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SUMMARY REPORT OF
THE REVIEW ON
SANITATION HYGIENE EDUCATION
IN PRIMARY SCHOOLS
IN MADRAS, INDIA.

1992

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SANITARY CONDITION AND HYGIENE EDUCATION IN
PRIMARY SCHOOLS, MADRAS - INDIA.

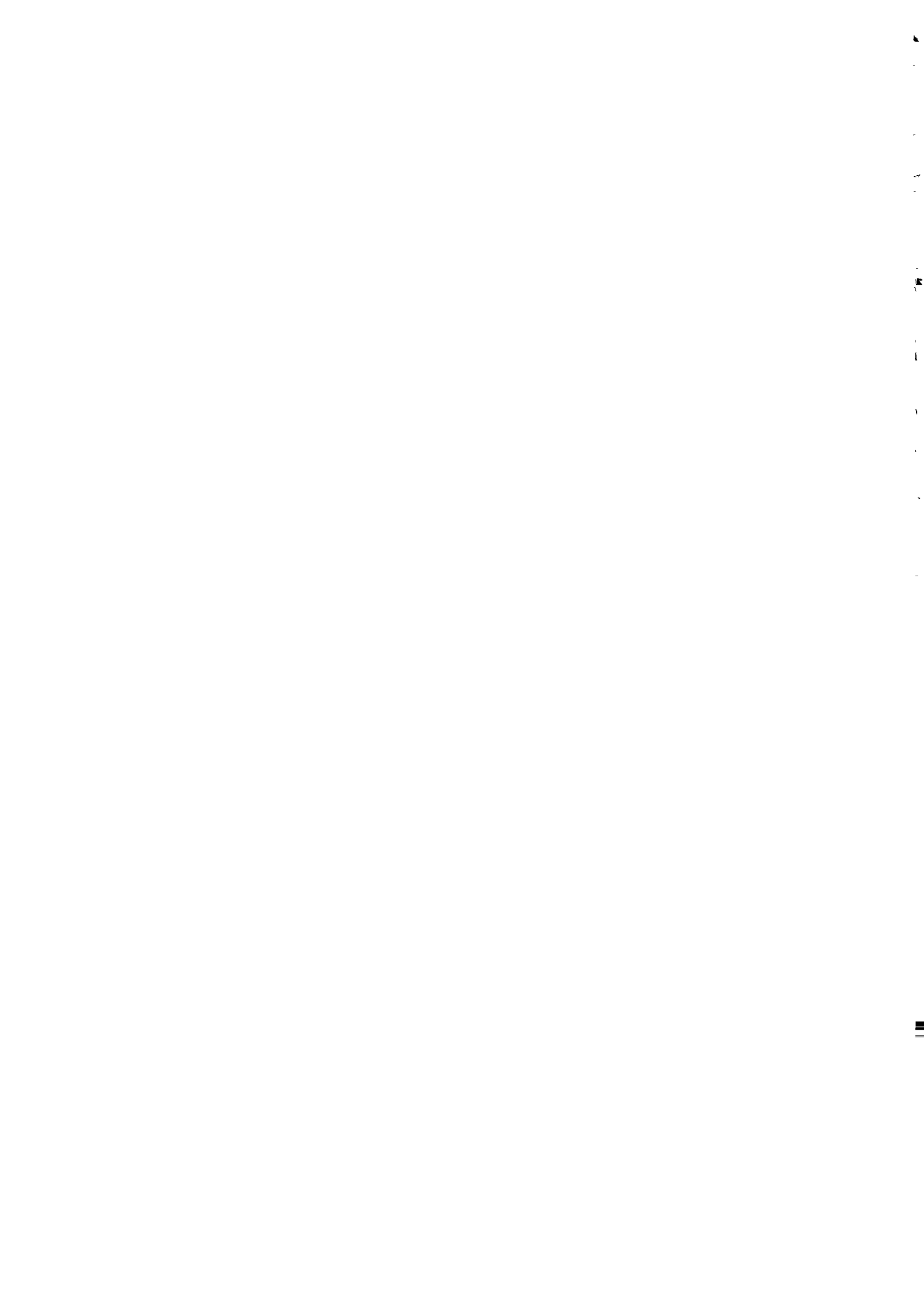
CHAPTER I

INTRODUCTION

The Summary Report of the Sanitation and Hygiene Education in Madras, India, is the review made in more than twenty schools in urban and rural parts of the Madras City and in and around Madras. In the review it is evident to show that the sanitary conditions and hygiene education are the most vital part and an important component of the school and School Health Programme under Primary Health Care to achieve Health For All by 2000 A.D.

In the study made available by way of interviews with school authorities, pupil and the senior staff of the Non-Government and Governmental, an idea has been thrown towards the general sanitation and hygiene and the different linkages of educational opportunities for better promotion. The study has also thrown open end questionnaire to the readers as to how sanitation and hygiene is being maintained in the Schools and what are the best feasibilities and other approaches to solve the different problems that are faced during the operational and maintenance part.

The study is done as part of the bigger research on fifteen countries by the I.R.C. Therefore, the study results given for Madras (India) would be compared so that a major programme will be implemented for better promotion of sanitation, hygiene and water sanitation and education.



Relevance of the Study : The study was worked out by Dr. S.S. Rao, Sanitation, Public Health Statistician and the Research Assistant from I.R.C. Dr. Rao, with the Research Assistant carried out all activities in the field with the help of the Women Voluntary Service, Madras (W.V.S) and the staff of the Institute of Public Health, Poonamallee, for a period of three months i.e. from January 1992 to March 1992. The review is to mainly to consider the conditions and the constraints and if necessary to start the project on Sanitation Hygiene and Education. The study was designed based on the earlier experiences of the other developing countries and as well lack of facilities in school on hygiene and sanitation. Also the conditions that are prevailing in maintenance and operation. It is interesting to observe that even after a decadal sanitation programme, how poor facilities are available and are not congenial for adaptations in Schools etc., are known.

Adaptation refers to cultural, social and other elements. By way of observation and study, it will be known that what type of linkages are missing and how this can be shaped well for hygiene education. Thus in the study these were linked to see to the cultural norms and the preferences in all the selected schools of the urban and rural area.

The data regarding the review also an evidence to discuss on what type of strategies are required to frame the opinion and formulate plans for further initiation of the project with I.R.C.

The questionnaire used among the teachers, pupil and other authorities concerned are showing a positive plan of action due to the poor hygiene conditions and sanitary conditions. It has distinctly shown the non-availability of facilities on water supply, latrine and disposal of garbage and refuse. The review has also thrown a light on the Hygiene Education that are provided to the teachers, pupil, parents and the Community indicating the areas where it has to be strengthened by using good methods and Media.

CHAPTER II

PROBLEM DEFINITION OF SCHOOL SANITATION AND HYGIENE EDUCATION FACILITIES IN INDIA.

India is the largest country in the world and it is one of the developing countries. Currently the population of India has reached nearly 800 millions. States like Uttar Pradesh, Rajasthan, Madhya Pradesh, Bihar and Andhra Pradesh are still backward in literacy economy, social and cultural development, poverty and backwardness in adaptation.

The National Health Policy and Education Policy has stressed the need for increasing elementary education with an estimation of enrolment classes (I - VIII) in about 114 million in the age group 6 - 14 years. Of this, about 6 million children attend non-formal education programmes. It was estimated by 1992 additional 64 million would be enrolled. With the Government co-operation, the National Council for Education, Research and Training, New Delhi, had attempted in revising the curriculum with Health, Hygiene and Sanitation topics. The same was planned to the non-formal system.

The Health Care delivery system though planned Carefully in India for all the primary schools, strengthening the improvement of sanitation and hygiene, still remained unfulfilled due to various infrastructure facilities. Likewise, in Tamil Nadu, the Government, through education department arranged and saw that the children

undergo for medical check-up. All the schools lacked in media materials and only the private schools had the opportunity to equip themselves. About 70% of the total primary schools suffered in the improvement of sanitary and hygiene facilities.

Census figures : In order to achieve universal elementary education, the Government has been providing facilities for teaching, training and media methods. In Tamil Nadu, there are about twenty one Districts with a total population of 55, 638, 318 (1991) and is the second state in the country to achieve literacy status. The following are the figures for 1991 :-

<u>Year</u>	<u>Persons</u>	<u>Males</u>	<u>Females</u>
1991	63.72	74.88	52.29

(See annexure for details)

In Madras City, which was taken for study purposes, is the most populous District, and it has migration and floating population. Nearly 1/4th of the total population live in slum area. The total population of the City alone is around 3,795,028. The following are the literacy rates for the City of Madras and adjacent area taken in rural area.

1. Madras	Total	68.40	=	Male	75.60
				Female	60.69
2. Chengalpattu	Total	48.00		Male	59.72
				Female	35.75

I.	<u>Total Teachers</u>	<u>Government</u>	<u>Panchayat</u>	<u>Aided</u>
	Men	1583	17965	12178
	Women	1677	9048	16443
	Total	3260	27013	28621
II.	<u>Total pupil</u>			
	Primary Schools			
	Male	171806	201616	719005
	Female	152732	198714	631458
	Total	324538	400331	1350463
III.	<u>Project District.</u>			
	Madras	Male 167062		
		Female 172156		
		Total 339218		
	Chengalpattu	Male 302483		
		Female 260874		
		Total 563357		

From the above statistics, it is evident that how the primary schools are over-crowded with female and male children and it is really felt that Sanitation Hygiene Education must find a part and parcel of the School Programme.

Taking into consideration of the schools selected for study purposes, the expectations according to the status position of the schools concerned are very minimal. The reason is that all the urban and rural equally lack in the basic amenities. It is also important to state that people find difficulty for operation and maintenance

Low-level staff, who are employed for the removal of solid waste, disposal of refuse are not usually engaged by the authorities. There is a great concern on who has to do the cleaning? It is the status which prevents people to take up programmes of hygiene facilities. Therefore, in the study, the key elements regarding the teachers' attitude, mother and pupils attitude and included.

CHAPTER III

METHODOLOGY :

In order to undertake the study, a questionnaire was prepared and used among the respondents who formed as a group of teachers, pupil, mothers and authorities of the institutions. The study formed as a base to measure the sanitary and hygiene conditions of the selected schools in Madras, India. The facts collected are the indicators of School Hygiene Education and Sanitation of India. The factors include 1) Opinion of the school staff and children about sanitation and hygiene; 2) Attitude on maintenance and operation; 3) What the staff and school children think of Hygiene Education; 4) What are the factors leading to poor sanitary facilities; 5) Factors leading for maintenance and operation.

The above factors were assessed with the open end interviews and structured interviews with the individuals selected. The method also included participatory observations followed by interviews. By openend interviews included the Health Education Consultant, Organisers of Women Voluntary Service, Administrators of the Governmental and non-Governmental agencies. The Structured interviews included the Headmasters of the Schools, Teachers and pupil of the selected schools.

The Sample size : A randomised selection of the schools in Madras and in and around Madras included urban and rural . More than 20 schools were selected and for structured interviews each school had three respondents. The category was one headmaster, a teacher and two pupil,



selection of respondents done by the headmaster for answering the structured questionnaire.

Interview process : A check-list and a questionnaire (See Appendix 2, 3, and 4) was used during observations and interviews in all selected schools. The check-list and questionnaire were prepared by the Researcher based on the literature study and was pre-tested. The pre-tested check-list and questionnaire was modified and used among respondents. The interviews were conducted between 10A.M. - 1 P.M. and 3 P.M - 5 P.M.

