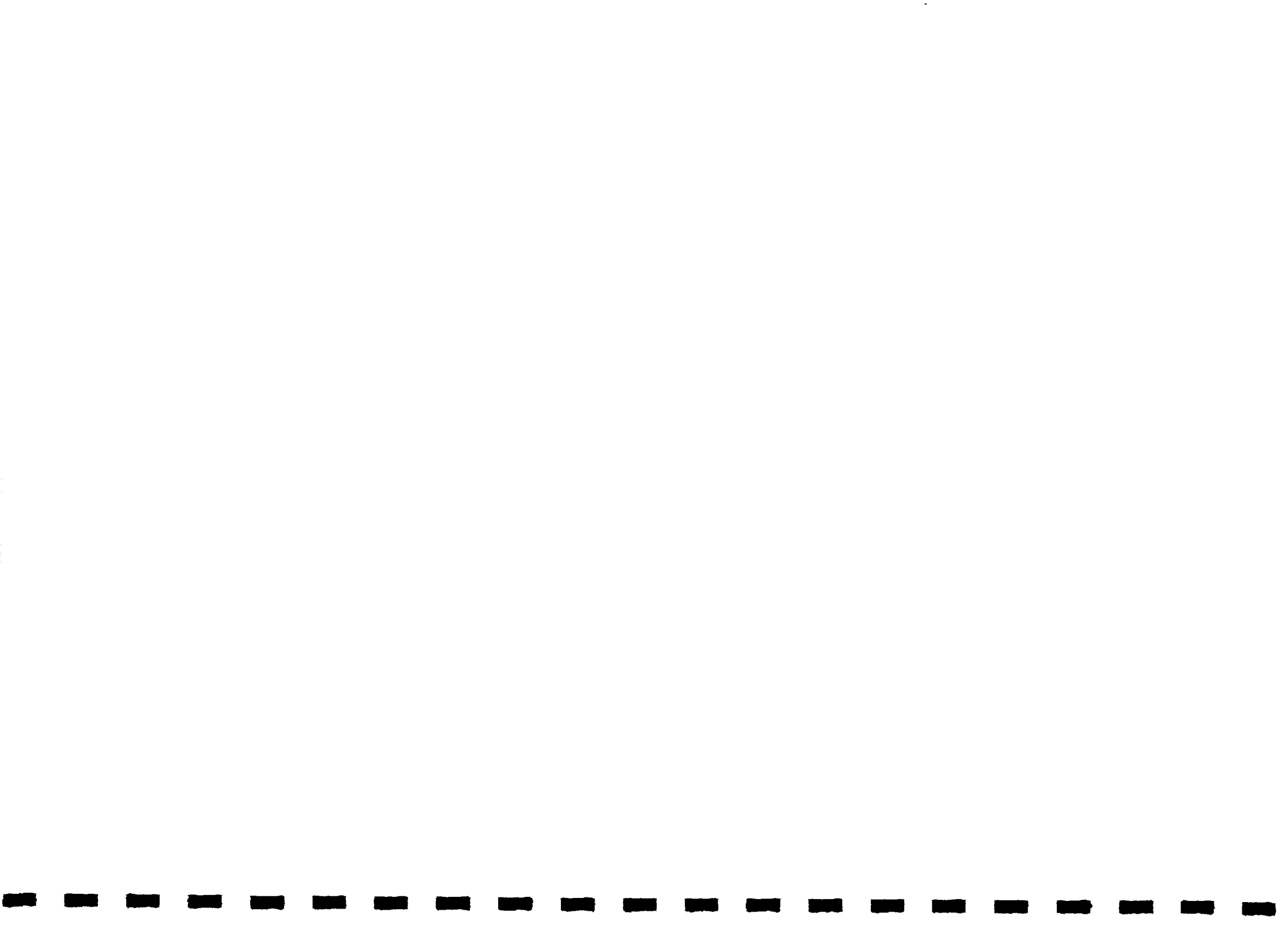
284 children are studying in the school. They are between five and ten years old. There are about five teachers and one head master teaching the children.

The school is open between nine and four o'clock, five days a week.

Latrines

The school has no latrine facilities neither for teachers nor students. The students are using the play compound as an open-air latrine. There is faeces laying obvious on the school compound. This is an immediate health risk for half the number of the children, who are walking bare-foot. It is not clear how the teachers manage without latrine facilities at the school.

The teachers think the bad sanitation is causing fever



and scabies (the most common diseases of the school) among the children. The teachers said that, one third of the children are absent from school due to diseases. This is one of the highest numbers of sick leave among the schools. The teachers have latrines at home (septic tank) but the students do not have latrines at home, following the teachers.

Water supply systems

The water source of the school is a panchyat tap water next to the main building. The head master has arranged with the panchyat, so the school can use the tap water when ever they need.

The students take care of storing the water. They take water from the tap and keep it in vessels with cover in the classrooms. The water is not boiled. The children share one mug for taking the water from the vessels and for drinking it.

All teachers and children wash their hands after visiting latrines and before/after eating, following the teachers. They use only water for hand-washing, neither soap nor ashes.

Noon-meal

Most of the children get noon-meal. They who do not get, go home to eat. The food is kept in covered aluminium vessels, before it is served to the children.

The children eat on the school veranda, which is clean. The school has aluminium plates, which the children use while eating. The plates are washed by the students after every meal, with water from the taps. The teachers collect the plates and keep them in the cooking hut.

Garbage

The students collect the garbage in the classrooms and on the compound. Afterwards they throw it at the side of the road. The Panchyat union workers are fetching the garbage once a week.

Hygiene education

Hygiene education is one of the obligatory subjects of the school. The teachers are responsible for the hygiene education.

Radio, books and charts are used in the education. There is no funding for the material of the hygiene education. Therefore the head master is buying the material with his money. The teachers try to adapt the material to the living circumstances of the children.

The children find the hygiene education interesting and are actively listening and discussing during hygiene education. The children say, they accept and try to do what the teacher is telling them to do. The teachers think 50% of the children bring their knowledge home to their parents.

The teachers have learnt about hygiene during their teachers training. They are interested in learning more about hygiene.

Awareness of hygiene among teachers, parents and children

The teachers are aware about the problem of latrines and



think it is the most important issue to improve in the school. Whether the teachers have done any actions to improve the situation of the latrines by themselves is unclear. The teachers said that their main difficulty is to find money.

The teachers know that the children do not have an actual understanding of the link between not sanitary conditions and risque of diseases. The teachers think they need to learn more about hygiene through giving examples from school, which the students can understand.

The network of people engaged in hygiene activities, in the school is functioning, as how the children keep the compound clean through collecting the garbage.

The relation between the schools and other groups/institutions
The parent-teachers association is working well, following the teachers. They feel they get a support in improving the conditions of the school, when the teachers take interest and asks etc.

The school does not have any problem with the locality. Instead the problem is that children who have safe latrine facilities at home are running a risque of getting worms when they are coming to the school. Thus in this case the school is a problem for the locality, instead of vice versa.

General impression of the hygiene education and sanitation

The main constraint for improving the hygienic conditions is that they totally are lacking latrines. This problem can only be solved if the school is provided with money to buy latrines. Otherwise the school seem to have good operation and maintenance of the facilities they have as, garbage and water supply.

The parents seem to take interest and the teachers express their satisfaction for this. Thus it does not need to be the actions of the parents, which are important for the contribution of hygiene. In this school the parents are playing a more psychological role. But what ever their role might be the parents seem to have an influence on the hygiene of the school.



PERUMBUR PRIMARY SCHOOL(U1)

General information of the school

The school is financed by the city Corporation. The school is having a big compound and three main buildings. The children have a lot of space to play on.

The school is surrounded with two really poor areas and many of the children in the school are from these slums.

Only 179 children are studying in the school, 104 boys and 75 girls. There are four teachers and one head master, who are running the school.

Latrines

The teachers have one pour-flush latrine. The children have five pour-flush latrines, but they can not use them. All latrines are connected to the city sewerage. The pupils cannot use the latrines, since there is a lack of water. The locals of the school are using the water facilities. The latrines are therefore locked(head master has the key). The pupils use the compound for urination and defecation, but not only the pupils use the compound for this purpose.

An interviewed parent, who lives nearby the school, told that they(locals) defecate and urinate in the nights and early in the mornings. The big school compound gives privacy to the latrine visitors, who come. The parent said that, it is mostly males and children who defecate on the school compound. The ladies want more privacy and go to the public latrines, even if it is far away from where they live. Some of the classrooms were used as latrine for a while. The specific building are now locked and are not used any longer.

The superstructures of the latrines are made of bricks and the floors of stone. A lot of faeces is laying around the buildings. This is an accute health risque for the approximately sixty children, who are going bare-foot. The teachers think that, the bad sanitarian condion of the school has a direct influence on the health of the children. Fever is the most common disease.

Water supply system

There is a bore pump on the school compound, which the Corporation has arranged. The school has selected students from all classes to be school guards. Some of their tasks are to provide the classrooms with drinking water. They do not boil the water before they pour it into the buckets. The buckets are not covered. The children share one mug to take and drink the water with. The mug does not have any handle.

The teachers think, all children and teachers wash their hands after defecation and before/after eating.

There is a drainage system from the pump to a an area of trees.

Noon-meal

Almost all the students are served noon-meal, they who do not get go home to eat.



The food is cooked in a hut, in which the food is kept in covered vessels. The children sit on the floor in the classrooms, while eating. The floors do not seem to be clean. All pupils eat on aluminium plates, which they wash afterwards.

Garbage

Every classroom has a paper basket, these baskets are emptied by a boy in each class, in the afternoons. The paper is disposed in a dustbin outside the school. The aya has the overall responsibility that the school looks clean and that the garbage is burnt in the dustbin. The compound looks clean, except from the faeces. It is therefore indicated that the aya does not sweep away faeces, but lets it become soil.

Hygiene education

The hygiene education is a subject, which the teachers have chosen to teach the children. If the subject although is obligatory for this school as for the others did not become clear. The teachers have the full responsibility for the education, but the Corporation is financing the material. It is mostly books and charts that are used in the education. The teachers try to adjust the material so that the examples they use, are understandable for the children.

The teachers have got schooling in hygiene during their teachers training and during a five days course. They are interested in following more courses and they do not demand a salary for coming.

The teachers have arranged health camps to involve the parents in the promotion of hygiene. The parents are first informed about the diseases and the causes of them. Afterwards the children are checked by a doctor to find out if they have any diseases. The headmaster is not satisfied with the response of the parents, since very few of them are coming to the camps. The headmaster has found a difference in the interest of hygiene promotion between the literate and illiterate parents. The literate parents come more often and are asking more about the health of their children.

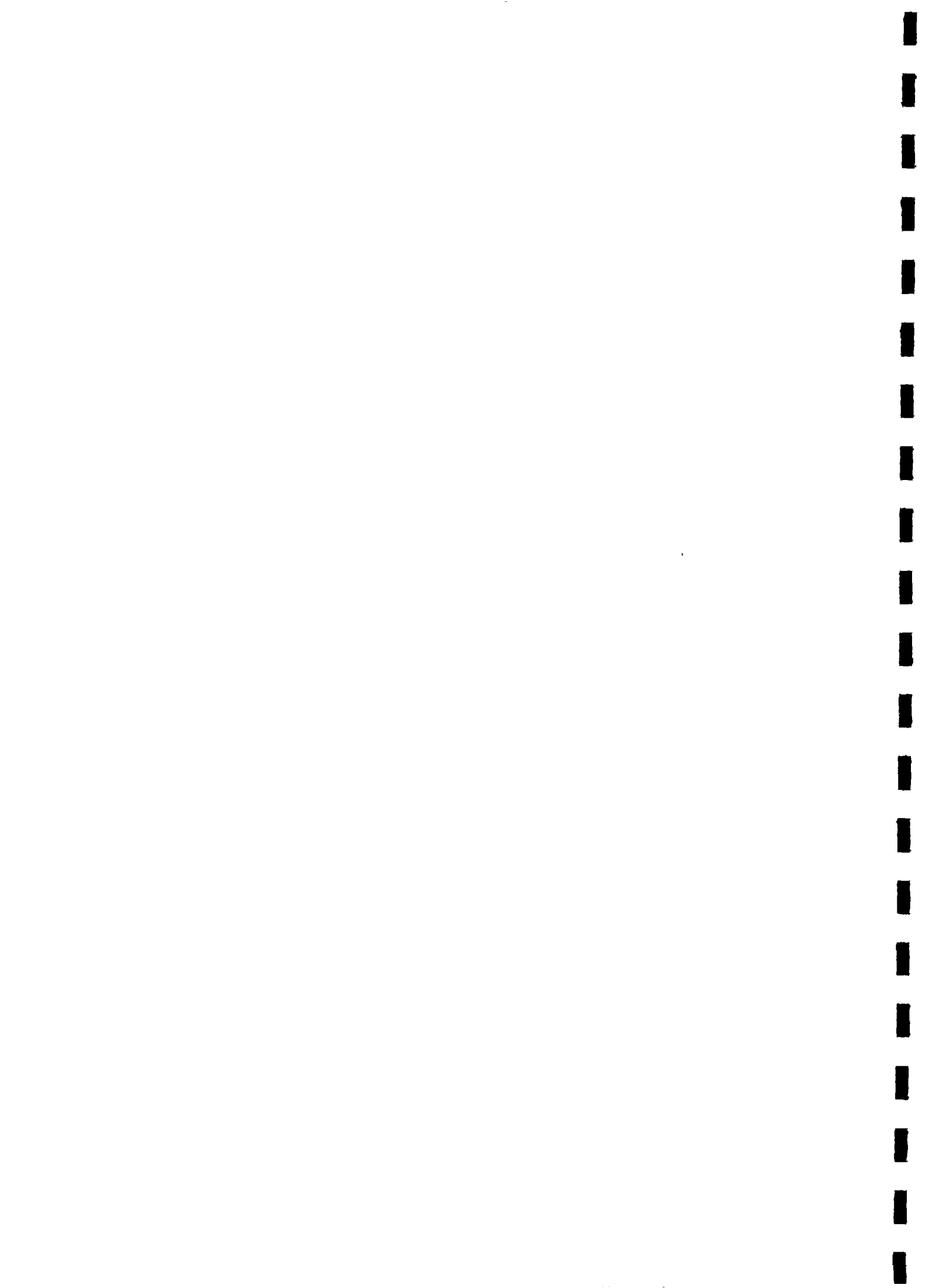
The awareness and attitude of hygiene education and sanitation among teachers, parents and children.

The teachers are aware about the hygienic problems of the school. They have on own initiative started hygiene education and camps for the pupils and their parents. The teachers and pupils have arranged a system of schoolguards, who look after the environment of the school. Especially so that the locals do not use their water facilities or defecate on the compound.

Even though several actions have been taken to contribute to the school hygiene, the school gives a poor impression of the hygiene. While entering the compound the faeces are immediately laying visible. The problems of the locals defecating on the compound seem to be too difficult for the teachers to solve.

General impression of the hygiene education and sanitation

The school has one of the poorest sanitarian compounds in the whole survey. The faeces and urine spread foul smells around



the school. The locked classroom(because of earlier defecation) is an example of how linked the school hygiene can be to the surrounding of the school. It also shows that the contribution of the teachers are limited and that they need support from other institutions as well.

JEEVAN JOTHI MEDIUM SCHOOL(U2)

General information of the school

The financor of the school is the Lions club of Madras. The school is situated in the midst of a slum area.

The school has 75 boys and girls studying with them. The children are in the age four to eight years old. About three teachers take care of the classes and the head master takes care of administration.

Latrines

The school has one pour-flush latrine for the teachers and two for the children. The latrines are connected to the city drainage system. The latrines are inside the building. The walls are of cement, as the floor. The slabs are made of porcelain. The latrines are clean, since a sweeper is cleaning them daily. All of the children use the latrine facilities. But still the school has problems with defecation on the compound. The reason is the publics use of the open yard.

The head master told that, the people of the slum do not have any latrine facilities. The school compound with its hiding walls fills the needs of the people. The head master has spoken to the leaders of the slum area, but they do not have a succesful discussions. The leaders get irritated when the head master asks them to stop using the compound, since he can not suggest them anything else. The school tried to convince the corporation to arrange public latrines, but nothing has happened so far.

Thus even though the school has good and functioning latrine facilities the students risque to get infected. Faeces and urine from the mud of the compound can easily infect the children without chappels(50%).

Water supply system

The school has one well and one water tank, which the corporation fills every second day. The water from the tank is used most.

The teachers think that, none of the children wash their hands after defecation but that all of them washed their hands before/ after eating.

Drinking water is kept in the classrooms in covered vessels with tap. The children have one mug to drink with. In this case the children do not need to put their fingers into the water.

Noon-meal

Most of the children are served noon-meal. They who do not get bring from home. All food is kept in covered aliminium vessels or boxes. The food seems to be kept safely before eating.



The children sit on the floor while eating. The floor is OK clean. The children are eating on big aluminium plates. Afterwards each child is washing her plate and hands.

Garbage

The aya is taking care of the garbage. She collects it and throws it on the backside of the compound. The garbage is spread over a big area and is not only in the dustbin. Why it has not been burrned before it fall out from the dustbin not clear.

Hygiene education

The hygiene education is an obligatory subject. They are especially teaching personal hygiene as, daily bath, cutting nails and brushing teeth, but they also learn about environmental sanitation. They have learnt about why and how to avoid dirty water, how flies can transmit diseases.

The hygiene education did not have many practical activities, as cleaning. One reason was the age of the children.

The material the teachers use is mostly posters, books, charts and taperecorder. The teachers are taking effort in adjusting the material so the children will link the information to their own surrounding. The teachers take direct examples from the environment around the school and explain the health risques with them. The teachers think the children are interested in learning about hygiene.

The hygiene education of the teachers has basicly been during the teachers training.

Awareness of hygiene education and sanitation among teachers, parents and children.

The teachers and head master of the school know which the problems of hygiene are at the school. They have arranged good hygiene facilities at the school and they try to make the education understandable for the children. The teachers have also contacted a medical team. The team is coming once a month to chech the health of the children. During these events some of the parents have seemed to avoid the fact that their children are sick. In one case it was a matter of misunderstanding from the childs side, who told his parent that he had a fatal disease. The parent got angry and told the teachers to stop the check-ups. It is not clear what is the cause of these misunderstandings.

The relation between the locality and the school has already been explained as not very succesful. The teachers are somewhat hesitating to contact the leaders again, but they are looking for a new approach.

The general impression of the hygiene education and sanitation
The overal view of the school is a positive one. The hygiene facilities are good, the teachers are trying to make the education visual and they are contacting other institutions to improve the health of the children.

The teachers have though problems in dealing with the locality. It seems to have come to a dead end at the moment,



from which the teachers tried to find alternative slutions.

