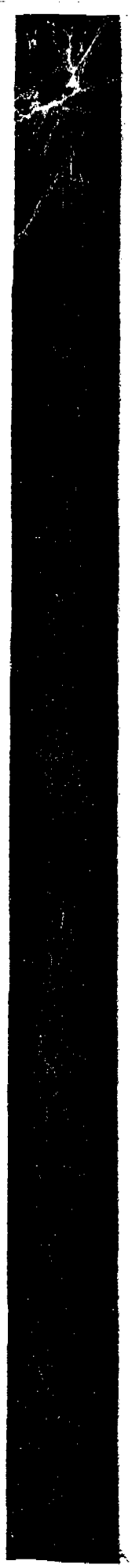


Water, Engineering and Development Centre
Institute of Development Engineering, Loughborough University, UK

School Sanitation and Hygiene in Uganda: The Challenge

by

M. A. Sidibe

A research project submitted in partial fulfilment of the requirements for the award of the degree of Master of Science of Loughborough University

September 1999

Loughborough University

ABSTRACT :

The majority of rural schools around Uganda lack basic sanitary facilities. The few schools that have sanitary facilities are mostly inadequate and unsafe. This situation has been further aggravated by the recent implementation of Universal Primary Education policy, which entitles all school-age children to free primary education, causing the number of students per latrine stance to exceed 700. Efforts are being made by the Government, Ruwasa and Unicef to meet the high demands of these schools. This includes providing the schools with sanitary facilities and hygiene education components, with an emphasis on participation of the teachers and parents. The study reviews the above approaches taken and highlights some of the gaps likely to jeopardise the benefits. Some of the gaps include the inappropriateness of the technologies proposed to the schools as well as their level of sustainability, and the extent to which these initiatives foster community initiatives and participation. . Based on this, some recommendations are put forward to enhance the benefits of the approaches. Examples include a review of the possible technical options to be further developed and implemented and the need to adopt strategies emphasising on reaching out to mothers.

Key words : Uganda, rural schools, sanitation and hygiene, UPE, facilities, behaviour, school sanitation and hygiene.

EXECUTIVE SUMMARY

1. Background to the study

A recent study undertaken on the factors influencing effectiveness in primary schools showed that the lack of proper sanitation facilities is a prominent factor influencing children's performance in primary schools in Uganda (Carasco et al, 1996). The absence of school sanitation facilities or their poor maintenance is the underlying reason for the low enrolment and attendance of children, especially the girl child. The lack of private sanitary facilities for girls also discourages parents from sending girls to school, which contributes both to the drop out of girls at puberty and to fewer women teachers, who are needed to encourage girls to attend school (Doyle B.A.; 1995).

The recent implementation of the Universal Primary Education policy (UPE) which entitles all school age children to free primary education, has aggravated the situation. This sudden increased enrolment of students has put an enormous pressure on existing facilities often to the extent that in some rural schools, the ratio of students to latrines may now exceed 700: 1, and this may encourage further dropping out, especially of adolescent girls (Kiyonga C.B.; 1998).

The study seeks solutions to improve the current school sanitation and hygiene situation, using Uganda as a case study. Since 90% of the Ugandan population live in rural areas (Kiyonga C.B., 1998), it was found most important for the study to focus on rural schools. This report attempts to achieve the following objectives:

- To identify the problems by analysis of the present situation.
- To review approaches taken by the government, Ruwasa and Unicef in trying to meet the needs expressed by the schools
- To identify the gaps that are likely to undermine the likelihood's and sustainability of the approaches taken.
- To make recommendations for achieving and sustaining a better school sanitation and hygiene approach in rural Uganda.

2. Current situation analysis in rural schools in Uganda

Based on the information collected from focus group discussions with the students, questionnaires run in the primary schools and general field visits, the following problems seemed to be common among most rural schools:

- The facilities (classrooms, water supply source, latrines, urinals and handwashings) that are required to run a healthy school were in most cases non-existent or definitely not enough.
- In the few schools that had some facilities, they were found to be grossly inadequate and unsafe. Very often the latrines offered no privacy, no convenience as they were situated too far from the schools buildings. The facilities were often badly designed, making them highly unsafe because of being prone to collapsing.
- The students did not practice hygiene habits like handwashing after visiting the latrines, despite their substantial knowledge on the importance of such practices.This was due partly because of the absence of water in the schools.
- The teachers lacked the confidence and motivation to reinforce the activities linked with proper hygiene. This combined with the increased student population has made the daily health parades difficult to carry on.
- Parents and community were not co-operating with the schools sanitation activities since the introduction of UPE.
- School management committees could not provide the necessary items to run the facilities properly i.e. soap, anal cleansing materials.

The above key points represent the main problems in the SSH sector against which Ruwasa and Unicef are working on. It is therefore pertinent to review the approaches undertaken at the moment to overcome some of the problems mentioned above.

3. Contributions of the government, Unicef and Ruwasa

The Water and Environmental Sanitation programme of Unicef is a district-based, integrated programme covering 34 of the Uganda's 45 districts. Danida, the Danish

International Development Agency funds the Rural Water and Sanitation Project (Ruwasa), which covers 10 districts in the East (Unicef; 1998). They are both supplemented by government funds. Their approaches in terms of School sanitation and hygiene are extremely similar and are mainly composed of a package including sanitation and hygiene education with an emphasis on schools participation (Parents Teachers Association and School management teams).

The sanitation component of the package involves the construction of 10 latrine stances with an emphasis on the need of separate facilities for boys and girls. The dimensions and design criteria are mainly based on what is common usage around Uganda which are usually adapted traditional pit latrines. To ensure optimum use and benefit of the excreta disposal facilities put in place, each latrine has been provided with handwashing facilities to inculcate the habit of personal hygiene practice after using the toilet. The community participation to the school sanitation is to dig the pit for the latrines construction which consists of about 9% of the total cost.

Regarding water supply, Unicef is providing a rainwater tank to a number of schools that are selected based upon the distance from a reliable water source.

In terms of community mobilisation and hygiene education:

- Primary school teachers training is being carried out across the country, with an emphasis on providing them with participatory tools to teach the children in a more effective manner. Head teachers, science teachers and senior women teachers of each school are chosen and trained.
- A school sanitation campaign is being carried out as an attempt to inform, persuade and motivate sanitation and hygiene behaviour changes in school children by 2000. This is done by means of organised communication activities involving mass media.
- Conducting participatory seminars for PTA, Health committee, Education committee, and sub-county representatives to get the commitment of the decision-makers in terms of sanitation activities to be undertaken in their schools. This activity is particular to the Ruwasa project

4. Gaps that are likely to undermine the sustainability and likelihood of SSH approaches in Uganda at the moment

In trying to meet the needs expressed by the urgent situation, there are a few gaps in the approaches adopted by Unicef and Ruwasa that could jeopardise the benefits from the approaches taken at the moment :

- The latrines offered at the moment are not sustainable, they are not lined and no mechanisms of emptying comes with the packages
- Some of the facilities are not children friendly; there are no attractive messages to attract the attention of children, as well as alternatives for disabled children.
- There are still many schools still in need of some sort of facilities.
- The packages do not include reliable water supply sources as well as classroom construction, or rehabilitation of the old facilities.
- There is no plan to construct facilities for teachers. This makes it difficult for them to model proper habits for the children when they are not equipped with what is needed.
- The software aspect does not emphasise enough on the need for parent's involvement in the sanitation and hygiene activities in the schools.

5. Conclusions and recommendations

It is concluded from the study that the approaches taken to deal with the SSH issues in Uganda are already in progress, however the benefits could be enhanced if the following recommendations were to be adopted:

1. There is a need to emphasise mother's involvement and activities, to reach out to them, as they are responsible for instigating the hygiene habits in the children at a very young age, and they could be key persons to reinforce the messages given in the schools.

2. There is a need for more research to find appropriate technologies that could be more sustainable than the ones offered by the package. Ecological sanitation is one of the suggested solutions, however more research is needed upon the cultural constraints

associated with the introduction of such technology. There is a need to promote linings of latrines as well as emptying the latrines when full.

3. There is an urgent need for more donors and NGOs to be involved in the sector. At the moment not even half of the country's schools that are actually being dealt with. The facilities are not enough and there is a high risk of epidemics if the sanitary conditions remain this low. Policies like UPE need to be encouraged; it is in the interest of the government to ensure that the implementation of the policy does not turn into disaster and increase morbidity levels in the country

4. There is a need to move from the package offer to a much more demand responsive approach where schools individual needs are actually met. Each school has a distinctive need that is not to be resolved by the sole provision of ten stances of latrines and handwashing facilities.

5. There is a need for a more integrated and multi sectoral approach, where educational departments could work with the health departments. This could lead to simultaneous building of classrooms and latrines rather than having dysfunctional schools that have either one of the two components. The benefits could be increased.

References:

Doyle, B.A. (1995) Increasing education and other opportunities for girls and women with water, sanitation and hygiene. New York, NY, USA, Unicef .(Paper based on issues raised by the author during the Unicef meeting on Education for All, New York, September 1994)

Kiyonga, C.B. (1998) "Development of Uganda's sanitation policy" in Waterfront issue No.12, December 1998. Presented at a Unicef Workshop 10 June 1998. Unicef New York. Unicef.

Unicef (1998) Water and Environmental Sanitation Programme, 1998 Progress Report. Government of Uganda-Unicef country programme 1995-2000. Unicef, Kampala.

Carasco, J.F., Munene, J.C., Kasente, D.H. and Odada, M. (1996) Factors influencing effectiveness in primary schools . Uganda National Examinations board. Kampala.

Figure 2.1 : Problem tree for SSH in primary schools of Uganda (rural areas)

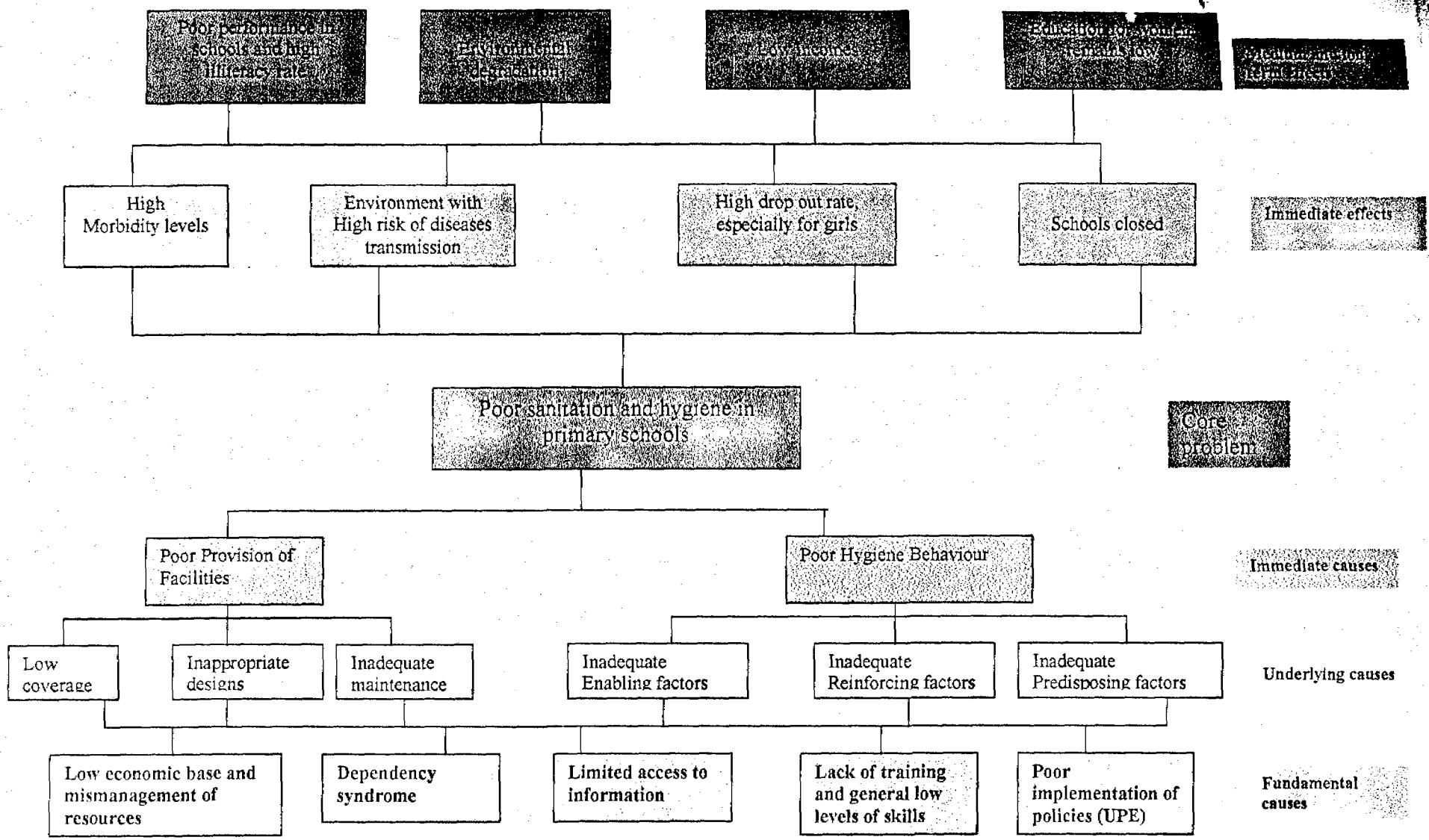


TABLE OF CONTENTS

Certificate of Authorship....i
Dedication....ii
Abstract....iii
Executive Summary....iv
Table of contents....ix
List of Tables....xi
List of Figures....xii
List of Pictures....xii
List of Drawings....xii
List of Abbreviations....xiii

CHAPTER ONE: GENERAL INTRODUCTION....1
1.1 Nature of the problem and general concepts....1
1.1.1 Why is School Sanitation and Hygiene (SSH) so important?....1
1.1.2 Why should we focus on schools?....1
1.1.3 Why should we focus on children?....2
1.1.4 What does School Sanitation and Hygiene consists of?....3
1.1.5 What are the major steps of a successful School Sanitation and Hygiene programme?....3
1.2 Aims and Objectives....6
1.3 Methodology
1.3.1 Delimitation of Research....7
1.3.2 Research tools....7
1.4 Structure of the report....10

CHAPTER TWO: SITUATION ANALYSIS IN UGANDA....11
2.1 General Country Background?....11
2.1.1 Political Climate in favour of sanitation....11
2.1.2 Sanitation level inUganda....12
2.2 The components of definitions of SSH in Uganda....13
2.3 Effects of lack of SSH in Uganda....19
2.4 Fundamental causes of poor SSH in Uganda....23

2.5 Main Three actors involved in SSH in Uganda: Ruwasa, Unicef and Government

2.5.1 What is Ruwasa contribution to SSH?....24

2.5.2 What is Unicef's contribution?....27

2.5.3 What is Central Government's contribution?....29

2.5.4 What is the contribution of district authorities and sub-county authorities and contractors?....29

CHAPTER THREE: PROVISION OF SANITARY FACILITIES IN RURAL PRIMARY SCHOOLS....31

3.1 Which sanitary facilities are required for proper sanitation level?....31

3.2 Existing situation of sanitary facilities and description of needs....31

3.3 Ruwasa, Unicef and the government's contributions to the SSH....39

3.3.1 What is Ruwasa contribution to the SSH?....39

3.3.1.1Designs of the Ruwasa package....39

3.3.1.2 Implementation Process....41

3.3.1.3 Evaluation of the package in terms of sustainability, gender sensitivity....44

3.4 What are Unicef and GoU's contribution to SSH?....44

3.5 Technical details of package and Implementation process....45

3.6 Detailed evaluation of the package....47

3.7 Identification of the gaps between what is being done and the need still felt....50

CHAPTER FOUR: HYGIENE BEHAVIOUR IN PRIMARY SCHOOLS....53

4.1 Importance of assessing hygiene practices....53

4.2 Existing Issues of bad hygiene behaviours....55

4.2.1 Few predisposing factors....55

4.2.2 Inadequate enabling factors....57

4.2.3 Inadequate reinforcing factors....57

4.3 Summary of behaviour related issues in primary schools....63

4.4 The contribution of Ruwasa, Unicef and the Government to behaviour change in primary schools....67

4.4.1 What is Unicef doing to meet the needs?....68

4.4.2 What is Ruwasa doing to meet the needs?....73

4.5 Identification of the gaps....78

CHAPTER FIVE: PROPOSED SUGGESTIONS TO FILL THE GAPS.....81

5.1 Proposed solutions to the problem of provision of facilities.....81

5.2 Proposed solutions to the poor hygiene behaviour.....89

CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS 94

6.1 Introduction.....94

6.2 Conclusions.....94

6.3 Lessons learned.....95

6.4 Recommendations for future work.....95

REFERENCES.....97

ANNEXES.....101

ACKNOWLEDGMENTS.....125

List of Tables

Table 1.1 School Sanitation and Hygiene at the district and national level.....4

Table 1.2 School Sanitation and hygiene at school and community level.....5

Table 3.1 Evaluation of Ruwasa package designed to meet needs.....47

Table 3.2 Evaluation of Unicef package designed to meet needs.....48

Table 4.1 Main Behaviours wished in a perfect school.....64

Table 4.2 Factors that need to be addressed to achieve lasting behaviour changes....66

Table 4.3 Unicef`s approaches towards community mobilisation and behaviour change.....71

Table 4.5 Ruwasa`s approaches toward community mobilisation and behaviour change.....77

Table 4.4 Responsabilities of different members of the school health committee.....74

List of figures

Figure 2.1 Problem tree for SSH in primary schools of Uganda (rural areas).....21

Figure 4.1 Faeco-oral routes of disease transmission.....54

Figure 5.1 Dry-box toilet.....85

List of Pictures

Picture 1 handwashing facility.....33
Picture 2 Handwashing facility.....33
Picture 3 Urinals for girls in Budondo primary school in Jinja.....34
Picture 4 The state of the classrooms in Mafubira primary school.....35
Picture 5 An example of a very small latrine in Mafubira primary school.....36
Picture 6 Ruwasa handwashing facilities.....41
Picture 7 One example of educational message on a latrine wall.....58

List of Drawings

Drawing 2.1 Summary of activities in a rural primary school.....14

List of Annexes

Annex 1: Field information.....101
Annex 2: New vision article.....109
Annex 3: Guidelines for School Sanitation and promotion.....110
Annex 4: tentative problem tree developed by the author and Unicef staff.....118
Annex 5: Ruwasa's package detailed designs.....119
Annex 6: Unicef's package detailed designs.....121
Annex 7: Designs of the prefabricated structure.....123

List of Abbreviations

PTA	Parents teachers association
SMC/SMT	School management committee/Team
Unicef	United Nations International Children Emergency Fund
Ruwasa	Rural water and sanitation project for eastern Uganda
SSH	School Sanitation and Hygiene
NGO	Non governemntal organisation
CBO	Community based organisation
O&M	Operation and Maintenance
WHO	World health organisation
UPE	Universal primary education
W&S	Water supply and sanitation

KDS	Kampala declaration statement
PRA	Participatory rural appraisal
LC	Local council
GIS	Geographical instrumental system
DHI	District health inspector

CHAPTER 1 : GENERAL INTRODUCTION

1.1 Nature of problem and general concepts

1.1.1 Why is School Sanitation and Hygiene (SSH) so important?

The lack of proper water and sanitation is one of the major factors influencing children's performance in schools in Uganda (Carasco, J.C. et al., 1996). School sanitation and hygiene is a worthwhile investment for developing countries for many particular reasons, among which are:

- **Right-based reason** : Children have the right to be as healthy and happy as possible. Good health and sanitation contributes to a happy childhood.