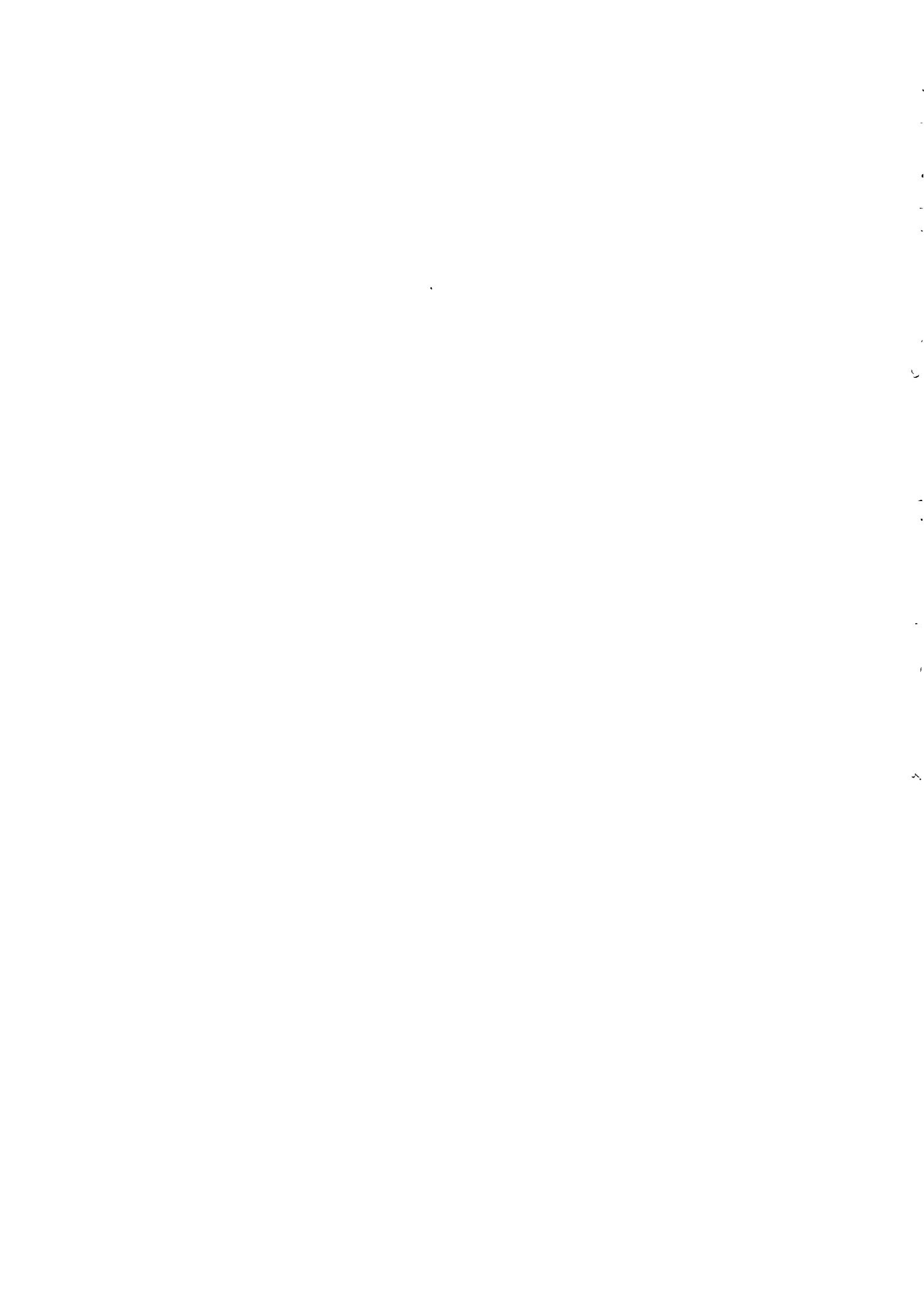
The interviews with individuals lasted about one hour with an average of thirty questions. The questionnaire containing information of Hygiene and Sanitation in eleven urban schools and in twelve rural schools with participatory observation are given in a detailed form of information in Chapter IV and the collected data for the key issue dealing with interpretation of the review are discussed in Chapter V.

Data Analysis : Analysis of these collected data, both structural and open end questionnaire, was compiled and coded with suitable tables to draw conclusions. Simple analysis is used here as the sample size is very small and the respondents belonged to two categories of the places like the urban and rural. Answers to the questions have been analysed with frequencies.

CHAPTER IV

INFORMATION ON HYGIENE AND SANITATION IN 11 URBAN PRIMARY SCHOOLS.

General : The urban schools that have been visited are run by the Corporation of Madras. The Corporation authorities through the Chief Education Officer are managing the schools for its maintenance and day to day activities. The schools depend upon the Corporation for constructing/restoring buildings, financing teachers and other staff. The schools have lime [?] between the school administrators of the urban schools (the Corporation) and the people, who are residing in and around the schools. The school staff have explained that they are trying to improve the hygiene and sanitation conditions with lot of economical constraints and further assistance from the Corporation are nil/^{and} their work is very limited. The Corporation schools are mostly located in areas where the slum dwellers live. The houses next to the schools are often huts and the adjacent area are slum tenements. These areas are highly populated and it is interesting to know that in the Madras City one fourth of the total population live in slums. And it is observed that these areas are



extremely in bad shape with regard to Hygiene and sanitation. The schools that were observed are located mainly in slum area and the building with or without play ground with undivided class rooms made out of brick walls with water proof ceiling or thatched roof. The inside premises of the school building are commonly used by the public and there is lot of garbage and refuse nuisance created by the public.

Most of the schools have equal sex of students studying in the schools. All the schools have more female teachers than the male teachers. Each school has an average of 700 - 800 children with 10 - 12 teachers. The play ground if found, are used for open defaecation by the public and the school authorities are not able to prevent this kind of act due to vandalism of the resident there.

Latrine : The latrines have superstructures made of cement. The floors are also made of cement. The slabs are differing between porcelain fiber glass and cement. In a few schools, the pit is above ground level. All schools in City have poor flush latrines. Over crowding is there. In some schools only one or two latrines are provided. Usually it is a very sad picture to see the nuisance around while entering the latrines and as well



faecal material

Spread not only in the pit but also on the floor and on squatting plate. Therefore the users avoid this and start using the outside space for open defaecation and urination. Thus, the usage is not correct. The reason for the wrong usage is often lack of water. The children cannot flush away the faeces and urine. The psychology of the individual is that to spot where somebody else have been, so they look for another spot inside the latrine or they go out to the playground.

A few schools did not have these problems, the reason being that the school teachers take effort to teach the children not to defecate and only to urinate. ^{at school} Under the inculcation of healthy habit the children taught to use latrines early in the morning in their home. Thus instead of changing the technical facilities the behaviour and impulses of the children are taken into consideration and are trained.

The over usage of the latrines is a major reason why faeces are placed everywhere in the latrine and it is left uncared. The sweepers do not manage to clean the latrines properly between the intervals. In one of the school the sweeper do not need up the time and the maintenance is very bad. The schools which has ^{at school} separate latrines for teachers are maintained well.

There is a big difference between the teacher's latrine and the children's. The teachers are always very conscious and see that the sweeper is cleaning it well. As mentioned earlier one of the problem with the cleanliness ^{ness} of the latrines are that the public come and uses it. Even in area where the locality has a public latrine, some people use the school's compound. It is especially mothers and children who use the compound, in the early hours, prior to the school opening. The public latrines

provided in the locality are pay and use one. The public hesitate to pay the sum of fifty paise for using the public latrine; to avoid this, they go to the school premises. The other reason being is the foul smell emission from the public latrine while making the observation and talking to the teachers pupil and women, it was informed that due to the poor maintenance and the reluctance shown by the Corporation authorities, the residents have no other alternative except to utilise the outside environment of their dwellings.

The dwellers are willing to co-operate with school authorities provided they approach the Corporation to come forward to provide water facility and flushing system. But in few areas the school authorities are afraid of them community whom they think are of bad character in nature and do not dare to approach them. Even the request to the leaders go in vain due to the lack of Health awareness and irresponsibility.

Water supply : All schools have some kind of water sources in the city but they are often having problems to make proper use of it. Operation and maintenance is the key-factor. The main problem for the water supply is bad planning of the location of the water pumps Tanks, and wells in the schools and localities and noon-meal centres. The water facility in the urban schools are not close to the latrine, but a storage tank is placed next to it. Here the water is not filled in as and when it is over after usage. The tanks go dry and the children tend to use the open ground. In some schools efforts are taken to take the water and store it near the latrines and usually a sweeper is made incharge of the same.

Storage tank

One of the major problems of the schools are

Water Scarcity. During summer season all the schools look for the Metro Water supply (water loaded lorries) and obtain it mostly for drinking purposes. Many schools do not have hand pumps or taps for the children and teachers to wash their hands before/after lunch and after defaecation or urination. The children have difficulties in using the well to draw water, and they need assistance. In schools where the sanitary and hygienic conditions are felt the problem of water scarcity prevent them for proper maintenance. In one school for the strength of three hundred children washing facilities are provided with three taps. In some schools with the organisational capacity, the teachers made the children (400) to stand in a line to get their hands washed. Students helped each other under the inspection of one teacher. This system was appreciated for their co-ordination.

Another problem was the wherever water was available that the public came in and took water. This situation brought bad maintenance of the school by the authorities and they had to remove the key of the hand pumps during non working hours of the school. Thus the Headmaster has to collect the water through the Ayah of the noon-meal centre for drinking purposes. It was observed that mostly children brought their drinking water and in other places drinking water is brought from public handpumps/taps, Corporation tanks or from bore-well. The water that the children get for drinking purposes from homes are rarely boiled/or filtered. The water stored in water barrels or tanks or pots in the schools are taken by mug and is being used by dipping method. The same mug is bring used among all children. At times it is used for washing hands for other purposes.

Operation and maintenance : All schools have no facility of Ayha (servant) employed for cooking the noon-meal and storing the food articles and taking care of the water for drinking washing purposes. There is usually one sweeper in charge of cleaning the toilets. Some schools have a twenty hours watchman. The watchman is the key-person to bridge the gap between the school and community. Places where watchman's presence or with proper fence with a gate to lock, seem to have helped in the maintenance of hygienic facilities of the schools. Thus the poor operation and maintenance is not due to the lack of attitude of the teachers pupil and public, but to the lack of responsibility and reluctance of the managers and others.

Organising aspects of schools sanitation :

The school authority is responsible for the sanitation of the school. The Public Health authorities of the Corporation should control the hygienic standards and sufficiently maintain. The communication between the Health and Education is so wide that it is difficult to co-ordinate each other. Usually the schools, teachers and children seem to try to manage the situation and standardise the cleanliness. The teachers have informed about their efforts taken to approach the Corporation and health authorities but no attempt has been made on this issue. Therefore the teachers had technical difficulties in employing more sweepers or participating in the meetings to explain on the improvement or the environmental conditions. It was clearly seen that all the schools suffered with paucity of funds. There was

absolute lack of inter relationship of co-ordination between the management. It was ridiculous to observe that the responsibility was pushed from one department to other department. The co-operation between departments was lacking. The schools did not have any approved plan of sanitation facility by the Health Department. So there were no norms in fixing the latrines or hand pumps. Entire system seem to be functioning in compartmentalisation. So, the teacher/pupil are put in difficulty and they take time to overcome these constraints. From the observation made, it was revealed that schools where headmasters teachers together with their students had an understanding saw the improved hygienic condition. It was simultaneously observed that two schools had hardly got a conscious attitude towards the school hygienic environment. In those schools where awareness was present, the students started sweeping the school compound, watering the plants and gathering the garbage and disposing them safely. One could see that the teachers, students were proud over their action on cleanliness. About three schools had a fairly well-planned hygienic program for the schools, as always washing hands before/after lunch, keeping boiled water for drinking purpose in well covered barrels with taps to pour water and throwing the garbage outside the school. The headmaster and teachers played an important role for the schools to improve in attitude and motivation towards the hygiene. Their interest often has brought down on several occasions for want of encouragement and support from the management.