SOUTH BOAG ROAD MIDDLE SCHOOL(U3)

General information of the school

The school is financed by the Corporation of Madras. The school is situated next to one of the slumareas of the city. The school has two main buildings and a small compound, which is surrounded by a fence.

762 children are studying in the school. The children are between five and twelve years old. The staff is about ten teachers and one head master.

The school is open from nine to four a clock, five days a week.

Latrines

The school has eight pour-flush latrines with city sewerage for the children(8-12 years old) and one pour-flush latrine for the teachers. The children who are between five and ten years old use the compound as latrine. The division of students for the use of latrines is made because of over usage. The people in the locality are using both latrines and water of the school, which means that the latrines get dirty very quick. The school has tried to stop the locals to come and use their facilities, but without any success. Instead the younger children have been refused to use the latrines, as a way of reducing the number of users. Some of the children told that they go home when they want to defecate/urinate.

The latrines are open only during the breaks, since the teachers want to avoid the stench to spread into the classrooms.

The superstructure and floor of the latrines are made of cement. It stinks from them, since there is lack of water to flush away the urine and faeces with. The water basin is not far away from the latrines, but it does not provide sufficient water to all users during the day. There are flies and mosquitos inside the latrines.

The teachers think, that 75 per cent of the children live in huts with no latrine facilities and that 25 per cent live in slum tenaments(small flats built by the Corporation), which have latrines. All the teachers have latrines at home.

The children wear chappels and walk bare-foot. Thus the younger pupils are especially running a risk of getting infected by a water-borne disease, since they have to use the compound where faeces are laying on the ground.

Water supply system

The school has a city water tank just inside the school. It is the Corporation, which is providing the school with water. The aya brings the water from the tank to the basin near the latrines. She is also fetching water to the noon-meal and to drinking water. The water is only meant for the teachers. It is boiled and kept in vessels with covers. The children bring their own water from home. It is not known if the mothers boil the water of the children



The most common diseases among the pupils are diarrhoea, worms and fever. About 25 per cent of the children are away from school due to these diseases, following the teachers. They think, the children get sick due to the contaminated water and outside eatable things.

Only a few children wash their hands, since the water does not last for everyone. The children say, that they want to wash their hands but that it is difficult. All of the teachers wash their hands though. There are no soap or ashes available.

There is no drainage system to the water supply.

Noon-meal

The aya is preparing noon-meal to almost all the children. Some of the pupils eat at home.

The aya cooks the food in a small hut, which is made of coconut leaves. She keeps the food in aluminium vessels, which are not covered.

The children sit on the floor in the classrooms, while eating. The floors are clean, since the students clean them every day. It was some of the students, who had got the idea to clean their classrooms.

Garbage

The garbage sweeper collects the garbage and dispose it in a dustbin on the side of the road. When the dustbin is full she burns the garbage. The sweeper comes every day and she keeps the garbage area clean.

Hygiene education

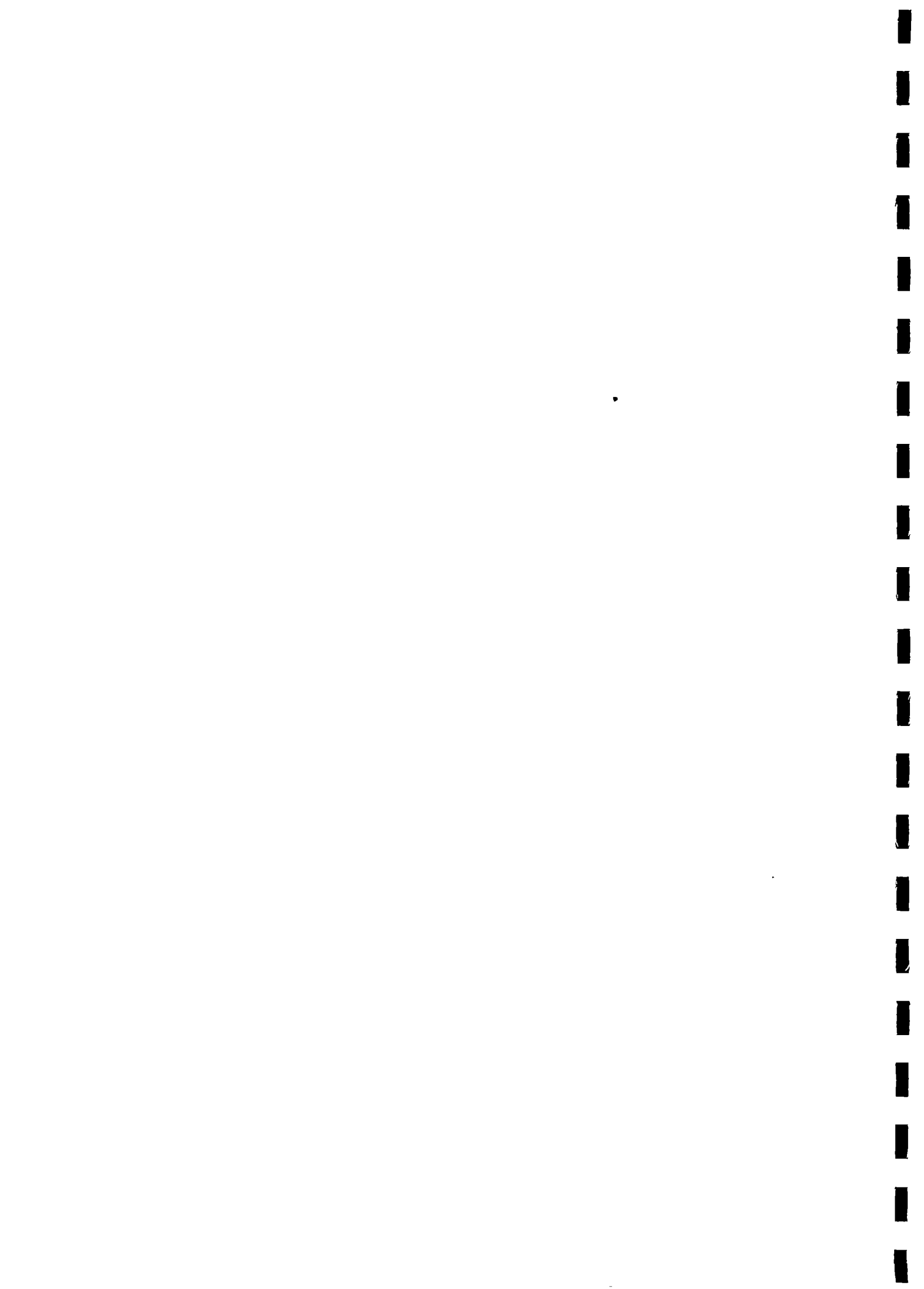
The education about hygiene is compulsory in the syllabus of the school. The hygiene education is included as a topic in the subjects, Environmental Sanitation and Tamil.

The teachers and the parents are responsible for planning the hygiene education of the children. The teacher-parents association is paying for hygiene education material, since there is no other fund.

The teachers arrange medical camps together with the hospital in the locality. They scan the children who have been registered as sick by the parents or teachers, to what diseases they have. Through these camps information about hygiene is spread to the parents. But the information is more about curative care than preventive care. Parents who have to work or have very young children at home do not come.

The teachers have followed courses about hygiene, during their teachers training, but they have not get any new information since then. The teachers are interested in following more courses, but the course should be held in the neighbourhood.

The teachers are using mostly books and charts to teach sanitation and hygiene. The teachers are satisfied with their material. They think the children also are satisfied with the material.



The awareness and attitude of hygiene education and sanitation among teachers, parents and children

The teachers at this school gave an impression of being well aware about the hygiene and sanitary risks of the school. They have tried several methods to solve the main problem, which is the locals use of their facilities. But so far they have not listened to the teachers. The teachers have also asked the Corporation to provide the local people with public latrines and public water, but the teachers have not got any answer.

The children seemed to be aware about how one gets diarrhoea etc. The pupils have taken action of their own to improve the hygiene of the school(eg. clean the floors of the classroom).

The network between the teachers and parents is working but the teachers want to reach more parents. At the moment it is difficult to get in touch with the families where both parents are working. This is a problem, since they usually are the most poor in India. It was not clear what the teachers will do about it.

The relation between the locals and the school is bad. They have discussed many times with each other but without no positive outcome for the school. The teachers say the locals thinks they can use the facilities of the school, since they do not have any. The teachers have tried to explain that if both groups use the facilities, the hygienic conditions will become worse. The locals do not accept this argument.

General impression of the hygiene education and sanitation

The school has the capacity to be a hygienic and sanitarian school. The latrines and water are sufficient for the population of the school. The children are interested in and take action to improve the sanitation of the school. But the school hygiene fails, since the school has more visitors then construction and organisation is made for. Facilities need to be provided for the locals together with information, to stop their usage of the schools facilities.

SEMBIYAM MIDDLE SCHOOL (U4)

General information of the school

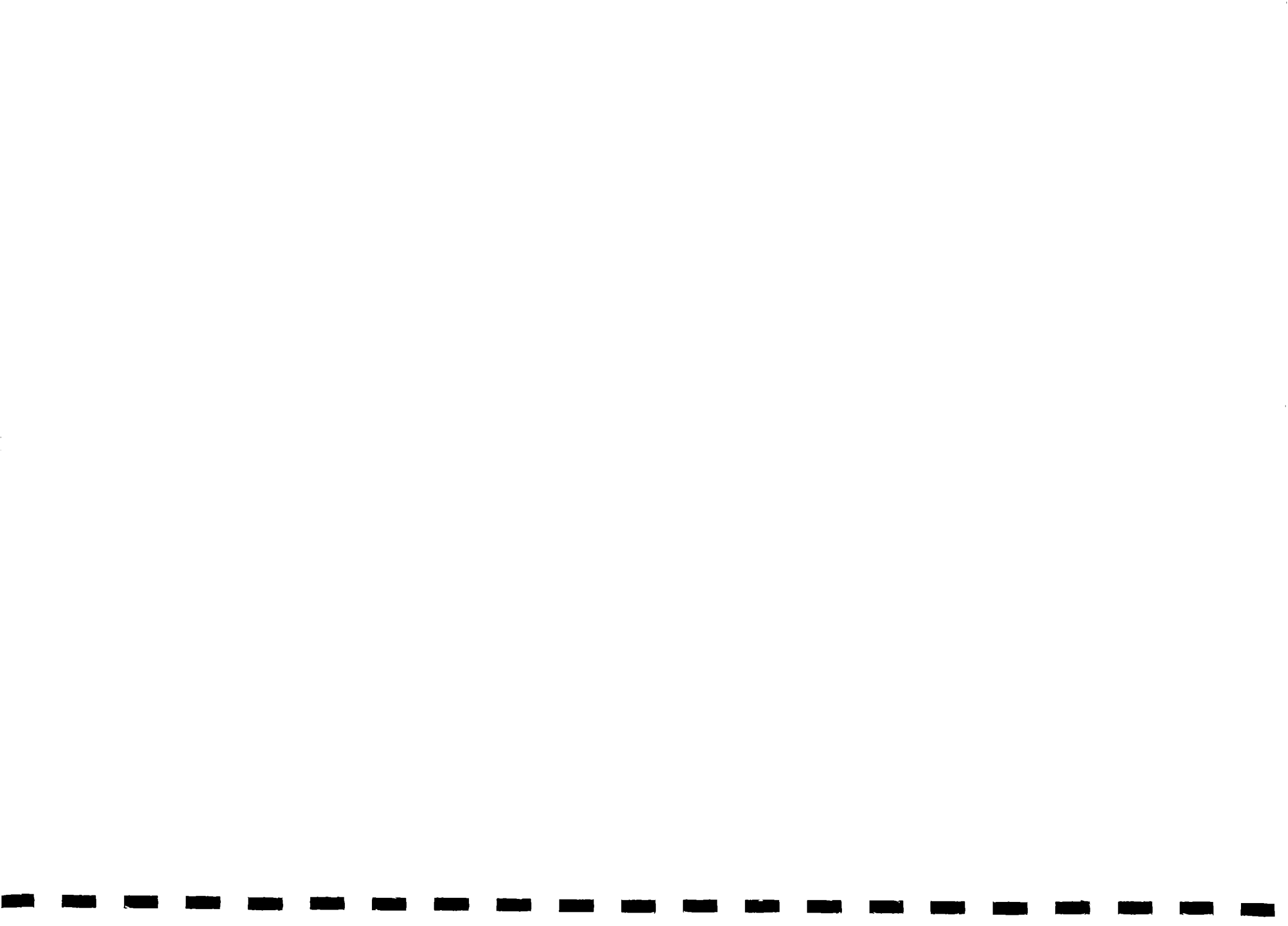
The school is financed by the Corporation of Madras. The school is situated in a poor area. The streets are filled with garbage and water, which has not drained away.

The three school buildings are made of cements. There is a small compound for the children to play at and a high fence surrounding it.

633 children are studying in the school(303 boys and 330 girls). 12 teachers and one head master are handling the school.

Latrines

The school has one pour-flush latrine, which is connected to the city sewerage and two latrines of the same kind for the children. But the pupils latrines are in a poor condition



since the roof has come off. Leaves are coming in and blocking the tube. The pupils can not flush away the faeces and urine and they have therefore stopped using the latrine. Instead the children defecate/urinate on a small area next to the superstructure of the latrine. The area is filled with human excreta. The sweepers do not clean these areas.

The superstructure is made of brick and the floor of cement. Excepting the roof, the latrine is in a good condition. Why the Corporation could not finance 1000 rupies for the roof is unclear.

The latrines are provided with sufficient water for anal cleansing and flushing. The water is kept in a basin just outside the latrine.

Most of the children wear chappels, which makes the risk less that they will get infections from the urine/faeces on the ground.

Water supply system

The school has a well. The aya is taking water to the basin outside the latrine, for the classrooms and for handwashing. The drinking water is kept in barrels, which are not covered. She does not boil before it is kept in the barrels. On the same time as the water is not boiled the teachers are aware that it is a great health risk. Following the teachers is the bad water and poverty, the main causes of the diseases among the pupils. The children drink the water with a mug they all are sharing.

Almost all the children wash their hands after defecation and before/after eating. (80% and 90%) They use only water while washing hands.

Noon-meal

The school provides 250 children with food every school day. The rest of the children bring their own food to school. The school is very small so it is busy during lunchtime, when the children get food, sit down and start eat. Afterwards 663 children wash their plates. It is difficult for the teachers to follow the activities and check so everything is clean.

The food is stored in covered vessels before the meal is served. The children sit on the compound and eat from their plates. The aya is helping the children to get water when they want to wash their hands and plates.

Garbage

Dustbins are kept in each classroom, which the aya fetches every day. She emptyies the dustbins at the roadside. Once a week she burns the garbage. The area outside the school is looking bad with garbage laying along the wall. This is a common picture in India.

Hygiene education

The teachers have chosen to give the children hygiene education. The teachers and parents are together responsible for the hygiene promotion, but the board of the school is financing the material.

It is mainly books and charts, which are used in the education. The teachers divide the students in small groups



and then discuss the problems of sanitation and hygiene in the groups. The teachers think the material is understandable for the children and follow the outline of the books while teaching.

The students seem to have learned about the link between the causes of water borne diseases etc., since they gave the correct answers most of the times.

The awareness and attitude of hygiene education and sanitation among teachers, parents and children.

The teachers know that they have problems with the hygiene of the school. They did not tell any actions they have done to improve the situation. But there are many areas which can be improved at this school with small means. Why 1000 rupies has not been collected from the teachers and/or the parents did not become clear. Or why the garbage place outside the wall of the school was not looked after well.

The locals do not take any care of the streets, which is a health risque for the children.

The general impression of hygiene education and sanitation

The hygiene education seemed to be more theoretical then practical. The children did not really participate in any of the hygiene/sanitation activities, as collecting garbage etc. The teachers seem to not know what they can do themselves to improve the condition of hygiene of the school.

OLD WASHERNAPET MIDDLE SCHOOL(U5)

General information of the school

The school is financed by the corporation of the city. The building and the fence of the school give an impression of good maintenance.

The school has 572 students most of them are girls, since it mainly is a girls school(442 girls and 130 boys). The children are in the age five to twelve years old. There are about nine teachers and one head master running the school services.

Latrines

The school has six latrines for the students(two for the boys and four for the girls) and three latrines for the teachers. The latrines are sufficient in numbers, following the teachers. The latrins are used most during the breaks. It seemed most of the students used the latrines, except a few of the yunger children.

All latrines are pour-flush with sewerage. The superstructure, floors and slabs are made out of cement.

The board of the school has arranged the latrines. A sweeper is regularly cleaning the latrines, which are neat and clean. The problem comes during rainy seasons when the latrines can get blocked. Both children and teachers complained about the conditions of the latrines during this season. If anything had been done about was not made clear. The water for anal cleansing is near to the latrines. They



fetch the water from a bore pump.

Water supply system

The school has a bore pump and a well as water sources. An aya is taking the water from the pump to the classroom. The water is not boiled. The water is kept in covered vessels with cover. The children are taking and drinking the water with a shared mug.

The teachers think that, almost all students wash their hands after defecation and that all students wash their hands before/ after eating. The children use only water, no soap or ashes.

The waste water is not used, instead it is drained into the sand around the pump.

Noon-meal

Almost all students are served noon-meal. The other students bring their food from home. The food is kept in covered aluminium vessels or boxes. The children sit on the compound while eating. The compound is partly made of asphalt, which is swept every day. Therefore the ground where the children are sitting is neat.

The children wash their plates and hands after the meal and a team of students clean up the area.

Garbage

The garbage is kept in dustbins in the classrooms, which the children are taking turns in emptying. They empty the garbage in a big dustbin on the compound. The children are also collecting papers etc on the school compound daily and are throwing it in the bin.

Corporation workers come weekly to fetch the garbage. The operation and maintenance of the garbage seems to work well, since the compound and the area around the dustbin is clean.

Hygiene education

The teachers have chosen to teach the children hygiene as a subject. It was not clear whether it was a part of the curricula or not. The board of the school is supporting the hygiene education and material financially.

The teachers are mostly teaching body hygiene, as importance of daily bath, dental care etc. The teachers mean that the children do not now this knowledge from home and therefore must be taught in school.

The children say they find the material interesting. It seemed as if the students also had realised that they should practise what they learned. One student said that she tries to advise the younger students to use the toilets.

The teachers are mostly using books and charts to exemplify what effects bad hygiene and good hygiene has on people and environment. They want to introduce drama as another way of expressing the message of hygiene, not only to the children but also to the parents.

The teachers have got their education at a course at the Institute of Education. The course lasted for fifteen days and they were paid for it. They were interested in following more



courses and they did not need any salaries for them.