- **Effectiveness based reason :** Better performance of children if surrounded by a hygienic and clean environment (Carasco et al., 1996).

- **Gender based reason :** The lack of private sanitary facilities for girls discourages parents from sending girls to school, contributes to the drop out of girls at puberty, and is a contributing factor to fewer women teachers, who are needed to encourage girls to attend school (Doyle, B.A.,1995).

- **Diseases transmission based reason :** In reality, schools are often more than just places for learning and behaviour change. If school sanitation and hygiene facilities are absent, or are badly maintained and used, schools become a health hazard.

- **Environmental based reason :** Schools can also pollute the natural environment in such a way that it causes health hazards for the community at large. It is therefore important that schools have proper facilities.

1.1.2 Why should we focus on schools?

In many developing countries the most populated institutions are schools which are usually the most important places of learning for children. They are a central place in the community where people of different beliefs and practices are gathered together. This huge networks of schools offers a ready-made infrastructure to be mobilised and used as a resource to influence the parents and hence the community. The promotion of personal hygiene and environmental sanitation within schools can help the children to adopt good habits during the formative years of childhood. Therefore sanitation habits can be fostered among the children, the parents and the communities through the school sanitation and hygiene programme. (Unicef India, 1998)

A school is not just a set of buildings and their surroundings. It also comprises children who learn in those buildings, the head and the teachers, the workers, cooks and food sellers who work in and for the school, and the health and community workers who visit and advise the school. The school teacher is held in high esteem by the students and is respected not only within the school but in the community as well. The students can develop hygienic habits by emulating the teacher as a model. Also, the school teacher can influence parents and community members on issues related to sanitation. All these partners involved directly or indirectly in the schools can therefore benefit an active school sanitation and hygiene programme.

1.1.3 Why should we focus on children?

Children are far more receptive to new ideas and are at an age when they can be influenced to cultivate the habits of good personal hygiene. The author sees two main reasons why it is crucial to focus on children :

1. **School children as part of a family :** They are often able to spread good health messages and good sanitation and hygiene practices from school to home. They have a special role to play helping their younger sisters and brothers become healthy and happy. Through talking and playing with these younger children they help them become ready to learn well at school when they get there.

2. **School children as tomorrow's parents :** If they practice good sanitation and hygiene practices now and develop caring attitudes now they are likely to carry these forward to the next generation. They will probably become not only good parents but active and useful community members.

1.1.4 What does School Sanitation and Hygiene consists of?

School Sanitation and Hygiene comprises of hardware and the software components. The hardware is the total package of sanitary conditions and facilities available in and around the school compound. The software are the activities aiming to promote conditions at school and practices of school staff and children that help to prevent water and sanitation-related diseases (Unicef and IRC;1998).

1.1.5 What are the major steps of a successful School Sanitation and Hygiene programme?

This section is based on the technical guidelines on the manual on school sanitation and hygiene produced by Unicef and IRC and is aimed at understanding the full extent to which different actors are involved in SSH both from district and national level as well as at the school and community level. Table 1.1 and table 1.2 summarise the different steps as well as the different actors involved in reaching targets. The major assumptions are also given.

Table 1.1: School Sanitation and Hygiene at the district and national level (Unicef and IRC,1998)

Steps	Who's involved?	Major assumptions for success
1. **Creating a conducive environment for SSH at the national level:** a) Programme development b) Ensuring interagency Co-operation c) Creating favourable conditions for SSH	• Unicef-governmentin SSH programme development • Department of Health, Education • Possibly local and international NGO's • Public works department • Teachers organisation • Government at all levels (districts....)	• Interest of government and major donors in SSH as priority. • Govt has capacities to develop programmes • Agreement on how NGO's can support Government actions • Appropriate legislation
2. **Assessing current conditions in SSH:** a) Needs assessment in rural and urban areas b) Findings reported and analysed	• Department of Health, Education and public works • Teachers organisation	• All important actors identified involved to have optimum results • All partners get a chance to voice opinions • Findings are adequately reported and understood.
3. **Planning of improvements:** a) Implementing improvements in designs for WSS facilities b) Financing	• Technical staffs • All departments	• Clear objectives are set to ensure a national school sanitation programme. • Standards are set and agreed. • Options for financing clear • No lengthy procedures that block progress
4. **Implementing improvements in hygiene education:** a) Curriculum change and development of teaching aids b) Teachers training and support c) Pilot activities	• Teachers • Department of Education and Health	• Teaching aids of good quality and properly distributed • Teachers selected for training need to be role model and have interests in SSH • Effective methodologies of teachings are used • Budget for pilot activities allocated.

Table 1.2: School Sanitation and Hygiene at School and Community level (Unicef and IRC;1998)

Steps	Who's involved?	Major assumptions
1. **Creating a conducive environment for SSH:** a) Budget allocation b) Teamwork by teachers c) Contacts with other organisations	• Teachers, SMT, headmasters • School committees • Community-level organisations (Health centred, church organisation, youth and women's clubs)	• Funds need to be allocated properly and Priority given to SSH • Teachers are motivated and there is an incentive and training takes place • Community organisation are motivated and trained
2. **Assessing the current conditions:** a) Participatory problem analysis and needs assessment b) Presentation and analysis of findings	• Headmasters, teachers and school committees • Health centre staff • Children and project staff	• Headmaster initiates process • The points to look for are clearly identified • Teachers and schools motivated • Children are aware
3. **Planning of improvements:** a) Setting objectives and making an action plan b) Technical options suitable for schools: • Water supply options • Sanitary facilities options	• Students/ teachers • Parents/community members and project staff	• Budget and manpower must be available • Sense of ownership needs to be developed • Responsibilities allocated • Flexibility needed
4. Implementing improvements at school: the actors	• School committee • Community and parents • Health workers • Teachers and headmasters • NGO's and CBO's	• Co-operation and collaboration between actors • Information channel well developed • Motivation present in actor's side
5. **Developing materials and methods:** a) Adapting and testing teaching aids and training materials b) Pupils become teachers c) Reaching out of school children d) Applying a gender approach	• Ministry of Education • Teachers and children • Parents and communities	• Messages are appropriate to local context • Teachers and school motivated • Out of school children identified • Government is supportive of gender approach
6. **Construction and maintenance of school facilities:** a) Organising construction b) Maintenance of school facilities c) Financing of costs and O&M	• Students and community members, parents, school staff, skilled mason or private contractor • School management committees	• Supervision is necessary • Responsibilities are clear • Arrangements for funding are clear
7. **Monitoring implementation and impact:** a) Monitoring implementation b) Monitoring impact	• Students • Teachers • Implementing agencies and local NGO's	• Appropriate indicators are to be chosen • Well-informed of meaning of M&E • 2 track approach useful: Unicef officers working as a catalyst, while promoting SSH initiatives in schools

1.2 Aim and Objectives

The aim of this thesis is to show how SSH is still a problem in rural areas in Uganda and to provide an encouragement for the field personnel that are committed to the well-being of the school children.

The key objectives that this thesis attempts to achieve are:

- To identify the problems by analysis of the present situation
- To review approaches taken by Ruwasa and UNICEF in trying to deal with the problems..
- To identify the gaps between what is being undertaken at the moment and the needs expressed by the schools.
- To make recommendations for achieving and sustaining a better SSH.

It is hoped that as an outcome of this project, the suggestions and recommendations will be taken on board and introduced in the country's new programmes and will assist the field personnel in improving the on-going approach of SSH in Uganda. The gaps are mainly highlighted so that the actors involved in SSH can adjust their approaches in order not to jeopardise the likely benefits that their contributions are bringing already. This thesis could benefit:

- UNICEF and Ruwasa in their next project expansion
- The government of Uganda in fully understanding the extent of the problem of SSH.
- The NGO's and other Donors that could be interested in joining the SSH cause.

1.3 Methodology

1.3.1 Delimitation of Research

This research will focus on the **average rural primary school** in Uganda. In Uganda, 90% of the population still lives in the rural area (Kiyonga,1998) therefore it is more crucial to focus on the problems that rural schools face. The study will look mainly at classes for primary one to primary seven, the age range covered can vary between 6-16 years. The rural school system offers a vast infrastructure which can be used to exert a profound influence, not just on the children within its four walls, but also on the community at large. Schools can also be an effective channel for communicating sanitation messages to parents, out of school children and the communities. The school can also serve as a demonstration centre for the adoption of sanitation packages by household and by the community at large. The school can play an important role in keeping the village clean and beautiful. This is possible if school activities are designed to bring the school and the community closer. These activities must be aimed at involving the teachers and the students in the life and activities of the village. This in turn can motivate the parents and the community to become involved in the functioning of the school in order to make education more meaningful to the students (Unicef India, 1997).

1.3.2 Research Tools

To meet the objectives set by the study both quantitative and qualitative data were required. The author went to Uganda for four weeks to run the questionnaires, visit the schools to spot checks some of the schools situation, and took part of focus group discussions. The author took the questionnaires into five primary schools two of which were in the area that Ruwasa covered (mainly in Mbale and Jinja, and the other three were in Mpigi district which falls under the Unicef programme. Annexe 1 contains the summaries of focus group discussions , sample of the questionnaire, and summary of the main points discussed during the structured interviews. A map of Uganda is also included in annexe 1.

The methods that were used to collect data were :

1. **Structured Questionnaire to the senior woman teacher or any other teacher in charge of sanitation.** The ultimate purpose of this questionnaire was to establish the sanitation status of the schools visited. The questionnaires aimed to find out:
    - the exact ratio of students per stance in the schools
    - whether there were separate facilities for boys and girls
    - The existence of handwashing facilities
    - How regularly health parades were organised in the school
    - How they dealt with the solid waste management issues
    - Whether they had protected/unprotected water supply sources
    - Who was in charge of keeping the schools facilities clean

The questionnaire was handed out at the beginning of the visit and was to be filled up and given back by the end of the visit. Five schools were visited in depth and two teachers at each school filled up the questionnaires.

2. **Structured Interviews to the Chief of Water and Environmental Section for the UNICEF program and to some members of the sanitation unit in charge of SSH in Ruwasa.** The ultimate goal of this questionnaire was to get clear details on how the two programmes function. Some of the main points that the author was aiming to find out were:
    - The areas that Unicef and Ruwasa cover, the extent to which they are involved in SSH.
    - The components of the package that they are offering
    - The extent to which they are fostering community initiatives and participation in the SSH activities
    - The constraints that they are currently facing

3. **Focus Group Discussion (FGD) exercises were conducted amongst primary school girls** aged 10-16 and in the last two years of primary schools. At that age the girls can express themselves in English, which made it easier for the author to take notes. However to facilitate the contact, a female health inspector helped during the FGD. Two groups of approximately 15 girls were chosen in two different schools and

the FGD main questions were about them discussing their particular sanitation needs. The author was also interested in finding out what the girls considered important to create a better school and to facilitate their performance at the school.

4. **Field visits and general conversation were also used.** The author took part in many field trips around Uganda, following the Unicef team, visiting areas like Kasese and Tororo (refer to the map in annexe 1). This allowed the author to familiarise herself with the Ugandan culture. The author had the opportunity to discuss the universal primary policy (UPE) with some highly pertinent political figures and to find out their commitment to improving sanitation in Uganda.

5. **Unstructured interviews were conducted with the parents of some schools children parents.** The ultimate goal of these interviews was to discover the contribution and impact that parents have in their children's schools. In two of the schools visited in Jinja, the parents were available and willing to share some of their ideas with the author. No structured interviews had been prepared and an informal interview was conducted. The author was mainly interested to find out what they thought the schools mostly needed and to which extent they contributed to the schools activities.

6. In April 1999, during the author's first visit in Uganda, she had the chance to attend and participate in a **Workshop** organised between UNICEF and the Government counterparts from the Ministries of Health and Education and from the Directorate of Water Development. The Workshop was organised on the 7^{th}-10^{th} April 1999 in Mityana. The purpose of this workshop was to review and develop training materials for primary school science teachers as well as the training materials for district level facilitators. This first exposure allowed the author to familiarise herself with the people involved in the SSH from the UNICEF and their counterparts, and the government officials.

7. **Secondary sources:** A review of existing records was undertaken to capture certain aspects that could not be covered by the author during her visit. These records also helped to confirm some of the information collected by the author. Two baseline studies were undertaken, one by Ruwasa in September 1998 in a sample of 7 districts

and 128 schools and a second one done by Unicef in April 1999 in 9 districts and 90 schools. The objectives of the studies were similar and they give a clear indication of the current hygiene practices and the presence of sanitation facilities and educational materials in primary schools. Consequently they formed an important background to the author's work and will be referred to frequently in the text..

1.4 Structure of the report

The report is structured in six main chapters. *Chapter One* provides a general introduction to the problem. *Chapter Two* is a situation analysis in Uganda . *Chapter Three* deals in detail with the problems of the provision of sanitary facilities in rural primary schools and *Chapter Four*, with the poor hygiene behavioural problem encountered in primary schools. In *Chapter Five* solutions to both the problems of sanitary facilities and to the poor hygiene behaviour problem are proposed. The author concludes the study in Chapter Six and attempts to give recommendations for further work. This chapter also provides general recommendations to the success of SSH in Uganda.

CHAPTER 2: SITUATION ANALYSIS IN UGANDA

2.1 General Country Background

2.1.1 Political Climate in favour of sanitation

From the 1900s through the 1960's, Uganda was not different from most other countries under a colonial government who held sanitation and hygiene high on their political and social agendas (Doyle B.A., 1998). By 1960 Latrine coverage was 90-95% for the entire country (Kiyonga C.B., 1998). There are many reasons why the sanitation status was so high during that time (National Sanitation Task Force, 1998):

- ✓ The economy was healthy
- ✓ The public Health Act was applicable and enforceable
- ✓ Law enforcement was strong
- ✓ Tribal leaders and chiefs as agents of enforcement were respected
- ✓ There was a high ratio of preventive health staff to the population
- ✓ Home and environment improvement were undertaken annually

The political turmoil and the breakdown of law and order in the 1970s and early 1980s brought down the national latrine coverage to a very low level of 47.6% in 1993. It also contributed to the absence of hand-washing facilities at many communal and institutional latrines (Kiyonga C.B., 1998)

The political climate in Uganda is now encouraging better sanitation as attested by an article from the issue of the 14th of November 1998 enclosed in annexe 2. The article shows President Museveni very concerned over the absence of latrines in the country. The government is now committed to improve sanitation, acknowledging that the responsibility for sanitation rests with individuals under the guidance of the national leadership. The national constitution states that it is the duty of every citizen in Uganda to create and protect a clean and healthy environment.

A national sanitation forum called under the theme " Better Sanitation: A responsibility for all" held on 16-17 October 1997, brought together the elected top leadership and civic

representatives of all the 45 districts of Uganda together with members of parliament, cabinet, donor community, NGOs and concerned citizens. The forum spent two days discussing the issue of sanitation—all of it heavily covered by the local press. The culmination of the forum was in signing of the Kampala Declaration Statement (KDS) on sanitation by the chairmen of all district councils in the country as well as the Ministers of local government and representatives of WHO and UNICEF in October 1997. KDS emphasises the need to focus on schools and states as its sixth most important item in sanitation:

> "We shall ensure that every primary school and all other institutions of learning have adequate sanitation facilities (latrine, safe drinking water supply and hand washing facilities, with separate facilities for girls by the end of 1998. We further endorse the immediate reintroduction of school health inspections of pupils and premises in all sub-counties (GoU, 1997)."

The government realises that for this commitment to be fulfilled, there is need for the country to have a similar understanding of sanitation.

2.1.2 Sanitation level in Uganda

(National Sanitation Task Force, 1998) identified the following current characteristics of Sanitation in Uganda:

1. **Poor Disposal of human excreta:** Excreta disposal facilities both in the home and institutions are usually lacking or insufficient and/or inappropriate. Latrine coverage for the country in 1996 was below 50% average.

2. **Poor management of solid and liquid wastes:** This is most noticeable in urban settings where rubbish collection schedules have remained unreliable.

3. **Cultural beliefs and taboos** impede proper sanitation in some areas by discouraging the use of latrines.

4. **Poor personal, domestic and food hygiene:** Diseases transmitted through oral-faecal routes have remained rampant.

5. **Poor management of the water chain from source to the point of consumption:** This is largely an aspect of poor personal/domestic hygiene.

6. **Poor management and control of diseases vectors, vermin and rodents:** poor surface drainage and indiscriminate housing developments have created common sites of stagnant pools of water. This is coupled with uncontrolled overgrowth of compounds and hedges that have led to infestation of vectors and rodents.