Drainage : Water stagnation is a problem for Department. So there were no norms in fixing the latrines or

of the schools. The children use water during intervals, during lunch breaks and play time. The drainage system is so bad that it is not draining the amount of water let out and instead it gets stagnated within the compound. This happens especially when all the children wash their plates after lunch and make the water in use for other purposes. Quite a few schools do not have any drainage system at all. These school do not have cement wall and walls made out of sand makes the water to soak. Two Schools have kitchen gardens to which the water is let to drain. During rainy season the stagnation brings out slushy and solid waste.

Solid waste disposal : All schools are taking quite good care of the garbage within the school compound but they dump it either in one corner of the school premises or often throw them on the road side. The idea is that the Corporation Sweepers will come and burn it or transport it a way. This is not done regularly and it is often observed that waste and drumped outside. Thus the garbage is often are dumped or piled up outside the fence of the school or outside compound of the schools with flies breeding and foul smell emanating from it.

Noon-meal scheme : The Children who are under poverty line get noon meal scheme. This is one of the major schemes brought by the Government and the local body. The children are given a complete one meal and they eat mostly in the class rooms. In many of the schools there is no separate place for the noon meal service. There is a separate kitchen for cooking and stores are with the Headmaster of the schools.

The hygienic conditions of the noon-meal cooking are generally fair but the building maintenance are usually poor. The cooking place hardly had light or ventilation. the noon meal organiser. Ayah and one teacher supervise the service. Due to water scarcity the vesseles, plates and the eating places are maintained badly. Fuel is not a problem but the handling of the food by the Chief handlers servers are bad. As the scheme is under recurring expenditure, the management is bad and replacement of utensils are not seen.

Hygiene Education : The State Education Department in its syllabus, to all Primary Schools have incorporated Hygiene and Sanitation Education. Classes are even taken during moral science or cultural teachings. For all city schools, hygiene education is must and it is a subject under Environmental sanitation or science. . It is compulsory to learn about hygiene (decided at state - level). Few of the schools provide children with special books about personal hygiene and environmental sanitation. Instead they read about hygiene in their science books and from charts/posters. The material is visually good and shows clearly the look of hygienic conditions and related posters showing water-born diseases. The children, intereviewed by the researcher are aware about the risk in eating outside eatable things, drinking unboiled water etc. They have not only replied to questions but also pointed out ideas by drawing charts about hygiene. The expression was good. It was education on Hygiene and sanitation brought awareness among school children and are notable to implement. Awareness is there, but

adoption is lacking as it is not transformed into hygienic behaviour due to unavoidable circumstances. At home mothers and in the school teacher do not have time to check the children for washing hands or availing other facilities which are provided to them and are missed. The education and health department though interested in conducting medical checkup and treatment are not interested in maintaining Hygiene and Sanitation. The links between school and other Engineering department are not interested in maintenance or operation. Therefore there is a need to analyse this problem and solve it with inter sectoral approach.

CHAPTER IV

A - INFORMATION ON HYGIENE AND SANITATION IN 12 RURAL

PRIMARY SCHOOL :

The rural schools are manned by panchayats, look forward for financial and organisational support. The relation between the rural schools and the panchayats are more co-operative than the urban schools of the Corporation. The reason is that 2 - 3 schemes function in one panchayat and the organisational pattern is very congenial to approach the Panchayats upon the financial and other resources of the panchayat. There are voluntary organisations to help the schools for its improvement but unfortunately facilities are lacking excepting the private schools. At the out set the rural come under the District pattern Governed by the Taluks and Panchayats. The Administrative pattern channels down the District level to the Panchayat level. The Assistant Educational Officer is the over all incharge of the Primary Schools. The schools include Private, Panchayat and missionaries.

The schools are usually located in the centre of the village. The schools are even more lacking space for playing etc. even though there is space available this is not utilised. Authorities are unable to meet the demand. This is due to the increasing number of children. The schools were built about 10 - 20 years with an approved plan of the Panchayat and thereafter never made an attempt to improve. Therefore the children are over crowded and are made to sit in the undivided class room situation. Unlike urban the rural back ground is compact with definite land marks. Mostly Thatched buildings, huts and light roofing are seen. Though the schools and the



community are economically weak in their living conditions are much better than the urban. They have clean atmosphere and the surroundings are maintained clean to certain extent. The rural schools have no connection with the local dwellers. Mostly the schools are provided with donated space by the village people and public amenities and other amenities in the schools are very much less. Children on an average are 200 - 350 and the teachers, are 4 - 5. The rural schools have less interference with the locality as the people give more attention and weight age to the schools. There are no public latrines but there are public hand-pumps stand poles for fetching water. Ponds are seen. Few overhead tanks are found among major Panchayat. Schools are depending upon public system. There is a good understanding between the teachers, pupil and the parents. Therefore one could see that education has formed a base in the community specially among mothers.

The children are mostly sitting on the floor with little space between each other. The class-rooms are dark and have no good ventilation. Two schools were functioning in rooms which had broken walls and pieces of the roof missing, which led way to the sun shining on them the whole day. Children are made to sit on the verandah with jute cloth hanging with holes. It is disheartening scene to viewers but the authorities remain silent.

Latrines : The village schools have usually no latrine at all. The villagers are used to the fields.



There is no specific rule for the primary schools to have latrines. But there is one for higher secondary schools. Thus the school children, teacher and parents lack practice towards the using of latrine, hand washing, drinking water (boiled) etc. Water stored for drinking purposes and washing purposes are not seen. But awareness on Hygiene and Sanitation, committing nuisance on the roadside is wrong etc. are known to them. How to improve? Is the question mark for them because they view these facilities as an extravagance, defaecating outside is a practice to them and it is common. The authorities have not considered the health perspective.

Compared to urban the rural had many sentimental feeling on building up a latrine. They preferred to walk and ease in the open field. Also they had a biased opinion of the public latrines of the urban and township area. Few schools which had constructed latrines a decade back had failed to maintain and later closed. Maintenance was difficult. The Institute of Public Health came forward with subsidy to build up latrines, soakage pit etc. but the authorities rarely accepted the fact. Most of the schools never had latrine at all !! constructing latrine is the responsibility of Health Department, operation and maintenance is the responsibility of Education Department but both never came to a common agreement.

Therefore the schools suffered without basic sanitary facility. Though few latrines were there it was not clean and it was kept in a bad condition. Rarely the Panchayat sweeper was brought to clean whenever the authorities took the responsibility. In the ruralside the school authorities expect the panchayat to construct & maintain whereas the urban who even raises funds and get the amenities but

very often lack in maintenance.

Water supply : The schools have in general some kind of water source, usually a public hand pump nearby, well and panchayat overhead tank. The problem is how to fetch and store the water for the children. Water for drinking purposes is usually scarce, but the water is not boiled. Further the water barrels are often left uncovered and the children are taking water with a tumbler or mug for and use the same mug for other purpose.

Storage of water for cleaning and handwashing is rarely seen in the schools. It seems the children go to the public water source after defaecation but otherwise no cleansing. Handwashing before/after lunch is sometimes done where the handpumps are installed, water storage is never done. An Aya is employed to fetch and store the water in the school and the same Ayah is utilised for assisting the noon meal.

Operation and maintenance : There is no real person in charge for cleaning and sweeping. The " Ayas " and the children are usually taking care of surface cleaning and bringing the garbage to the roadside or backyard. The school authorities have not made any specific rule how to handle this, which has led to a vacuum for operation and maintenance. Sometimes the garbage thrown outside are burnt.

Organisation : The teacher, school, Panchayat and Institute of Public Health are working in isolation.

There is not much exchange of ideas or co-operation. The teachers' actions are limited since they always need the financial support from the panchayat and guidance from the Institute of Public Health. The teacher though trained for hygiene Education are not coming forward to take up the responsibility of putting up latrines, kitchen garden or soakage pit with united effort : The Public Health authorities has been imparting knowledge and providing sanitation facilities at a subsidy level but there is a difficulty in executing these activities by the Panchayats. In view of the revoking the programme for effective implementation, it is possible that all the schools taken for the review and the block may be taken for action programme.

Drainage : The few schools which had own water sources had also kitchen garden linked to it. The outside in always found dry. In many schools the water is led through a pipe and led to the field. Stagnation was a major problem. No School had soakage pit. Backyard of the schools with open drainage were seen surrounded by mush and plants. Sometimes this place came handy to the cattle.

Garbage disposal : Collected Garbage s thrown outside the road or dumped in a corner of the backyard. Mostly Garbage piling was seen near the wall or the noon meal centre. Sometimes the garbage thrown was burnt. The Panchayat sweepers also had their role but very minimal for the disposal.

Hygiene Education (See Urban Schools)

Also it is observed that the rural schools are conducive to impart education and they possessed better knowledge on the Hygiene education but it is only at the adoption level they were unable to practice the same as no amenities were provided. Places where little provisions was made like the playground etc, maintenance were bad due to lack of funds. Rural Schools are aware that good Environment and Sanitation will bring a healthy life and will make people realise to adopt good health practices.

Therefore, the schools where the interviews were taken, an impression about the conditions have led to a major implementation of the Environment Hygiene Education Programme. The Next chapters discusses the issue with tables and illustrations.

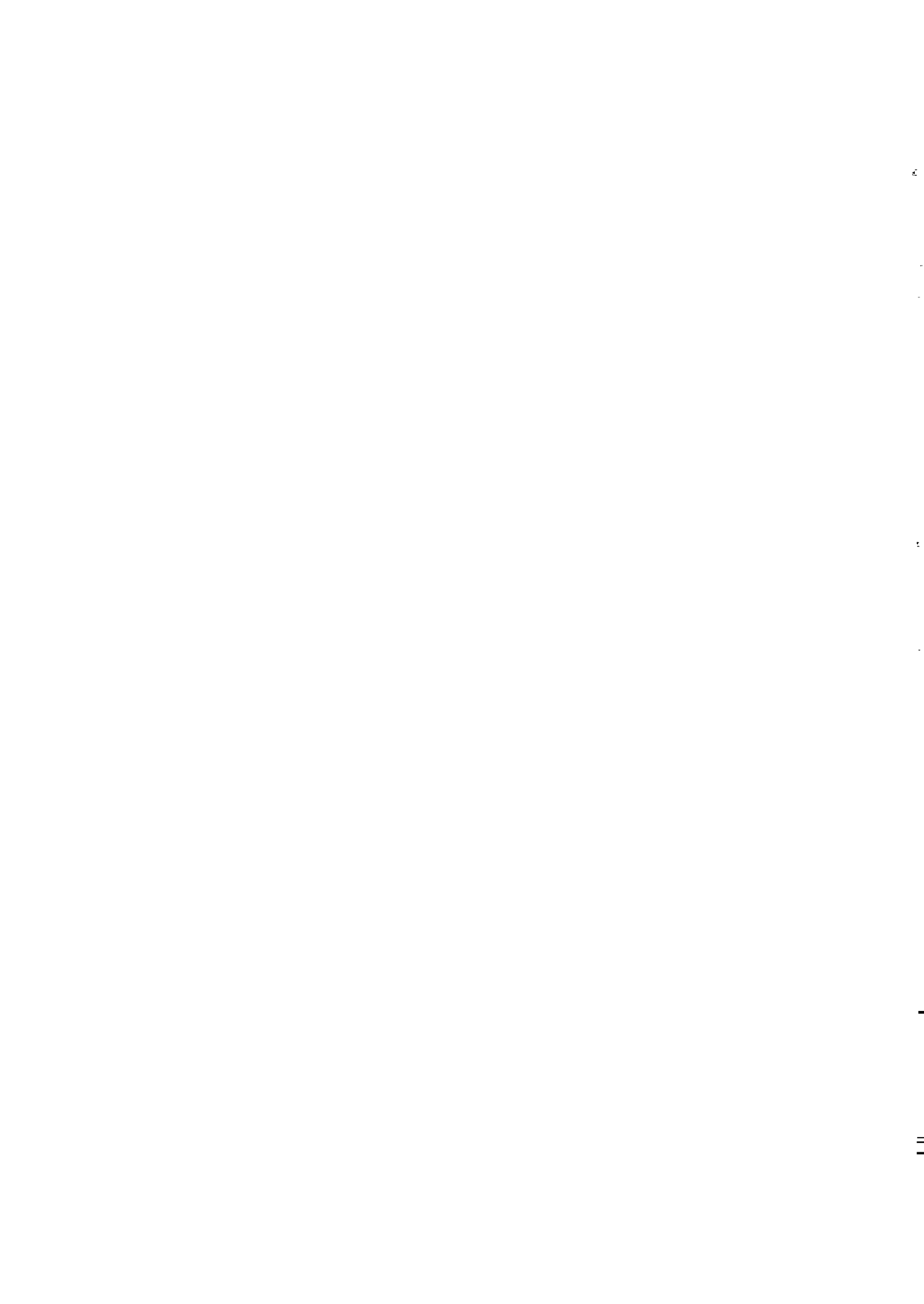
CHAPTER V

Analysis and Interpretations of the Data :