Awareness of hygiene education and sanitation

The teachers have an awareness of hygiene and sanitation. They are also working out their knowledge in practicality, as arranging teams of students who clean the compound. The students are helping the aya in maintaining the water and the students try to keep their classrooms clean.

The teachers say that they concentrate on personal hygiene in the education, but however they have many environmental activities.

The school has arranged a parents-teachers association. The teachers are trying to inform and advice the parents about hygiene and sanitation. The parents are interested, following the teachers.

The general impression of the hygiene education and sanitation

The school has a practical and active hygiene education. The students are involved in many of the hygiene activities as the maintenance of the classrooms, water storage and cleaning. The students work in teams and they do not seem to object to take part in the work.

The parents have been involved in the contribution of hygiene and the teachers have plans to extend their involvement.

The school has good hygiene facilities and students and teachers seem to operate and maintain them well.

AGARAM PRIMARY SCHOOL(U6)

General information of the school

The corporation of Madras is financially responsible for the school. The school is laying in a poor part of the city.

479 boys and girls are studying at the school. There are about seven teachers and one head master running the school.

Latrines

There are four latrines for the children(separate boys and girls) and one for the teachers. The latrines are pour-flush ones and are connected to the drainage system of the city. The superstructures are made of bricks and the floors are made coments. The latrines are dirty with faeces laying around some of the slabs. There are a few flies flying around and there is a strong foul smell.

One reason to why the latrines are dirty, is the distance between the water container and the latrines, following the teacher. The teachers and students are carrying the water in small buckets and some times the water becomes to less. another reason is the maintenance, which is not good enough. A sweeper is cleaning the latrines a few times per week.

Water supply systems

The school gets water from the corporation which is stored in a tank. The tank is filled every second day. The hand-washing water is kept in barrels, which the children can use after



defecation(70%) and before/after eating. But very few children get the possibility to actually clean their hands before noon-meal, because of the lack of water. After the meal there is water for all of them.

The drink water is not boiled. An aya gets the water from the tank and put the vessels(with covers) in the classrooms. The children are taking and drinking the water with a shared mug.

The waste water is not used. Instead it has become a pond of waste water in front of the tank, since there is no drainage system.

Noon-meal

370 children are served noon-meal and the rest of them bring their own food. The food is well stored before the children eat it. All children sit on the floor in the classrooms while having their noon-meal. The children are washing their own plates after finishing the meal.

Garbage

Dustbins are kept in classrooms, which the aya empties. The garbage is kept on the roadside in a dustbin. A lot of the garbage has fallen on the outside of the dustbin. It was not clear whether it was she or the panchayat workers were responsible for the destruction of the garbage(e.g. burning).

Hygiene education

The hygiene education is an obligatory part of the education. The teachers are responsible for the out-line of the education and the board of the school is financing it. They have bought books for the funds, but they want to get charts also. For this they were now looking for some kind of funds.

They are thinking of the home environment of the children when they are explaining about hygiene. A few times have they also made excursions to the areas of the children.

But the education does not seem to be very practically oriented. When a child comes with dirty clothes to school, he is sent home. It is not clear if the children try to give him suggestions how to keep his clothes clean etc(Compare with Nungambakkam school)

The teachers have learned about hygiene from a ten days course. They still want to learn more and it is not necessary that they are paid.

Awareness of the hygiene education and sanitation among teachers, parents and children

The teachers at this school did not seem to be aware about how they could put the hygiene education into practise. The children did not take part in cleaning or in the storing of water. Why the problem with the distance between the latrines and the water facility did not become clear.

If the teachers had spoken to the corporation about the lack of water it did not come out in the interviews.

The teachers thought that the parents participated to little in the promotion of hygiene and health among the children. But on the same time had the teachers not approached them. The teachers do not mention if the school



has a parents-teachers association or not. It seems the teachers know what should be done to contribute to the hygiene, but that they have not put it into practise yet.

The school has a problem with the locality. The public are throwing animal corpse on the backyard of the school. What has been done from the teachers side to stop them did not come up in the interview.

General impression of hygiene education and sanitation

The school has the basic hygiene facilities, but the operation and maintenance of the same is poor. The teachers and children are not putting the education into practise. The parents are not included in the promotion of hygiene. It seems availability of facilities, operation and maintenance, hygiene education and parents are treated as islands. They are not really linked to each other.

AYANAVARAM MIDDLE SCHOOL(U7)

General information of the school

The school is aided by the corporation of Madras, but the main financial support the school gets from the management board of the school. The school is a well kept building with a high fence, which is surrounding it.

There are 685 children studying at the school. 364 are boys and 321 are girls. They are in the age five to twelve years old. About twelve teachers and one head master are teaching the children. The children are studying between ten and four, five days a week.

Latrines

The school has pour-flush latrines, which are connected to the city sewerage, for both children and teachers. The latrines were made on the same time as the building and have been working, since that time. The superstructure and the floor are of cement. The slab is made of porcelain. The teachers find the latrines clean and say that they always are in a good condition. Two times per day (morning and afternoon) a sweeper cleans the latrines. Since the condition of the latrines are good and they are sufficient in numbers, none of the children defecate on roads or compounds.

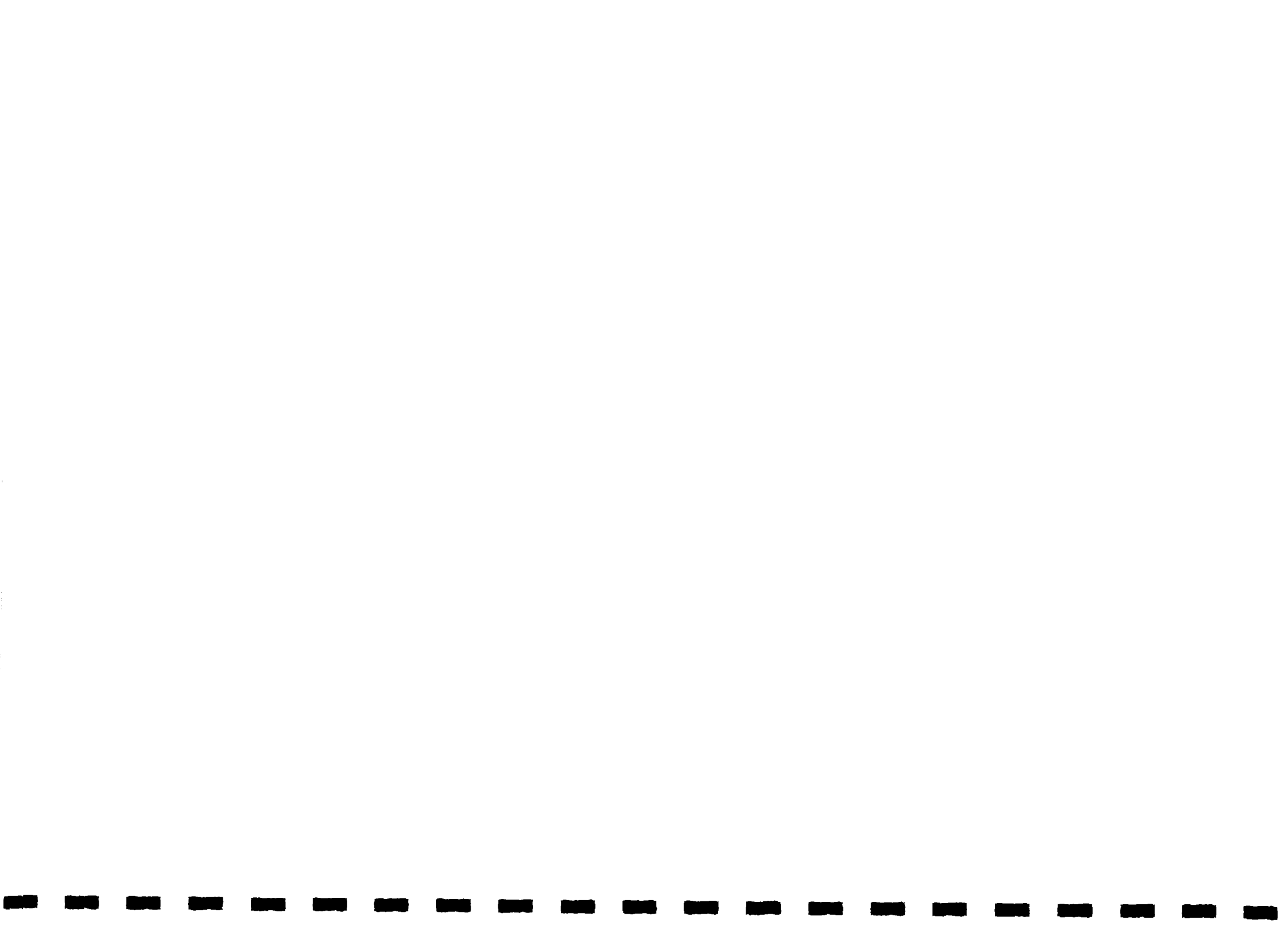
Water for anal cleansing is a few meters away from the school. The children bring the water in small buckets from the handpump to the latrine.

It is the board of the school, which is responsible for providing hygiene facilities of the school. It looked like the board is fulfilling their duties to the school.

Water supply system

The board of the school is responsible for the provision of water.

Water for drinking purpose is taken directly from the handpump. A few mugs stand next to the handpump with which the children can take water to drink with. The water is therefore not boiled. On the same time the teachers think that diarrhoea



is caused by bad water. Why the teachers have used their knowledge in practise not known.

All children and teachers wash their hands. One teacher is always joining the children for hand-washing before/after the noon-meal. The children stand in a cew and wait for their turn to wash their hands and then to pump up water for the person coming after. They are only using water, no soap or ashes are available.

The waste water is drained to a tree garden.

Noon-meal

The children under poverty line are served noon-meal. The remaining students bring their own food.

The noon-meal is cooked in a hut next to the school. the food is kept in aliminium vessels with cover before being served. The food which is brought from home is kept in aliminium boxes with cover. The food seems to be stored properly.

The children are sitting on the floor in the classrooms, while eating. The floors are clean, since the students clean the floors every week.

Garbage

The garbage is collected by the students, who clean the classrooms every week. The same students throw the garbage in a dustbin at the roadside. The panchyat workers are fetching the garbage weekly once outside the school.

The area around the garbage did not look neat. A lot of the garbage was spread around. It is not clear whether it was the students, the panchyat workers or the loclaity who failed in keeping the area around the dustbin clean.

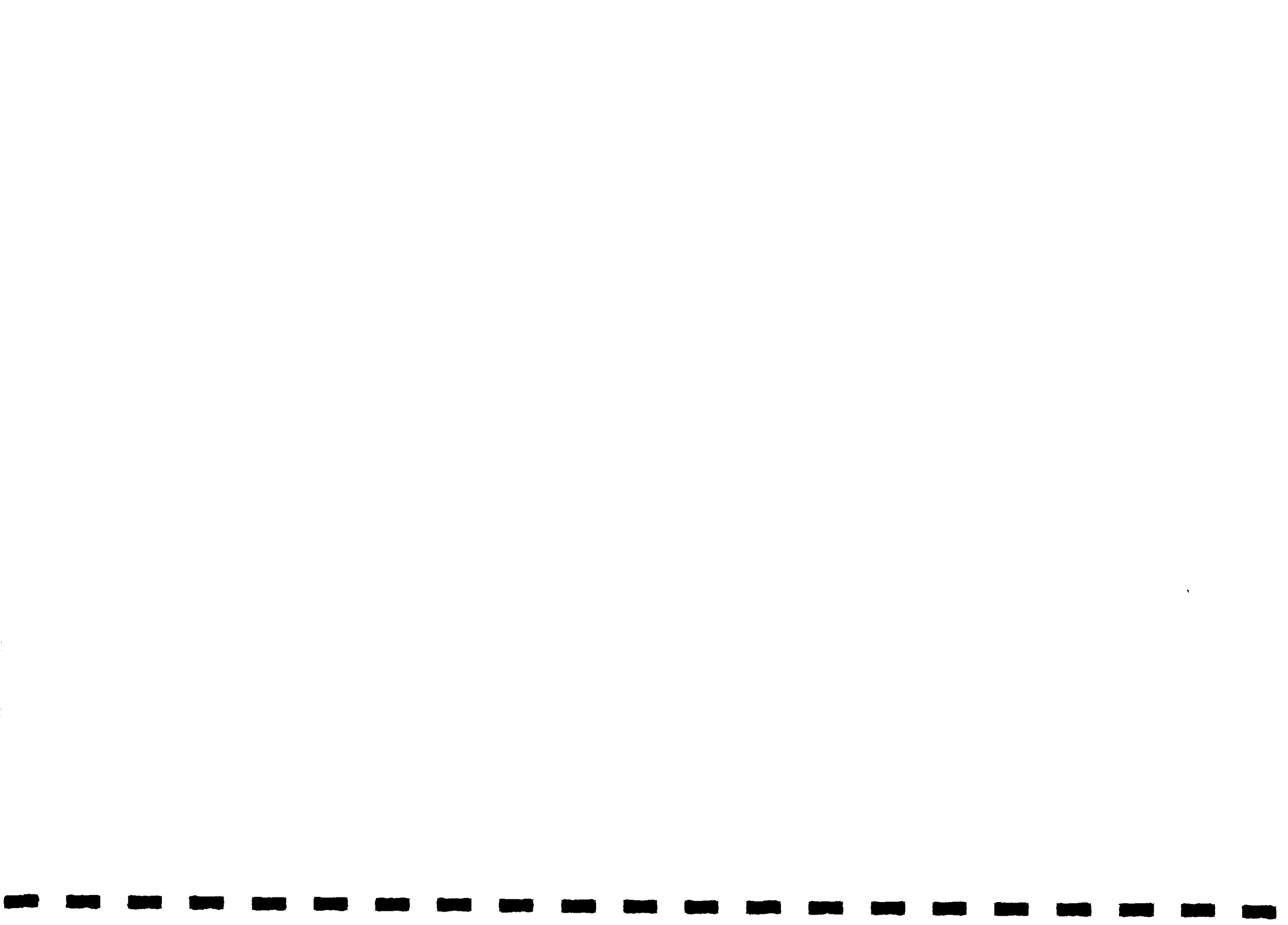
The hygiene education

The hygiene subject is compulsary as all the other subjects. The teachers try to involve the parents, so that they also teach the children at home about hygiene. The parents-teachers association is active and the teachers get support from the parents in the contribution of hygiene.

The teachers link the hygiene education to the hygiene activities of the school. The students are therefore aware about why they should wash their hands etc.

The teachers are mainly using books, posters, games and rimes as "keep your environment clean and green". The teachers think the children are satisfied with the material. It seemed like the teachers were experimenting with the books and tried to make them more lively and practical. The board of the school is paying the material.

The teachers have learnt about hygiene and water-borne diseases during their teachers training. Afterwards they have followed in-service-training about personal hygiene and environmental sanitation at the Department of Education. The course lasted for ten to fifteen days. They still want to learn more about hygiene. Whether they will be paid or not is unimportant.



The awareness and attitude of hygiene education and sanitation
The teachers are well aware about hygiene and sanitation. They have organised various hygiene activities where the pupils are included, as cleaning and maintaining the water system. The teachers try to make the hygiene education practical so that the children will realise that they themselves can do something about it.

The parents seem to be aware about the importance of hygiene, since so many are coming to the parents-teachers meeting. The parents are also helping in teaching the children hygiene, at home. Thus the cooperation between the teachers, pupils and parents seem to be good.

The board and the teachers seems to have a good relation. The board has provided the school with all the necessary facilities the teachers have asked for.

The school shows example on how hygiene education can be put into action and in that way keep the hygiene facilities well maintained.

The general impression of the hygiene education and sanitation
The hygiene of this school is one of the best ones in the study. All groups who are included in the hygiene activities have been informed by the teachers. The teachers are practically combining knowledge with doing. The teachers themselves are also taking part in cleaning etc to be models for their students.

HABIBULLAH ROAD MIDDLE SCHOOL(U8)

General information of the school

The school is financed by the corporation Madras. The area of the school is very poor, it is almost situated in the middle of the slum. Outside the school fence stand the huts of the slum.

The school is three main buildings, one of them is not used. There is a big compound, where cows and goats are walking looking for food.

320 children are studying at the school(156 boys and 161 girls). The children are between five and twelve years old. Seven teachers and one head master are running the classes. The school is open between half past nine and four, five days a week.

Latrines

The school has one pour-flush latrine, which is connected to the city sewerage, for the teachers and is working well. The walls and floor are made of cement and the slab of porcelain. It is clean and has no foul smells.

There are eight pour-flush latrines for the children(same sewerage as teachers), but none of the pupils latrines are used. The reason is the shortage of water, which make it difficult to keep the latrines free from faeces and urine.

The problem is even greater, since the locals also are using the latrine facilities of the school during early mornings and late evenings. The locals have not only used the



latrines, but also some of the classrooms, which led to the closing of the same. The pupils are now instead using the compound, the roadside or the public latrine for defecation/urination. The same compound, which the children use as latrine, is used as a play ground. This is genuine health risk, since fifty per cent of the children are bare-foot. The teachers have tried to stop the pupils to play in that certain area, but with no effect. The teachers have also tried to stop the locals to come and use their facilities, but have at these times got threatened. They are hesitating to take up the problem again. The teachers want somebody from the corporation to speak with the public.

The common diseases of the school are fever, worms and leprosy. The teachers said that, they had had quite a few cases of leprosy in the school during the last years. They think the environment is the main cause to the diseases of the children.

Water supply system

The school has a handpump on the compound. The aya can only take water from it between eight and ten a clock in the morning and for a short time in the afternoon. The water she takes is for cleaning the school with and for the noon-meal. The teachers have decided to lock the handpump during the rest of the day. This is to prevent that the public does not come and use the handpump as they used to do.

Thus the school has actually water, but does not make proper use of it. Because of the short opening hours of the handpump there is either water for the children to drink, or to wash their hands. The children bring drinking water from their homes.

The waste water from the handpump is drained into the area surrounding it.

Noon-meal

Less than half the number of children are served noon-meal. The remaining children bring their food from home. All food is kept in aluminium covered vessels or boxes. The children are sitting on the floors of the classroom, while eating. The children are eating with their hands.

When the children have eaten the teachers collect the plates, which the aya is cleaning later. How the children are cleaning their hands after the meal has not become clear.

Garbage

The aya is collecting the garbage and throws it in a dustbin on the roadside, just outside the school. The teachers and children are also supposed to throw the garbage, but only fifty per cent use this facility.

The panchayat workers collect the garbage once a week. But it looks like it was less often or the school and the public do not maintain it well. Much of the garbage is laying outside the bin.