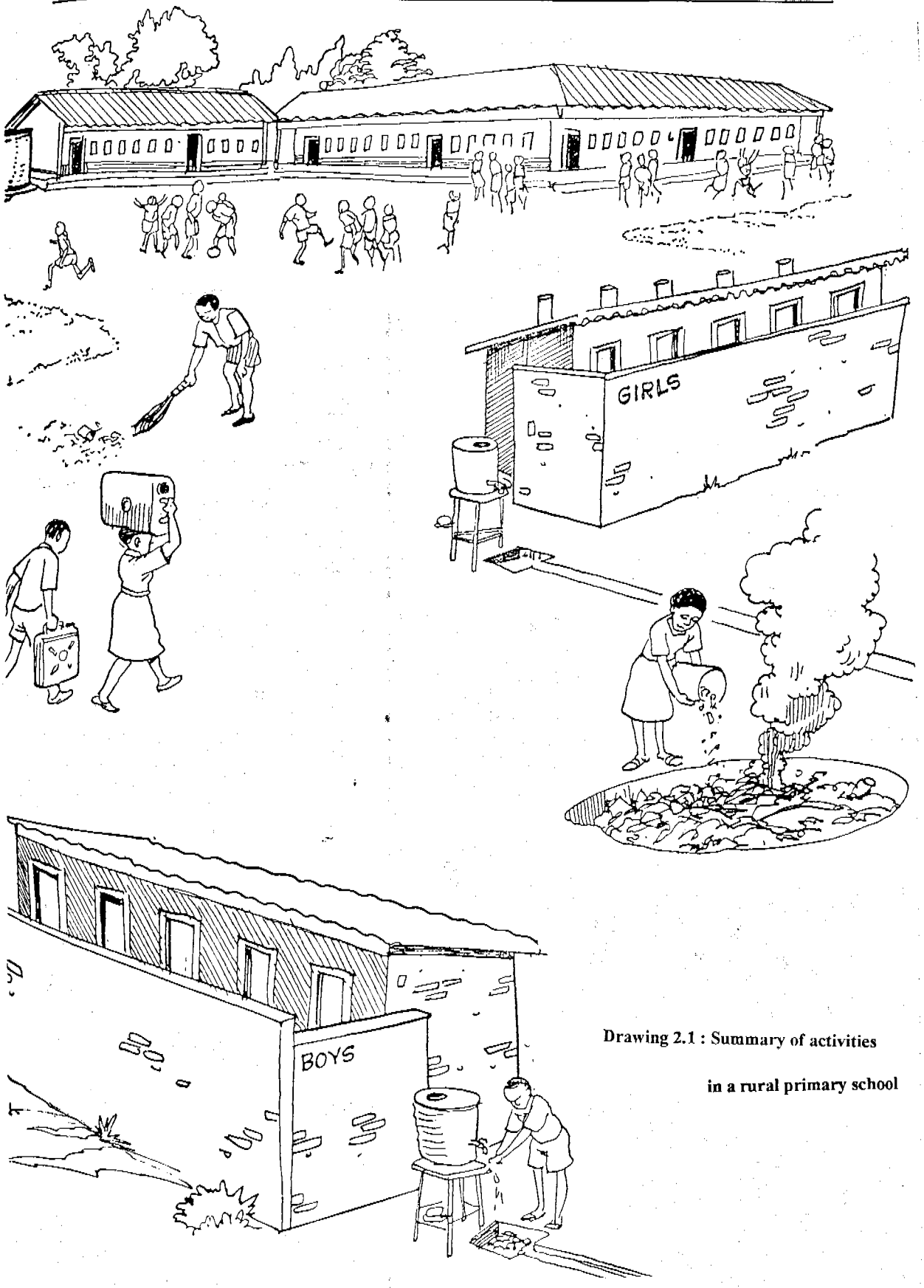
7. **Refugees and displaced persons** most often have insufficient access to sanitation facilities.

8. **Financing of sanitation activities** both at the national and districts levels has remained grossly negligible.

2.2 The components and definitions of SSH in Uganda

The situation in sanitation in Uganda is highly reflected upon the schools across its country. A formidable effort has been made by the government to insert water, sanitation and hygiene as a part of the health and science curriculum (Doyle B.A., 1998). Recently the sanitation guidelines have been updated to make them more relevant to local environments and cultural mores. The complete copy is included in annexe 3 and is meant to be used by school management committees, local authorities, teachers and parents.

The guidelines are meant to help them plan and implement activities and interventions to improve the sanitation of their primary schools at a cost that is affordable to the school and the community. Schools are required to meet the standards set by the guidelines. To meet the objectives set by the study, the author will only focus on the requirements set by government for a standard rural primary schools. Detailed designs will not be mentioned here, but are included in the guidelines in anexe 3. Drawing 2.1 summarises the most important sanitation activities going on in a rural school.



Drawing 2.1 : Summary of activities in a rural primary school

The minimum requirements according to the Sanitation guidelines are :

1. Excreta disposal facilities and hand-washing facilities

Rationale in developing this particular guideline:

- The School Health Authorities need to be provided with the relevant knowledge and skills regarding latrines construction. This particular guideline constitutes part of the School Building Rules and is therefore authoritative in such a way that administrative measures can be taken against schools that do not comply with it.
- Latrine accommodation should be provided with hand-washing facilities: to promote personal hygiene and control the spread of sanitation related diseases, hand washing facilities should be provided adjacent/nearby latrines, since hand washing is most important after visiting the latrine. It is intended for these facilities to be used and that a constant supply of water, soap and other cleaning agents will be assured.

General Requirement:

Every school shall have adequate proper and sufficient latrine accommodation in accordance with school building rules.

In estimating the latrine accommodation, the following shall be the minimum requirements:

A) Water closets, pit latrines stances for day schools

- 1 stance for every 40 student

B) Urinals

- The provision of urinals for boys cuts down the number of latrines stances by 50%.
- The urinal channel should be provided with a soak away pit filled with stones or charcoal.

C) Special considerations

- The provision of separate latrine accommodation for students of each sex over seven years of age is mandatory.
- The provision of separate latrine accommodation for teachers is mandatory.
- The latrine accommodation should be constructed so as to ensure privacy, with the entrances for females effectively screened from those for males.

D) Location of pit latrines

- The latrines should not be located less than 10 metres and not more than 50 metres from a classroom
- The latrines should not be located less than 30 metres from a water source.

E) Latrine maintenance

it is important that latrines are kept clean, free from flies, bad smells and safe for users, with a strong floor and squat hole.

This includes:

- Sweeping the floor every day and washing it with water and soap (if the floor is cemented)
- Smoking the latrine regularly to control the smell is recommended
- Closing the pit when the contents are within 1 metre of the ground, the building demolished and the pit filled with earth. Alternatively the contents can be emptied and buried.

F) Hand-washing facilities

A hand-washing facility should be provided next to the latrine for easy access. It could be any of the following:

- A drum fitted with a tap and mounted on a concrete platform
- A small brick tank, fitted with a tap
- A plastic 20 litre Jerry can
- A cement tank, big pot/jar

2. Refuse collection and disposal facilities

Rationale in developing this particular guideline:

- School authorities need to be educated about the dangers involved in indiscriminate refuse disposal

General Requirements:

The school should make sure that all the refuse is collected and disposed of properly. Suitable waste bins/containers should be provided in classrooms and around the school compound. Pupils should be educated to put all refuse in the bins. For rural schools refuse pits are recommended (pit should be about 4ft deep x 8ft long x 6ft inside). All refuse should be deposited in the pit and covered with earth

3. Water supply facilities

Rationale in developing this particular guideline:

Schools should be provided with sufficient supply of safe water, for drinking, washing and bathing for pupils and staff. Where there is no piped water supply, the water for drinking and washing hands should be provided in clean containers. Arrangements should be made to ensure that water is made accessible without danger of contamination.

Requirements:

Other forms of water supply can be provided and these include:

- Boreholes
- Protected springs
- Gravity flow schemes
- Rainwater tanks

4. Wastewater Drainage and vector control

Rationale in developing this particular guideline:

General level of cleanliness is important around the school compound.

General requirements:

Wastewater from bathrooms, hand-washing facilities, stand pipes sun drying tables, house cleaning and boreholes should be disposed of in soak away pits. Also storm water from other water points should be disposed of in well maintained drains.

5. Food hygiene

Measures should be put in place to ensure adequate food hygiene. These include:

- Storage facilities to guard against contamination
- Food must be cooked properly and served hot
- A kitchen of a suitable size, type and construction should be provided
- Facilities for proper washing and sun-drying of food utensils should be provided.
- Food vendors should be clean, medically fit and foodstuffs sold hygienically

6. Classroom accommodation and playground

Rationale in developing this particular guideline:

Adequate classroom accommodation shall be provided to enable a proper sanitary learning environment:

General requirements:

- Spacious classroom: minimum floor space 12 ½ sq ft per pupil and 50 sq ft per teacher. Height of walls: a minimum of 10 ft with smooth finish.
- Space should be provided for physical exercise and for recreational purposes.

7. Personal hygiene and general cleanliness

School authorities should promote and monitor personal hygiene and general cleanliness of the school environment:

- Health inspections parades every morning should be carried out with special emphasis on body cleanliness, teeth, nails, clothing etc
- Records of the hygiene and sanitation status of the school should be kept.

8. Roles and responsibilities of governing parties directly involved with the everyday running of the schools

The summary of responsibilities and policies developed by the Ministry of Education (1997) states that the school management committees (SMC) and Parents Teachers Association (PTA), as well as teachers and pupils are responsible for the promotion of sanitation around the school. Below are outlined the different responsibilities that the various players have according to Universal Primary Education (UPE) policy:

SMC and PTA:

- Budget and allocate funds for promotion of school sanitation and hygiene
- Supervise sanitation and hygiene education activities
- Construct pit latrines as prescribed under these guidelines
- Provide hand-washing facilities
- Develop and implement a school sanitation improvement programme
- Construct classroom blocks in accordance with the guidelines

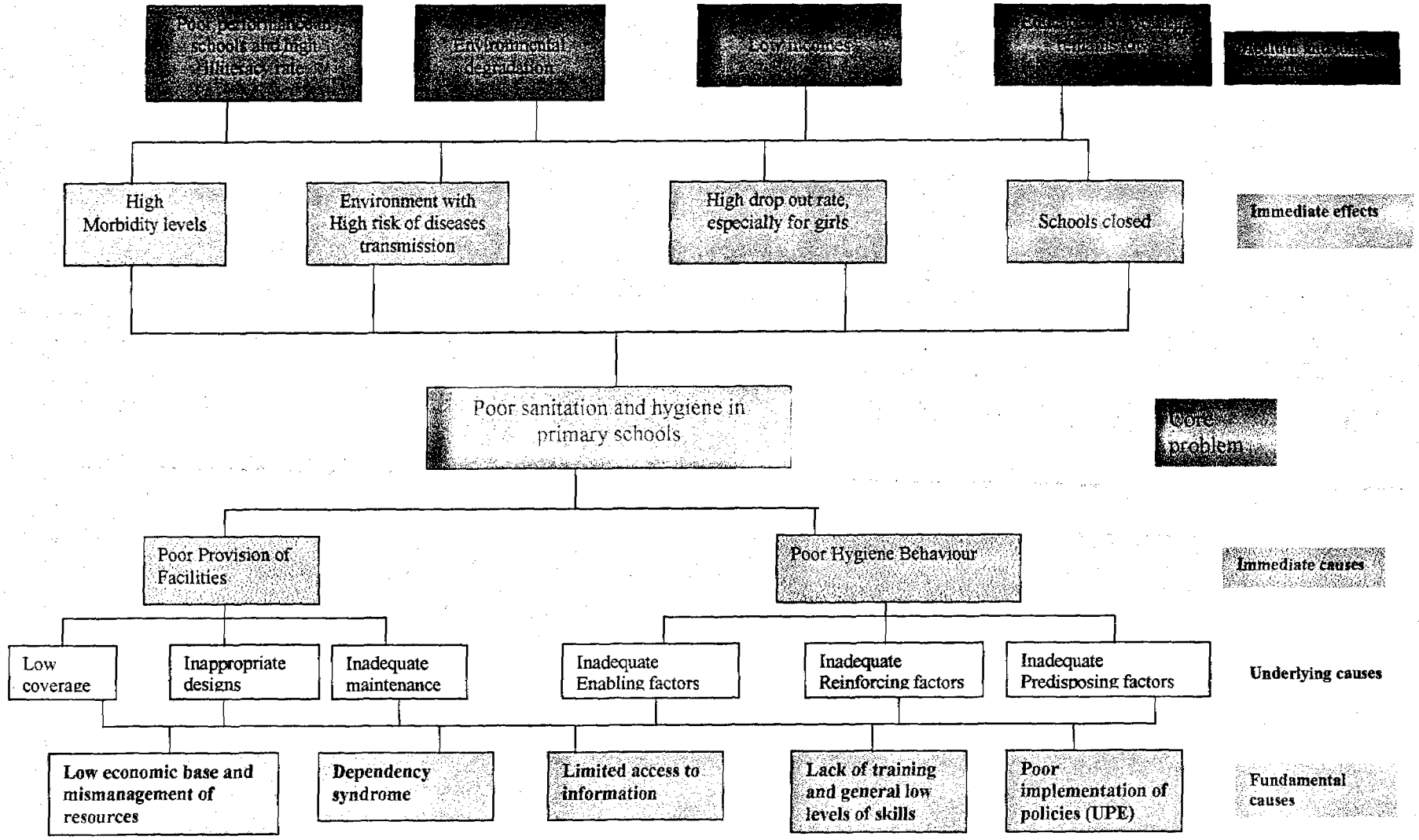
Teachers and Pupils:

- Conduct health inspection parades every morning. Special emphasis is to be placed on personal hygiene (body cleanliness, teeth, nails).
- Inspect for general cleanliness of latrines. Special attention must be given to presence of anal cleansing materials and hand-washing facilities.
- Collect and dispose refuse properly
- Dispose of wastewater properly
- Inspect the school compound for general cleanliness.
- Conduct hygiene education geared towards behavioural change. Teachers should discuss with pupils the relationship between sanitation/hygiene behaviour and disease

2.3 Effects of lack of SSH in Uganda

To meet the objectives set by the study, a problem tree (Figure 2.1) has been developed by the author on the causes and effects of poor sanitation and hygiene in primary schools in Uganda. The problem tree is an adaptation of the problem tree from the better Sanitation Programming Handbook developed by Unicef (1997) and a previous problem tree developed with the contribution of the Unicef Kampala staffs. The original problem tree is included in annex 4.

Figure 2.1 : Problem tree for SSH in primary schools of Uganda (rural areas)



latrines during the cholera epidemic, because of fear of seeing the school closed completely

2.5 Medium and long term effects of poor SSH

- **Poor performance in schools and high illiteracy rate:** Poor sanitation affects academic performance. The teachers in the interviews stated that many students lose some of their school time due to sanitation related diseases. Some young girls have to drop out of school due to lack of sanitation facilities to accommodate their menstrual cycles. Today, schools need more sanitation facilities as a result of increased enrolment.

- **Environmental degradation:** The environment is affected by poor sanitation through the indiscriminate disposal of human faeces, urine, garbage and dirty water. This indiscriminate disposal of solid, human and liquid wastes is responsible for eutrophication of the fresh water lakes as well as polluting soil quality agriculture (National Sanitation Task Force, 1998).

- **Low incomes:** Poor sanitation has a negative effect on the economy. Work time is lost due to sanitation-related sickness or injuries. Poor sanitation has a negative impact on the tourism and fishing industries. There is high expenditure on sanitation related diseases both at the household levels and school level. The cholera outbreak of cost the Government of Uganda a lot of money in treatment and drugs.

- **Education for women remain low:** Lack of sanitation and hygiene in schools is a major reasons for young adolescent girls to drop out schools. This will result in the long term in low household income because of low quality of workforce. The miseducation of young girls is a big loss for a country as they are the future mothers of the next generation.

2.4 Fundamental causes of poor SSH in Uganda

The causes of poor school sanitation and hygiene are many. This part will review the fundamental causes which affect the supply of sanitary facilities as well as their proper use and sustainability. The rest of the study will attempt to deal with the immediate and underlying causes in more details in Chapter Three and Four.

1. Low Economic Base and mismanagement of resources:

At the root of many of the problems is poverty. Poverty forces people to live in overcrowded conditions with poor facilities. Poverty lowers expectations and blunts the will to bring about change. Poverty of government departments and mismanagement of resources prevents them investing funds in community facilities such as public, school and hospital toilets. Poverty prevents the government paying their employees a reasonable salary and providing them with the tools to carry out their duties (Morgan J, 1997).

2. Poor Implementation of policies in particular UPE

Universal Primary Education is entitled to four children per family in Uganda primary education . Policy implementation will involve the successive detailing of policy from the level of intent through the structuring of actions required to achieve intended policy outputs and impacts. The first of these is to create and establish an appropriate institutional and legal framework. Once these actions are undertaken, a monitoring and evaluation system should be developed to assess the impact of policies and actions on environmental health and population (National Sanitation Task Force, 1998).

UPE allowed many children to join primary schools in Uganda and was implemented within a very short period. In September 98, the number of children in primary schools often tripled, sometimes even more. The facilities were not in place to cater for the needs of such a sudden increase of children. UPE focussed mainly on building classrooms, and finding teachers. The sanitary facilities were not a priority when implementing the policy, turning a unacceptable situation to a dangerous situation.

3. Dependency syndrome:

Communities had always been told what to do and who had received services for free, have to understand the concepts of community ownership, democracy, responsibility, and self-reliance (Doyle B.A, 1998). Since the implementation of UPE, it has become very difficult to have the parents and contribution as everybody thinks that it is the government responsibilities to cater the schools with facilities.

4. Limited access to information and inappropriate channels

Even though the policy of UPE was well designed and the responsibilities of all stakeholders well stated, the information was not well channelled to the communities and schools. Communities still do not have a full understanding of the different partners involved in UPE as far as their respective contributions. The information channels need to be better developed and out-reach more into the communities. Many parents and schools do not know that there are guidelines developed and that there are standards to be met.

5. Lack of training and general low level of education and skills caused by decades of political instability and war.

The general low level of skills is affecting the general quality of facilities. The facilities are often inadequate and unsafe. The teachers are not motivated to do their work properly and it is reflecting upon the sorry state of the schools.