The different answer of each question of the interview were categorised and the questions leading to main points were kept as head-lines and the points included under each issue was sub-categorised. Thus, consolidation of the statement of the answers to the question for the children, teachers and consolidation for the participatory observation was done separately on urban and rural. From the tables with descriptive interpretations has given the major key elements to understand the factors constituting the hygiene facilities, sanitary facilities and hygiene education. The analysis has been done on the basis of coding with each question to each respondents. The sub-categories of each questions are frequented according to the respondents so that a comparative rationalisation can be got from urban and rural. The respondents are categorised as Teacher (Rural and Urban); pupil (Rural and Urban); Organisers (Rural and Urban) for participatory observations.

Analysis has been carried out and accordingly it is presented in the following tables.

I. Analysis on Participatory observation : In this, the objective was to check whether the problem definitions and the questions are relevant to the specific target group (Teachers and Pupil), Besides, the staff who were responsible for sanitation hygiene education. The questions included nearly nine major factors related to (1)



Availability of hygiene facilities (2) Operation and maintenance; (3) Use of toilets; (4) Water supply; (5) Hand-washing facilities; (6) Food and drinks; (7) Garbage; (8) Foot-wear; (9) Hygiene Education participation. The observations done both in urban and rural explained in figures in the tables shows the positive and negative factors influencing the sanitary, hygiene education.

SCHOOLS SELECTED FOR THE PURPOSE OF REVIEW

	PLACE	TYPE	MALE	FEMALE	TOTAL
1.	Perambur	Urban	104	75	179
2.	Ayanavaram	"	364	321	685
3.	Agaram	"	322	318	640
4.	Sembiyam	"	303	330	633
5.	Old Washermanpet	"	130	442	572
6.	Nungambakkam	"	380	340	720
7.	Thayagaraja Nagar	"	362	400	762
8.	Habibullah Road (T.Nagar)	"	782	718	1500
9.	Tirumangalam	"	216	264	480
10.	Dr. Thomas Road (T.Nagar)	"	95	80	175
11.	Enjambakkam	Rural	45	40	75
12.	Karianagar	"	90	19	109
13.	Vettuvankarai	"	142	142	284
14.	Kunrathur	"	122	134	256
15.	Kovoor	"	214	190	404
16.	Mangadu	"	325	309	634
17.	Thandalam	"	90	35	125
18.	Natham	"	202	82	284
19.	Mawlivakkam	"	720	350	1070
20.	Pattu	"	66	79	143
21.	Kundrathur (West)	"	380	260	640
22.	Kundrathur (Main)	"	760	342	1002

TABLE I

I. Available of hygiene - facilities	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) Kind of toilets are in the school			
(i) Pour flush with sewage	10	5	15
(ii) No toilet	--	5	5
(iii) Not recorded	--	1	1
	----- 10	----- 11	----- 21
(b) What is the latrine built of :			
(i) Bricks or Stones	9	5	14
(ii) Wood	1	-	1
(iii) Not recorded	5	1	6
Total	----- 15	----- 6	----- 21
(c) What kind of ground is around the latrine :			
(i) Cement.	5	4	9
(ii) Procelin	4	1	5
(iii) Mud	1	0	1
(iv) Not recorded	2	4	6
Total	----- 12	----- 9	----- 21

(d) Is the Platform above the ground-well			
(i) Yes	6	4	10
(ii) No	3	3	6
(iii) Not recorded	3	2	5
Total	12	9	21
(e) Where is fluid from the . latrine drained to			
(i) Metro Drainage	2	-	2
(ii) Not recorded	10	9	19
Total	12	9	21
(f) What kind of floor is in the latrine			
(i) Cement	9	3	12
(ii) Mud	1	5	6
(iii) Not recorded	1	2	3
Total	11	10	21
(g) What is the pit volume			
(i) Not recorded	10	6	16
(h) Is it enough			
(i) Yes	3	-	3
(ii) No	1	2	3
(iii) Not recorded	8	7	15
Total	12	9	21

Interpretations that are made for participatory observation under Table I are very interesting. Statement of the observations showed that though urban had the facility of pour flush type of latrine, it was the maintenance part made awkward and led to the poor facilities. Rural part - the facility availed was nil. A negative trend is using and maintenance was found.

TABLE II

USE OF TOILET

	<u>Urban</u>	<u>Rural</u>	<u>total</u>
(a) How many toilets are there for children and teachers.			
(i) 2	4	1	5
(ii) 3	2	2	4
(iii) 4	3	1	4
(iv) 5	5	3	8
Total	14	7	21
(b) Are the children and teachers toilets separate ?			
(i) Yes	8	6	14
(ii) No	2	5	7
Total	10	11	21
(c) Are the boys and girls toilets separate ?			
(i) Yes	5	5	10
(ii) No	2	-	2
(iii) Not recorded	3	2	5
(iv) No toilet for children	-	4	4
Total	10	11	21
(d) Is the latrine provided with water for cleaning ?			
(i) Yes	3	2	5
(ii) No	6	4	10
(iii) Insufficient	-	1	1
(iv) Not recorded	1	4	5
Total	10	11	21



(e) Which possibilities
are there for throwing
menstruation pads ?

(i) No possibilities	8	7	15
(ii) Only Boy's Schools	1	-	1
(iii) Not recorded	1	4	5

Total	10	11	21

Regarding Table II, the use of toilet for the children was very less. The usage was rather overcrowded in the urban which led to open urination and defaecation. On the rural side since the facility was not available, the students went to the backyard and openfield. It clearly indicates that mostly the toilets were uncleaned in the urban area than the rural.

TABLE III

<u>WATER SUPPLY</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) How is the water preserved ?			
(i) Tank	1	1	2
(ii) Barrels or Vessels ?	5	5	10
(iii) Buckets	4	2	6
(iv) Not preserved (directly from the sources	-	3	3
Total	10	11	21

(b) Is stored near the toilet/ garbage.			
(i) No	3	8	11
(ii) Yes	2	-	2
(iii) No storage	5	3	8
Total	10	11	21

(c) How is water covered?			
(i) Stone or concrete lid	-	1	1
(ii) Real cover	4	7	11
(iii) No Storage	4	3	7
(iv) Not recorded	2	-	2
Total	10	11	21

(d) How so they take from water storage ?			
(i) Tap	1	2	3
(ii) Mug	9	6	15
(iii) No storage	-	3	3
Total	10	11	21

(e) How is the waste water used ?

(i) Gardens	1	1	2
(ii) Drainage connection	1	-	1
(iii) Not used	3	4	7
(iv) Not recorded	5	6	11
Total	10	11	21

Table III indicates the Water Supply System. Mostly rural and urban had the storing system as indicated in the Table IV of (a). It is interesting to state that waste water is used in a limited way.

TABLE IV

<u>FOOD AND DRINKS</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) Does the School provide the children with food and drink ?			
(i) Noon meal	7	7	14
(ii) Yes	3	4	7
Total	10	11	21
(b) Is the water boiled which the children are drinking.			
(i) No	10	9	19
(ii) Yes	-	2	2
Total	10	11	21
(c) Do children bring their own food to school.			
(i) Yes. Some are bringing	7	5	12
(ii) No	3	6	9
Total	10	11	21
(d) How is the food stored ?			
(i) In open air	6	11	17
(ii) At box	4	-	4
Total	10	11	21
(e) How is the food covered ?			
(i) Real cover	8	11	19
(ii) Not covered	2	-	2
Total	10	11	21

Table IV has clearly shown that the schools have the noon-meal programme. Nutritious food is prepared and served inside the building of the school. Cooking facilities are limited. Drinking water is never boiled and cooled. The children in both the area drink, wash and use the same water for other purpose. (applies to urban and rural) Regarding eating place, using plates, washing hands before meals etc. are done fairly in a hygienic way.

TABLE V

<u>GARBAGE</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) What facilities does the school have for keeping garbage ?			
(i) Dust basked in class rooms.	4	3	7
(ii) Dust bin on road side	6	6	12
(iii) Pit formed	-	1	1
(iv) Roadside (Open place)	-	1	1
Total	10	11	21
(b) Do the children and teachers use the garbage facilities?			
(i) Yes	10	10	20
(ii) No	-	1	1
Total	10	11	21

Table V regarding the garbage disposal relates to the habit of the teachers and pupil. The garbage is dumped outside road in the dust bin or nearby. It is also interesting to note that the teachers and pupil do use the facilities by 100%, if available.

TABLE VI

<u>FOOT-WEAR</u>		<u>Urban</u>	<u>Rural</u>	<u>Total</u>
What kind of footwear do the children use ?				
(i) Sandles	50%	10	9	19
(ii)	90%	-	2	2
(iii) Bare-foot	(remaining)			
Total		10	11	21

Table VI indicates the health habits. Both urban and rural children do not use foot-wear. 50% of the respondents are in the habits of foot-wear. Since open and other nuisance are always in existence, it shows that the foot-wear habit will have to be unculcated as a good health habit among children and make it as a regular practice to avoid mainly the worm investigations.

TABLE VII

<u>HYGIENE EDUCATION PARTICIPATION</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
How do the children take part in the hygiene education ?			
(i) Passively listening	3	2	5
(ii) Actively discussing and questioning.	6	6	12
(iii) Interested	-	2	2
(iv) Not recorded.	1	1	2
Total	10	11	21

Table VII has clearly indicated that urban and rural areas are very much interested to know more about sanitary, environment and hygienic conditions. Discussions and decision-making seem to have created learning situations. There has been an active listening and participation than passive listening. This shows that when programmes are to be implemented, a definite positive response and reaction of the Teachers and Pupil will be there. This factor really encourages the planners for further action.

CHAPTER VI

TEACHERS AS RESPONDENTS :

Tables given in this Chapter provides the answers by the teachers during the interview regarding hygiene facilities, Disease from transmission, Hygiene Education, level of Hygiene Education to the Teachers, the network with teachers, pupil, parents and the community, the effects of educational activity at home and type of communication skills to be used to bring awareness on Hygiene and kind of barriers for promoting hygiene facilities.

Though similar type of questionnaire asked for hygiene facilities to the teachers and pupil to that of respondents under participatory observation, specific questions were asked to answer by choice or one word. The purpose of the interview is to get proper answer to analyse the information given and later to see that whether it has its relevance and implications for implementing sanitation Hygiene Education Project.