Hygiene education

The teachers have a few books, charts and posters. Instead of

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using the material the teachers let the children make their own material. Examples of the pupils paintings etc show that they actually have understood the links between unsanitary environment and water borne diseases(see appendix for photo) The paradox is that they can not use their knowledge in the school.

The children are fond of the subject hygiene and are giving examples how it is possible to improve the environment and are actively discussing with the teacher.

The teachers have learnt about hygiene during their teachers training. Afterwards they have followed an in-service training in hygiene for fifteen days. Still they do not think they know enough and want to hear more about hygiene.

The awareness and attitude towards hygiene education and sanitation of teachers, children and parents.

The teachers are aware about the fact that their school has many serious hygiene and sanitary problems. Their attitude seems to be that they want to change the situation, but that it is almost impossible. They think especially it is difficult to change the behaviour of the locals, since they do not have any kind of influence on them. For this they want help from the Corporation, but they have not responded on their request. Thus the teachers seem to want to do something about the situation, but they can not manage on their own.

Very few of the parents are coming to the parents-teachers meetings. Why this is the case was not told. There can be many reasons as, working, uninterested, unaware, sick etc. The fact, though, is that the teachers are not backed by the parents in the promotion of hygiene at the school.

The Corporation of Madras has been asked several times for help. Their answer has been "lack of money". But they have not even sent a sanitarian to check the circumstances of the school, which is indicating a limited interest. Why this interest is limited is not known. It might be because of organisational problems within the Corporation, somebody who is not fulfilling her/his duties etc. The fact is though that the teachers have not got any support from the corporation.

The relation is rather tensed, as was mentioned earlier. The school has tried to stop the public to use their facilities, but without results. The only thing, the teachers think, can stop the public is a fence which can be locked during night and a watch-man who is guarding the school. But none of these two possibilities can the school afford. Thus the problem remains unsolved.

General impression of the hygiene education and the sanitation

The immediate sight of the school and the cattle, which is obtaining the same place as the children and leaving its dung everywhere, gives an indication of the hygienic status of the school. The hygienic problems of the school are spread on many levels, as with the corporation, the locality, the water supply etc. The teachers are standing in the middle of these problems and know that something should be done about it. But they do not know how and where to begin contributing to the hygiene of the school.



NUNGAMBAKKAM PRIMARY SCHOOL(U9)

General information of the school

The school is financed by the corporation of Madras. There is a busy shopping street and lower middle class house next to the school. Most of the students are coming from a slum area nearby.

Seven hundred boys are coming to the school. They are studying in two intervals, one between eight to twelve a clock and one between one one and five a clock. Each interval takes 3350 students. About ten teachers and one head master are responsible for the activities of the school.

The school staff seems to work much like team and all are determined to keep a very high standard of the school. It is especially the head master, who is encouraging the teachers, ayas, watch man and children to contribute to the hygiene of the school.

The headmaster is running the school with a kind of ideology, which he calls "civic sense". The civic sense is including belief in God(no matter muslim, christian or hindu), respect for all living beings, love between people and care of the environment. In the civic sense the headmaster has found a way of motivating the staff and the children in caring for their own health and the environment of the school. All people concerned in the school seemed to be highly motivated, which can be seen in the very green and clean school.

The school has been recognised in the newspapers for their contribution to hygiene and health for the boys in the slum.

Latrines

The school has eight pour-flush latrines and one urinal, with drainage connected to the drainage system of the city. These facilities are used by the students and the males of the staff. There is one pour-flush latrine for the female staff. The superstructures are made of wood and the floor is made of cement. The slabs are made of porcelain and are above ground level. All facilities are shining clean and there are no flies.

A sweeper is cleaning the latrines twice daily. Another fact which might be a reason to why the latrines are so clean, is that the boys are not supposed to defecate at the school. The head master told that this principle have been decided upon, since they have had problems with cleaning the latrine from faeces. One reason to the problems could have been the fact that it is almost hundred meters between the latrines and the water taps. Anyhow the boys have been told to not defecate at school, unless it is really urgent. Following the head master do the boys appreciate the way it is now.

The teachers think that 25 % of the children do not have any latrines at home, but all of the teachers have latrines at home. The teachers said that the lack of water in the childrens homes and that they walk bare-foot are the main causes to diseases, as worms and malaria.



Water supply system

The school has one bore well and one bore pump. Next to the pump there are three taps arranged for the students. The children are always drinking and washing their hands by the taps. Water is only kept in the teachers room. The water is not boiled.

The teachers think that all of the boys and teachers wash their hands before/ after eating but not after urinating. There are three taps, which the children use for washing their hands. The teachers think the taps are too few and hope to get funds for arranging more taps.

The waste water from the handpump and the taps is drained to a banana tree garden. The system is working well. The watchman is looking after all the water supply facilities and the garden. This man shows a big interest in the work he is doing, which can be seen in the compound of the school.

Noon-meal

A small cement building is the place for cooking. It is placed next to the well, so the aya's do not need to walk a long distance to get water. All children are served noon-meal. They sit on the floor in one special dining room. The floor is clean, since it is swept every day, and there is sufficient space for the boys to sit down.**PHOTO**

Two of the boys are serving the other food. When all of them are ready they go to the taps to wash their plates and hands.

Garbage

The garbage is taken care of by the aya and the students with the guidance of the teachers. The students are cleaning their classrooms in turns. The garbage is kept in a dustbin outside the school. When the bin is full the aya is burning the garbage. It looks neat around the bin.

Hygiene education

The hygiene education is an obligatory subject of the curricula. They are always telling the children about civic sense and in that way repeating the message "clean and green". The students are taking active part in many of the hygiene activities, as cleaning, watering the plants of the school and collecting rubbish.

The hygiene education material is books and charts, but the teachers are mostly discussing and giving examples from their immediate neighbourhood. The material is financed by the corporation and to some part by the teachers themselves.

They have got training about hygiene in their teachers' schooling and during in-service training. They want to learn more, since new diseases are defined and methods to prevent them.

The children are enthusiastic in learning and they discuss difficulties of hygiene with the teachers. One example is how a boy told that he could not come to school in clean clothes every day, since his mother does not have time to clean the one set he has. The teacher then suggested that the boy could clean them himself. The boy accepted the idea and



can now come to the school in clean clothes as the other boys.

The awareness of hygiene education and sanitation of teachers, parents and children.

The teachers and head master are aware about the importance of teaching the children hygiene. They teach the children in a practical way and include the children in the hygiene activities. In this way the children have got a chance to see the effects of their hygienic behaviour and they are really proud over their green and clean school.

The children have become aware to such an extent that they themselves suggest the teachers how to improve the school. One by asked if not all students could bring a plant to school. Other students are voluntarily helping the watch man to water the plants.

The teachers tell about the parents that, they are happy over the health improvements they see in their children. The children are informing the parents about hygiene and look more healthy. But the parents themselves do not take active part in the promotion of hygiene as, visit the informative meeting. The reason is that they are too busy with getting their daily income, following the teachers.

The head master has arranged a nurse and a doctor to the school. The health team is coming voluntarily once a week and they check all students the teachers have noticed being ill.

The head master has built a network together with other head masters. The idea is that they will be able to make bigger actions for the improvement of health, when they support each other. The last joint action was to promote dental cleansing. Three head masters and Colgate had arranged a camp for approximately four thousand children. The children were told why and how they should brush their teeth and that they should rinse with clean water.

The general impression of the hygiene education and sanitation.

The school has an impressive compound, clean gates and many plants. The teachers and head master seem genuinely interested in contributing to the health of the children. There is a strong sense of enthusiasm and motivation coming from the staff, when they speak about how they could improve the school even more.

THIRUMANGALAM PRIMARY SCHOOL (U10)

General information of the school

The school is aided by the corporation, but the head mistress and her husband are funding most of the facilities and activities of the school. They have also arranged private donors to the school and are looking for more people who are interested in giving.

The school is laying in a poor district. All children are coming from the slum nearby. The school has two main buildings and a large compound.



Five hundred students(both boys and girls) are studying at the school. About eight teachers and one head mistress are running the school.

Latrines

The school has one pour-flush latrine (connected to the city drainage) for the teachers. The students have two urinals and two pour-flush latrines(boys and girls separate). It is the headmaster, who has funded the latrine facilities.

The superstructures and floors of all the latrines/urinals are made of cement. The slabs in the pour-flush latrines are made of porcelain.

The latrines are clean, but the girls urinal is stinking. The girls do not pour enough water over the area where they have urinating. There is no other water supply then a well and it seemed difficult for the children to fetch it, since the wall of the well is too high for the children.

The children wear chappels or shoes or walk bare-foot. For the children who are bare-foot are the urinals unhygienic. They practically are walking in the urine as soon as they enter the urinal. The reason why is that there is lack of water to pour away the urine and that the urinal is not sloping enough to drain the urine out of the urinal. The boys urinal looks like it has not been used. The teachers also said that, the boys sometimes urinate on the compound.

The headmistress thinks all children lack latrines at home. She also said that the parents do not bother whether they have latrines or not. Therefore the headmistress wants the children to experience the advantages with latrines at school, since they do not have it at home.

Water supply system

The water resource of the school are a well and a city tank, which is filled with water every second day. When the children want to wash their hands or get water before visiting the latrine, they usually have to fetch the water themselves. Sometimes the servant is available to help them, but she is always there before and after the noon-meal. The wall around the well is rather high for the children, which limits the use of the water facility. The head mistress wants to arrange taps for the children, but is waiting for fundings.

The children wash their hands with water , but at home they use water and ashes.

The children bring the drinking water from home. They carry the water in small plastic bottles. It is not known if the water is boiled. The head mistress think that dirty water is the cause to the diseases the pupils have.

The waste water is drained to the trees on the compound. But during the rainy seasons the drainage is not sufficient. Last year the school was flooded with water(one meter). The head mistress said that it is because the main drainage of the are is blocked with garbage. This can be seen along the roads, where garbage is plugging the holes to the drainage systems.

Noon-meal

200 of the students are served noon-meal. The remaining 300



students bring their food from home. All of the children sit on the floors of the classrooms, which are filled with sand and dust. But the plates are clean and the children wash their hands before eating.

Garbage

The servants and children are collecting the garbage. They are throwing it in a dustbin next on the roadside. the dustbin is emptied once a week, which the head mistress thinks is too rarely. She has asked the corporation to increase the corporation workers visits to the dustbins. The corporation has answered that they can not take any action due to lack of money. But since there is no action she is expecting the school compound to be flooded when the rainy season is coming.

Hygiene education

The hygiene education is a curricular activity and it is aided by the corporation. The teachers are trying to adjust the education so the children will link it to their home environment. The material the teachers are using are book, charts, filmshows and radio.

The hygiene education is to some extent linked to the hygiene activities of the school, as cleaning the classrooms, washing plates.

The children are interested in the hygiene subject and they take active part, as asking questions and giving own suggestions how they can improve the hygiene of the school. It seems the children bring the hygiene information to their homes. One of the children had told his neighbour that he should put the garbage inside the dustbin and not outside .

The teachers have got training in hygiene during their schooling, in their in-service training and in the meetings with teachers from other corporation aided schools.

Awareness of hygiene education and sanitation among teachers, parents and children

The head mistress is working on the improvement of hygiene of the school. Recently facilities, as latrines, have been arranged. She and the teachers are trying to inform and make the children use these facilities in a hygienic way. The head mistress thinks the standard of hygiene has increased, but she is still not satisfied.

She wants the parents to take more interest in the hygiene of the children, but she also says that their time is limited to come for meetings etc.

The children seem to be aware about which the health hazards are, but they are not having the same kind of behaviour. Why the gap between is there between awareness and behaviour of the children is not clear.

The school and the corporation is not having much exchange. The school did not get the kind of response they wanted and they are therefore trying to manage of their own.

General impression of the hygiene education and the sanitation

The teachers and headmistress showed a determination of improving the hygiene of the school. They are first concentrating on the hygiene facilities and on the hygiene



education. But the operation and maintenance of the new facilities is not organised and is not working properly. It did not become clear if the school staff is giving the operation and maintenance sufficient attention. The pupils seem to not be well informed how to use the facilities. If the hygiene education is explaining about how to use the facilities did not become clear.





Noon-meal hall (U9)



Noon-meal hut (R7)
(cooking place)



Drainage system led to a kitchen garden





Drinking water supply (10)



Drinking water supply (17)



CHECK-LIST FOR PARTICIPATORY OBSERVATIONAvailability of hygiene facilities

- 1 What kind of toilets are there in the school? (Pour-flush with pit or sewer)
- 2 What is the latrine built of? (bricks, wood, mud)
- 3 What kind of slab is around the hole? (stones, mud, grass) Is there soil in the area around the latrine?
- 4 Is the platform above ground level?
- 5 What kind of floor is in the latrine? (stones, bricks, mud)
- 6 What is the pit volume? Is it enough for the members of the school?

Operation and maintenance

- 1 How clean is the toilet? (extremely dirty, dirty, OK, clean, very clean)
- 2 Are there flies around the toilet? (very many, many, a few)

Use of the toilets

- 1 How many toilets are there per children and teachers?
- 2 Are the boy's and girl's toilets separate? Are the children and teachers toilets separate?
- 3 Is the latrine provided with water for anal cleansing?
- 4 Which possibilities are there for throwing menstruation pads?

Water supply

- 1 How is the water preserved? (septic tank, barrels, buckets)
- 2 Is the water stored near the toilets/ garbage?
- 3 How is the water covered? (stone, cloth, real cover)
- 4 How do they take water from the water store? (tap, shared mug, with the hands)
- 5 How is the waste water used? (gardens, reused, not at all)

Hand-washing facilities

- 1 What kind of hand-washing facilities does the school provide? Is there soap, ashes, towels?

Food and drinks

- 1 Does the school provide the children with food and drinks? (a whole meal, nutrition drink)
- 2 Is the water boiled which the children are drinking?
- 3 Do the children bring their own food to school?
- 4 How is the food stored? (in box, cupboard, in open air)
- 5 How is the food covered? (cloth, paper, real cover)
- 6 Are there flies around the food?
- 7 Where do they eat? (at floor, table, outside on the ground)
- 8 Is it clean where they are eating?
- 9 On what are the children eating? (plates, leaves, in



- their hands)
10 How are the dishes washed? What water is used?

Garbage

- 1 What facilities does the school have for preserving garbage?
- 2 Do the children and teachers use the garbage facilities?

Foot wear

- 1 What kind of foot-wear do the children use? (shoes, sandals, bare-foot)

Hygiene education participation

- 1 How do the children take part in the hygiene education? (passively listening, actively discussing and questioning)



Hygiene facilities;

- 1 Which kind of latrines does the school have? How come that you decided to get these ones?
- 2 What do you think about the standard of hygiene facilities at the school, so as latrine's?(How does the teacher define the hygienic conditions of the school?)
- 3 What facilities do the children and teachers have at home?
- 4 What provision of water for anal cleansing is there?

Operation and maintenance;

- 1 Who is taking care of the latrine? (sweepers, children, teachers)
- 2 Who is responsible for the providing of latrines? (board of the school, community, teacher)
- 3 Who is emptying the pit/latrine? (low cast people, special persons in charge for emptying the pits)

Use of toilets

- 1 Do all children and teachers use the toilets?, if not, where do they go then?
- 2 Do other people them from school use the toilets?
- 3 When is the toilet mostly used? Are the toilets enough in eventual peaks?
- 4 Which are the mentioned reasons for not using the toilets?
- 5 What is used for anal cleansing? (water, leaves, papers, stones)

Drinking water supply

- 1 Who sees to so the school is provided with water? (city, board of school, each child bring its water, stream)
- 2 Who is taking care of the water storage? (teacher, children school guards)

Hand-washing facilities

- 1 Do all children use water, soap/ashes and towel or do they skip anything of it?
- 2 How many of the children/teachers wash their hands after defecation? (Assume how many out of hundred)
- 3 How many children/teachers wash their hands before drinking/eating? (Assume how many out of hundred)

Garbage

- 1 Who is looking after the garbage and is controlling so that it gets away from the school?

Disease transmission and diseases

- 1 Which are the most common diseases at the school among the children? (diarrhoea, worms, fever, malaria, T.B.)
- 2 Which do, you think, are the reasons for the different diseases that the children have? (bad water, bad food, by GOD, bad weather, faith, do not know) (What does the teacher see as the reason to the different diseases?)
- 3 How many children out of hundred are away from school due to illness?

Children' thinking of the relation between hygiene and diseases



- 1 What do, you think, the children think are the reason to having worms in the stomach?

Hygiene education

- 1 What role does the hygiene education take in the education?(an obligatory part of the education, a free-choice from the teacher)
- 2 Who is responsible for the hygiene education? (board of school, health worker in the community, the teachers, the parents)
- 3 How is the hygiene education financed? Who pays the material etc.? (board of school, private person, teacher, parents, NGO's)

Hygiene education material

- 1 What material is used in the hygiene education? (books, posters, tapes, games, films)
- 2 Is the material interesting the children? (colours, funny, understandable, practical)
- 3 How is the material adjusted to the home environment of the children?(discussing topics relevant to the situation at home)
- 4 Do you take field trips to the children's own environment?
- 5 Which topics are mostly taught?(body hygiene, food preservation etc.)
- 6 Why did you choose especially these topics?

Education of the teacher in hygiene subjects

- 1 What schooling in hygiene education have you got as a teacher? (at the Institute of Education, of health worker, at an NGO)
- 2 What and for how long did you learn? Were you paid?
- 3 Would you like to learn more about hygiene and hygiene education? Unpaid/paid?

Network school, community, families

- 1 What does the school do to connect the parents to the promotion of health among the children? (meetings, interrupting discussion groups)
- 2 Have you done any promotion of health directed to the parents?
- 3 What is your opinion about the interest of parents towards hygiene education at school?
- 4 Do you think the hygiene education is conflicting with values at home?(as using toilets made for both sexes)

Effects of the hygiene education

- 1 Do you think the children bring their knowledge home to the families? If, which effects do you think that has?

Children and teachers developing better hygienic conditions

- 1 What do you see as most important factor for an improvement of the school's hygiene?
- 2 How would it be possible to improve the hygienic circumstances without high costs? (drama, meetings)
- 3 Is there anything that stops you for spending time on hygiene activities? Which are the main constraints experienced? (money, time, no support from the board of the school, lack of facilities)



Using of toilets

- 1 Do you use the toilets at school? Do all children use the toilets at school? If no, why not?(Where do they go then?)

Operation and maintenance

- 1 What do you think about the toilets?
- 2 When are the toilets mostly used? Are there enough toilets(eventual peaks)?
- 3 What do you use to make you clean when you have been to the toilet? (water, leaves, papers, stones)(Will not ask, but through drawings try to get to know)

Hand-washing facilities

- 1 Do you use water, soap/ashes and towel or do they skip anything of it? What do the other children use? PAINT A DRAWING OF HOW YOU THINK IT IS TO WASH YOUR HANDS AT SCHOOL.