2.5 The main three actors involved in SSH in Uganda: Ruwasa, Unicef and Government

In trying to deal with the problems caused by poor SSH in Uganda, Unicef, Ruwasa and Government are increasingly involved in SSH.

2.5.1 What is Ruwasa's contribution to SSH?

The Government of Uganda and the Government of Denmark are presently carrying out the Rural Water and Sanitation (Ruwasa), East Uganda Project. Ruwasa's overall

objective is to contribute to the improvement of living conditions of the people through provision of clean safe water, and promotion of sanitation as well as environmental and personal hygiene. Ruwasa operates in 10 districts of Uganda and is mainly financed by Danida (Ruwasa, 1997).

In the first and second phase the project had a demand responsive approach where they were reaching out to 50% of the schools in each district. Initially the community's contribution was of 61% of all the costs (Excavation of pits, provision of local available materials and labour), the other 39% was from Ruwasa. The 39% consisted of assistance to government aided primary schools in the form of (Ruwasa,1997):

1. Conducting participatory zonal training and seminars for Chairmen of Parents Teachers Associations and Management Committees, Chairmen of sub county health committees, Chairmen of sub county education committee, sub county chiefs and the LC1 chairmen. The seminar is carried out using participatory tools to encourage the generation of ideas.
2. Conducting hygiene education seminars using participatory tools and participatory rural appraisal (PRA) method for head teachers, science teachers and senior women teachers. This meant that there was a sanitation work plan and that the school defined themselves what their needs were. As a result, an individual package was then designed for them.
3. Providing building materials (slabs and cement for foundation constructions)
4. Transporting local materials to the site
5. Providing technical assistance during construction
6. Paying for masons after completion of construction

However the following problems were encountered:

- Some latrines collapsed due to the fact that they were sited badly and also construction of such latrines was not supervised by technical staff
- Poor mixtures of building materials also as a result of lack of supervision from technical staff
- Latrine construction in most cases was very slow. (Actual achievement of latrine construction was only 7% between 1996 to –1998 (Ruwasa,1997). The slow pace in

construction was due to many schools having problems raising enough funds to meet their 61% contribution.

Because of all the above reasons, the construction of latrines lagged far behind schedule. It was then necessary to review the institutional sanitation strategy in order to address the above problems so that institutional latrine construction during Phase 2B (1999-2001) would be speeded up so as to achieve physical targets. This new approach was designed to strengthen the already existing forms of assistance. The approach was designed by a multi-disciplinary committee of district officers and project staff. Schools were not able to meet the required 61%. Because of all these reasons, Ruwasa opted to move away from the initial methodology and move toward the ready to go package methods already being used by Unicef.

This new strategy will aim at achieving the following objectives:

- Increased pace of construction of latrines in schools which will lead to in increase in target outputs.
- Increased supervision of latrine construction leading to good quality latrines
- Build capacity for private sector to get involved both in latrine construction and latrine construction supervision

Identification of the schools:

The project gives guidelines to districts to select 50% of the schools to be assisted by the project for latrine construction. The criterias for selection include the enrolment of pupils/teachers and the number of existing stances as well as their type (permanent with slab or temporary).

In this new approach, emphasis is laid on hygiene education, information dissemination for behavioural change, through the formation of school health clubs and school health committees. (Use of existing Unicef programme). This package looks at human capacity building in the schools to handle hygiene education implementation activities through the involvement of the senior women teachers and the head teachers during the participatory science training. Further more, it focuses on targeting existing structures i.e. Education committees, School management committees, PTAs and Local councils.

The package looks at establishing the degree of water and sanitation related diseases among the children through the medical examination of a number of sampled children within the schools. This would act as trigger for dialog with the teachers, pupils and the community in meetings. It was in this light of things that the project decided to continue with the same arrangement of implementing the package. The ultimate aim of the package is to promote behaviour change in schools through the decentralisation of activities, focusing mainly on capacity building at the district and lower levels for its implementation.

2.5.2 What is Unicef contribution?:

To respond to the vast amount of schools still lacking proper water and sanitation facilities UNICEF is also covering the rest of the districts not covered by Ruwasa (34 districts). In light of this the government of Uganda has found it necessary to supplement the on going efforts by Unicef-Water and Environmental Section (WES) to promote better sanitation in primary schools through the provision of supplementary funds to UPE supported schools. These funds shall be channelled through the existing District WES/Ruwasa account and their utilisation shall follow established government procedures. Presently the following are examples of some activities being supported (Unicef,1999b):

- Mobilisation for UPE
- The school sanitation campaign
- The training of science teachers in sanitation
- Hygiene education in primary schools
- The politically driven sanitation promotion process
- Involvement of private sector in latrine construction

More is said about Unicef s contribution in section 3.4.

What is UPE school sanitation?

- It is a district based activity aimed at improving the sanitation status in primary schools
- It is part of all other on going efforts to promote better and adequate sanitation in primary schools

What are the objectives:

- To improve water supply and sanitation facilities at primary schools in support of Universal Primary Education
- To impart hygienic skills to children at an impressionable age by providing an environment and opportunities which can introduce and reinforce good hygiene practices in children.

What will be its outputs?

In the initial year of activity, the following will be the outputs:

- 1840 latrines constructed in 920 schools
- 1840 hand-washing facilities provided in 920 schools
- 400 rainwater tanks installed in 400 primary schools
- community participation in activities
- Well used and maintained facilities
- 2760 primary teachers trained

Selected schools will initially receive a minimum of two 5-stance latrines, two hand washing facilities and a rainwater tank where there are no nearby safe water sources.

Time frame:

It is a three year activity subject to renewal depending on the success rate of implementation and achievements

Eligibility criteria:

Schools to receive support are to be selected according to the following criteria:

Government schools:

- involved in the UPE programme (including schools with or without classroom structures)
- without a nearby water source (in a distance of more than 0.5km)
- with high enrolment
- with a high ratio of pupils to existing stance
- whose community shows interest and willingness to participate in the activity

2.5.3 What is Central Government's contribution ?

Unicef (1999a) indicates what the various stakeholders contribute. The central government contributions are identified as:

- Overall administration of the project
- Determination of facilities to be received by each district
- Check district lists to ensure that it conforms to agreed upon criteria
- Provision of funds for regional auditors
- Provision of funds to district for bricks, sand, aggregate, hard core, roofing poles, casting of slabs, cement for plinths, corrugated iron sheets, door frames and shutters, hoop iron, nails, and skilled labour for construction
- Provision funds for construction of a rainwater tank where necessary

2.5.4 What is the contribution of district authorities and sub county authorities and contractors?

- Mobilise sub-counties for sanitation improvement
- Plan and budget for school sanitation and ensure that all plans for new structures like offices, health units, markets have adequate sanitation facilities.
- Approval of final list of schools to receive resources
- Tendering for local contractors to carry out construction, (preferably one contractor per sub-county) and pay for finished product
- Certification of the quality of facilities constructed
- Accountability of all funds forwarded to the district
- Support the provision of new facilities and additional facilities in line with enrolment
- Monitor and supervise sanitation activities in schools. Schools should be reminded to provide anal cleansing materials.

Sub-county Authorities

- Process school applications and forward to district for final approval
- Advise communities on the correct siting of facilities
- Assist community to supervise the construction
- Supporting construction of new facilities once the WES supported ones get out of use

- Work with school management committees and PTA executive to plan, raise resources for sanitation improvement
- Make adequate provisions for proper operation and maintenance of facilities
- Mobilise school management committees and PTA executive for sanitation improvement
- Plan and budget for school sanitation and ensure that all plans for new structures like offices, health units, markets have adequate sanitation facilities

Contractors:

Construct quality facilities according to specifications in good time as per conditions of the contract.

Chapter Three : Provision of sanitary facilities in rural primary schools

In the previous chapter, the provision of facilities were identified as one of the immediate causes of poor school sanitation and hygiene in rural primary schools in Uganda. Guidelines have been set and are not always closely followed. This chapter will try to cover the existing situation of the majority of rural schools in Uganda, from expressing the needs that exists to the actions done to try to deal with them and then the gaps still left in the attempt to meet the demands. This chapter is based upon the author's field work as well as the two baseline studies done by Ruwasa and Unicef. When the comments are from the particular source, it is clearly indicated.

3.1 Which sanitary facilities are required for proper sanitation levels?

Based upon the primary schools visited and the guidelines enclosed in annex 3, the facilities that are required for a primary school are:

1. Latrines (recommended ratio of 1/ 40 students)
2. Hand-washing facilities next to the latrines
3. Refuse disposal systems
4. Water supply sources
5. Clean and adequate classrooms

3.2 Existence of sanitary facilities and description of needs

Three main issues were found to affect the provision of facilities in rural schools:

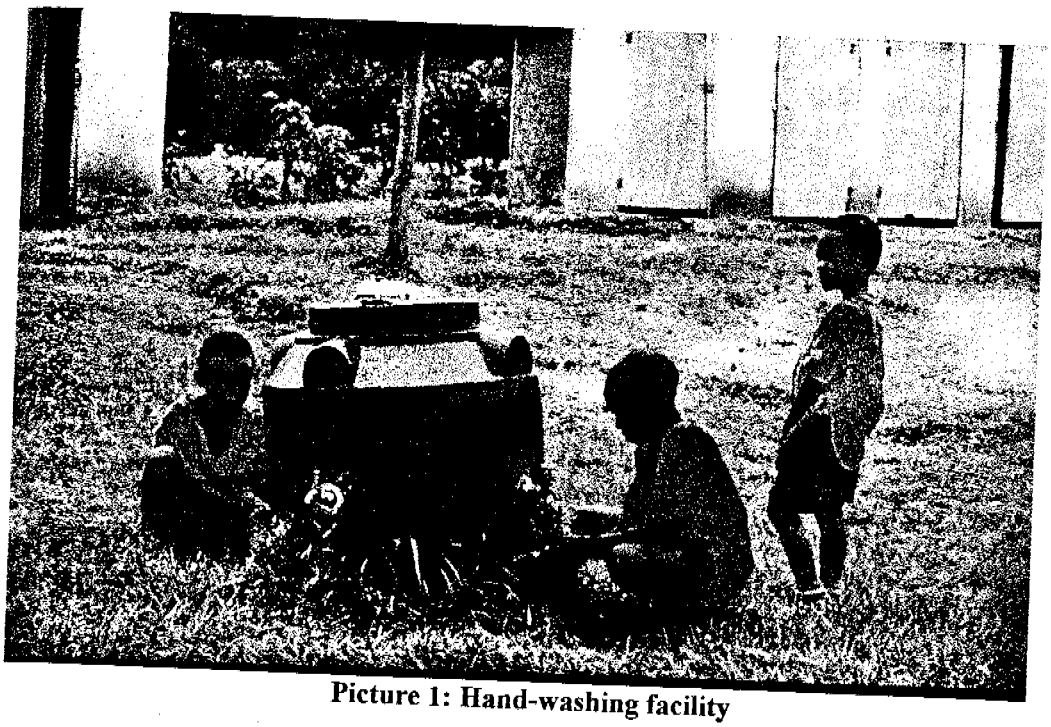
A. Low coverage of facilities

Pupil-Stance Ratio: All the schools visited by the author had some sort of a latrine. This statement is confirmed by the study undertaken by Ruwasa which showed that the latrine coverage for the whole project area was 98% with slightly more than half of the latrines (51%) having concrete slabs floors and 47% traditional floors. Informal interviews with the school authorities and the parents by the author showed that there was a general drive to have

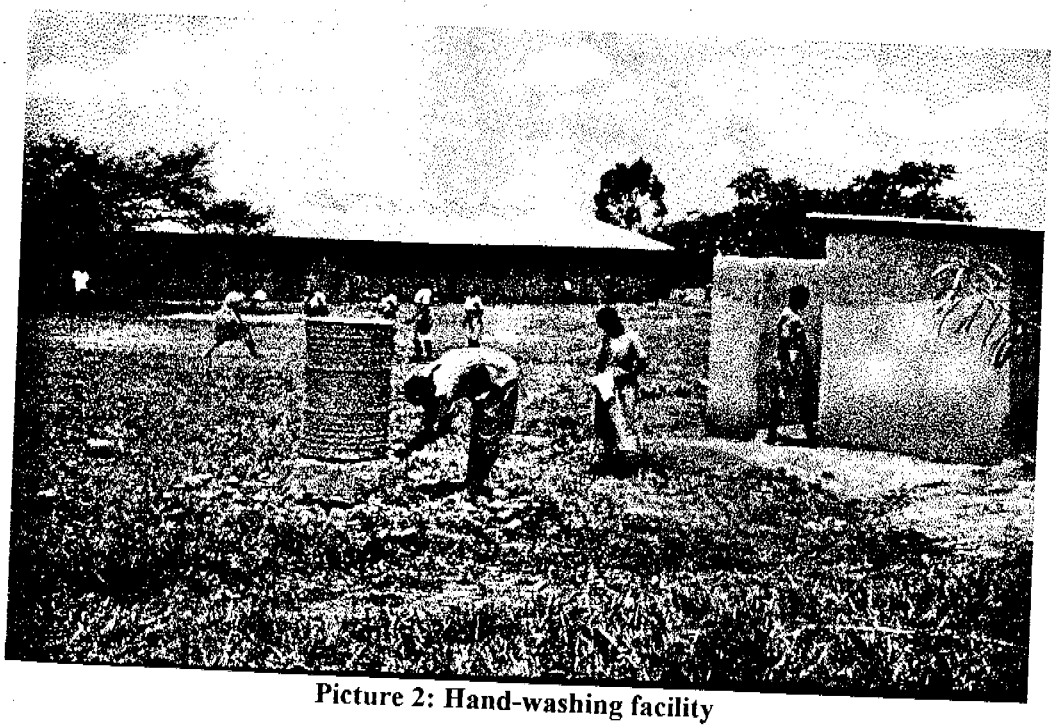
school construct latrines due to the cholera epidemic (1997) in the whole country. The educational department carried out an inventory and the schools without latrines were required to close until latrines were constructed. The study findings indicate that the users of latrines were too many for the available stances. With UPE, the numbers of pupils have tremendously swollen surpassing the official recommended pupil-stance ratio of 40 pupils per stance. Available data indicates that no school with the recommended ratio. In Budondo primary school, the ratio was 117 students per latrine. In Mafubira primary schools of Jinja district the ratio was of 65.

Latrines Provisions for Teachers: In majority of the schools visited, teachers did not have separate provisions, but rather used same latrines as pupils. In one of the schools without latrines, the nearby community offered their latrines to be used by the teachers.

Hand-washing facilities: From the field observations, there was not one common design used for hand-washing facilities. In most cases it was a Jerry can outside the school facilities. The general presence of hand-washing facilities was very low. And when the facility was checked, there was rarely any water in the facility. In most cases, the soil was not even wet next to facility. Picture 1 and 2 give examples of the types of hand-washing facilities found around schools:

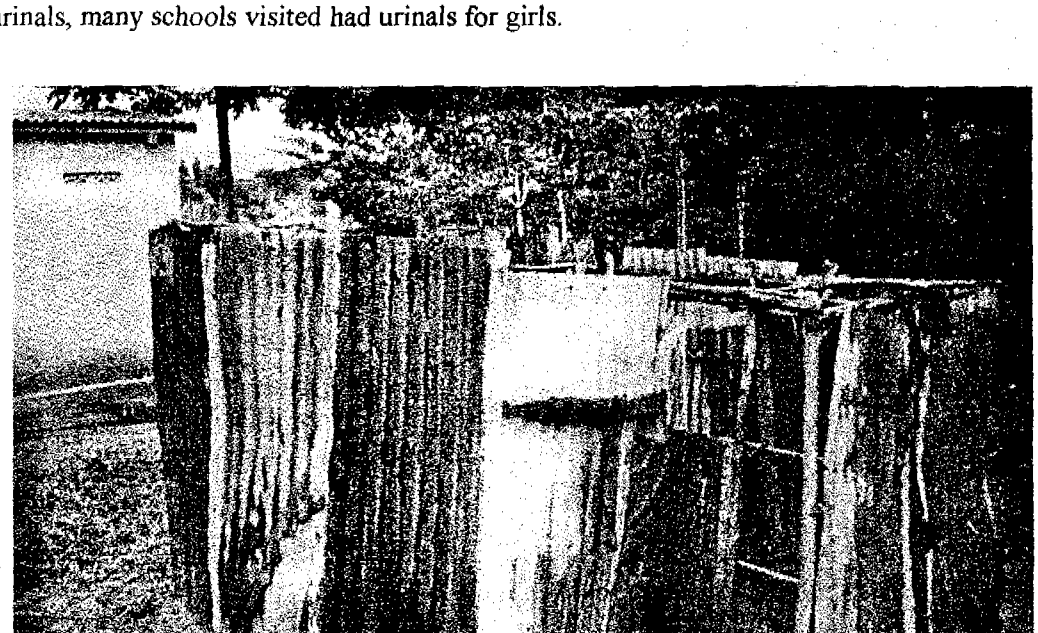


Picture 1: Hand-washing facility



Picture 2: Hand-washing facility

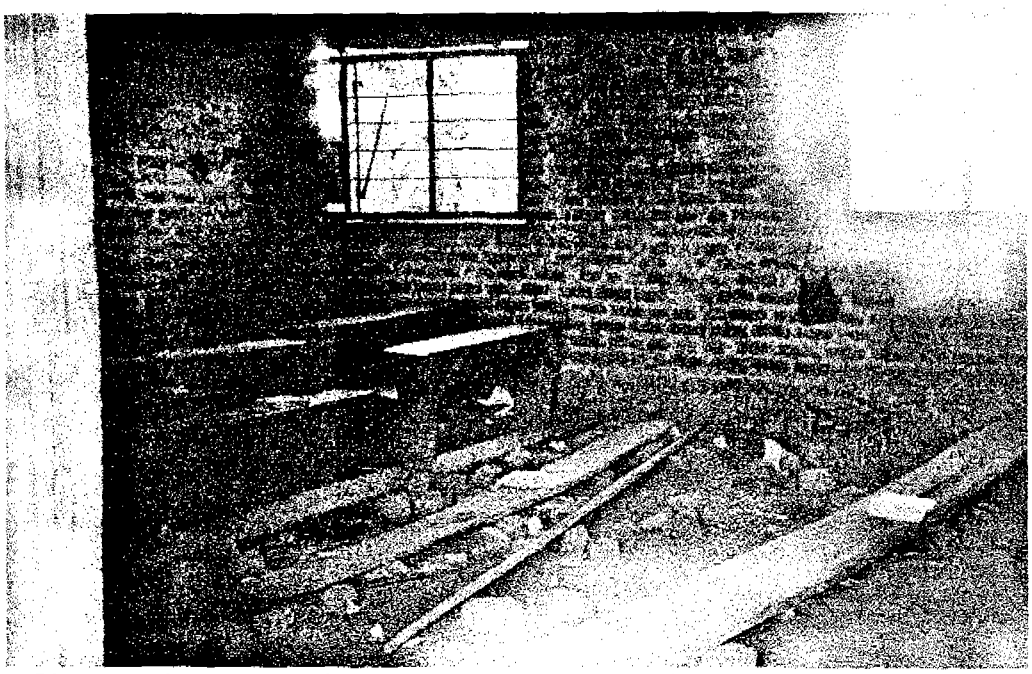
Presence of Urinals in schools: Although latrine coverage for disposal of human solid waste was almost 100% urinals meant for proper disposal of human liquid waste were non-existent in a relatively high number of schools. The picture 3 shows what is meant by an urinal. This urinal pictured is one for girls and was made of rocks. It was smelly and covered by flies. Because the drainage was non-existent, this resulted in the repugnant smell. Although in the guidelines of school sanitation enclosed in annex 3 there is nothing stated about girls using urinals, many schools visited had urinals for girls.