In the rural and urban about 22 teachers were interviewed. All the respondents were individually met and were questioned. The tables given below indicate the hygiene facilities education and the scope of using media and methods. Scores are given for the key issues and factors are discussed in this chapter.

TABLE VIII

I. <u>Hygiene facilities</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) Kind of latrine the schools have.			
(i) No latrine	1	5	6
(ii) Flush-out latrine	9	2	11
(iii) Latrine (not defined type)		2	2
(iv) Septic Tank		2	2
(v) Open air latrine		1	1
Total	10	12	22

From the Table VIII, it is understood that the rural and urban teachers have responded universally that use of open-air latrine facility is more than the flush-out system. Only urban schools have latrines and this facility is nil in the rural. How does the teacher explain the Hygiene condition of the school is that they relate the negative aspect of the latrines, which are not maintained properly. All have latrines at home and only few do not have the latrines in rural side and they use the open air filed. When enquired about the latrine facilities for both teachers and students, it was indicated that 90% of them do not have this facility. Thus it is clear that if facilities with education are provided the teachers as well as the students will avail the opportunity.

TABLE IV

<u>OPERATION AND MAINTENANCE</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) Taking care of the latrine :			
(i) Low-caste people or Sweeper	10	6	16
(ii) School Ayah		2	2
(iii) Students and Ayah		1	1
(iv) Not recorded		3	3
Total	10	12	22

In this study, the aim of getting the opinion of 22 respondents were to confirm their involvement in the operation and maintenance. As indicated in the Table, it is found that both rural and urban people depend upon the low-caste people (Sweepers) to clean and remove the dirt. The places where the public latrines are there, the menial staff of the Panchayat, Municipality or Corporation are engaged to the issue of constructing the latrine is the responsibility of the higher authority. Wherever the toilets were present, teachers and pupil equally used them. When questioned of the reasons for not using the latrines, all respondents gave (100%) opinion of not having the latrines.

TABLE X

<u>WATER SUPPLY</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) Who sees that the school is provided with water.			
(i) City Corporation	4	-	4
(ii) Board of School	4	10	14
(iii) Each bring water	2		2
(iv) Stream			
(v) Not recorded		2	2
Total	10	12	22

Almost all the teachers were of the opinion that the Board of School should take the responsibility of water supply. It is interesting to note that the rural side had a strong opinion about them and the urban side has pointed out fifty-fifty of the Corporation and Board of School.

Hand-washing facilities are observed both in the urban and rural. Plain water is being used and none of the teachers mentioned with soap and water. It was ascertained that 100% wash their hands after defecation. Similarly, among the teacher assuming about hundred, about 90% washed their hands before eating alone and nor for drinking purposes. Among children - urban - about 50% and in the rural, very less 10%. Therefore it is evident that inculcation of this practice is missing. Education will create an impact.

Regarding garbage disposal, all the teachers were of the opinion that the Sweeper and Ayah (who is in charge of the cleaning part of the noon-meal activity) are in charge of the garbage disposal.

TABLE XI

DISEASES TRANSMISSION AND DISEASES

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) . Common diseases among children at the school			
(i) Diaorrhoea-Worms, fever	1		1
(ii) Worms			
(iii) Fever	1	1	1

(iv) Leprosy, Diarrhoea, Worm	2		2
(v) Fever anemic	1		1
Diarrhoea, fever	2	4	6
Malaria fever, diarrhoea	1		1
Fever, Leprosy	1		1
Worms & Malaria	1		1
Diarrhoea, fever, typhoid	1		1
Cholera		1	1
Malaria Malaria		1	1
Scalics		1	1
No problem		1	1

Total	11	11	22

The above table explains in detail the type of knowledge that the teachers possess and how far the teachers are able to identify the diseases and what the common ailments that the children suffer and whether the various causes are known to them. It is interesting

to find that the teachers have given different answers and uniforming not mentioned that the transmission of diseases which occur are common among the children. Out of 22 respondents, only six of them have stated that fever and diarrhoea are mostly found among the children. Therefore, rural and urban teachers are aware that what type of diseases could transmit and which are the common diseases among the children.

TABLE XII

REASON FOR THE DIFFERENT DISEASES

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
General condition of the Surrounding :	2	5	7
(i) not known	1	1	2
(ii) Bad water & bad food	3	1	4
(iii) Bad water	4	4	8
(iv) No problem		1	1
Total	10	12	22

As per the above table, it is interesting to note that urban teachers are equipped with more knowledge than the rural. Reasons for spread of diseases are unknown to rural teachers. But they have responded that impure water causes different diseases.

Regarding the number of children as drop-out due to illness was attribute to various illness like Malaria, ordinary fever and scabies. The percentages of these, ranged from 10 - 20% among 100 children.

TABLE XIII

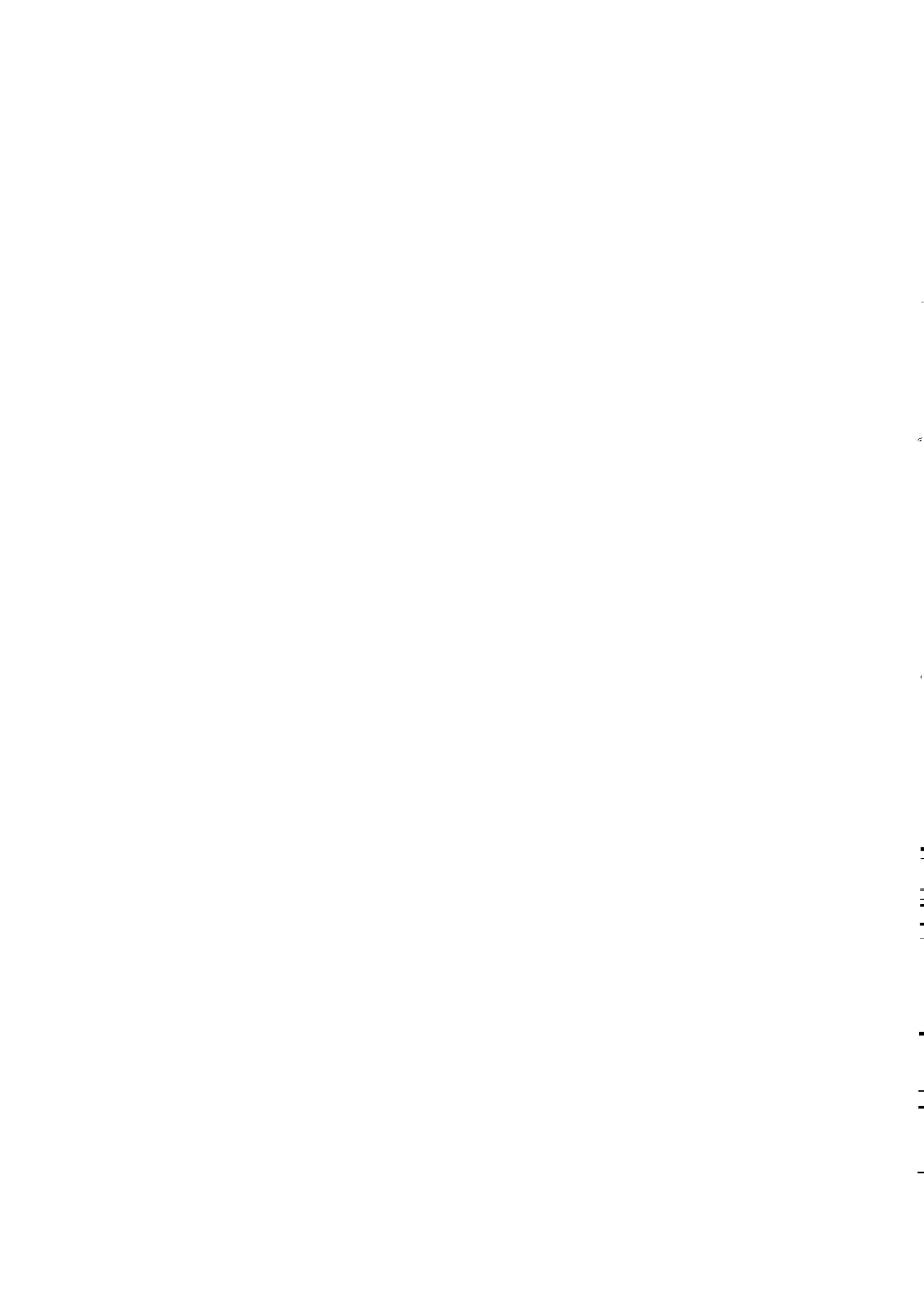
TABLE XIII

<u>HYGIENE EDUCATION</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(a) What role does the hygiene education take in the education?			
(i) Obligatory part.	4	2	6
(ii) Free choice	3	1	4
(iii) Part of the education	2	7	9
(iv) Not recorded	1	2	3
Total	10	12	22

As per the above table, it is noted that the children's role in Hygiene Education is very important. The majority expressed that it is a part of education and it is the responsibility of the teachers and also parents. Financing the Hygiene Education was expressed as part of the responsibility of the teachers and parents.

TABLE XIV

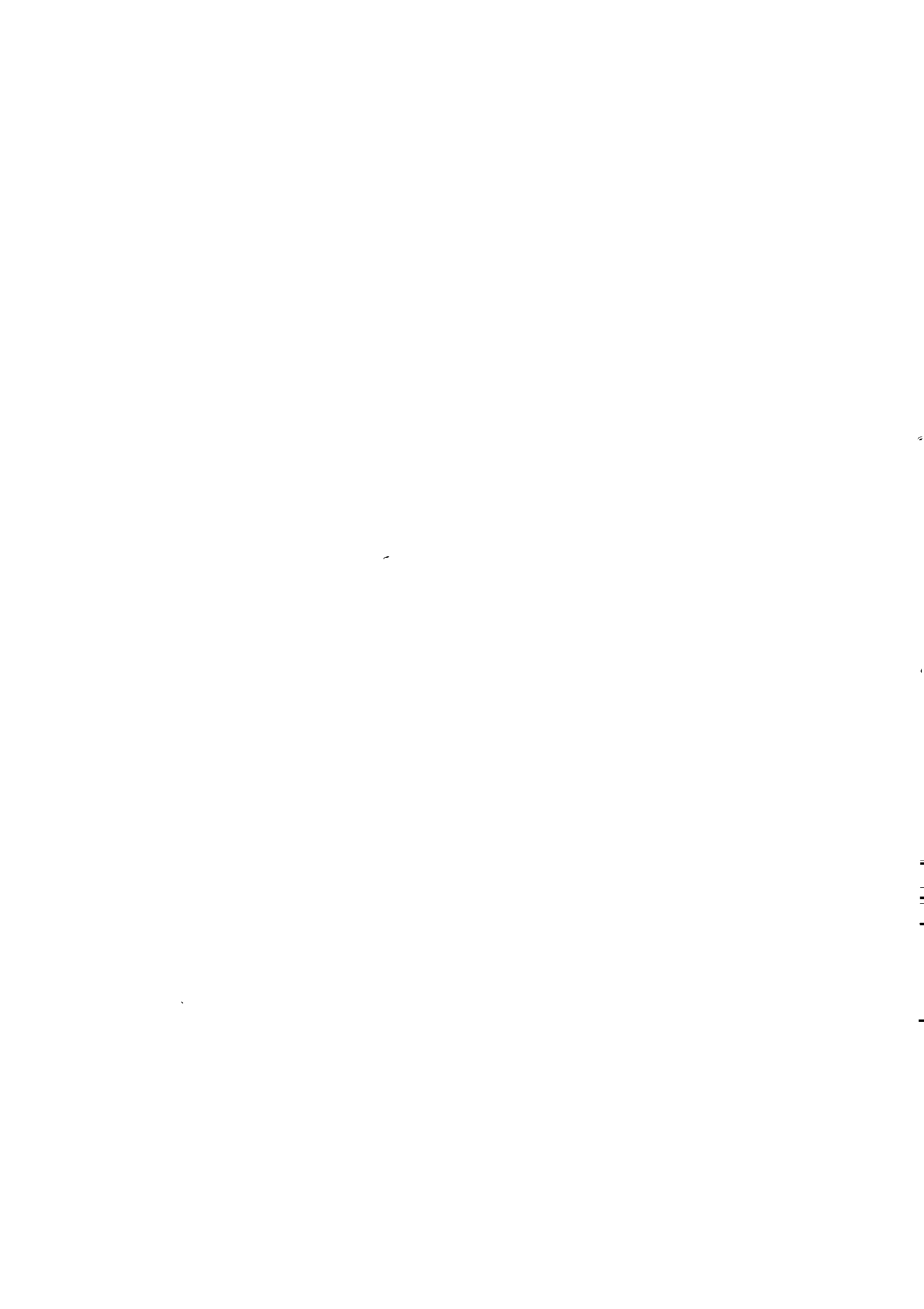
<u>HYGIENE EDUCATION MATERIAL</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
What material is used :			
(i) Books	4	3	7
(ii) Posters	2	3	5
(iii) Tapes	2	2	4
(iv) Charts	2	1	3
(v) Games	-	1	1
(vi) Models			
(vii) T.V	1	1	2
Total	11	11	22