The thinking of the relation between hygiene and diseases

- 1 Has any of you had worms in your stool? What do you think was the reason that the worms came?(Explain the chain how worms are coming into the body and why)
- 3 Has any of you had diarrhoea? What do you think is the reason to diarrhoea?

Hygiene education material

- 1 Do you have any book about how to keep your bodies and place around you clean? What do you think about learning these things?
- 2 What are you doing when the teacher is telling about being clean, not drink water from the canals and so?
- 3 What is the teacher showing you? What do you think about these books, posters, tapes, games, films)
- 4 Are the book, posters...funny and interesting?
- 5 Is it funny, boring, important to learn about hygiene?
- 6 Why do you think the teacher is teaching you things, as washing your hands and to avoid flies?

Network school, community, families

- 1 Do your parents like to hear about what you have learned about hygiene?
- 2 Have your parents been to school to hear about keeping the school clean?
- 3 How do you think the school is differing to your home how?

Effects of the hygiene education

- 1 Do you wash your hands after being to the toilet?(at home and at school)
- 2 Are your parents often washing their hands? when?
- 3 Do you teach your younger sisters and brothers about washing hands?

Children and teachers developing better hygiene conditions

- 1 How do you think you can make the school cleaner? What would you like to do first of all to make the school clean? PAINT WHAT YOU THINK



அனுபந்தம்

பள்ளி சுகாதாரமும் சுகாதார கல்வியும்

Check-list for participatory observation

தலிங்கைப் பட்டியல் - பங்கு கொண்டு கவனித்தல்
எல்லாடைய கவனிப்பிலும் கலந்து பேசுதலிலும் நீர் முடிக்க விரும்பும்
முக்கிய விபரங்கள் கீழே கொடுக்கப்பட்டுள்ளன.

a) கிடைக்கக்கூடிய சுகாதார வசதிகள்

1. பள்ளியில் எந்த வகையான கழிப்பிட வசதி உள்ளது?
(சாக்கடையுடன் இணைக்கப்பட்ட கழிப்பிடம், குழியில் நீர் சேரும் கழிப்பிடம்)
2. கழிப்பிடம் எவ்வாறு அமைக்கப்பட்டுள்ளது? (கல்கட்டிடம், மரத்தால்
கட்டப்பட்டது, மண்ணால் அமைக்கப்பட்டது)
3. கழிப்பிடக் குழியைச் சுற்றி கால்னெக்சுமீடம் எவ்வாறாவது
(கல், மண்தரை, புல்தரை)
4. கழிப்பிட மேடை தரைமட்டத்தை விட உயரமாகவா? (ஆம் / இல்லை)
5. கழிப்பிடத்தை எவ்வாறாவது? (சுற்றுகள், செடிகல்லால் கட்டப்பட்டது, மண் தரை)
6. கழிப்பிட நீர் சேருமிடத்தைக் கொள்ளுமா? எவ்வாறு? பள்ளியில் எவ்வாறு
போதுமானவா? (....., ஆம் / இல்லை)

b) நீர்வாங்கும் பராமரித்தலம்

1. கழிப்பிடம் எந்த அளவு சுத்தமாக உள்ளது? (மிகவும் அசுத்தமாகவா,
அசுத்தமாகவா, நல்கு உள்ளது, சுத்தமாக உள்ளது, மிகவும் சுத்தமாக உள்ளது)
2. கழிப்பிடத்தைச் சுற்றி ஈக்கள் உள்ளதா? (மிகவும் அரிசும், அரிசும், ஒரு சில)

c) கழிப்பிடம் பயன்படுத்தலம்

1. எல்லாவு முக்கியர்களுக்கும் மற்றும் குழந்தைகளுக்காவும் கழிப்பிட வசதி உண்டு?
2. பெண்களுக்கும் பெண்களுக்கும் தனித்தனி கழிப்பிட வசதி உண்டா?
முக்கியர்களுக்கும் குழந்தைகளுக்கும் கழிப்பிடங்கள் தனியாக உள்ளனவா?
3. தனியாக வாயைக் குடிநீர் வசதி கழிப்பிடத்தில் உள்ளதா?
4. மாந்த விலக்கு ஊடுகளை எறிய எவ்வாறு வழிகள் உள்ளன?

d) நீர் வழங்கல்

1. நீர் எவ்வாறு சேமிக்கப்படுகிறது? (சுருள் நீர்த் தொட்டி, பிப்பாய்கள்
பக்கெட்டுகள்)
2. நீர் எவ்வாறு சேமிக்கப்படுகிறது? (கழிப்பிடத்திற்கு அருகாமையிலா?
குப்பைத் தொட்டியின் அருகாமையிலா?)
3. இந்த நீர் எவ்வாறு மூடிப்பட்டு பாதுகாக்கப்படுகிறது? (கல்லால் மூடி,
ஊயிரால் மூடி, நல்லாற்றையில் மூடி)
4. சேமிக்கப்பட்ட நீர் எவ்வாறு எடுத்துக் கொள்ளப்படுகிறது?
(சுழாய் மூலம், பாத்திரத்தில் மூலம், கையினாலேயே)
5. இவ்வாறு உபயோகித்த கழிவு நீர் எப்படி பயன்படுத்தப்படுகிறது?
(தோட்டத்திற்கு, மீண்டும் பயன்படுத்தப்படுகிறது, பயன்படுத்தி விடப்படுகிறது)

2) கை சுறுஷம் வசதிகள்

1. கைகளை சுறுஷிக்கொள்ள பள்ளியில் எவ்வாறு வசதி செய்யப்பட்டுள்ளது?
(சோப்பு அல்லது சாம்பல் அல்லது ஊடுகள்)



..2..

f) உடலும் பானங்களும்

1. குழந்தைகளுக்கு உடலும், சத்துள்ள நீரும் பள்ளியில் வழங்கப்படுகின்றனவா?
2. குழந்தைகள் குடிக்கும் நீர் கொதிக்க வைக்க தரப்படுகிறதா?
3. குழந்தைகள் தங்கள் வீட்டு உணவை பள்ளிக்கு கொண்டு விடுகிறார்களா?
4. இந்த உணவு எவ்வாறு பாதுகாக்கப்படுகிறது?
(பெட்டியில், அலமாரியில் திறந்த வெளியில்)
5. இந்த உணவு எவ்வாறு மூடப்பட்டுள்ளது? (உய்யால், பேப்பரால் பாதுகாப்பான முறையில்)
6. இந்த உணவைச் சுற்றி ஈடுகள் உள்ளவனா?
7. எங்கு உணவு உட்கொள்ளுகிறார்கள்? (தரையில், மேசையில், மையதானத்தில்)
8. உணவு உட்கொள்ளும்போது சத்தமாக உள்ளதா?
9. குழந்தைகள் உதில் உணவு உட்கொள்ளுகிறார்கள்?
(தட்டுகளில், இலைகளில், கைகளில் வாய்க்கி)
10. தட்டுகள் எவ்வாறு சுடுவப்படுகின்றன? எவ்வகையான நீர் பயன்படுத்தப்படுகிறது?

g) சூப்புகளங்கள்

1. சூப்புகளை சேமிக்க பள்ளியில் எவ்வகை சசதிகள் உண்டு?
2. குழந்தைகளும் ஆசிரியர்களும் சூப்புகளங்களைக் கொட்ட ஏற்படுத்தியிருக்கும் சசதிகளைப் பயன்படுத்துகிறார்களா?

H) காலாடிகள்

1. எந்தவகையான காலாடிகளை குழந்தைகள் பயன்படுத்துகின்றனர்?
(முட்டை, செருப்புகள், காலாடியில்லை).

9) நலக்கல்வி பங்கேற்றல்

நலக்கல்வியில் குழந்தைகள் எவ்வாறு பங்கேற்கின்றனர்?
(கேட்டல் மட்டும், தீவிரமாக கேள்விகள் கேட்டு கலந்துரையாடுதல்.

உற்று நோக்குதல் - சமூக பழக்க நடை

உற்று நோக்கல் - கலாசார விருப்பங்கள்.

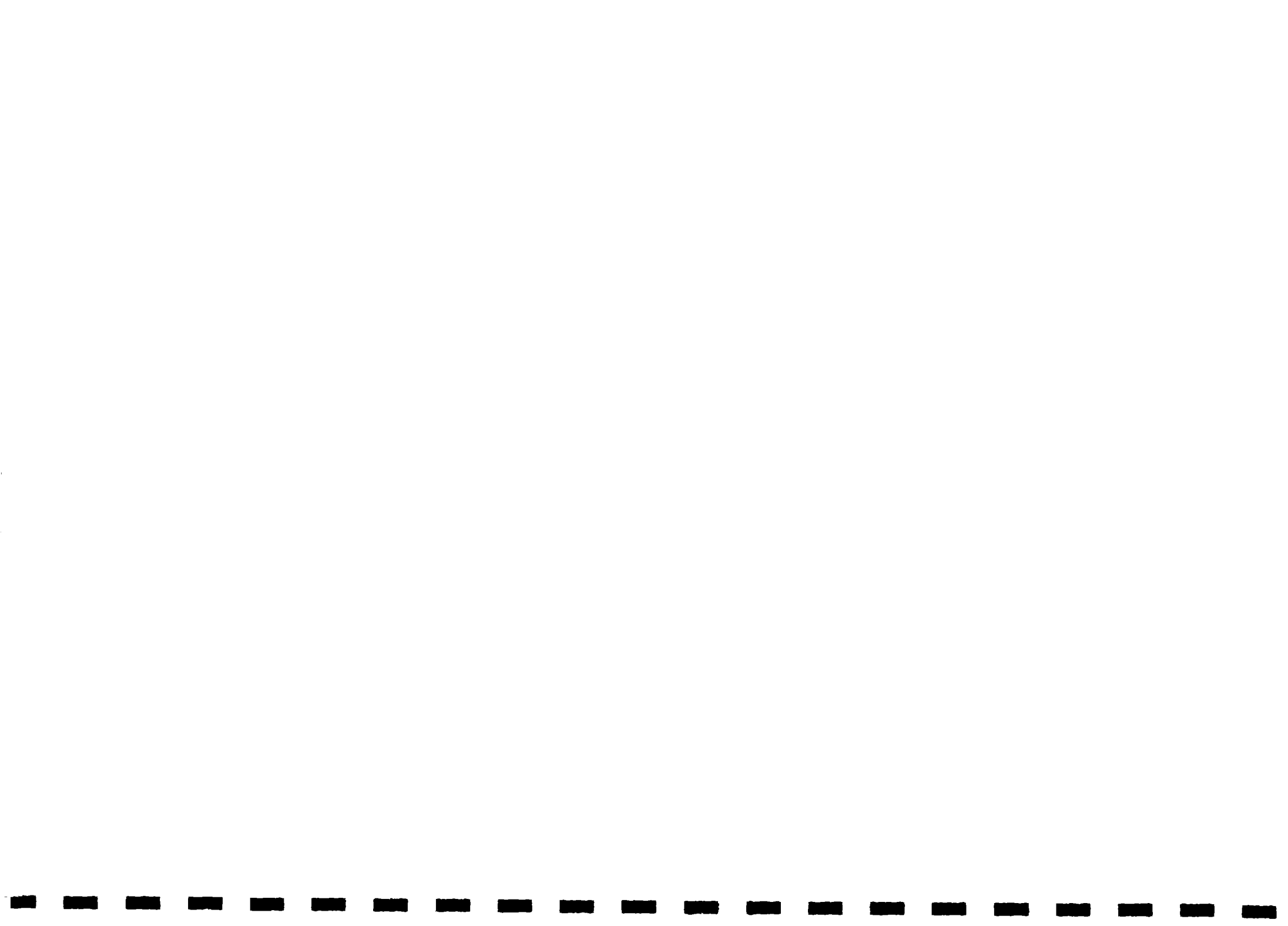
ஆசிரியர்களுக்கு கேள்விகள்

(Questionnaire for the teachers)

a) சுகாதார வசதிகள்

1. பள்ளி எத்தகைய சுழிப்பிட வசதி பெற்றுள்ளது?
• ஓர்விதமான வசதி பெற எப்படி தீர்மானம் எடுத்தீர்?
2. தற்போது பள்ளியில் உள்ள சுழிப்பிட வசதியின் தரம் புற்றி எவ்வகையானது? ஆசிரியர் பள்ளியில் சுகாதார நிலை பற்றி எவ்வாறு வரையறுக்கிறார்?
3. எத்தகைய சுழிப்பிட வசதிகள், யாவார், ஆசிரியர் வீடுகளில் உள்ளன?
4. தலைநகரில் ஆசிரியர் வாய் குறை செய்யப்பட்ட வசதிகள் எவை?

...3...



3. WATER AND SANITATION RELATED DISEASES

In this chapter a short description is given of the main water and sanitation related diseases and the ways they are transmitted from one person to another. Most of these diseases are curable although this is beyond the scope of these guidelines. Instead we concentrate on how they are passed from person to person, to give you ideas for how these routes can be interrupted. The following sub-division is made:

- 3.1. diarrhoeas;
- 3.2. worm infections;
- 3.3. skin and eye-infections and louse-borne infections;
- 3.4. mosquito- and fly-borne infections.

An overall picture of the diseases that will be discussed on the following pages is given in Table 2. The blank space can be used to write down the local names for these diseases.

Table 2: Water and sanitation related diseases.

Group of diseases	Infections/English names	Infections/Local names
Diarrhoeas	Cholera Dysentery Unspecified diarrhoeas	
Worm infections	Roundworm (ascariasis) Whipworm (trichuriasis) Pinworm (enterobiasis) Hookworm Guinea worm (dracunculiasis) Schistosomiasis (bilharzia)	
Skin and Eye infections, louse-borne infections	Scabies Ringworm (fungus infection) Yaws Trachoma Louse-borne Typhus and Louse-borne relapsing fever	
Mosquito- and fly-borne infections	Malaria Yellow fever and dengue Filariasis (elephantiasis) Sleeping sickness (trypanosomiasis) River blindness (onchocerciasis)	



3.1 DIARRHOEAS

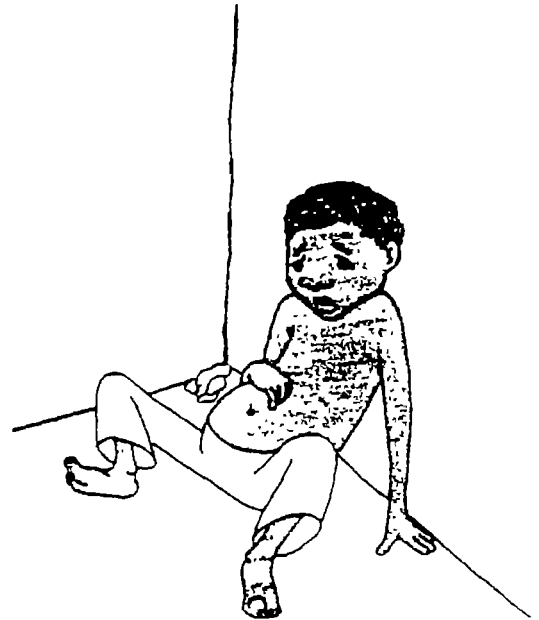
Diarrhoea is the frequent passing of watery stools. There are many different diarrhoeal diseases like cholera, dysentery, and acute or unspecified diarrhoeas.

Cholera

A person with cholera passes very frequent stools. These stools look like almost clear water. The diarrhoea is usually followed by vomiting. Cholera often comes in epidemics (infecting many people within a short period of time).

Dysentery

A person with dysentery passes watery stools with blood in them. Other symptoms are fever, vomiting and stomach pains.



Unspecified diarrhoeas

A person with unspecified or acute diarrhoea passes more than five watery stools in 24 hours. Often there are also other symptoms like fever and vomiting.

All these diarrhoeal diseases have in common that the organisms that cause the disease are excreted in the stools of infected persons. In fact diarrhoea can be seen as a normal body reaction to get rid of the harmful disease.

People are infected with diarrhoeal diseases through the mouth. So the transmission of diarrhoeal diseases is from faeces to mouth. This is why these diseases are called 'faecal-oral diseases' (oral means mouth).

Tiny bits of faeces can carry enough disease organisms to cause infection with diarrhoea. These organisms - germs - are responsible for the disease. The germs are so small that they cannot be seen with the naked eye. They enter the stomach and intestines through the mouth.

In the intestines the germs multiply very fast, and within a short period of time an infected person can get ill with diarrhoea.

But not everyone gets ill after infection. Sometimes people are infected without any sign of illness. These people are so called 'carriers' as they carry the disease organisms in



their body without getting ill. Nevertheless these disease organisms also multiply and are excreted in the stools and may infect other people who can get very ill. So the faeces of all infected people are dangerous. And as it is impossible to know who is infected and who is not it is necessary to dispose of all faeces in a safe way

Diarrhoeal diseases are common all over the world. People of all ages can get diarrhoea. But babies and children get it more often (see also page 44). Also babies and children are often more heavily infected than adults. Diarrhoea can be very dangerous, especially for people who are poorly nourished. Death from diarrhoea is a serious possibility.

Death from diarrhoea is often caused by the loss of too much bodily water in the stools (dehydration). Therefore it is very important to replace this water as soon as possible. Annex A provides a description of a home made solution to treat dehydration.

3.1.1. Routes of disease transmission

There are many ways in which the germs from faeces can reach the mouth. It mostly happens through faecal contamination of fingers, food and water. This is when the germs from the faeces are carried by fingers, food or water into the mouth.

Fingers become unclean with the germs from the faeces when hands are not washed after passing stools or after handling the faeces of babies. If these unclean fingers are put into the mouth, the germs will enter the body. Children are especially at risk here, because they put their fingers into their mouth very readily.

faeces → fingers → mouth

Food is contaminated with faeces when it is handled with unclean fingers. This will happen when people prepare food with unclean fingers. The same will happen when people eat their food with unclean fingers. The eating of this contaminated food will cause the germs enter the body.

faeces → fingers → food → mouth





Appendix (7)

Food can also be contaminated by flies. Flies often carry faecal material because they may begin a meal with faeces and finish it with food for humans. In this way the flies transfer the germs of the faeces to the food. When people eat this food, the germs will enter the body.