Picture 3: Urinal for girls in Budondo primary school in Jinja

Waste water disposal and solid waste management: In rural day schools, the issue of wastewater disposal did not apply as there was no water to dispose. Refuse disposal was generally not a major problem in rural schools. In some schools, they would put their solid waste in a pit and burn it once a week. Often they would just crudely dump it on banana fields. None of the rural schools had a bin of any sort, being a valuable item to be used for more important purposes, like storing water.

Classrooms: The conditions of the classrooms were contributory factors to the pupil state of cleanliness. Picture 4 shows the general conditions for classrooms. In general these classrooms had no cemented floors, which made it difficult to sweep and keep clean. The seats were not enough and most students would sit on rocks. The classrooms had no doors. Lack of seats and the nature of the classrooms, all pose serious implications when it comes to cleaning of such classrooms. The situation has been worsened by the high numbers of pupils as a result of UPE, forcing some schools to conduct their classes in the shades of tree.



Picture 4: The state of the classrooms; Mafubira primary school

B. Inappropriate Designs

Not Gender sensitive : All the schools visited were mixed, hence gender provisions become inevitable if latrine use has to be promoted. Even though the schools that the author visited did have separate facilities , the same study from Ruwasa stated that less than a half of the schools in the project area surveyed had clear separate latrine provisions for female and male pupils. The separate provisions by gender were, however not obvious to an outsider as the

majority latrines were not labelled. Pupils were instead informed of the stances which are meant for boys and girls. In schools where it was asserted that there were separate latrines for boys and girls, there were no labels differentiating between latrines or a fence separating them. In all, it would be one block. In one of the schools visited, older girls in the Focus group discussions affirmed not to use the latrines as boys keep on harassing them through peeping. This confirmed by the state of the latrines with no doors shutters.

Size and darkness: Picture 5 shows a typical latrine allowing very little space for movement. The girls in the Focus Group Discussions reported that the latrines were so small and dark that they could not change their pads when having their periods.

Picture 5: An example of a very small latrine (Mafubira primary school)

Dirty, smelly and unhygienic: Availability of latrines does not imply latrine accessibility and use. With UPE, many young pupils have enrolled who do not use latrines for fear of falling in the pits. The learners often do not know how to use the latrines. Consequently these small children defecate indiscriminately outside the latrines. A hygienic latrine has a door shutter, offers protection from rain and has a hand-washing facility next to it. However from the field observations and the different studies undertaken, it can be stated that most school latrines had no doors/shutters, and offered very little privacy. The latrines were very often fouled and full. The majority of latrines were smelling and inevitably attracting flies.

Distance of latrines from the nearest classroom/block: The appropriate distance of latrines from the nearest classroom or block is considered to be 10 metres and above. In the Ruwasa study, it is stated that 85.5% of the schools visited respected that distance and sometimes the latrines are even farther away than that. Sometimes the girls felt as if the latrines were too far away from the school buildings.

Bad designs: Many latrines were collapsing, and the sizes were not appropriate. This caused the latrines to be inconvenient. The bad designs made the operation and maintenance very difficult.

Priorities of schools:

From the studies undertaken by Ruwasa and the conversations that the author had with the senior women teacher, drinking water is a priority in most schools.

One of the teachers from Mukuju primary school remarked :

> We were very serious with enforcing hand-washing practices especially during the cholera epidemic...but later we realised that we were instead spreading diseases as pupils persistently kept on drinking water in the hand-washing facilities next to the latrine. We had no option but just to abandon the whole idea. (Teacher, Mukuju P.S.)

C. Inadequate maintenance of facilities

The low maintenance of facilities were affected by the different factors:

Distance of water sources from schools: the distance of the water source has a great impact on the existence of hand washing facilities and their proper use and in most rural schools the water sources are boreholes, wells, springs often located far away from the school. It is not reasonable to think after the statement expressed by the teacher from Mukuju primary school to think that the school will fetch water for washing their hands rather than drinking it.

Supply of water and soap for hand-washing facilities: Most schools did not have soap or an equivalent when visited. The teachers said that the students would steal the soap, hence the teachers stopped supplying soap.

Daily routine cleaning of facilities: Most of day schools had latrines whose conditions were bad as a result of poor and irregular cleaning. The fact that there was very little supply of water meant that they were only using brooms without water.

Replacement of facilities and emptying: Once latrines were full, there was no mechanisms put in place to allow the emptying of that particular latrine. And again, once doors were stolen or any other missing parts were missing, nobody were replacing them. Some of the facilities were stopped being used because of minor problems that could be fixed.

3.3 Ruwasa, Unicef and the Government `s contributions to the SSH

3.3.1 What is Ruwasa`s contribution to SSH?:

As mentioned in section 2.5.1, Ruwasa is covering 10 districts in Eastern Uganda, they aim to cover 50% of the schools before the end of the project which is scheduled to be 2002. The contribution of Ruwasa to primary schools is (Ruwasa,1999a):

- Increased project subsidy from 39% to 91% of the constructing the latrines
- School contribution of 9% will essentially constitute digging 2 pits.
- Project through the district authorities to construct 10 stances in the 50% schools selected in each district. 6 stances for girls and 4 stances and a urinal for boy these will be 2 separate units.
- Provision of 2 hand-washing facilities (each of 160 litres capacity) to schools where latrines have been completed completely. One hand-washing facility to be placed at the girls side and the other at the boys side.
- Use of private contractors in the construction of latrines to avoid some of the problems mentioned in earlier chapters.

3.3.1.1 Designs of the Ruwasa package

The detailed dimensions of facilities could not be found by the author, but temporary materials designs are included in the annex 5.

A. Latrines

The latrines proposed are simple pit latrines, built in the traditional way in Uganda. The masons have a guide created by Ruwasa to allow them to do a better job. Those are the guidelines that the author assumes is being used when building the latrines. The life-span of the latrines is 5 years.

Where is the latrines built?

- On firm ground where a pit of (4.5-9m deep) can be dug without reaching rock/water
- 30m away from any water source to avoid contaminating the water
- 10m or more from the school

- On self supporting hard soils as soft ones may collapse during digging of the pit.

Building the latrines?

- It is important that the pit is dug to exact measurements in order for the slab to fit on top of it. If the pit is too big, the slab may fall in, and this is very dangerous. The widths of all pits should be 2 feet maximum.
- The lengths will vary accordingly to the number of stances. For the girls, it will be 18 feet, and for the boys it will be 14 feet.

Foundation?

- The foundation must be built on a very firm ground. This is ensured by first removing all the loose top soil. The foundation should be 1.5 feet deep and 2 feet wide. The ratio of materials for the concrete should be 1:3:6 for the bottom layers which is 4 inches thick. Clean sand and aggregate should be used. The materials should be properly mixed in bits then spread on the excavated ground. The brick work must be good and strong. The walls should have a minimum thickness of 9 inches. Cement mortar should be 1:4. The foundation should rise 6" higher than the surrounding ground. The foundation should be left to cure for a minimum of three days.

Walls?

- The bricks should be placed along the edge line of the slabs. The walls should be at least 7 feet high from the slab level, well-bonded and plastered. The shutters should be 21/2 feet x 6 feet and well fixed.

Ventilation and lighting

This is to be provided by leaving a 6" opening space on top of the walls all around.

The roof (Ruwasa, 1999b):

The roof must be made durable and weather proof by using materials like iron sheets, reeds, tiles, grass.

The storm water catchment drain

It should be dug 6 feet (2m) above the pit latrine

The apron

The apron should be built 6" above the surrounding ground.

B. Hand washing facilities

It should be provided near the latrine for each completed latrine. It can be any of the following (Picture 6 shows an example of Ruwasa hand-washing facilities):

- A drum fitted with a tap and constructed on a concrete platform
- A small tank constructed with bricks and fitted with a tap.
- Big pots filled regularly with water

Picture 6: Ruwasa hand-washing facilities

3.3.1.2 Implementation process:

Ruwasa is currently dealing with two cases:

a. **50% of the schools identified in the first phase and that did not receive project assistance in terms of slabs, cement and payment of masons. For these schools the following steps shall be followed:**

- Districts Health Inspectors will physically visit the schools and verify/assess the levels of latrine construction per school.
- The district with assistance from the project office assess the required cost of materials and labour to complete latrine construction from the present level up to 10 stances which is the agreed subsidy level. The Project in liaison with the District will develop guidelines to implement the above.
- The school will identify a mason preferably one trained by the project to complete the construction of the latrine prior to release of funds. The school should have a signed agreement with mason a copy of which should be submitted when requesting for funds.
- The District will compile the requirements for funds and copies of the masons agreements from schools and send to the project.
- The project will verify by making spot checks to the schools whose requisition for funds have been received.
- The project shall prepare payment to the districts and the districts will in turn pay the masons.
- The districts will be required to pay the masons in instalments as below:

  1st instalment of 40 % after slabs are laid

  2nd instalment 60% after roof, doors, shutters and hand-washing platform are installed.
- The school will then apply for 2 hand-washing facilities (one for girls and the other for boys)
- After latrines are completed under this category, a list of schools will be compiled and sent to the project. At the project office, the school will be plotted on the GIS map

b. Part of the 50% of the schools identified in the first phase and have not received any project assistance

- Zonal seminars will be conducted and the following information will be given:
  - Announcement of project assistance
  - Requisition forms will be asked from the schools

- The school will dig 2 pits and the siting will be done by the supervisor hired by the project. They will also closely supervise the digging of the pits.

Three weeks will be given to each school to complete the digging of the 2 pit and send the filled request form through the supervisor and county health inspector to the district health inspector. The form will also be endorsed by the LC3 Chairperson which will be an indication of commitment in assist schools in mobilising funds for digging the 2 pits at the school.

- A list of schools will be compiled by the DHI and together with the report from the latrine construction supervisor, they will be considered for project assistance.
- The district will requisition funds for a lot of 500 stances (50 schools) based on total cost of contract prices from all the contractors engaged.
- The project will then process funds to the Districts:

Construction of latrines:

The small scale contractor will construct the number of latrines in the batches as will be specified in the contract agreement. A supervisor will be hired to supervise closely. The duration for construction of one latrine will not exceed 1.5 months.

The supervisor must carry out inspection at each of the following stages to ensure quality:

- During latrine digging
- After excavation of foundation
- After base concrete of 6 inches (150mm) is laid
- After brick foundation is laid.
- After slab are laid and cast in situ
- After wall has reached wall plate level
- After roofing
- After plastering, doors and shutters and Hand washing facilities platforms have been installed'

3.3.1.3 Evaluation of the packages in terms of sustainability, gender sensitivity, technology and environmentally friendly

Based upon the needs expressed by the schools and the current content of the package offered by Ruwasa, an evaluation has been summarised in table 3.1 by the author. It provides a list of questions that need to be appropriately answered to ensure sustainability and suitability of the package. Appropriate answers and justifications are also provided.

3.4 What is Unicef and GoU contribution to SSH?

Currently Unicef is supporting both hardware and software activities. In terms of hardware, Unicef is constructing latrines, hand-washing facilities and providing rainwater tanks. Funds are available for construction of two five stance latrine per school with emphasis on separate ones for girls. For the first half of this year 1,461 schools will benefit of which 714 are WES-UNICEF supported and 747 GoU supported. Out of 8,749 schools in need, only 920 schools will be helped with the following package (Unicef,1999b):

Latrines: Two 5 stances latrines of 10 metres deep, built with burnt bricks, with separate facilities for girls and boys, door shutters, a urinal with soak away pit, corrugated iron roof and concrete slab floor.

Hand-washing facilities: One 200 litre container with 3 taps raised on platform, with a drain, and soak away pit.

Rainwater facilities: One HDPE (plastic) tank with a tap, mounted on a flat topped platform.

In the initial year of the activity, the following will be the outputs:

- 1840 latrines blocks constructed in 920 schools
- 1840 hand-washing facilities provided in 920 schools
- 400 rain water tanks installed in 400 primary schools

Time frame: It is a three year activity subject to renewal depending on the success rate of implementation and achievements.

3.5 Technical details of package and implementation process

Drawings and all schedules are enclosed in the annex 6. This section is based on the requirements set by the district local government (1999).

A. Latrines:

Location (District Local Government,1999) :

The location of the pit shall be determined by the school administration. The site should be at least 30 m away from any water source to avoid contamination of the water with germs and parasites. The site should be at least 3 m away from any recently filled latrine or compost pit. The latrine shall be sited at least 10 m away from the classroom.

Workmanship:

The contractor is expected to carry out all the Works as instructed by the Supervisor and up to the engineer's satisfaction.

Supervision of the works:

The Execution of the works is to be supervised by the Employer's appointed supervisor. The appointed supervisor may at his discretion appoint a representative to monitor and supervise the works at the site.

Equipment and Materials:

The contractor shall mobilise all necessary plant, equipment and materials to carry out the works as specified in the Bill of quantities. The supervisor shall verify all plant, equipment and materials mobilised by the contractor.

External works:

The contract includes the works external to the latrine block. This includes landscaping, site clearance, storm water, drainage channels and soakpits.

Foundation:

The foundation shall be of collar brick type built on very firm ground. The top loose soil shall be removed, and the collar foundation excavated at 0.5 m width, to at least 0.4 m depth, depending on site conditions.

Walls:

All walls will be of burnt clay bricks. The bricks shall be placed outside the edge line of slabs. The walls should be at least 2100 mm high from the slab level, well bonded in 1:5 cement mortar, and provided with 15mm thick smooth plaster both internally and externally in 1:5 cement sand, mortar.

Doors and Shutters:

The doors will be 0.75m wide by 1.8 m high. They shall be provided with hardwood timber frames and shutters.

Roof:

The roof shall be in GCI sheets gauge 30, properly secured onto 75x50mm timber purlins and rafters to detail.

Storm water catchment drain:

The contractor shall excavate the storm water cut-off drain, to the supervisors satisfaction, 2m up hill from the pit latrine where necessary.

Hand washing facilities

This shall be constructed next to the completed latrine. The type of hand-washing facility shall be a 200 litre metallic drum fitted with two taps and constructed on a brick/masonry platform. The tank shall be protected against rust by two coats of paint approved by the supervisor.

Table 3.1: Evaluation of Ruwasa package in trying to meet the various needs

Criterias of evaluation	Answer	Justification
1. Is Ruwasa meeting pupil-stance ratio?	No	In most cases, the ratio is already so high that the number of stances offered are not enough. The stances are supposed to cater for 300 students.
2. Is there latrine provision for teachers?	No	It is not supposed to be in the package, however, it is a big problem to most schools
3. Is there provision of handwashing facilities?	Yes	Yes, there will be 2x160 litres handwashing faiclities, next to both gender's latrines. However, it will be insufficicient for the high number of students, and will create big queues
4. Is there provision of urinals?	Yes, only for boys	There will be one urinal for boys, however in most schools visited traditional urinal exists for girls, indicating a need to consider.
5. Better quality of classrooms?	No	It is not part of the package at present, and as it was discussed earlier, there is a big problem with quality and cleanliness of classrooms
6. gender-sensitive?	Yes	Yes, the facilities will be separate for both gender allowing privacy.
7. latrine sizes appropriate?	Yes	The sizes will be 2.1x0.6m per stance which is sufficient for movment in the latrines
8. Privacy (doors, shutters)	Yes	Doors and shutters will be provided. The roof is also weather proofed.
9. Darkness and ventilation	Yes	There will be a 6" opening space on top of walls all around for ventilation and lighting
10. is there a emptying system?	No	Not at all. It was reported that the common thinking was that once full, a new pit will be dug and the superstructure will be broken and some parts will be recovered.
11. Respecting distance?	Yes	Yes the distance is being respected, but it is important to state that those facilities are not permanent. They will be moved in the future.
12. Are there choices given to schoools?	Yes	It is stated that the designs will be adapted to different situations in the schools, however there was only one design available: simple pit latrine
13. Does the project foster self-reliance and community initiative?	No	The community only brings 9% of the total. And it is limited only to digging the pit.
14. Will activities be sustainable without further assistance?	No	No, the commuity provides too little of a contribution to be able to take over construction of its own faciliites
15. Is there water supply?	No	No, the package does not come with a water source.