The above table indicates the type of materials used for hygiene education. Both rural and urban make use of the books, posters, charts and T.V. (urban). None responded regarding the use of models or games. On the preparation of the materials and the use of the materials, when questioned, it was known that these are used only in the school situations. While using the materials mostly body hygiene are taught. There are no field trips. The choice of teaching body hygiene is that it comes under moral science and a specific time is being allotted for this.

As regard the education of the teachers, the hygiene education formed as part of the syllabus and the teaching was done by the Health Personnel. The total period without any field practice lasted to 10 - 12 hours of the whole 12 months' training. Therefore, very little effort has been taken under Teacher Training for hygiene education.

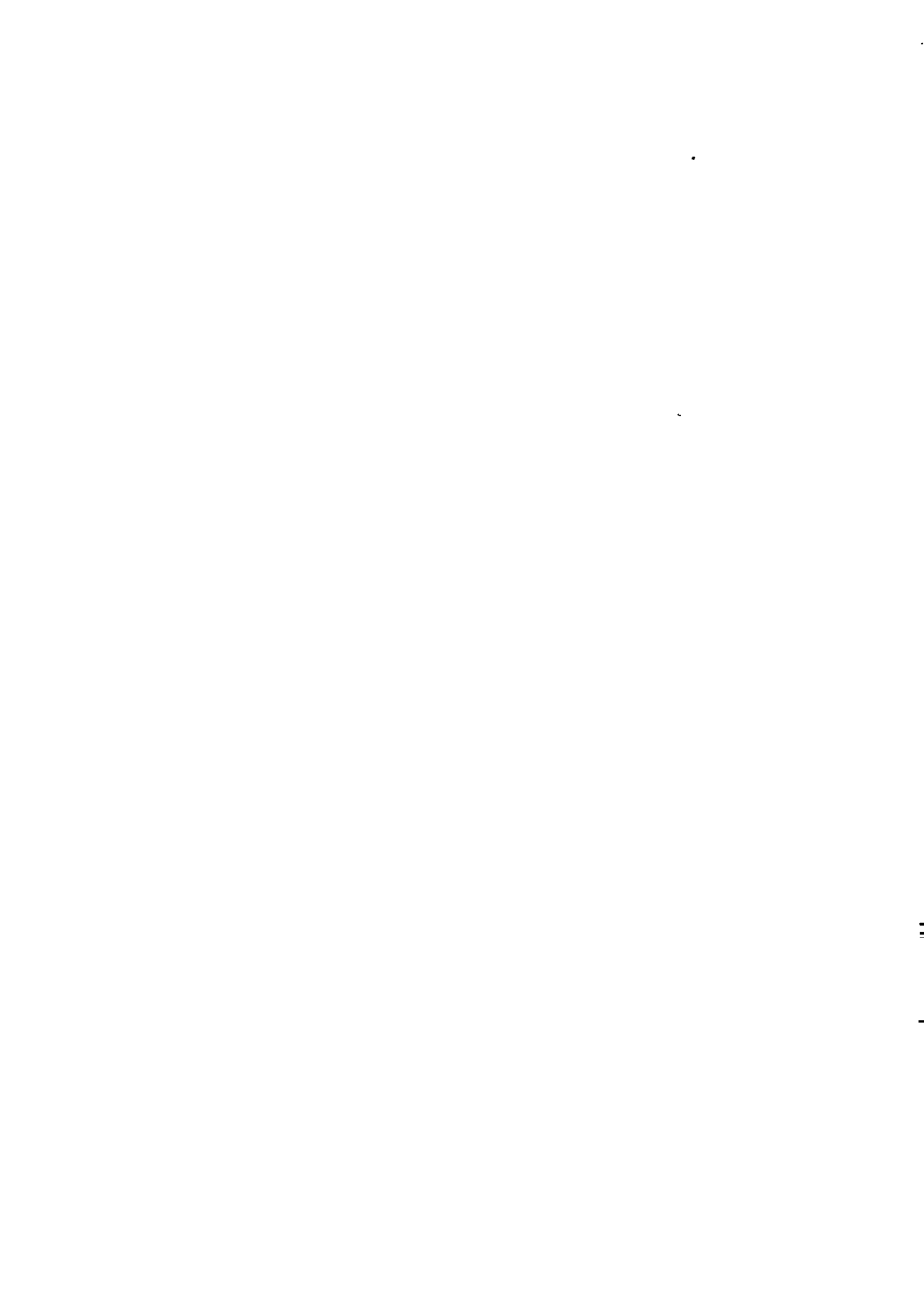
The network between school and the community, while discussing this issue to the teachers, they reacted that they have not much interacted with the parents. At the urban level to certain extent, the teachers have sent word to the parents for passing on the information of the medical report. Even, this is not done in the rural side. But teachers should take interest to react with pupil and parents, if situations are created. Both urban and rural teachers were of the opinion that parents-teachers association will bring a close relationship. All respondents unanimously agreed on this point.



When asked about the effects of hygiene education, the teachers informed that 50% of the children do, bring messages to their homes. They inform and insist for wearing chappals for bare-foot, boiling water, proper storage, proper cooking taking cheap vegetables, construction of cheap pit latrines, Soakage pit etc.

Finally when asked about the opinion on the development of better hygienic condition, all the teachers who were interviewed expressed the following points :-

- 1) The most important factor for school hygiene is to have a play-ground and a good approved building with hygienic facilities;
- 2) Finance is a major constraint and if any organisations come forward, the hygiene education will be encouraged and methods and media will be used;
- 3) Lack of time for organising hygiene education. The period for teaching is already overcrowded. There is no separate time or allocation of period for this purpose ;
- 4) A co-ordinated support is essential to organise the hygiene education. The Corporation Panchayats and Board of Schools should encourage this kind of activity within the management of the schools.



CHAPTER VII

USING CHILDREN AS RESPONDENTS

In order to obtain the opinion of the children studying in the primary schools on sanitation, hygiene education, 18 children from the urban and 24 children from the rural schools were chosen and the questionnaire was used. The time taken for the two respondents together was about an hour and the interview was done in batches of two each in rural and urban.

The key elements include use of toilet facility for the school, operation and maintenance, hand-washing facilities, idea about diseases, idea on hygiene education and educational material and whether it has any relevance on teaching by the teachers etc.

Also questionis on the network of the students between school, home and the community and the type of health habit they have. For example, washing hands and using soap etc. And lastly how best they can help their schools in improving sanitary hygiene condition and improve hygiene education. Appendix V provides the type of answers given by the students in the form of tables. However the following are the main discussion points given in detail to look into the key elements of the Sanitary Hygiene and Education.

During the interview, the children did not answer the questions well with regard to the use of toilets, their opinion about using materials and the question on washing hands and avoiding flies etc. But it is interesting to note that children gave the reply as to the



disease like cholera spreads through vendors. The awareness on fly nuisance is there but the students were unable to interpret.

They did not have any idea on operation and maintenance of the latrines. Rural almost gave a negative reply. This showed that the usage of latrines are very little.

Regarding teaching of Hygiene by teachers, only 50% of the total respondents had the listening capacity. Urban and rural are familiar with books and pictures shown by teachers. Rural and Urban both have expressed that these materials are interesting and their level of interest has gone upto 80%.

90% of the children have expressed their opinion that the parents take interest to listen to them on hygiene education. So, there is a good evidence of network between the children and parents. Teachers can take this as positive point and educate the children. Nearly 40% of the children informed that the parents had been to their schools and they take interest when teacher instructs them to follow it up.

Regarding the atmosphere of the school, the respondents have expressed happy feeling to be in the school and enjoying the company of their fellow-mates. Rural children about 75% did not respond to this and perhaps they were not able to speak freely or they hesitated to talk to.

Washing hands, before taking food and using water for bathing, defecation etc. are practiced among rural and urban children. Cleanliness is followed provided they are given the proper education. The major component of the hygiene education is that to teach others. Children are practicing them and 100% child to child health programme is there when they are taught properly and taught to practice them. Health habits taught are adopted well and an understanding is created among the children that hygiene education is an important part in their daily life. Adoption and Awareness and Attitude are the factors that influences the hygiene habits. Therefore it is well understood that the children are eager to learn, adopt and practice, provided they are given the correct messages and materials to use. Therefore, the children's expressions are as follows :-

If I hear I forget

If I do, I know

If I see, I remeber

So

50

Seeing is believing.