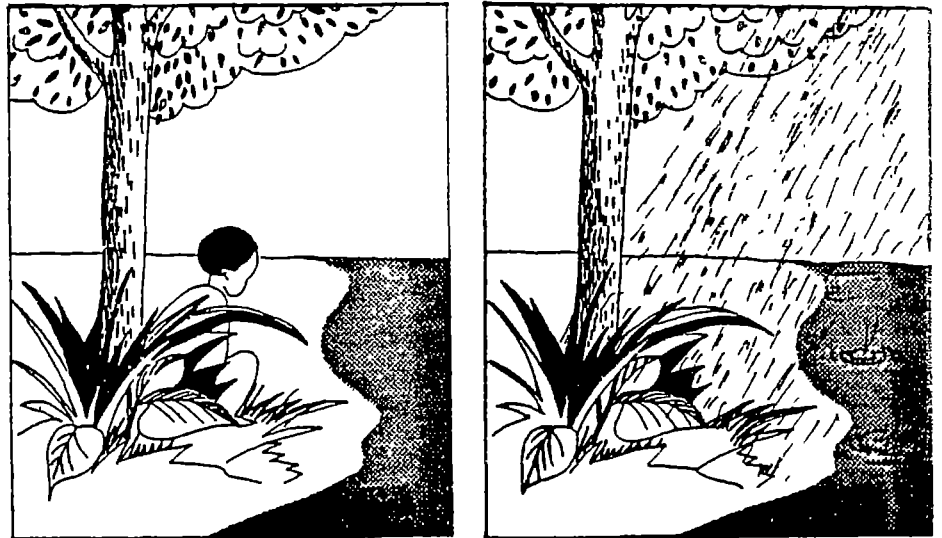
faeces → flies → food → mouth

Unclean fingers and flies can contaminate cups and eating utensils like spoons. When people eat with or drink from these unclean utensils, the germs will enter the body.

faeces → fingers/flies → utensils → mouth

Water is contaminated with faeces after defecation into or near the water. This water can look very clean, although it is contaminated with the germs from the faeces. If people drink this water, the germs will enter the body.

faeces → water → mouth



When people defecate on the soil and it starts raining, the faeces will drain into nearby water sources. Or if a latrine has been built too close to a water source (say within 20 metres) the faeces may also seep through the soil into a well or other water source. By drinking this contaminated water the germs will enter the body.

faeces → soil → water → mouth



Appendix (7)

Sometimes fresh faeces are used as manure on crops. When these crops are eaten without careful washing or cooking, the germs of the faeces will enter the body.

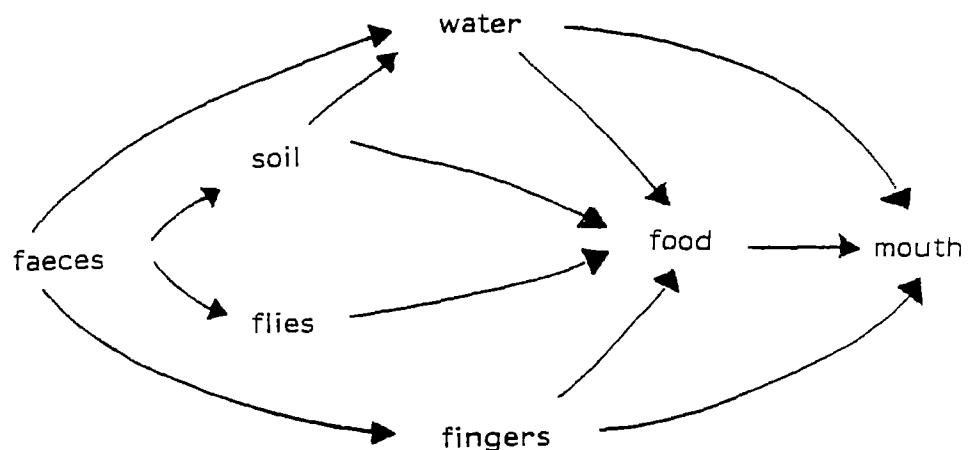
faeces \Rightarrow soil \Rightarrow food \Rightarrow mouth

Children playing can get contaminated soil on their fingers or toys. If they put these fingers or toys into their mouth, the germs will enter their bodies.

faeces \Rightarrow soil \Rightarrow fingers \Rightarrow mouth

So there are many ways in which the germs of the faeces can reach the mouth. The following scheme puts the most important ones together.

Scheme 1: Faecal-oral routes of transmission:



The number of cases of diarrhoea is often not the same over the year. In some areas diarrhoeal diseases occur more often in the dry season. This is due to a lack of water for washing hands, food, eating utensils etc. This shows that not only the quality but also the quantity of water is very important in the prevention of diarrhoeal diseases.

In some areas many people suffer from diarrhoea at the beginning of the rainy season. This is the time that the faeces drain into the water sources and contaminate the water. Drinking this unsafe water is then the main cause of the diarrhoeas.

Sometimes many cases of diarrhoeal diseases occur during harvest time. During this time many people work in the field and defecate there. Contamination is then very likely.



3.2. WORM INFECTIONS

Very many people suffer from one or more worm infections. All worm infections - except guinea worm and urinary schistosomiasis - have in common that the eggs of the worms are passed in the faeces of the infected persons.

Mild worm infections are usually without serious symptoms (except guinea worm). Sometimes there are no symptoms at all. But the faeces of people with a mild infection might be as dangerous as the faeces of people with a serious infection. That is why safe disposal of all faeces and personal hygiene are very important in the prevention of this group of infections.

Not all worm infections have the same routes of transmission. The most important routes of transmission can be illustrated by referring to the more common worm infections.

3.2.1. Roundworm, whipworm, pinworm and hookworm

Roundworm (ascariasis)

Roundworms have a round shape and are about as long as a man's foot. The worms live in a person's intestines and feed on the food eaten by the person. So when a person has a lot of worms they will feel weak, because the worms use a part of their food. Another danger is that the worms may by their presence block the intestines and cause difficulties in defecating.

The eggs of the worms are excreted in the stools. To become infected the eggs have to enter the body through the mouth. So roundworm follows the faecal-oral route of transmission, just like diarrhoea (see page 48). For roundworm two routes of transmission are especially important.

The first one is unclean fingers. This is why children are more frequently infected than adults. Children put their fingers and all kinds of other things in their mouth. The second route is raw vegetables and fruit. Raw vegetables and fruit may get contaminated with eggs when people with roundworm defecate in a field where vegetables or fruit are growing. Then the eggs will get on the vegetables or fruit on the ground. Contamination with roundworm eggs can also happen when a vegetable field has been manured with fresh human faeces.

Whipworm (trichuriasis)

Whipworms are thin like tread. These worms show the same characteristics as roundworms and infection also occurs in a similar way. However infection by eating



Appendix(7)

contaminated raw vegetables or fruit is much less important than in the case of roundworm, because the eggs are killed more easily by drying or direct sunlight.

Pinworm (enterobiasis)

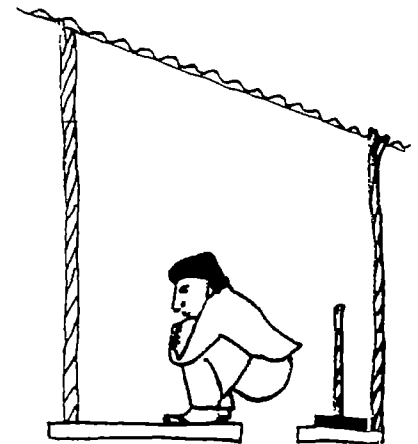
Pinworms are very small and thin. The worms live in a person's intestines. They come out of the anus at night and lay eggs at the anus opening. The eggs are excreted in the stools. Pinworms cause severe itching of the anus. The person will scratch and so the eggs get on the fingers. Pinworms spread often on unclean fingers.

Hookworm

Hookworms are small and red in colour. The worms live in a person's intestines and feed on his blood by making small wounds in the wall of the intestines. When there are many worms sucking blood, the person will feel weak and tired. Hookworm eggs are excreted in the stools. On (or in) the ground these eggs will develop into worms. The worms get into the skin of the feet when people with bare feet walk on contaminated ground. So, hookworm infection can be prevented when people wear shoes, or when people do not walk with bare feet in places where people sometimes defecate.

Helping to prevent roundworm, whipworm, pinworm and hookworm

All these worm infections of the intestines can be greatly reduced by safe excreta disposal. The best place to defecate is a latrine. But then we have to take care that the latrine is kept clean as a dirty latrine can easily increase the risk of worm infections instead of reducing it. This is especially true for the transmission of hookworm. (See also page 33). Other important preventive measures are the washing of hands after defecating and before



handling food, and the washing of raw vegetables and fruit. Faeces that will be used as manure on the field should first be allowed to become harmless. Composting for 6 to 12 months will kill the eggs so after that time the composted faeces can safely be used.



Appendix (7)

Appendix D Life Cycles of Helminths

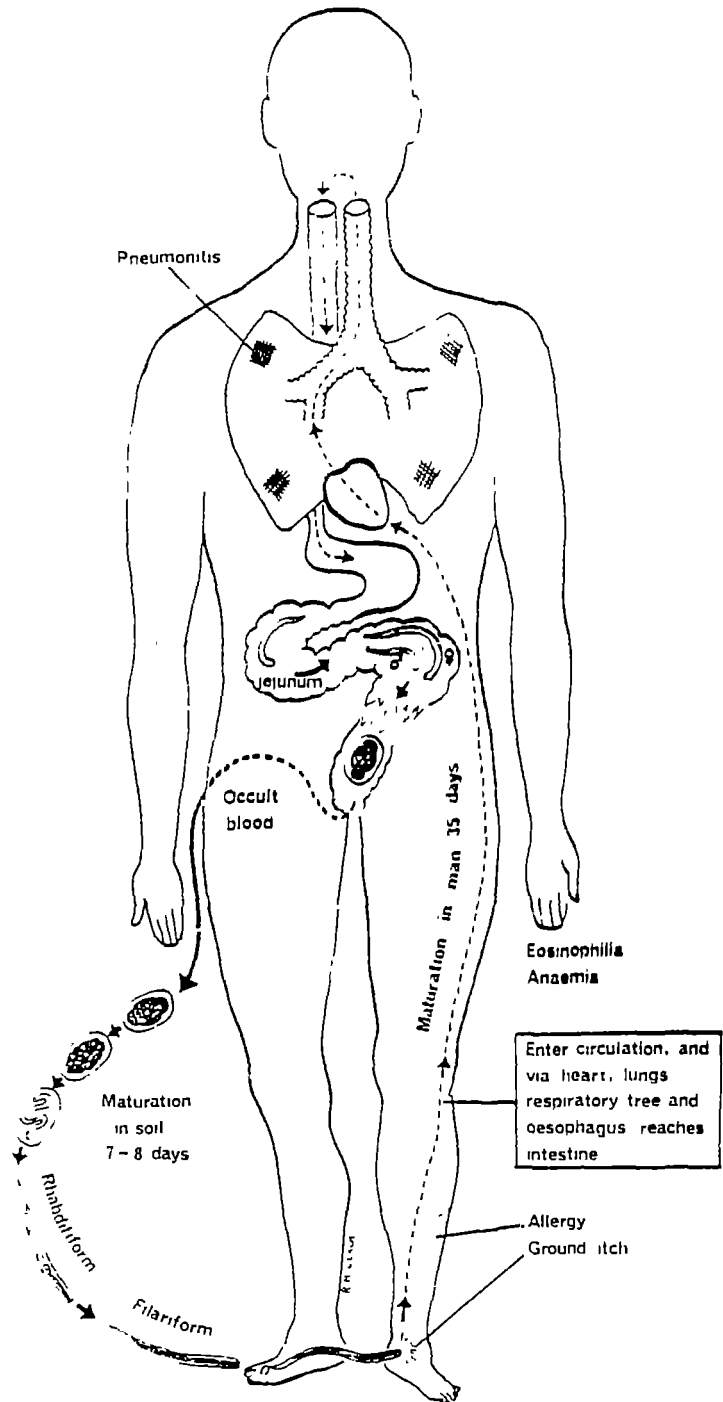


Figure D2 The life cycle of the hookworms
 Source: From Jeffrey and Leach (1975)
 Reproduced by permission of Churchill Livingstone



Table 4: Choice of sanitation system

<i>Sanitation system</i>	<i>Suitable for rural areas</i>	<i>Pop. density where suitable</i>	<i>Construction cost</i>	<i>Operation cost</i>	<i>Water requirement</i>	<i>Permeable soil required?</i>	<i>Off-site facilities required?</i>
Pit latrine	Yes	L	VL	L	None	Yes	None
VIP latrine	Yes	L	L	L	None	Yes	None
Twin pit latrine	Yes	L/M	M	L	None	Yes	None
Pour-flush toilet	Yes	L/M	L	L	Water nearby	Yes	None
Septic tank and soakaway	Yes	L	H	H	Multiple tap	Yes	Sludge disposal
Small bore sewerage	No	H	H	M/H	Yard tap	No	Sludge disposal, sewers, treatment
Sewerage	No	H	H	M	Multiple tap	No	Sewers, treatment

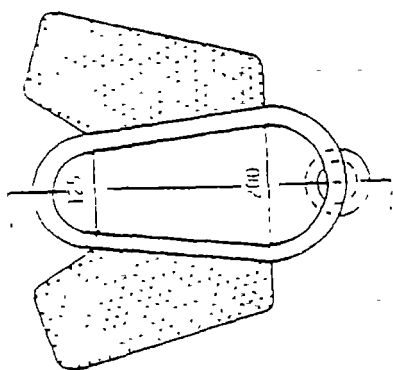
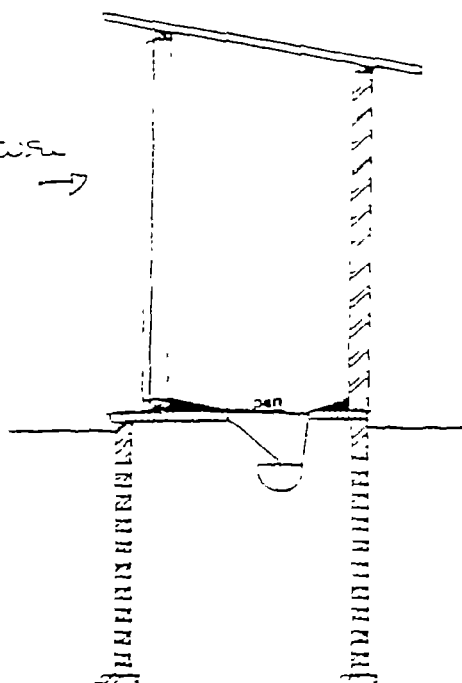
H = high M = medium, L = Low, VL = very low

Adapted from: Cairncross, 1988.



Figure 7. Pour-flush latrine with discharge directly into the leaching pit

Super-structure
→



SECTION 1-1

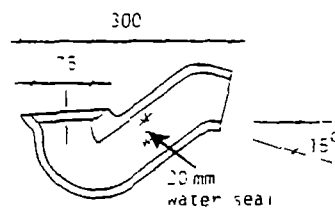
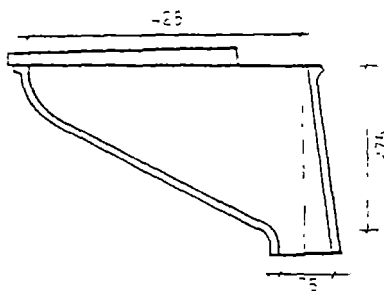
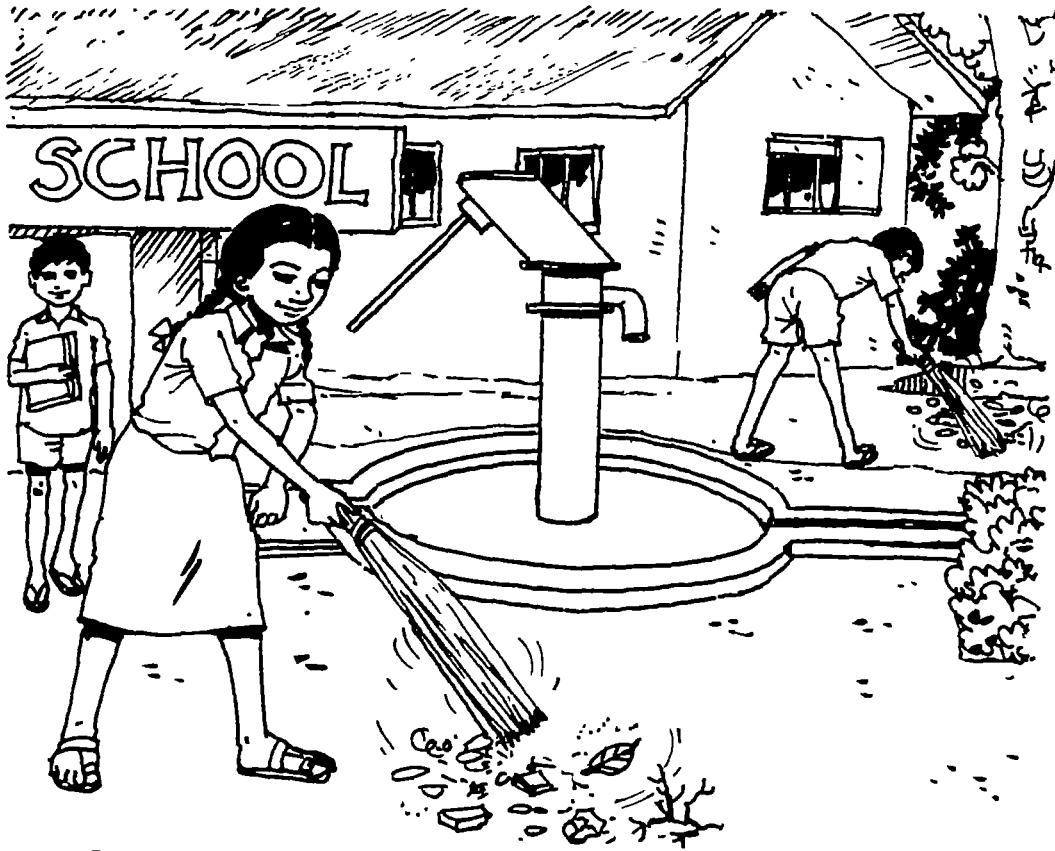