Table 3.2: Unicef-GoU package Evaluation

Criterias of evaluation	Answer	Explanation
1. Is Unicef meeting pupil-stance ratio?	No	In most cases, the ratio is already so high that the number of stances offered are not enough. The stances are supposed to cater for 300 students.
2. Is there latrine provision for teachers?	No	It is not supposed to be in the package, however, it is a big problem to most schools
3. Is there provision of handwashing facilities?	Yes	Yes, there will be 2x200l handwashing faiclities, next to both gender's latrines. However, it will be insufficicient for the high number of students, and will create big queues
4. Is there provision of urinals?	Yes, only for boys	There will be one urinal for boys, however in most schools visited traditional urinal exists for girls, indicating a need to consider.
5. Better quality of classrooms?	No	It is not part of the package at present, however Unicef does cater for classoroms, however in a different program than the one on SSH
6. gender-sensitive?	Yes	Yes, the facilities will be separate for both gender allowing privacy.
7. latrine sizes appropriate?	Yes	The sizes will be 1.2x1.05m high per stance which is sufficient for movment in the latrines
8. Privacy (doors, shutters)	Yes	Doors and shutters will be provided. The roof is also weather proofed.
16. Darkness and ventilation	Yes	There will be a opening space on top of walls all around for ventilation and lighting
17. is there a emptying system?	No	Not at all. It was reported that the common thinking was that once full, a new pit will be digged and the superstructure will be broken and some parts will be recovered.
18. Respecting distance?	Yes	Yes the distance is being respected, but it is important to state that those facilities are not permanent. They will be moved in the future.
19. Are there choices given to schoools?	Yes	It is stated that the designs will be adapted to different situations in the schools, however there was only one design available: simple pit latrine
20. Does the project foster self-reliance and community initiative?	No	The community only diggs the pit and is Only consulted once the decisions of selection have already been made.
21. Will activities be sustainable without further assistance?	No	Not likely as the community does not show any willingness to pay or even contribute.
22. Is there water supply?	Yes	One HDPE plastic tank with a tap of 10cum3 will be provided.

3.7 Identification of the gaps between what is being done and the need still felt

Both Ruwasa and Unicef are merging to a common program with many gaps in trying to meet the needs of the rural primary schools. These gaps are likely to jeopardise the benefits of the approaches:

1. **Coverage:**

In total there are 8749 primary schools around the country that have been affected by UPE (Unicef,1999), and therefore in need of some sort of facilities. Ruwasa has only a plan to cover 50% of the schools in the 10 Districts that they are covering. Unicef and Government are in charge for the rest of the country (34 districts) and at this stage they are covering only up to 10% of the schools per year. Both Ruwasa and Unicef realise that there is a lot to be done. Some NGO like Action Aid are also involved in Hoima (See Map in annex 1) and dealing with SSH, however in a very limited number of schools.

2. **Not meeting the requirements of the government (1 stance per 40 students).**

Often the package being offered is still a drop in the ocean. Both package are meant to suit about 300 children and the number of students into the primary schools is so high that even when facilities are provided, they are still not meeting the requirement set by government. The risk is that the pressure on the new facilities will be so high that they will not be sustainable for a long time.

3. **Missing on user (children) friendliness**

The designs are suitable for children and seem the common usage in Uganda, however the facilities are not attractive to young children. The latrine is still a bit too dark and still does not look as convenient as using the bush as an alternative. The reality is that the majority of the children attending primary schools are still new to using latrines even at home, they need to be reassured that these alternatives are the best for them

4. Water sources are not provided to all schools

Very often there are no nearby water sources available, let alone in the schools to ensure that the hand-washing facilities are constantly filled up. The distance is far to walk that it is not realistic to think that the hand-washing are filled up regularly with the precious water brought back. Both Unicef and Ruwasa are not offering reliable sources of water for the schools to ensure the proper functioning of their facilities. Unicef does offer rainwater tanks but no studies have been undertaken to find out whether the tanks are reliable source of water and whether they are likely to be filled during the whole year. There is the danger that the programmes are disintegrated, and will miss on some benefits because of the lack of reliable water sources.

5. No plan for sustainability:

Both Ruwasa and Unicef do not foster for long term sustainability of these projects. The technologies offered do not come with an emptying system that will allow further use after their life-span of 5 years. It is the general thinking from Unicef, Ruwasa, and the government that the most important is to cover as much as schools as possible, due to the urgency of the situation. The schools are also not equipped with the knowledge to deal with the recurrent costs of maintaining such systems and it does not appear anywhere in the package offered.

6. Disabled children:

There are no designs set for disabled children, even though Uganda is a country that has suffered tremendous war consequences and its children are still dealing with the sequels. Many abducted children do come back missing some body parts and the facilities in school are not suitable for them.

7. No choices offered to the community and limited community participation:

There are no choices involved in terms of technological options, and no possibility of upgrading the facilities if wanted. The general improvement is therefore limited by this limitations of choices. The communities have a very limited participation, which explains the

sorry state of the facilities. The concept of self help, local decision making and control over services and resources, the essence of empowerment lay elsewhere (Duncker L.C., 1999).

8. Technical suggestions are not good, and there is no quality control :

Latrines tend to collapse and there are many problems due to bad designs. The programmes do not suggest anything to deal with training of the masons or private contractors involved.

9. The provision of teachers latrines not planned

It is not mentioned anywhere that there are plans to improve on teacher's latrines. If the assumption is that teachers will act as models, they need to have the proper facilities to be able to do their jobs properly.

10. Missing out on classrooms, lack of an integrated approach:

Very often the school was provided with beautiful latrines when the students had no classrooms. Ruwasa does not get involved at all with construction of classrooms. Unicef on the other hand is involved in supplying better classrooms but as a different program than the SSH one . The classrooms are a priority in the school's lists, and affect the sanitation and educational status of the schools.

11. Nothing is said about rehabilitating some of the facilities already in use

There is a evidence that many latrines are currently not in use because of minor defects in construction.

12. **Are the guidelines really appropriate**?

The children were complaining about the latrines being far away, however the guidelines suggest the minimum distance to be respected and both Unicef and Ruwasa respect it. Could it be that there should be that the guidelines need some updates?

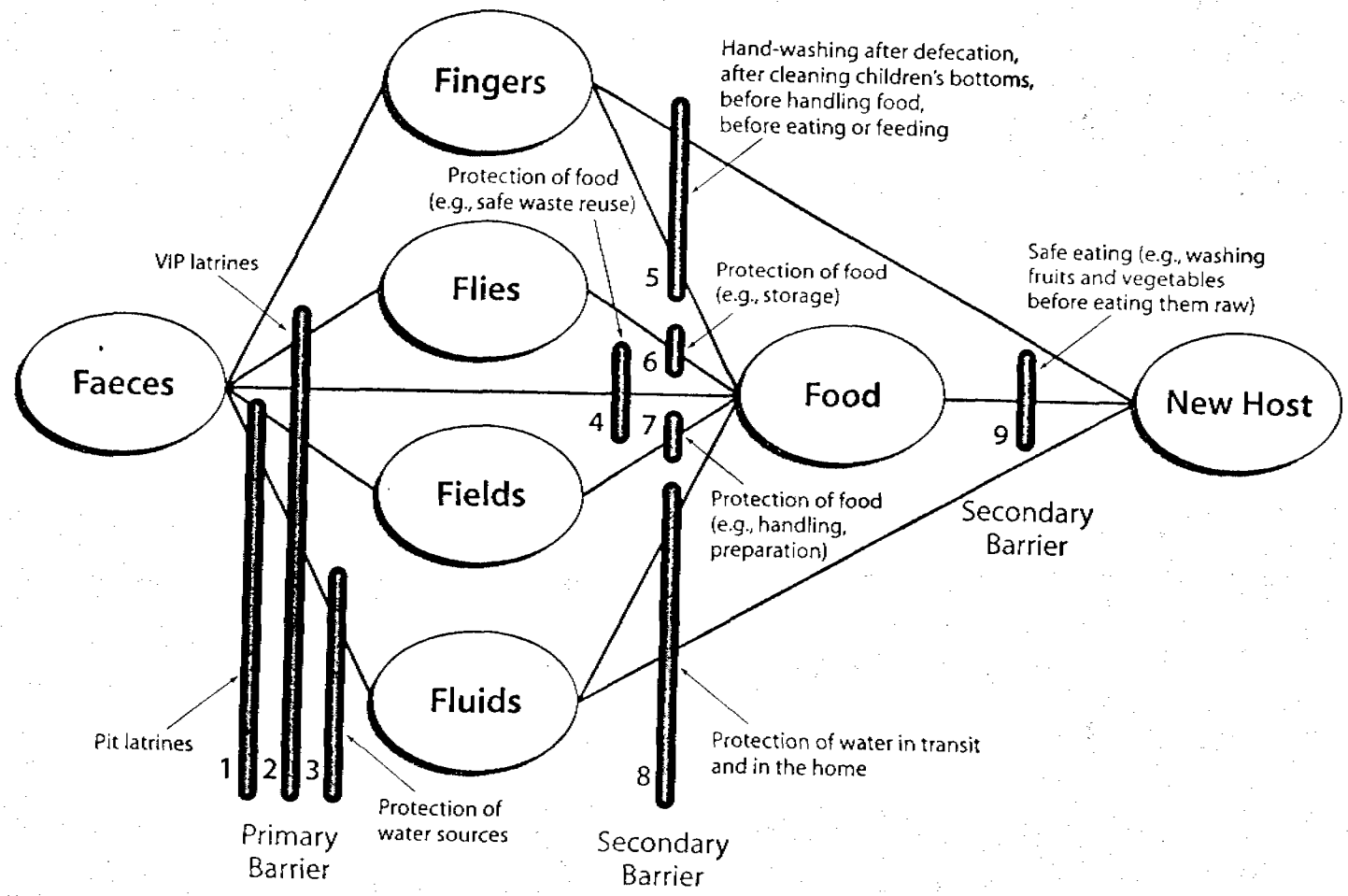
Chapter Four : Hygiene behaviour in primary schools

4.1 Importance of assessing hygiene practices?

In chapter three, the author appraised the value of improving water supply and sanitation facilities. Improved facilities reduce contamination of drinking water and of the environment, and reduce diarrhoeal disease transmission and worm infestations. Such facilities are therefore widely promoted in schools. However, having the facility does not in itself guarantee the isolation of contamination.

Various routes of transmission, such as fingers, flies, soil, and water, may require different barriers if the spread of contamination is to be stopped. This makes the prevention of diarrhoea and worm infections complex, as shown in Figure 4.1. This diagram, often called the F diagram, clearly shows the different transmission routes whereby pathogens can get from the faeces of an infected person through fluids (mainly drinking water), fields (soil), fingers, and food. Some of the most effective primary and secondary (behavioural) barriers are indicated. There are at least nine barriers/facilities associated with hygiene practices. Clearly latrines and protection of water sources (1,2,3) constructed properly and used are important barriers. The rest of the barriers relate to hygiene practices such as the protection of water sources (4) irrespective of the existence of latrines; hand-washing at critical times- after defecation, before handling food, and before eating and/ or feeding (5), protection of food by safe storage (6), safe food handling (7), protection of water in transit and in the home (8), and in washing raw foods before eating them (9). Research shows that hygiene-related practices such as hand washing after contact with faecal material can reduce the rates of intestinal infection considerably. (Almedom M. A. et al; 1997)

Figure 4.1 : Faeco-Oral Routes of Disease transmission (Almedon M.A et al,1997)



4.2 Existing issues of bad hygiene behaviour

This part of the study is trying to assess the existing hygiene knowledge and practices in the primary schools. This section is based upon the field work that the author was involved in as well as the two main baseline studies that Ruwasa and Unicef produced. When comments are from either source, it is clearly indicated. The factors assessed as contributing significantly to lasting changes in hygiene behviour were:

4.2.1 Few Predisposing factors

These factors are the knowledge that the students posess in relation to sanitation-related diseases, their attitude to the facilities in place and the belief that they hold within themselves. The issues below are likely to affect their hygiene behaviour:

Beliefs: The children had some beliefs that are likely to affect their behaviour. The children believed that the new policy of UPE meant that the government will come and deal with all issues relating to maintenance of proper care of facilities. Among the beliefs that children had, there was a belief among the youngest children that they were likely to fall into the pit if they used the latrine. According to the Ruwasa study, the parents also expressed the following statements:

' Children are encouraged to defecate around the homes because it is prestigious. It is a sign of having many children, which is good! »- Parent in Apac

« Some parents have a fear that children could fall into pit latrines! » parent in Apac.

Knowledge: From the focus group discussions the students seemed to be very much aware of the diseases caused by poor sanitation and hygiene. In the study done by the UNICEF consultant, 89% of the students interviewed reported that they knew diseases caused by poor sanitation. The highest reported diseases that the students linked to poor sanitation were diarrhoeal diseases and cholera. However when asked to mention the causes of poor sanitation the pupils had a less clear understanding of the causes. This could be because of the recent cholera prevention campaign that went on in the country

after the cholera outbreak in 1997, as well as the inclusion of sanitation and hygiene in the curriculum

Attitudes:

Personal Hygiene and handwashing:

The Ruwasa study sought among others to unravel pupil's perception and reasons for one to keep oneself clean. The majority of pupils gave relevant reasons ranging from avoiding diseases to avoiding germs and parasites. However the majority of pupils keep clean due to pressure and fear of punishment rather than the hygienic value that is involved. Besides generalisation of pupils keeping clean, pupils were asked to state the reasons for washing hands after using the latrine. Majority of pupils pointed to avoiding germs as a reason for washing hands after visiting the latrine. The responses show that a relatively high number of pupils were quite aware that failure to wash hands after visiting the latrine would lead to contraction of germs or diseases. Despite the knowledge, the practices were not inculcated. The majority of children never washed their hands after visiting latrines as evidenced by the glaring lack of handwashing facilities in the majority of schools.

Attitude at home

The above revelation further corroborates what the teacher in Mukuju observed in section 3.2. The scarcity of water would force pupils to drink water in the handwashing facilities next to the latrines. Not only did the students not wash their hands at school, but even at their homes as revealed in one of the focus group discussions in Tororo:

Even at home it is rather difficult to wash hands after using a latrine. We are not allowed to use water anyhow.... We fetch it from very far and we must use it sparingly (P4-P5 pupils of Nampologoma primary school)

Use of latrines:

According to the general observation of the author, fouling due to improper use was quite common. Due to the big numbers of the general school population and to the fact that many students take advantage of UPE, it is very common to see latrine fouled and used

improperly. The young children were often bullied by the big ones that complained about their lack of knowledge about using latrines.

4.2.2 Inadequate Enabling Factors

These are the factors like availability of resources like latrines facilities and safe water supply, enabling students to transform newly acquired knowledge, attitudes and beliefs into desirable behaviours. This part has been widely discussed in chapter three which shows that there needs to be a mixture between the software and hardware components. The enabling factors that the author is referring to aret :

- Latrines availability
- Safe water supply sources
- Handwashing facilities supplied with soap or ash
- Appropriate classrooms

4.2.3 Reinforcing Factors

Those are the factors affecting the students' ability to sustain that desirable behaviour, like support and cooperation received from parents, guardians, school authorities and other school children.

Educational materials on sanitation: The presence of sanitation education materials was generally minimal. The majority of the materials present were posters and books. However many schools did not have any kind of educational materials. According to the teachers , it seemed that the education committee and health committees were the dominant source of these materials. A majority of these posters were not displayed in strategic places where students could constantly have access to them. Most of the materials distributed were either locked up or in the headteachers office for fear of the educational materials being stolen by outsiders after school. The facilities (classrooms) were often in a state that did not allow either pining poster on the walls, as they were so rough.

However the picture 7 shows a school where the educational message was writen on the latrines walls meaning that it is possible to have proper educational messages in strategic places. In conclusion, promotional materials were not easily accessible and often placed in inappropriate places.

Picture 7: One example of educational message on the latrines wall.

Source of information: According to the Unicef study, the majority of students reported that they got most of their information on sanitation from their teachers. There were other sources including parents, radio, and leaflets. This information has to be taken quite carefully, because the students were asked the questions in the schools, which could be the reason why they refered to the teachers as main source of information. In most African culture,the parents have a huge impact in inculcating the main hygiene habits as

well as being the key person reinforcing the hygiene messages. The common messages passed on the students in schools were about personal hygiene which entails clean hair, nails, uniforms and general cleanliness of the body. The materials that students referred to the most were those in Health Education Science books.

Teacher's motivation and training: The Ruwasa study indicated that only 35% of the teachers had received any training on sanitation while the remaining 65% had not. Most of the teachers did not receive the kind of training needed to deal with sanitation-related issues and most importantly how to pass it on to students in an effective and efficient manner. In most schools, health parades were quite common, but there were no monitoring charts. In the focus group discussions led by the author the students said that the health parades were not done on a regular basis. This was attributed by the late arrival of teachers to conduct the parades in the morning coupled with increased numbers of pupils as a result of UPE which could lead to spending too much time at the expense of class time. It was also not surprising that some of the teachers who should conduct parades and check on hygiene are themselves prone to poor hygiene and hence lacked the moral authority to enforce hygiene among the pupils. From the discussion that the author had with the Unicef staff, there seem to be a consensus over the fact that the teacher's lacked motivation because of lack of incentives, meaning the salaries that they were getting were low or often not paid on time, often both.

Presence and activities of health and science clubs: Even though many schools reported having health/science clubs in their schools, the author did not have a chance to see one that was organised with goals and regular activities. Most schools reported to have sanitation plans, only few could actually show them when asked.

Community members and parents: The Unicef study said that the members of the community had a holisitic view of sanitation activities responsibilities. During the informal interview that the author had with the parents, they said sanitation was mainly the duty of parents and teachers; school management committees; district health and education inspectors; local councils; pupils and the whole community as a whole. The teachers however complained of the lack of co-operation between parents and teachers especially after the introduction of UPE. Most teachers complained about the parents not co-operating after the introduction of UPE. In two of the schools visited by the author,

lunch was being provided to the students, however the teachers complained that not all the parents contributed, but the Ugandan culture forbade them to stop the children from eating the lunch. Apparently this situation has worsened since the introduction of UPE.