CHAPTER VIII

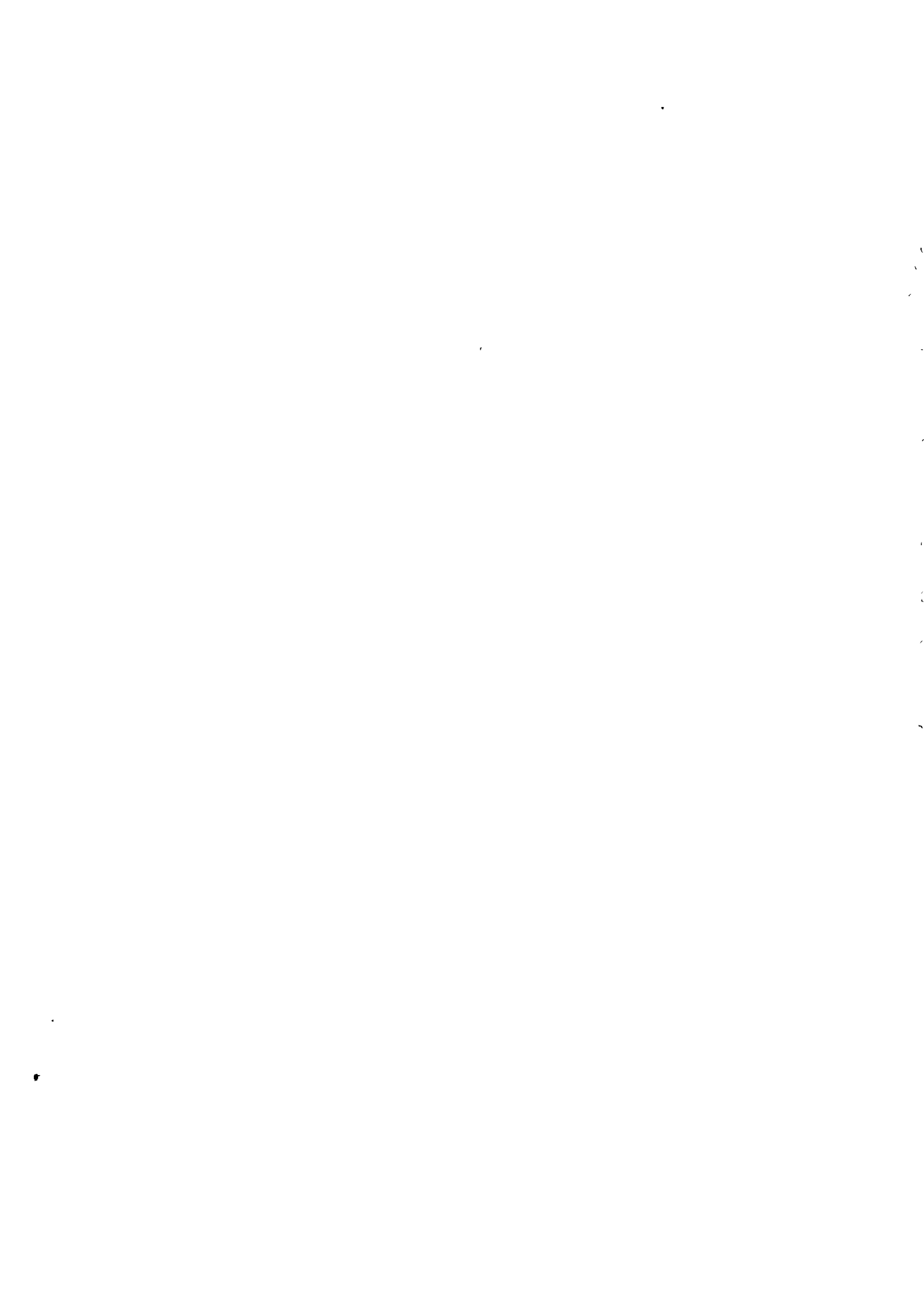
SUMMARY AND IMPLICATIONS

This study is the outcome of the review done in the Primary schools of Urban and Rural Madras, India. The review has been carried out to examine the various factors responsible for sanitary facilities, Hygiene facilities, operation and maintenance, the water supply, the garbage and refuse disposal. As mentioned in the chapters, on sample size, and the methodology, it is clear to look into the various linkages that have operated in the review and has shown the plausible ways of planning for a major sanitation programme.

In the Summary Report, it has been brought out clearly the various observations, interviews and the respondents reaction that we had in the reviewed.

Also in addition, the review has given an indepth side of the posing problems through Video-filming, Slides and Photographs. The documented evidences will present a clean picture of the status position of the primary schools in India, on Sanitation Hygiene and Education. In the present study, an attempt is made to measure the status of the conditions of the schools in urban and rural so as to think in terms of developing strategies for Hygiene Education in India.

All cultural, traditional and social factors are brought in this indepth review by questioning the respondents concerned. Observatory notes under Chapter V provides the real existing situation and how it is being faced in the schools. Factors related to programme implementation are considered for future.



Implications :

A number of programme-oriented implications can be drawn out of the preceding findings. A few major recommendations are given below and many others can be considered out of the earlier observations written in the previous chapters.

1. The findings of this Study (Review) suggests that respondents dissatisfaction over the sanitation, hygiene facilities and education in this regard provided are nil. The Teachers and pupil have played a sustained role in answering to the questions. The key issues have been brought out very clearly by them.

2. Very few of the teachers and pupil have expressed satisfaction over the maintenance and operation facilities. These respondents may be used for canvassing and education.

3. Media Methods have played a greater role. Therefore, the authorities concerned have to plan for an effective Health Communication system.

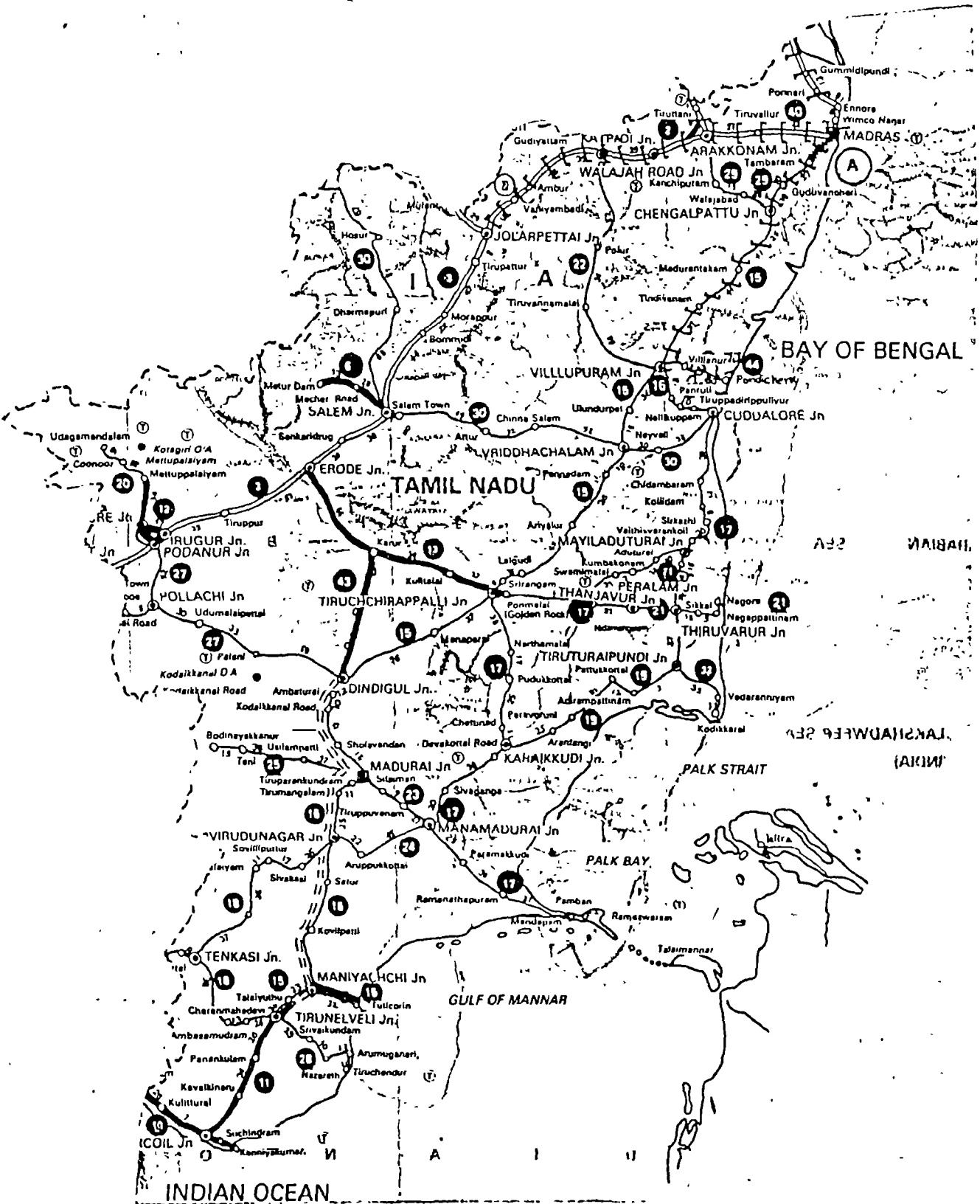
4. Preference for Hygiene facilities and if opportunity given to avail it in a proper way can be made available by the respondents. Therefore influencing the authorities and finding resources for improving the environmental conditions will go a long way.

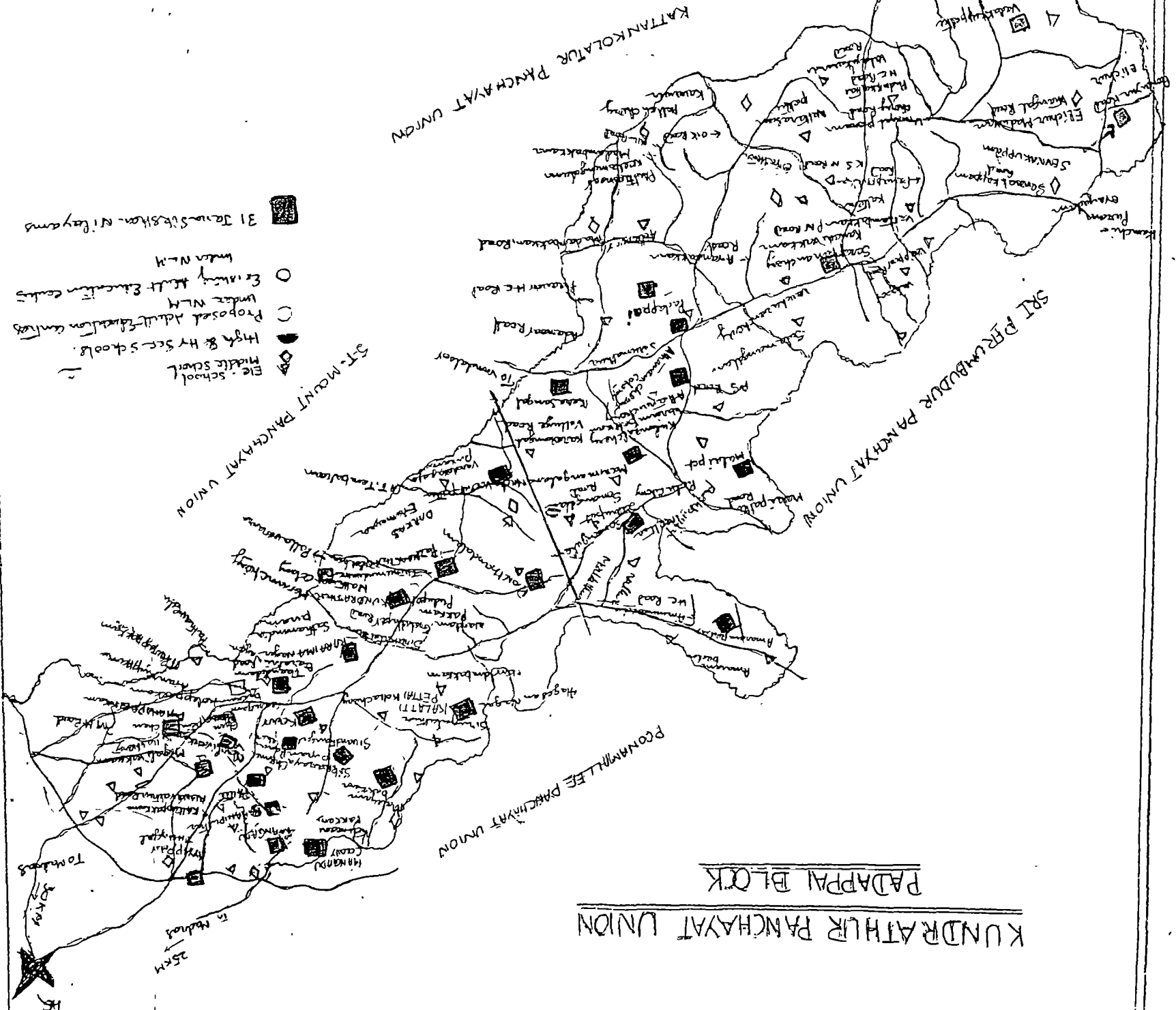
5. The key issue raises the organising capacity of the teachers - pupil - parents. This has to be done in a co-ordinated way. The impact has to be further studied if education is imparted in a proper way.

6. This review undertaken facilitates the sanitation, hygiene education. Therefore, the review to be compared with that of the other countries and the impact to be evaluated in order to plan for a programme implementation in producing significant changes in knowledge, attitudes and health practices on the target population.