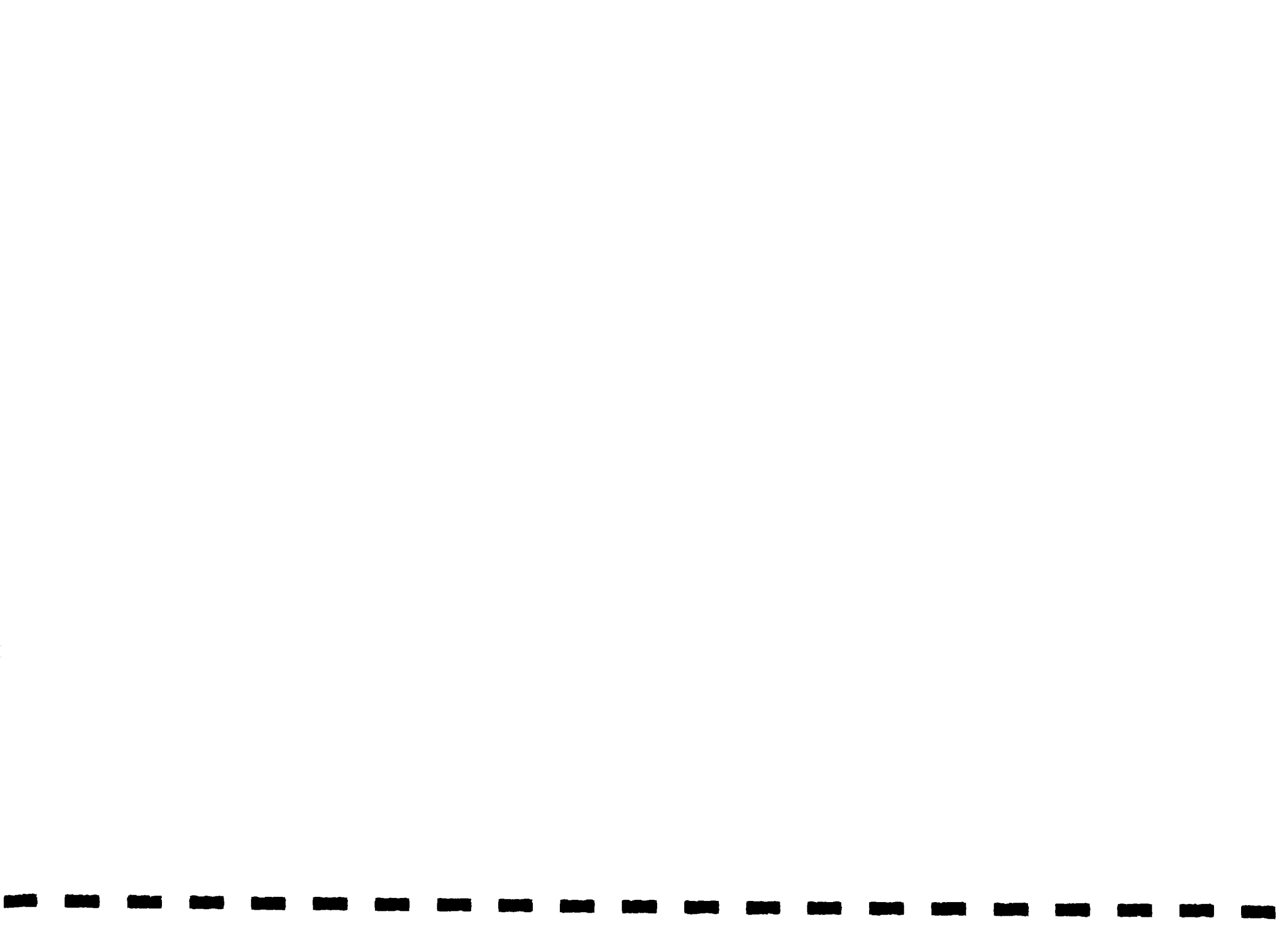
Figure 10: Pour-flush squatting pan and U-trap (Roy et al., 1984).















From, Shivare, Little Associates, New Delhi, India

ME



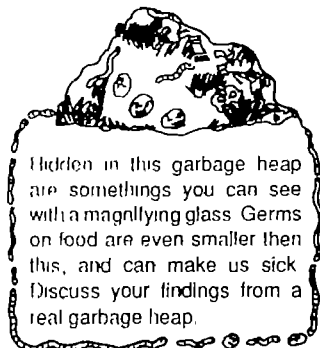
THINGS TO DO

FOODLAND PUZZLE

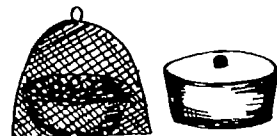
Hidden in this square are 5 different words starting with the letter F, which cause illness. The words may run in any direction. But the letters are always in order. Try to find as many as you can and draw a circle around them. One example is given.

R		F	O	O	D
(F)	L	I	E	S	
A	T	N			O
E	Z	G	M	Q	H
C		E	N	R	T
E		R			T
S	X	S	L	O	I
		M	Q		F

You can discuss how each of these causes illness.



Hidden in this garbage heap are some things you can see with a magnifying glass. Germs on food are even smaller than this, and can make us sick. Discuss your findings from a real garbage heap.



Cover your food with a fly net or let's prevent flies, which carry...

HEALTH HUNTS

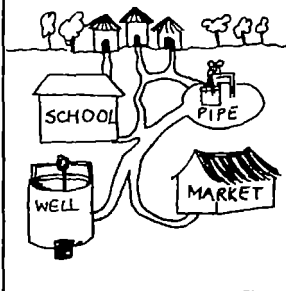
Food Vendors Which foods are sold near your school and at what price?



Foods List foods sold which are covered/clean and which are not.

Give 3 reasons why food becomes dirty.

Your environment Make a map of your school or neighborhood. On your map mark places where food wastes are dumped.

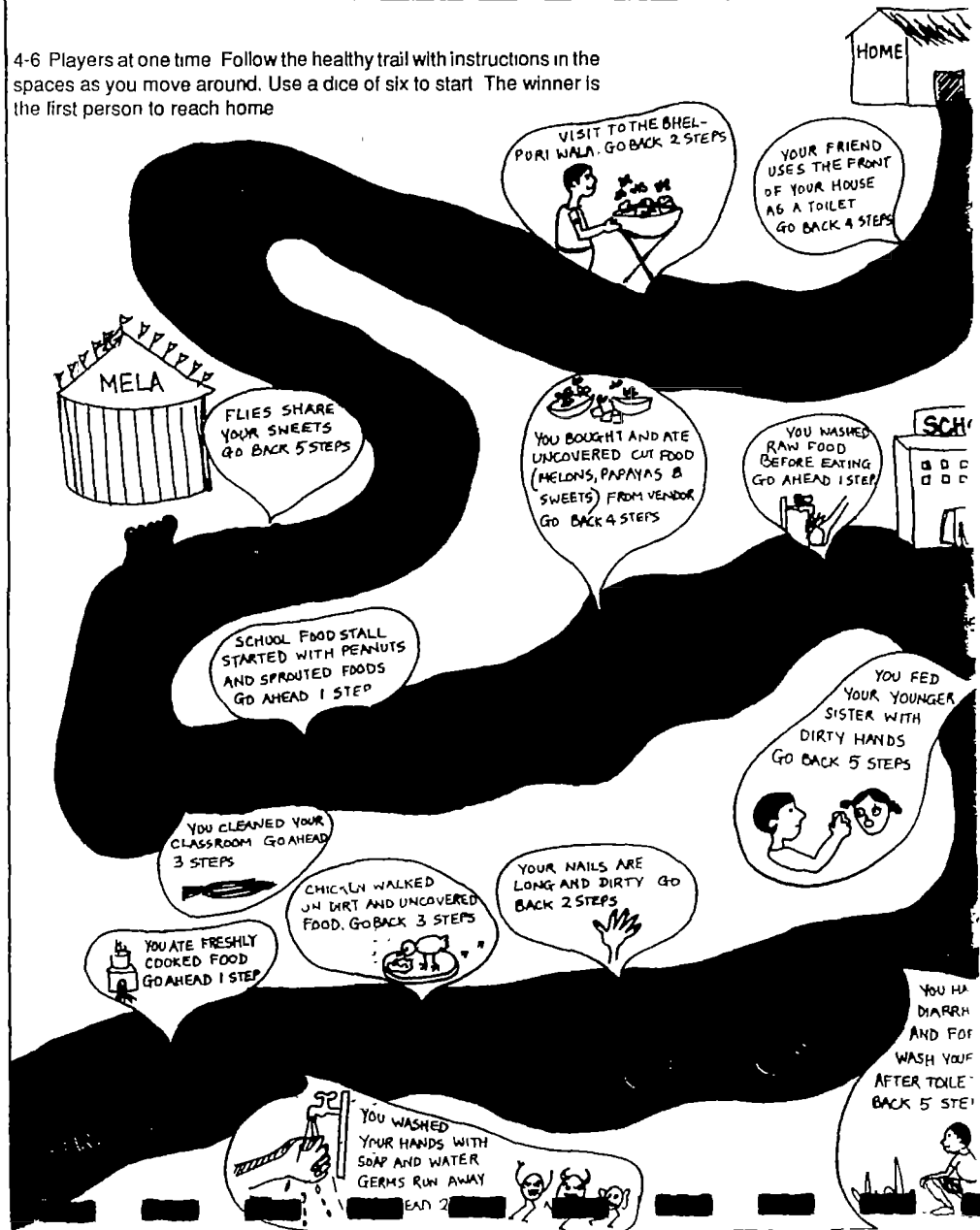


Health corner Have a special corner in the classroom or playground to put up the maps. Discuss what you can do to...

FUN 'N' GAMES

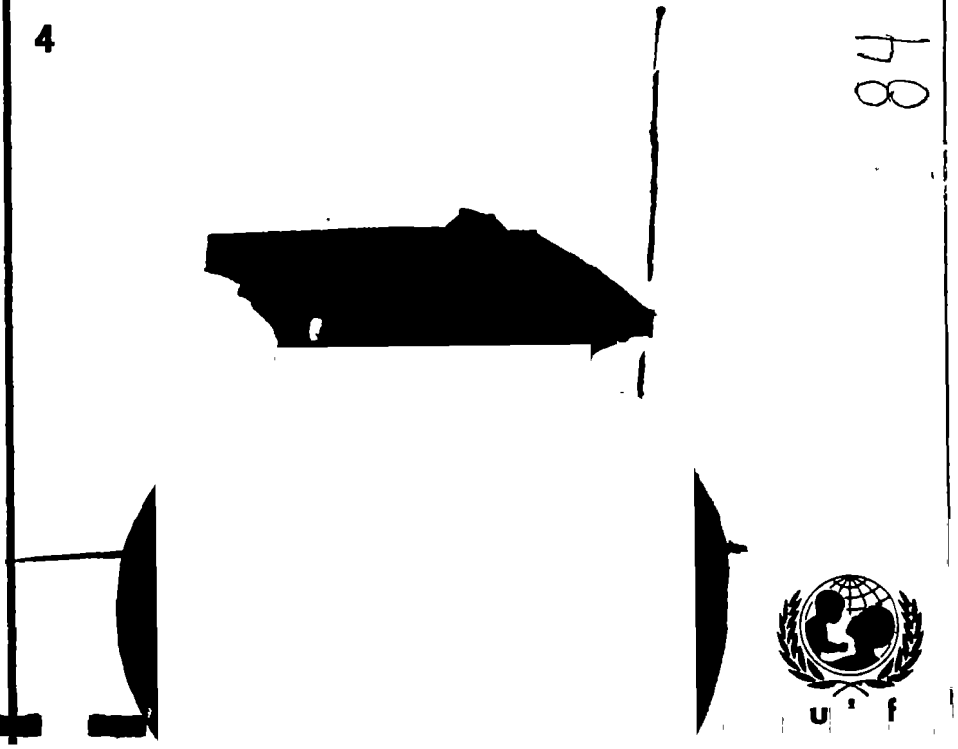
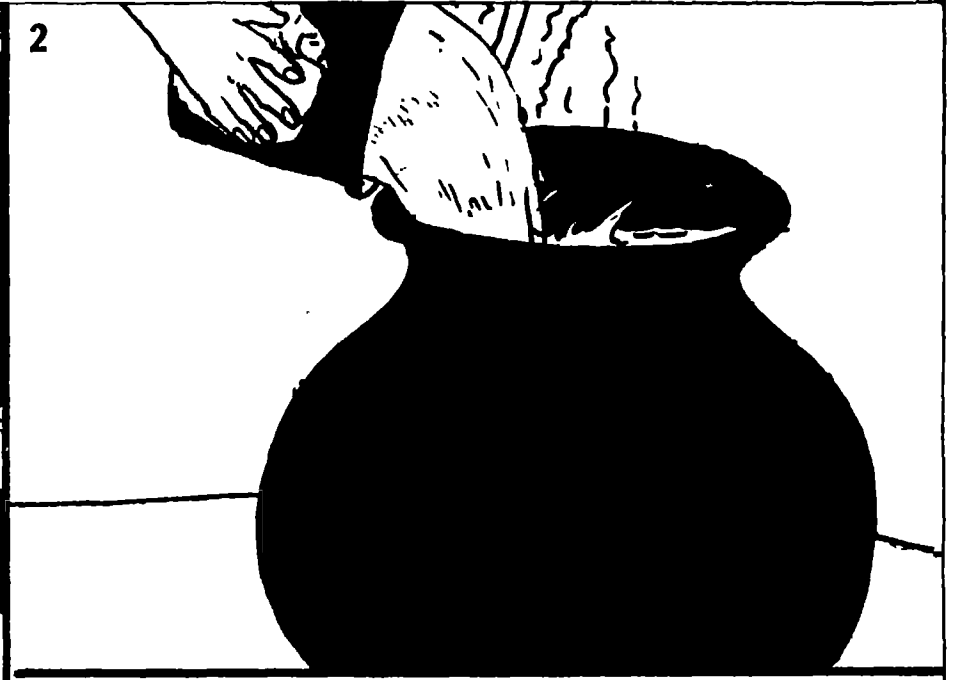
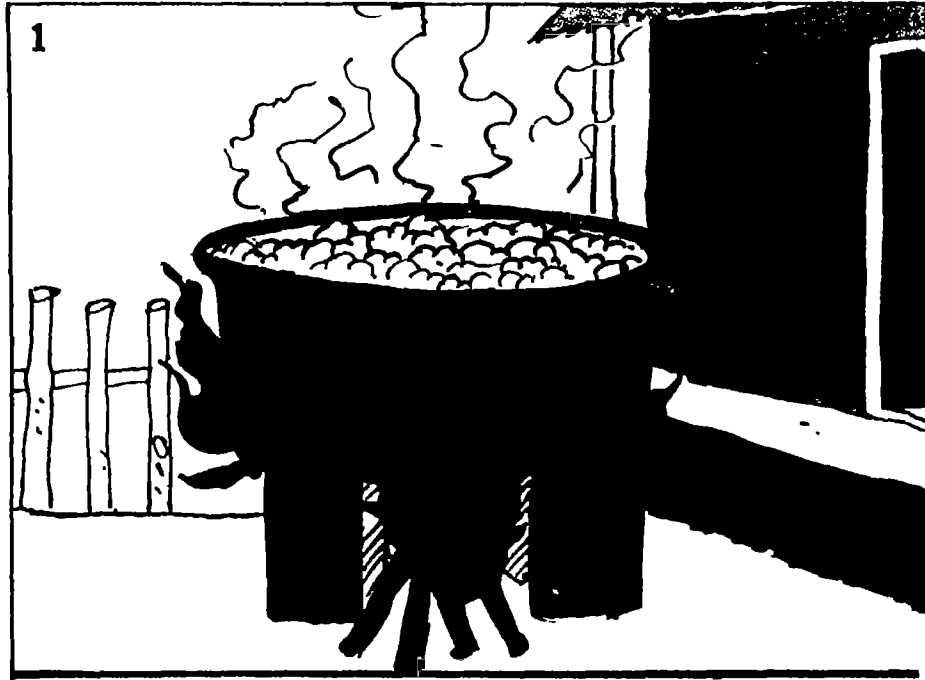
THE HEALTHY T

4-6 Players at one time Follow the healthy trail with instructions in the spaces as you move around. Use a dice of six to start. The winner is the first person to reach home.





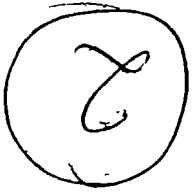
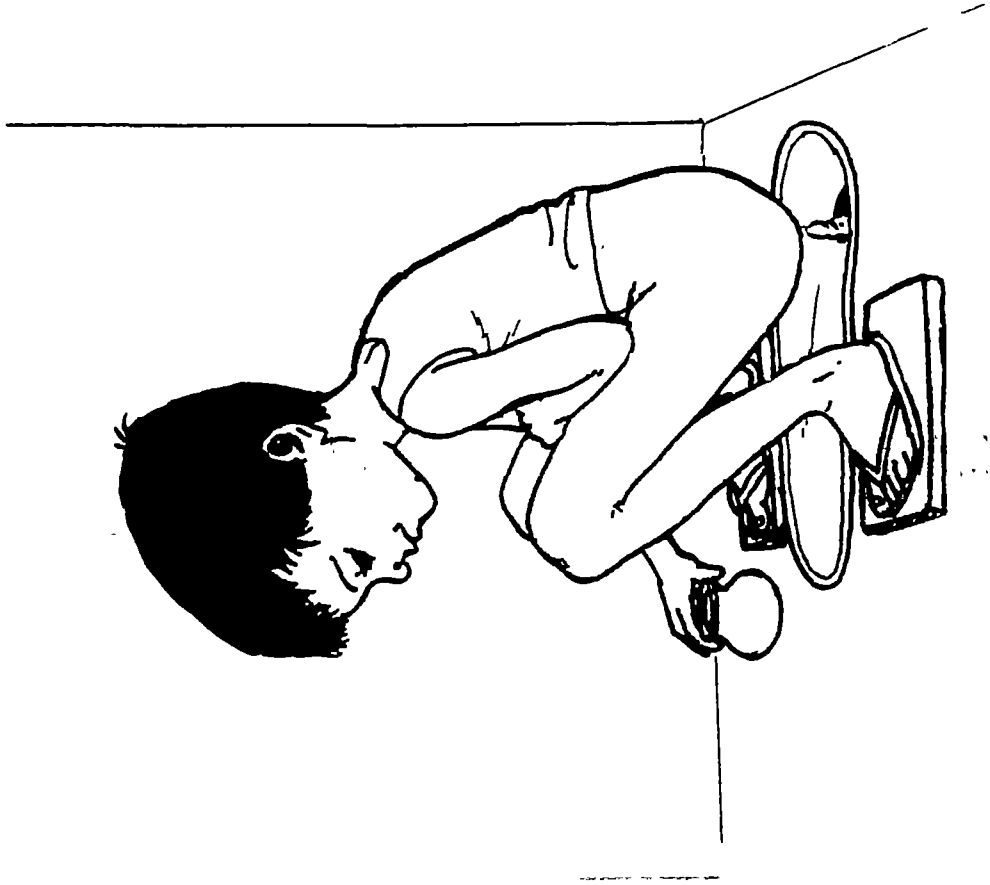
Sanitation and Diseases (By Water)