Conditions of pupils: The conditions in which pupils study such as the lack of seats in classes, sitting on uncemented floor full of dust, lack of built classrooms;play a big part in the pupils hygiene conditions. Discussions with parents revealed that cleanliness/hygiene inspection parades in the morning and after lunch hour had diminished. Focus group discussions revealed that although parades were being held, checking for cleanliness was irregularly done with some schools spending more than a month without inspecting pupils for cleanliness. Even if children come from home relatively clean, and it is very difficult to them to maintain their hygiene status at school where they sit on bare floor, and there is no source of water in the neighbourhood where they can wash. The Ruwasa study actually analysed the occurrence of sanitation and hygiene related diseases with the occupation of the pupil's parents. The majority of pupils who reported an occurrence of sanitation and hygiene related disease were coming from homes where mothers, fathers, guardians were peasant farmers. This suggests that the socio-economic conditions that obtain in peasantry families potentially contribute to sanitation and hygiene diseases. In particular, mothers who are basically custodians of household hygiene play a crucial role in ensuring that children do not get such diseases.

Capacity to plan,manage and implement sanitation and hygiene activities :

District Involvement: In light of the decentralisation policy, it was necessary to make some observation about the district's involvement. Discussions with school authorities, management committee members revealed that in the past years, the role of districts in implementing school sanitation and hygiene was minimal. In all districts it was only after the 1997 cholera outbreak that it was realised that very few schools had unsatisfactory sanitation facilities. It was the cholera outbreak that brought about concerted effort by the different departments of the district to improve on sanitation and hygiene in institutions. The district health inspector's office was mainly in charge of that, but lacked the capacity to promote and implement their role. Constraints to underfunding were raised; other constraints included lack of sufficient transport facilities at district inspectorate departments. It has been noted that there is no specific budget at the district level for sanitation activities in primary schools apart the direct contribution to WES or Ruwasa.

UPE funds were conditioned grants, which had not catered for school's water and sanitation activities. According to UPE policy, the funds are allocated as follows:

- 50% Instructional materials for all subjects taught
- 30% Co-curricular activities i.e. sports and clubs for all children
- 15% School management including school maintenance and utilities like water and electricity.
- 5% administration

Local Council :

This section is based upon the Ruwasa study, which states that the experiences at the sub-county level varied from sub-county to sub-county and from district to district. In some districts, some LC officials revealed that their budgets usually have a vote for water. Those who have a vote for health used it for building health centres. No vote was reported to directly allocated to schools as far as sanitation is concerned. Schools are given money collected as education tax. These funds are given on the basis of school budgets/requests which may include construction/maintenance of sanitation facilities. However schools did not put sanitation and hygiene among the activities for which such funds were requested. In summary, there is a need to point out that on basis of the findings, it can be asserted that schools lack capacity and commitment to undertake sanitation and hygiene activities. This is exacerbated by the situation whereby school authorities are more concerned about the sorry state of their schools structures in general than with the sanitary conditions in particular.

School Management Committees and parent's willingness to contribute labour, materials and, or cash for sanitation improvement in primary schools: The level and nature of school management committees and parents participation in school sanitation and hygiene varied from one school to another. What was, however, found common in all schools was that willingness to get involved in schools sanitation had undergone tremendous change since the introduction of UPE policy. Another factor that was undermining contribution towards schools sanitation was the sorry state of classroom structure, which they perceived to be the priority. Parents from the discussions said that if resources were available, they would give priority to school structures such as classrooms and furniture first, before improving sanitary facilities. The data obtained from the headteachers on the nature of community's involvement cited labour contribution as the

main contribution followed by cash and material contributions. UPE policy as earlier observed has directly undermined community and parents contribution towards general improvement of schools. In the past years, the role of parents and community members in general was clearly understood as including participating (usually in form of cash, labour and material contribution) in school sanitation and hygiene activities. With the introduction of UPE, the role officially prescribed to parents and community members remains to contribute labour and materials for SSH facilities. Parents and community members have understood UPE to mean that they are exempted of any kind of contribution. Consequently parents and community members are reluctant to contribute to these activities. Community members in Bukoona, summarised it all:

« But our President offered us.... He said children should study for free »

It was also reported that meetings between parents and schools' authorities had not been called for a long time though the parents were willing to make contributions. In Mbale, parents attributed their reluctance to participate in school sanitation facilities development to lack of accountability by school management committees. Most members of school management committees decried lack of a budget of their own to finance their activities. Under UPE where funds from central government are tied to specific expenditures, management committees do not have the discretion to implement what they consider as their priorities.

It is important to point out that in some places where willingness to contribute labour was evidently high, the delayed implementation of Ruwasa activities as reported by parents and local chiefs was likely to jeopardise the willingness to contribute towards school sanitation and hygiene activities.

Private contractors: the Ruwasa study investigated the availability and quality of private contractors capable of undertaking the construction of sanitation facilities in primary schools. The experience varied from district to district, although all headmasters of the schools reached and LC officials acknowledged that there were locally based masons who undertake small-scale construction such as latrines and protection of springs, but not private contracting firms in their localities. Local masons need closer supervision for producing quality work.

4.2 Summary of behaviour related issues in primary schools?

Health benefits are a major objective of water supply and sanitation projects. While potential health benefits can only come about through a hygienic use of water supply and sanitation facilities, additional personal, domestic and environmental hygiene will increase this potential. The success of water supply and sanitation projects thus requires a focus on the behaviours of the people with regard to the use and upkeep of facilities, and on additional hygiene practices that help to cut off alternative routes of disease transmission. The need to focus on hygiene behaviour is reflected in a growing integration of hygiene education in water supply and sanitation projects and in an increasing interest in the study of hygiene behaviour for the successful planning, monitoring and evaluation of water supply, sanitation and hygiene education projects (Boot T.M.,1993).

Table 4.1 summaries the main behaviours that are wished for a perfect rural school in Uganda:

Table 4.1: Main behaviours wished for a perfect school

Key behaviours	Who needs to be targeted?	Benefits to adopting behaviour and why?	Constraints to adopting behaviour?
Community participation in school sanitation activities	• Parents • General community	• General sense of ownership • Community adherence • Benefits to future generation • Building capacity for replicability of schemes	• Lack of time, skills • Lack of information • Lack of interes • Negative attitude towards government, because of misunderstanding of UPE
Proper use of latrines	• Pupils and teachers	• Convenience and privacy • Disease- free school community • Cleanliness and conformism to majority norms • Perceveid as higher status in communities	• Latrines not convenient, dirty and inappropriate. • Habits not the norm for young learners. • Latrines full,smelly and flies
Maintenance of latrines and facilities	• Pupils • Teachers • SMT	• Clean and convenient latrines • Long- lasting facilities • Building capacity for replicability of attitudes in households	• Habits not the norms • No sense of ownership by schools • No anal cleansing materials • No reinforcement by SMT, because don't consider it a priority
Reactivate school parades to ensure proper personal hygiene	• SMT • School health clubs • Teachers • Pupils • Parents	• Schools conform to authorities requirements • Diseases-free school community • Community adherence • Develop long lasting hygiene habits in a enlightened community	• Teachers not motivated, low morale. • Too many students due to UPE • No reinforcement by parents
Formation of school health clubs	• SMT • Teachers • Pupils	• Active school that is a model for villages and community • Teach the young students how to use latrines and keep clean • Conformity to rules set by government	• Not enough information on how to keep School health clubs motivated • Lack of time • No reinforcement from teachers and SMT
Handwashing after visiting latrines	• Pupils • Teachers	• Diseases-free school community • Cleanliness • Peer acceptance	• No provision of soap/ash • Hygienic habit not reinforced at home • Lack of reinforcement by teachers • No handwashing facilities in schools • No water supply in the schools

In order to achieve that perfect school behaviour analysis, three factors have to be addressed if lasting changes in hygiene behaviour are to occur (Unicef and IRC, 1998). These are:

- **Predisposing factors**: Knowledge, attitude and belief
- **Enabling factors**- availability of resources like latrine facilities and safe water supply, enabling students to transform newly acquired knowledge, attitudes and beliefs into desirable behaviours
- **Reinforcing factors:** factors affecting the students ability to sustain a certain behaviour, like support and cooperation received from parents, guardian and peer groups

Based on the discussions above, table 4.2 has been developed summarizing the areas needing focus in rural schools inUganda. It includes two main topics:

a) Negative aspects requiring actions
b) Positive aspects which can be reinforced

Table 4.2 : Factors that need to be addressed to achieve lasting behaviour changes

Factors to be addressed	Positive aspects to be reinforced	Negative aspects requiring actions
1. **Predisposing factors:** Knowledge Beliefs Attitude	• - Students know the diseases caused by poor sanitation as well as symptoms. - Students fear punishment so keep themselves clean - The curriculum already includes sanitation related activities - Students know the importance of handwashing.	- Young children believe that they will fall into pits. - Unsensitized pupils do not understand the proper use and maintenance of facilities - Unsensitized pupils do not understand school health and UPE package - Pupils do not practice the knowledge that they already possess
2. **Reinforcing Factors**: Parents: Communities Teachers School authorities School health clubs Eucational materials Local political authorities	• Political support in favour of sanitation • Communities do already dig the pit for the latrines construction • Teachers are the main source of information for the student • Community thinks that sanitation (cleanliness) was mainly the responsibility of parents, and everybody as a whole. • Some schools write educational messages at strategic places • Health science books contains valuable information • Health parades are happening	• Unsensitized teachers do not understand the sanitation and hygiene improvments needed. • Unsensitized PTA/ MC do not appreciate the importance of school sanitation • Unsensitized parents/communities do not appreciate the importance of school sanitation • Lack of School Health committees • Inactive school health committees in terms of maintenance and repairs • Lack of school health clubs • Inactive school health clubs • Teachers not motivated and lack incentives

4.3 The contribution of Ruwasa, Unicef and Government to behaviour change in primary schools

One of the key issues to be addressed in behavioural change is mobilization of key stakeholders in school sanitation and hygiene. This effort of mobilization will enable communities to identify and prioritize local problems and develop and implement action plans addressing specific concerns. Strategies will vary depending on various factors among which the target groups (Unicef, 1999). The final objectives are that you can have a enlighted community who is therefore envisaged to make firm decisions and commit themselves to:

- Construct latrine and handwashing facility
- Meet their obligations: dig pit and provide labour for superstructure construction
- Put in place mechanisms of constructing a new one,once the one supported by WES gets full
- Repair or provide new hand washing facilities once the WES-supported ones are out of use
- Support the school in all the latter's effort to improve sanitation.

Why is there a need to mobilise?

1. To create awareness among the main stakeholders on the need for improved school sanitation,
2. Enable the stakeholders understand the roles and responsibilities of the partners, and commit them to fulfill their respective obligations
3. To create conducive environment for :
   - Sustainable promotion of proper and hygienic utilization
   - Sustainable operation and maintenance of the facilities
   - Spontaneous (without external reminders) construction of new latrines and hand washing facilities when the existing ones get out of use.
   - The belief that it is unacceptable circumstances to have a school wihtout a good latrine and handwashing facilities.

Who are the target groups?

Primary targets:

- Community
- Extension workers , Chiefs
- Parish development committees (PDCs)
- School Science, male and female senior teachers,
- School management committees
- Parents teachers associations
- School pupils clubs such as health, environment conservation

Secondary:

- LC executives
- Distric local councils
- District Management Teams

4.3.1 What is Unicef doing in trying to meet the above objectives?

Table 4.3 summarizes Unicef s approaches toward community mobilization and behaviour change. In this section below the author has provided details of the activities that are being undertaken at the moment.

Teachers training: Unicef provides a training activity for primary schools teachers aimed at supporting the hardware component of the UPE sanitation activity by refreshing/reorienting teachers in sanitation and hygiene knowledge and skills in order to stimulate /motivate the teachers to change the sanitation situation in their schools. As attested the teachers already need to get the opportunity to upgrade their knowledge and skills obtained during their teacher training course. The training of teachers, to make them stimulated, motivated and enthousiastic promoters of sanitation is a key element for effective hygiene education and will include effective teaching methodologies, e.g. the use of participatory techniques. In order to order to bring about change or facilitate improvments in the water and sanitation situation, teachers will need to know how and where to apply for assistance, how to mobilise community members and how to get pupils motivated to practice good hygiene behaviour.

What are the specific objectives of Unicef's school teachers training activity?

- To share information on school sanitation project
- To update and refresh participants on the current status of school sanitation in the country and the importance of improved sanitation
- To assess and analyse the school sanitation situation and discuss solutions
- To give information with regards to the options available for latrines,handwashing facilities, use and maintenance
- To identify participatory and practical approaches and activities for the promotion of sanitation in schools
- To emphasize the importance of monitoring school sanitation activities
- To develop an action plan.

Participants: The female teacher, headteacher, and teacher in charge of health issues in each of the primary schools.

Length of training: One day teacher`s training.

School Sanitation campaign:

Unicef's school sanitation campaign is an attempt to inform, persuade and motivate sanitation and hygiene behaviours changes in school children by 2000. This is to be done by means of organised communication activities involving the mass media. The campaign will last one year and will be launched in July 1999. The mass media methods that will be used will be mainly radio, T.V., leaflets and posters. These activites will be complemented by interpersonal support from the sub-county extension staff and school teachers. The cmapaign will target children in primary schools especially those supported by the UPE programme and the Ruwasa project. The secondary target groups are the teachers,school management teams, PTA members, parents, local politicians.

What behaviours will be adressed?

- Community participation in the school latrine building programme
- Maintenance and use of the latrines
- Community participation in construction of handwashing facilities
- Handwashing after latrine use
- Proper management of refuse
- Reactivating school heatlh parades

- Formation of school science/health clubs
- Development of school sanitation plans

Politically driven sanitation promotion process:

Sanitation News: This activity is aimed at providing information, motivation and advocacy through the newspaper medium. A weekly page specificallyand exclusively for sanitation will be published. Stories from up-country will be especially encouraged and sanitation progress by districts will be published in formof league tables.

Market research on sanitation behaviours of rural communities:

The overall objective of the market research is to improve the sanitation status of all communities, especially school children. The specific objectives are:

1. To carry out research to assess positive images, appeals, sounds, words/phrases, expressions, sayings, colours, benefits that ugandans associate with hygiene and sanitation.
2. To write a marketing strategy for school sanitation promotion, complete with budget.
3. To design an appropriate media (radio, T.V, print) plan for school sanitation promotion groups complete with budget and plan for monitoring change.
4. Give input into the school sanitation campaign proposal

Outputs:

The research results with usable recommendations for positive sanitation promotion
Comprehensive marketing strategy for schools
Appropriate media plan for the school children and the general community
Constructive critic to draft communication campaign proposal

Target groups:

- Primary school children
- Primary school age children not in school
- Rural women
- Heads of rural households
- Politicians

Table 4.3: Unicef Approaches toward community mobilization and behaviour change

Activities	Target Group	Assumption for success
1. **Teachers training:** aimed at supporting the hardware component of the UPE sanitation activity by refreshing/reorienting teachers in sanitation and hygiene knowledge and skills in order to stimulate/motivate the teachers to change the sanitation situation in their schools.	• Female teachers • Headteachers • Teacher in charge of health issues in primary schools	• Teachers are genuily interested inimproving SSH issues, and consider it a priority • Funds and class time are available to carry the activites recommended with the children. • Teacher's pay situation and incentives issues are solved
2. **Sanitation campaign:** is an attempt to inform, persuade and motivate sanitation and hygiene behaviours changes in school children by 2000.	• Children in primary schools, especially those supported by the UPE programme and the Ruwasa project. • Teachers, school management teams, PTA members, local politicians.	• Access to information channels in rural areas will be available by most of the community • Local languages are used to reach everybody
3. **Sanitation news:** aimed at providing information, motivation and advocacy through the newspaper medium.	• Members of communities all over the country (Literate)	• The stories used are ones that most of the community could relate to.
4. **Market research:** the overall objective of the market research is to improve the sanitation status of all communities. Research will be carried out to assess positive images, appeals,sounds that ugandans associate with sanitation	• Primary school children, and out of school children • Rural women, and heads of rural households • Politicians	• Appropriate materials with relevant messages based on the market research are developed.

4.3.2 What is Ruwasa doing?

A look at the hygiene and sanitation situation in the RUWASA Project area indicates that there is a gap between the level of awareness and the level of practices. People in the villages are very familiar with the advantages of having latrines,the importance of washing hands before handling food and after using the latrine, but they continue to leave as before. People are also aware of the dangers of unhygienic practices, but they continue to practice them. The School Health Package is a process of instilling good hygiene behaviours and practices in children of primary school going age, the school teachers and parents in a participatory manner in order to bring about positive sustainable behaviour cahnge in hygiene and sanitation (Ruwasa, 1999). Table 4.5 tries to summarize the various activities undertaken by Ruwasa.

The package involves the following procedures:

- sensitization of the teachers and pupils through teachers training
- conducting participatory seminars including medical examination of the pupils to serve as an input for a dialogue with PTAs, Management Committees, Teachers and pupils.
- Selection and training of school health committees and School health clubs
- Sanitation campaign with Unicef

The strategies will be applied through the active participation of the bodies below in planning, implementation, supervision, monitoring and evaluatioon using participatory methodologies:

1. School Health committees
2. School health clubs
3. School administration

Table 4.4: responsabilities of different members of the school health committee

School Health committee membership and their responsibilities	
Headmaster	Over all administrator and chairperson
Science teacher	To coordinate and secretary
Senior woman teacher	Implementor
Head prefect	Mediator between pupils and administration
The chairman PTA	Resource identification and allocation
The chairman management committee	Mangement committee- member of the founder body
The chairman of health club	Pupil leadership
The chairman of RCI (where the school is located))	To bridge the gap between the schooland the community (immediate mediator)
The patron of the club	Member oand leader of the health club
The health worker and other extension workers	For technical advice

Responsabilities and roles:

A. School health clubs:

- The health club is the implementing arm of the school health committee
- The club will decide on the methods to use in carrying out these activities

B. The patron:

- The patron under the chairmanship of the centre coordinator, will be responsible for planning health club activities
- The patron will guide the pupils executive to carry out their duties
- The patron will write termly reports about the health club activities to the centre, coordinator through the headmaster

C. The school health committee:

- The school health committee will be the policy making body on all health matters in the school
- The committee will also identify resources i.e: funds and equipemnts for use by the health club

- The committee will prioritize activities to be undertaken by the Health club according to the school`s needs

Special attention will be paid to the main areas:

- Hand washing after visiting the latrine
- Improved operation and maintenance of the installed facilities (latrines, handwashing facilities and the school building)
- Personal hygiene (body and clothing)
- Environmental hygiene (domestic and the school surrounding)
- Use of safe clean water
- Maintenance of the safe water chain.