Dr. SUMATHY S. RAO,
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APPENDIX T (a)

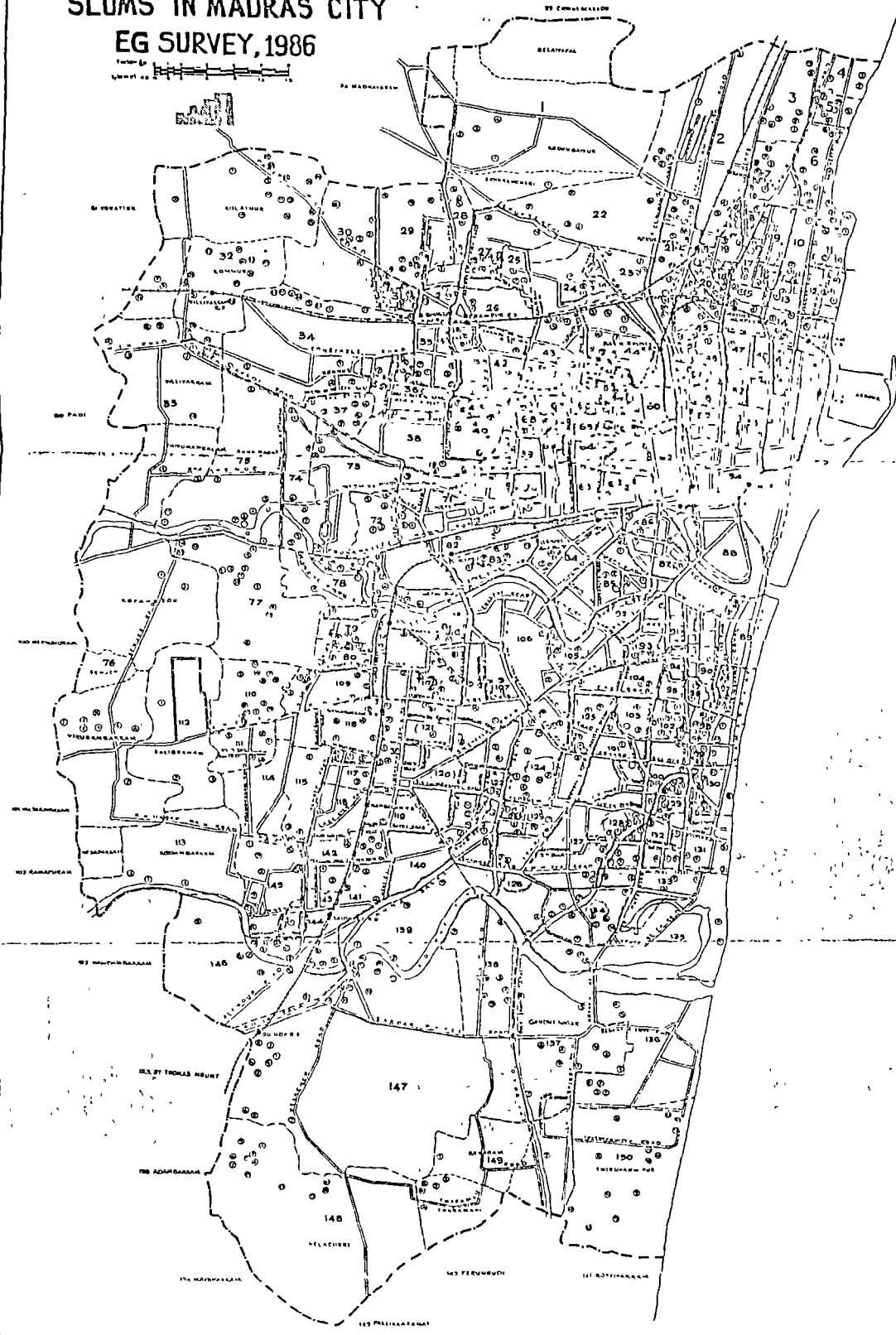




SLUMS IN MADRAS CITY EG SURVEY, 1986

Scale 1:50,000
North

- LEGEND**
- CITY BOUNDARY
 - CORPORATION DIVISION BOUNDARY
 - 5 CORPORATION DIVISION NUMBER
 - VILLAGE BOUNDARY
 - RAILWAY LINE [BROAD GAUGE]
 - RAILWAY LINE [METRE GAUGE]
 - ⊙ Indicates Serial Number of the Slum in U division in the Directory of Slums
 - NOTE: Excludes Slums covered under MUDP/CLEARANCE Schemes



Slum No.	Name of Corporation Division
1	17th Avenue
2	17th Avenue (Contd)
3	17th Avenue (Contd)
4	17th Avenue (Contd)
5	17th Avenue (Contd)
6	17th Avenue (Contd)
7	17th Avenue (Contd)
8	17th Avenue (Contd)
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11	17th Avenue (Contd)
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96	17th Avenue (Contd)
97	17th Avenue (Contd)
98	17th Avenue (Contd)
99	17th Avenue (Contd)
100	17th Avenue (Contd)

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APPENDIX I (D)

Managementwise Teachers in Primary Schools as on 30-9-1987 - Districtwise.

Revenue Districts	GOVERNMENT		MUNICIPAL/ CORPORATION		PANCHAYAT UNION		AIDED		UNAIDED		T O T A L		Total
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Madras	14	94	403	1413	..	..	198	1746	..	..	520	3253	3873
Chengalpattu	261	276	220	509	3854	1716	565	749	2	35	4902	3255	8187
S. Arcot	561	158	213	199	5514	1398	1216	699	3	1	7513	2455	9968
Thanjavur	354	110	289	283	4931	1687	1904	548	1	..	7529	2853	10382
Madurai	435	301	175	650	1849	1275	1104	1264	..	..	3613	3570	7183
Dindigul	119	75	82	150	1689	891	591	546	..	..	2431	1662	4143
Ramanad	18	5	41	41	1319	610	522	406	..	..	1900	1062	2962
Kanarajar	64	31	44	53	1201	616	907	382	..	..	2216	1582	3798
Pasurpan	6	2	46	110	1415	603	334	323	..	..	1801	1035	2836
Tirunelveli	162	69	102	167	1080	502	2142	1893	1	8	3487	2639	6126
Chidambaranar	16	13	49	62	578	699	966	1349	..	..	1909	2128	4037
Kanyakumari	1098	1102	..	..	..	..	411	1008	..	..	1509	2110	3619
N. Arcot	490	270	306	574	6305	1969	850	824	..	..	7952	3637	11589
Salen	232	43	242	521	4253	2196	459	707	..	..	5236	3467	8703
Dharmapuri	38	10	53	73	3431	1201	82	83	..	..	3554	1447	5001
Trichy	525	244	36	171	4687	1820	822	986	..	..	6120	3241	9361
Pudukottai	17	8	78	107	1717	496	127	118	..	..	1939	729	2668
Coimbatore	57	26	407	1141	2546	1373	303	603	..	..	3398	3150	6548
Periyar	20	5	119	47	2678	1032	384	416	..	..	3201	1550	4751
The Nilgiris	67	38	75	53	595	263	235	281	..	..	972	635	1607
TOTAL:	4654	2967	3041	6269	49993	20477	14157	15736	7	44	71852	45493	117343

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Appendix 3

CHECK-LIST FOR PARTICIPATORY OBSERVATION

Below you will find the points I will try to cover in my observations and interviews.

Availability 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)

QUESTIONNAIRE FOR THE TEACHER

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 than 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

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 condotions

- 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

- 1 What do, you think, the children think are the reason to having worms in the stomick?

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 finaced? 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)

APPENDIX--V

Consolidation Statement of Answers to the Questionnaire
for the Children.

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
I. Using of Toilet of School			
a.			
Yes	10	3	13
No	6	19	25
Yes for Urine only	2	2	4
Total	18	24	42

Do all are using at School

Yes	6	4	10
No			
Not recorded	12	20	32
Total	18	24	42

If No, why not?

No latrine.	6	6	12
Goes to home	6	6	12
It is not clean	6	2	8
No water		2	2
Not recorded	6	4	10
Total	24	20	42

II. Operation and maintenance.

a. What do you know about the toilet?

(i) It is clean.	10	4	14
(ii) It is bad smell	2		2
(iii) facilities	2	4	6
(iv) During rainy season not well	2		2
Not recorded	2	16	18
Total	18	24	42

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
(b) When are they using toilets.	2		2
(i) Any time	2		2
(ii) At interval time.	10	3	13
(iii) Not recorded			
(c) Way of clearing water.	12	3	15

III. Handwashing facilities.

Water	14	24	38
Water and Soap	2		2
Water and ashes	2		2
Total	18	24	42

IV. (d) The THINKING OF THE RELATION BETWEEN HYGIENE AND DISEASES.

Have any of you had worms
Have any of you had diarrhoea
the reason for worms and the
reason for diarrhoea.

(i) Stomach upset	1		1
(ii) Unclean water and food items.	3	1	4
(iii) Outside eatables	5	10	15
(iv) More sweets	5	7	12
(v) Not washing hands and nails.	4	4	8
(vi) Flies and bare-foot		2	2
Total	18	24	42

V. (e) Hygiene Education Material.

Thinking about learning

Good.	10	10	20
To follow teacher's advice.	8	14	22
Total	18	24	42

	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
What are you doing when Teacher is talking about hygiene.			
1. Listening.	2	8	10
2. Not recorded.	16	16	32
Total	18	24	42.

Whether books, poster, tapes etc. showing by the teacher.

1. Subject books and pictures.	18	14	32
2. T.V., Posters & Books.		2	2
3. Tape recorded, posters.		2	2
4. Drama & Books.		4	4
5. Not recorded.		2	2
Total	18	24	42

Thinking about these books, posters etc.

1. Funny.		2	2
2. Important to learn.	4	2	6
3. Interesting.	14	16	30
4. Not recorded.		4	4
Total	18	24	42

What do you think when teacher is teaching things as washing hands and to avoid flies.

1. To remove dirt.	1		1
2. Useful good.	3	4	7
3. Vendor food items taken to cholera	3		3
4. Interesting.	9	8	17
5. Source to know things.	2		2
6. To avoid disease.		12	12
Total	18	24	42



<u>VI. Net Work School, Community, Females.</u>			
	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
Do your parents like to hear what you have learnt.			
Yes	18	24	42
Have your parents been to School			
Yes	6	8	14
No.	10	12	22
Do not know.	2		2
Not recorded.		4	4
Total	18	24	42
How School is differing to the Home.			
1. Have latrine at home.	2		2
2. Feel happy when school is neat and tidy.	1	2	3
3. More friends at school	6		6
4. Both are equal.		6	6
5. Feel happy at school since frequent quarrelling among parents at home.	1		1
6. Not recorded.	8	16	24
Total	18	24	42
<u>VII. Effects of Hygiene Education.</u>			
Do you wash your hand after being to the toilet?			
Yes.	18	20	38
Not recorded.		4	4
	18	24	42
Are your parents washing their hands? when?			
Washing before & after meals and finishing work.	8	10	18
After coming home.	2	4	6
Before meals.	8	6	14
Not recorded.		4	4
	18	24	42.

Do you ~~lik~~ teach your younger
sisters and brothers.

Yes	12	18	30
No.	6		6
Not recorded.		6	6
	<hr/>	<hr/>	<hr/>
	18	24	42
	<hr/>	<hr/>	<hr/>

VIII. Children & Teachers developing
better hygiene conditions.

What do you like to define

Students themselves cleaning
school.

Not recorded.

	16	16	32
	2	8	10
	<hr/>	<hr/>	<hr/>
	18	24	42.
	<hr/>	<hr/>	<hr/>