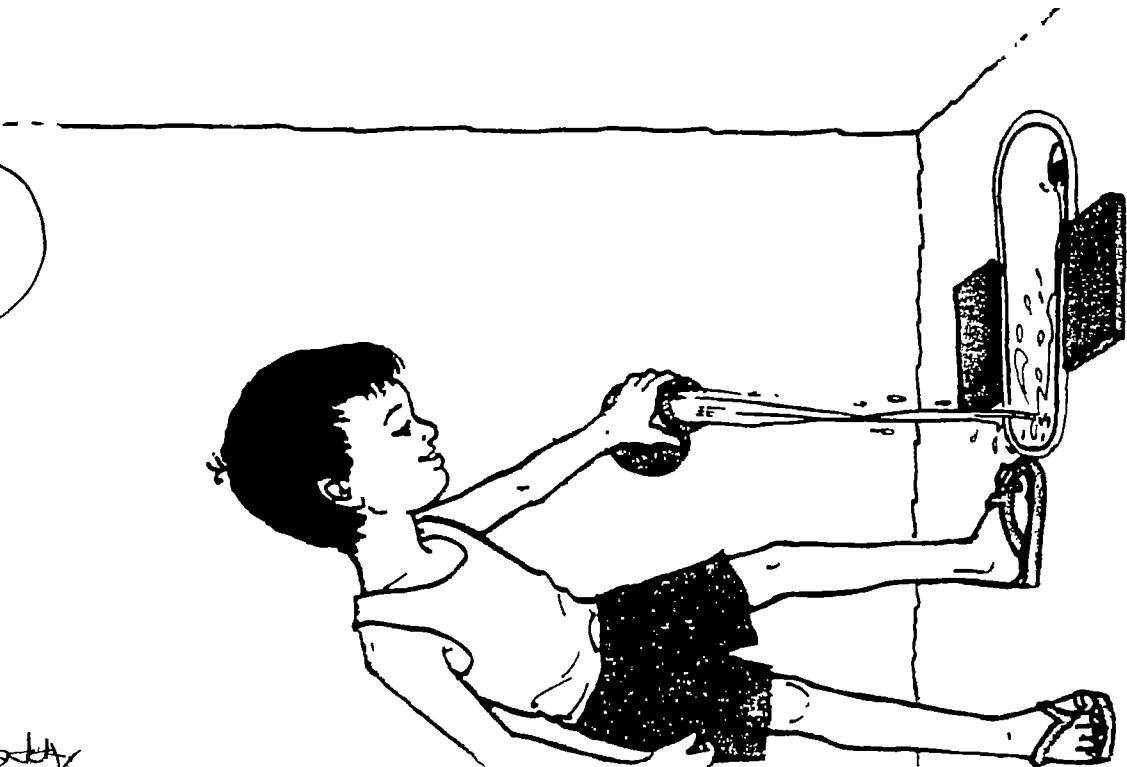
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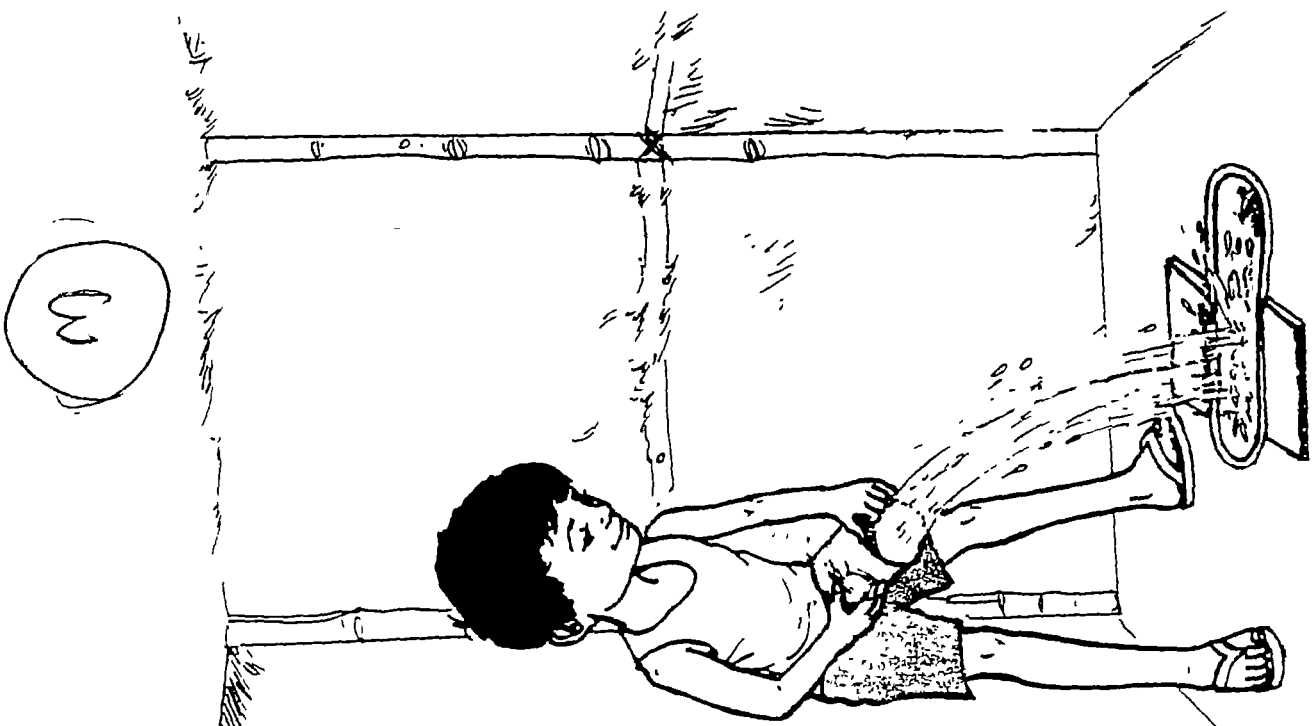
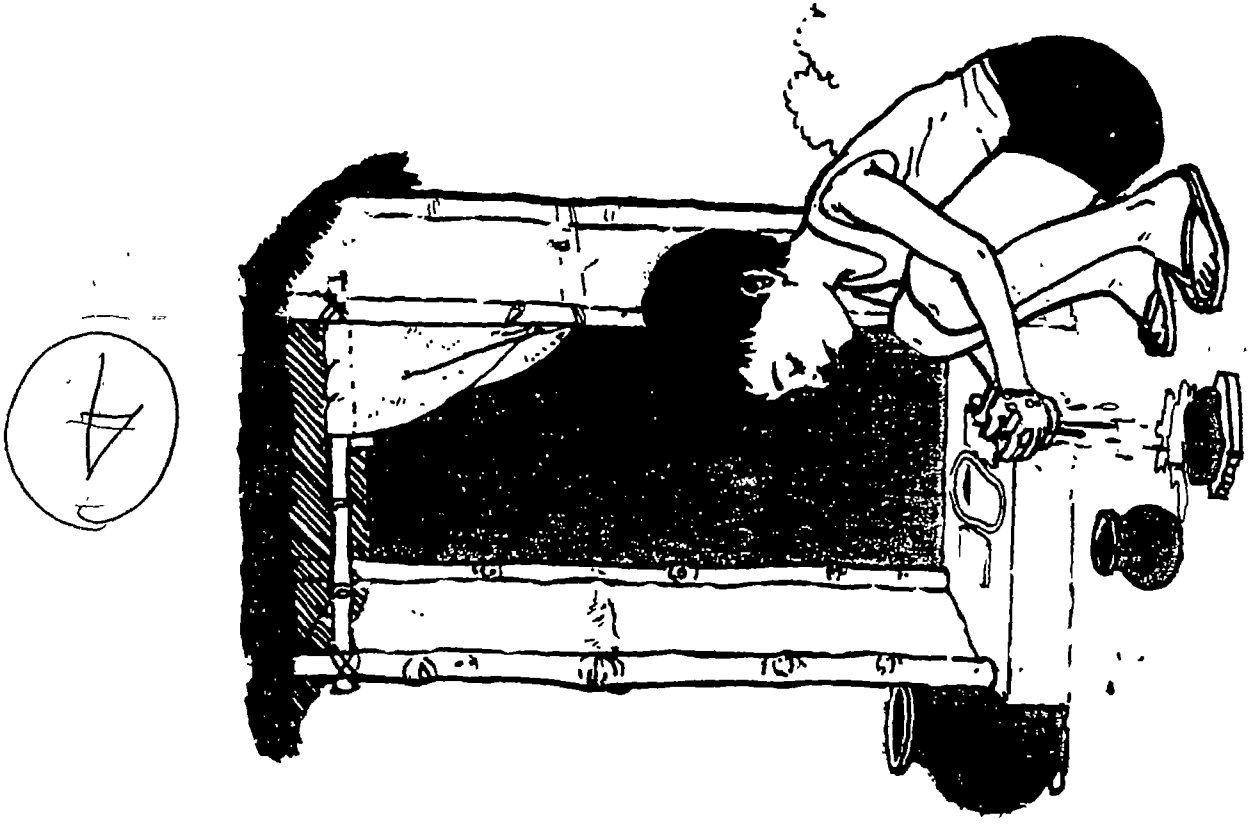


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Appendix (10)

Indian Express

INDIA'S ONLY NATIONAL NEWSPAPER

PUBLISHED FROM AHMEDABAD BANGALORE BARODA BOMBAY CHANDIGARH COIMBATORE DELHI HYDERABAD KOCCHI MADRAS MADURA PUNE VADAYAWADA VIZIANAGARAM

CITY

MADRAS SUNDAY DECEMBER 29 1991

28 PAGES 3.00

Tends a garden of children

Long ago, the late scientist Dr R Navudamma, describing himself, wrote, "You can take a child out of the village, but you can never take the village out of the child"

And when one meets a person like corporation school headmaster C N Shanmugasundaram, these words ring true yet again.

"I left my village and came to Madras, determined to work in a corporation school, because these schools have children from the slums - children who have so

Shanmugasundaram began his career in the revenue department in a village in North Arcot district, "because my father wanted me to become a taxilaar". But within 18 months, the young man became restless, as his dream was to become a teacher. After two-year teachers' training in Arcot, he entered service in a school at Arani Velapodi.

In 1963, the stary-eyed youngster came to Madras "to improve my career prospects and to bring the village atmosphere of affection and respect for the

teacher, to the slum children of the city. These children are suppressed and depressed, while village children are looked after with care by their parents. Life in the rat-race obliges both the parents to work, so city slum children have nobody to say a kind word to them. More often than not, this trend continues in the school too and the child grows up either totally withdrawn or aggressive and rude"

Soon after his first posting in Damodar Street (near Stella Maris College), the teacher set about the task of getting to know the families of his wards. "Initially they were startled when they would suddenly find me in their slum, and looked at me with suspicion. But slowly I was able to win their trust and confidence"

The reaching-out was mutual and today, on the occasion of Deepavali or Pongal, his house is flooded with sweets and fruits from grateful parents. He is even asked to mediate between family members in a quarrel, and his verdict is accepted as final.

How does his wife Lakshminiktha, headmistress of



in the north are so status-conscious. But now that my work has been recognised and I have got state and national awards for the best teacher, she believes that I do have some status"

He had a taste of a little bit of rough weather when his parents tried to find an alliance for him. "When I went

so took a degree in history, with this as one of the subjects"

He did not stop with a B.A. and got an M.A. from Pachayappa's College before seeking Lakshminiktha's hand.

Apart from indulging in the children civic sense business and the need to keep their surroundings clean, Shanmugasundaram has interested youngsters in a laudable hobby - gardening.

"Many corporation schools are used as public conveniences by people in the area. To get rid of this nuisance, I started a garden in our school (Corporation Middle school in Nungambakkam) by buying a few potted plants, and got the children interested in them.

"Very soon, the entire student community, as well as people in the area, got involved in the garden which bloomed under their tender care. In fact, during the 1985 drought, I caught a child watering a plant with drinking water. I scolded him, saying it could have been shared with his classmates. With downcast eyes he mumbled, "but sir, the little plant was looking so dry."

Not only the students, but even the watchman of the school, affectionately called "Appa"; is a zealous guardian of the garden. "The other day, when my daughter, studying at Vidyaava School and who wants to become a teacher too, came running inside the house saying, "Your Appa is coming," I rushed out, thinking my father had come from the village. But I soon found that it was only our 'appa' from the



Faces
by Rasheeda Bhagat

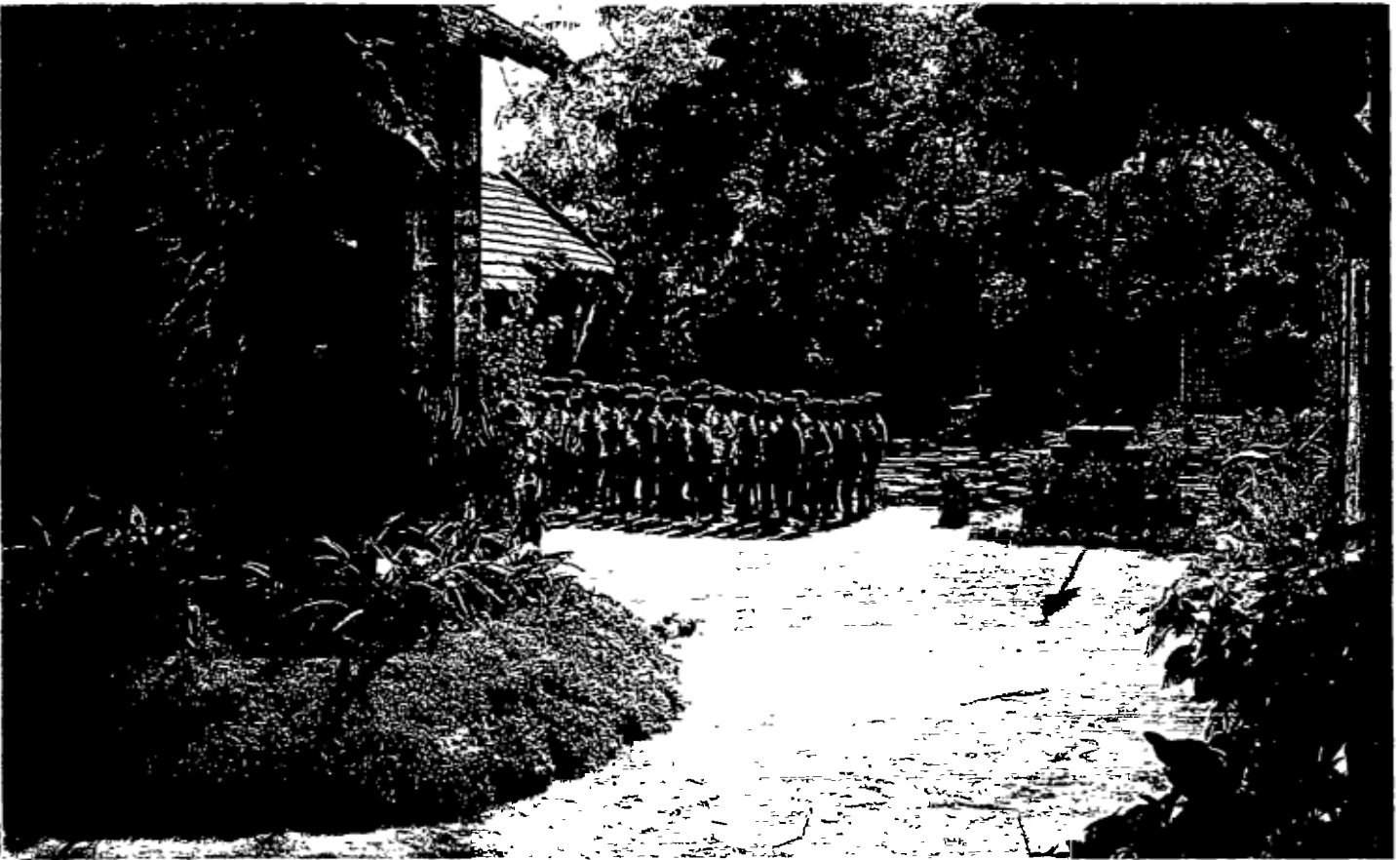
much to give, but do not know how. Hardly anybody has the time to pat them, caress them or say a word of encouragement. And the sad result is they grow up to be rude, hostile and totally withdrawn"

Had these words been uttered from a platform, they would have taken on a different meaning. But as they were coaxed out from this dark, 54-year-old, bespectacled man, they had the ring of truth, concern and care, in them.

After a nearly three decade teaching career with the corporation schools, he is rising from the ranks to become the first

7
GO





The eye-catching greenery at the school.

They set an example

MADRAS

It looks more like a greenhouse. Or a nursery. But the flower pots and eye-catching shrubbery, belong to a Corporation Middle School.

Ten years ago, the open space around the school on Rama Naicken Street in Nungambakkam was used more as a 'public lavatory'. The school headmaster Mr C. N Shanmugasundaram recalls that because of the stench people were reluctant to come to the institution even to cast their vote, when it was used as polling booth.

Today the school has a lush garden. It has for the third year running won the best maintained school garden award of the Madras Corporation. Creepers, colourful flowering plants and shrubs of various hues and sizes, over walls, porticoes and in pots... they are a feast for the eye and the mind.

Mr Shanmugasundaram, a history teacher who took over as headmaster ten years ago, said the poor condition of the building and its

Naturally, the students, teachers and maintenance staff are proud of their 'tiny sanctuary', since it is the fruit of their constant, daily effort.

The persons mainly responsible for all this are the school watchman-turned gardener Mr Shanmugam and a woman helper. They care for the plants as if they were children, says Mr Shanmugasundaram, as he shows photographs of himself with the children, teachers and 'appa' (as the gardener is affectionately called), with spades and forks tending the garden.

It is not merely civic sense, it is a matter of inculcating social responsibility and discipline among children, he goes on and explains how the young ones enjoy the activity. They are trained to look for a stray paper or a dead leaf anywhere in the school. Now they will, without any guidance pick up such objects and put them into the dustbin. "And remember they come from very poor families, needing to be taught such basic things they cannot hope to learn back

from scriptures. Even the passage leading to the toilet is neatly lined with potted plants.

But is not maintenance costly? Yes, the headmaster concedes, but remember we do not have to pay for labour. Only the plants and pots we need to buy. We manage to earn a bit by disposing of extra plants, and also plantains grown in the school. Perhaps voluntary organisations and civic bodies could help us in some way, he says.

The headmaster feels the awards are recognition for persons in the school like the watchman who are really committed to the cause they have taken up. "That is why I insist that he accompany me whenever I get any award for our work."

How was the selection made? A Corporation spokesperson says a panel of judges including a horticulturist, decides on the prizes by seeing the performance, neatness of arrangement of plants and student participation in maintaining the plants. The award was given away during the Corporation's annual flower show by the Governor, Mr Bhisma Narain Singh. The Corporation Middle Schools at Somiah Raja Street.



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