In trying to achieve the above objectives, diiferent activies will be undertaken, among which are:

1. Teachers training:

The training will be held for primary school teachers. The purpose of the training is to transfer knowledge and skills of participatory approaches needed for the promotion of positive hygiene behaviours among the teachers, pupils and parents. Through the training of teachers, it is hoped that the teachers will pick the appropriate means to transfer skills to pupils. In particular participatory tools are used to start the process of provoking participants to generate discussions pertaining to health promoting practices and activities. It is hoped that the trainings will expose both teachers and pupils to learning experiences and frank discussions addressing real life situations on the issue of hygiene education and sanitation in primary schools, to enable them to promote good behaviour practices through their active participation into the following activities:

- Health songs
- Drama and concerts reflecting on health issues
- Handicraft for income generation
- Health parades
- Poems, rhymes, stories, health news and carving
- Health essay writing competitions
- Health competition on personal hygiene and environmental sanitation.

By the end of such training, the teachers will have:

- Acquired basic knowledge about the operations of the school health package
- Developed approaches for involving primary school pupils in the improvement of hygiene and sanitation behaviour.

- Developed work plans for implementing the school health package in their respective schools

Participants: The target group will be the head-teachers, science teachers and senior women teachers. Three participants will be invited from each school and a total of 30 participants in any one training should not be exceeded.

2. **Conducting participatory zonal seminars for chairmen of parents teachers associations and management committee, chairmen sub-county health committees, chairmen sub-county education committees, sub-county chiefs and the LCI chairmen,using participatory tools and PRA:** This is meant to sensitize the decision makers. The ultimate purpose of the zonal seminars is to obtain the commitment of participants to improve sanitation and hygiene practices in primary schools.

Activities:

1. Review experiences of sanitation and hygiene activities in institutions
2. Review project objectives strategies and principles
3. Carry out a situational analysis of institutional sanitation
4. Explore links between water, sanitation and hygiene and diseases
5. Review options for institutional options for institutional latrine design
6. Identify roles and responsibilities of key players
7. Draw up an action plan

In the past this seminar was to identify the school's particular needs and come up with an individual package that would suit the needs of each particular schools. Now that Ruwasa is moving away from that approach , the school health package has already been designed and is standard for all schools, the seminar is mainly to identify the time schedules that activiites will take place at and whose responsabilities is what.

3. School sanitation campaign: (refer to section 4.4.1)

The school sanitation campaign is intended for both Unicef and Ruwasa aided districts.

Table 4.5: Ruwasa Approaches toward community mobilization and behaviour change

Activities	Target Group	Assumption for success
Teachers training: the purpose of the training is to transfer knowledge and skills of participatory approaches needed for the promotion of positive hygiene behaviours among the teachers, pupils and parents. It is hoped that teachers will pick the appropriate means to transfer skills to pupils.	• Female teachers • Headteachers • Science teachers	• Teachers are genuily interested inimproving SSH issues, and consider it a priority • Dialog between parents and teachers is installed • Funds and class time are available to carry the activites recommended with the children. • Teacher's pay situation and incentives issues are solved
School Sanitation campaign: is an attempt to inform, persuade and motivate sanitation and hygiene behaviours changes in school children by 2000.	• Children in primary schools, especially those supported by the UPE programme and the Ruwasa project. • Teachers, school management teams, PTA members, local politicians.	• Access to information channels in rural areas will be available by most of the community • Local languages are used to reach everybody
Zonal seminars: The purpose is to obtain commitment of participants to improve sanitation and hygiene practices in primary schools	• PTA associations and school management committees • Health committees • LCI	• Participants are genuily interested to improve SSH situation. • Participants are truly aware of the problems in the schools

4.4 Identification of the gaps

Both Ruwasa and Unicef have very similar approaches to behavioural changes and community mobilization. However there are a few gaps that are likely to jeopardise the benefits of the actions that they are undertaking at the moment and there are listed below. In Chapter 5 proposals are set out for filling these gaps:

1. Sources of information are too many

The Ministry of education and Health, Unicef and Ruwasa do not work together to disseminate materials and information to schools. Even though the importance of educational materials is highly recognised by most of the stakeholders, there is not a uniformity in distributing the few ones available.

2. Teacher's motivation and incentives

Both Ruwasa and Unicef do not focus on reinforcing the teacher's motivation and incentives for motivating the children. There is a need to uplift the roles that teachers play and sensitize the community about their crucial roles

3. Need for parents'involvment and sensitization

There is a need to install a dialog between the parents and all the other stakeholders involved in improving school sanitation. The parents at this stage are not well informed about the policies inplace and their responsabilities in regard to their implementation.

4. Targeting the mother who plays such a crucial role in the children's education.

Women in Africa have a huge impact on children's adoption of new behavioural habits. There is a need to adopt a strategy that will include sensitization of the mother.

5. Build on what has already been done for the promotion campaign against cholera

The community including the children have been extremely sensitized by the cholera campaign in 1998, and there is a need to build on these knowledges rather than disseminate different informations.

6. Formation of school health clubs and ensuring that there are actually working.

It is being said that there is an emphasis on formation of school health clubs, but many of them are still inactive and very often inexistant.

7. Missing on user friendliness

The whole approach does not talk about the need to make the whole approach more attractive to children. This is the only way to turn their knowledge into habits, after being reassured that the facilities in place are the best for them. .

8. Supply Driven Process

There is no sense of ownership. This is illustrated by the way that many people were treating the facilities. Both Ruwasa and Unicef are not emphasizing enough on the importance of ownership of the facilities, which explains the poor state of the facilities and therefore does not encourage their proper use. The communities are not involved in any of the decision-making over different potential choices. The communities are not given a choice over which facilities, even though their priorities are clearly stated.

CHAPTER 5: PROPOSED SUGGESTIONS TO Fill THE GAPS:

In chapter three and four, the author tried to analyze the problems that primary schools face in terms of the poor provision of facilities and the poor hygiene behaviours. Unicef, Ruwasa and the Government are currently trying to meet the needs for improved sanitation expressed by thousands of government schools that experienced an increased enrollment due to the implementation of UPE. However the challenges in trying to meet the needs are enormous and the author will attempt in this chapter to put froward some suggestions that could be further developed and implemented. Those recommendations are meant to eventually supplement the existing approaches in SSH in Uganda.

5.1 Proposed solutions to the problem of provision of facilities

In Chapter three the main problems associated with the approaches taken to solve the issues of facilities were:

- Low coverage in the country. Many schools in the country are in urgent need of some sort of facilities.
- Technical suggestions are not sustainable and are not children friendly.
- There is very limited community participation in the whole process and the approaches do not foster self-reliance.
- There are no choices offered to the community in terms of the different types of technologies available.
- The priorities expressed by the schools, students and communities are not sufficiently taken into consideration when deciding which facilities to offer to the schools
- There are no facilities planned for the teachers to model the correct behaviours to the the students.
- There is no plan to rehabilitate the existing facilities
- There is no quality control set for the construction of facilities

In response to these gaps outlined by the author, the following suggestions are being provided. These suggestions are to be still analysed and tested to the cultural and institutional constraints of Uganda before being incorporated:

1. **More coverage:** There is an urgent need for more donors and NGO involvment in the sector. At the moment there is not even half of the country's schools that are actually being delt with. The facilities are not enough and there is a high risk of epidemics if the sanitary conditions remain this low. Policies like UPE needs to be encouraged, and it is in the interest of the government to ensure that the implementation of this policy does not turn into disaster and increase morbidity levels in the country

2. **Demand Responsive approach :** There is a need to move from the package offer to a much more demand responsive approach where individual needs are actually met. Each school has a distinctive need that is not to be resolved by the sole provision of ten stances of latrines and handwashing facilities. The schools very often have their own priorities that do not have to be in conflict with the help that they are likely to get from donors. Very often water in schools is a top priority. The lack of the provision of a reliable of safe water source is likely to undermine the benefits expected of the projects.

3. **User friendly services:** There is a need to emphasize provision of user friendly services. The services need to have an attractive appearance in order to enhance their participation. It is also important to come up with a design that could be provided for disabled students. Often paint and writing special messages on walls can turn facilities into more appealing facilities more likely to be used.

4. **Integrated approach:** There is a need to have a more integrated approach so there is not a dysfunctional programme that provides latrines to schools without appropriate classrooms. One government department can not solve all the problems, neither can the WES department of Unicef. To solve this problem, a multi-sectoral approach is needed. Meetings need to be arranged to enhance the participation of the different government departments and basic education and Health section in Unicef.

5. **More technology choices**: In terms of technologies that offer more sustainability, the author examines in the following section three options that could be adapted to primary schools needs. These technologies have been selected upon their sustainability and their upgradability possibilities. In terms of upgradability, the author is talking about turning the superstructure into something more attractive, more convenient and more comfortable in the future. It is important to emphasize upon the fact that more research is to be carried out to find out wether culturally these technologies are susceptible to be accepted and also wether they would actually be cost efficient.

Review of the problem:

The proposed traditional toilets bring about challenges on the sustainability side. The main problems faced are the construction of latrines that cannot be emptied because they are not lined. There are also some problems because of the high water table in some areas,that can be overcome by realtively simple changes in design and speicification. Operational problems would also reduce if latrines were better designed and there sould subsequently be a need for consumer education. The whole point to the changes is that they should not increase significantly cost. The challenge will be to produce a design that is affordable for the majority of the community. Constructing anew pit latrines is a major investment for primary schools in rural areas. Any changes in design will appear, at first to increase the cost. The challenge will be to persuade people that the increase iN cost is worth the investment and consider ways of supporting communities and schools that cannot affrod the cost involved, or that the new designs do not increase the cost.

At the moment, the idea associated with the provision of latrines is the fact that parts of the superstructure are reusable and that the schools might be able to dig a new pit once these pits are full and rebuild the superstructure.

Uganda's primary schools face many problems from constructing a pit in areas of rock, high water table and collapsing sand which makes the cost, or effort ,of digging a pit exorbitant. Also the problem of empyting pits has not been solved. The result being that when the pits are full, they are moved to a new site, where parts of the superstructure are reused (see table 5.1). This is likely to undermine the likelihoods of the whole project as behavioural change takes time and there will be no latrines after 5 years.

Table 5.1 shows the details involved with latrines, urinals, handwashing facilities, rainwater tanks construction, at the moment. The table shows the parts that are reusable at the moment. Self- reliance and sustainability are concepts that are closely linked to maintainance and replacability. There is a need to supply the schools and communities with facilitties that they can maintain and duplicate later on after the assistance has been removed

Table 5.1: detailed description of packages offered in terms of contribution and capacity to reuse.

Description of activities	Funding source	Reusable
1. Latrines in primary schools + urinals + handwashing facilities		
Clearing site and pit excavation	School/community	No
Burnt bricks	GoU/Donor	No
Sand	GoU/Donor	No
Aggregate for walkways and splash apron	GoU/Donor	No
Hardcore for urinal soakaway pit	GoU/Donor	No
Roofing poles	GoU/Donor	Yes
Corrugated iron sheets	GoU/Donor	Yes
Hoop Iron	GoU/Donor	No (??)
Door frame, shutter and locking bolts	GoU/Donor	Yes
Wire and roofing nails	GoU/Donor	Yes
Portland cement	GoU/Donor	No
Skilled labour: Masons	GoU/Donor	No
Unskilled labour: porters	Community	
Reinforced concrete slabs	GoU/Donor	Yes
Handwashing facility	GoU/Donor	Yes
2. Rainwater tanks		
HDPE tank (10cu.m)	GoU/Unicef	Yes
Guttering	GoU/Unicef	No
Construction of platform	Community	Yes
3. Training of science teachers in support of sanitation and hygiene education in primary schools		
Out of pocket allowance	GoU/Donor	No
Transport refund	GoU/Donor	No

The challenge is to come up with a technology that is as affordable as reusing the parts offered in the package. Table 5.1 outlines that there would be quite a loss to the construction of new facilities, because of the initial investment. The approaches are not fostering self reliance, because the community and the schools would not be able to afford

the complete building of a new set of facilities. These alternatives suggested need to be approached using operation and maintenance schemes involving teachers, school children, parents, NGO's and local government authorities.

Alternatives solutions that could reduce some of the problems

A. Ecological sanitation (Urine diversion)

One of the alternatives to sustainability of facilities, is the introduction of urine diversion. The following discussion is based on the South African experience. Similarly to South Africa, Uganda's primary schools face many problems from constructing a pit in areas of rock, high water table and collapsing sand and the problem of emptying pits. which makes the cost, or effort ,of a digging a pit exorbitant. Also the problem of empyting pits has not been solved. There is the risk now that there is no mechanism in place to empty them and new pits are not being built. Austin and Holden (1999) stated that urine diversion (or ecological sanitation as it is called in other areas) was perceived as providing some of the answers to this problem. The urine is kept separate from the faces at source and diverted inot a french drain or sotred for use as feritilizer. The faeces drop into a vault below the pedestal and dehydrates. After beign stored for sufficient tiem to ensure destruction of pathogens it can be disposed of in a pit or used as soil conditioner. Secondary composting is sometimes required to ensure that this occurs.

Figure 1 has been developed and used in South Africa , it shows a schematic view of a dry box urine diversion toilet.

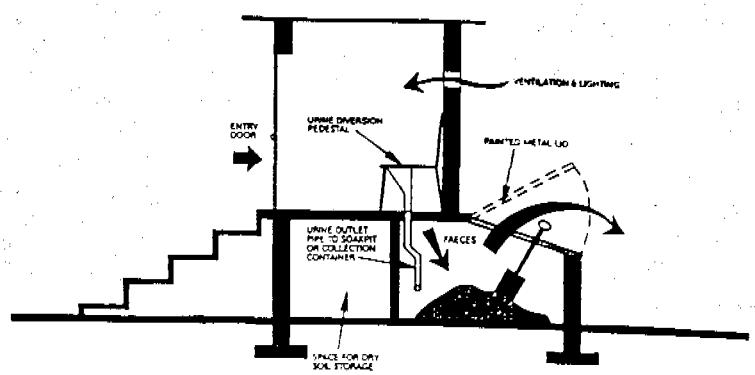


Figure 1: Dry-box toilet (source : Austin (1999))

The author understands that there are many cultural taboos and beliefs that need to be addressed if this new technology were to be introduced. Among the problems are :

- The development of a suitable squatting slab which allowed urine diversion if it were to be introduced in rural areas of uganda, as squatting is the common practice.
- The cultural issues of which cleaning agents that are susceptible to be used in this new technology.
- The cultural issues of the use of the urine as a a potential fertilizer, is it going to be acceptable?
- The issues of emptying still has to be considered as it has to be consideredwether the community is ready to empty the vault.

B. Lining the pits and promote emptying of latrines when they are full

This second recommendation is about improving the designs of the latrines at the moment. The pits need to be as deep as possible so that the time between emptying is maximised. The pit must be fully lined so that the walls do not collapse when it is emptied. The superstructure should be slightly offset from the pit to accommodate emptying or the squatting slab constructed in segments so that it can be removed. There is need to promote emptying the latrines that are full., or parents and schools can raise money to hire mechanical emptyers or to pay for it to be done manually.

C. Prefabricated superstructures for latrines

Another alternative to the problem of latrines is comingup with a superstructure which could be prefabricated and would just be transported to the new pit. For rural areas, this seem to be a very good soultion because of the space that is available, and also the fact that it seems to be reinforcing the current practice. The biggest challenge would be to know whether it is good to promote the practice of moving latrines every time it is full. This pre-fabricated VIP latrine (PVL) superstructure has been developed in Hoima by Cadam Enterprises.

Description:

A prefabricated VIP latrine (PVL) is made up of pre-castreinforced concrete slabs, panels and columns which can be assembled over the pit of a pre-prescribed dimension at the site of construction. It can be assembled as single, double or multi apartmentéstance,depending on need. The detailed designs of the vairous components and dimensions are enclosed in annex 7. Figure 1 shows the various component of a 2 stance. Figure 2 shows the various standard dimensions of a PVL.

Floor: The floor is made up of a pre-cast reinforced concrete squart slabs size 110cmx130cm. Ventilattion is via a hole in a reinforced vent slabs on which 4`` diameter x 3m vent pipes sit.

Walls: the walls are made up of reinforced pre-cast panels fastenedéjoined together on pre-cast and reinforced concrete columns by hooks and brackets.

Roof: the roof is made up of pre-cast reinforced concrete panels joined together by use of speical GI channels.

Doors: Wooden doors with necessary accessories tower bolt, aldrops, etc.. are provided and finished to the colour of choice to make it more children attractive.

Pit dimensions and foundations: the depth will depend upon the number of stances and on what can be afforded depending on the geology of the area. Before installation of the PVL superstructure, a firm foundation using etiher stones or bricks is constructed around the pit.

Assembly: With experienced technicians,the assembly could take less than two hours provided the foundation exists around the pit.

Suitability:

1. The PVL is very suitable for institutions like schools where due to a large number of users, pits fill up quickly and call for frequent repalacemtn especially if faciliteis for emptying the pits do not exist, which is the case for numbers of rural areas schools.
2. PVL are also suitable for areas where deep pits may not be constructed requiring frequent construction of superstructure.

Potential benefits for schools:

1. Long term investment: there is only one initial expenditure because the superstructure can be dismounted and reassembled over another pit when the former fills up.
2. It reduces the construciton period asti can be assembled in only a few hours.
3. It reduces the supervision time during construction

4. Does not require much expertise to assemble on the site.
5. Maintenance costs are low as concrete work is durable and withstands pit latrine acidic conditions
6. It guarantees standard dimensions, design and workmanship
7. It is easy to clean as concrete slabs, panels and columns are impervious.
8. It saves on transport costs for materials and supervision
9. In case of projects, centralized production ensures materials and quality control
10. Avoids useless and unsightly superstuctures which cost money to demolish
11. Spares are readily available in case of extensive damage to any panel.
12. For large orders, casting can be done close to the areas of supply
13. No smells and flies.

Disadvantages to consider if to be applied for schools:

1. People have to get used to it
2. Large initial costs
3. Training of local people to ensure maintenance and repairs

6. **Quality control and training of locally based masons:** Improved designs will only be effective if a demand can be created for their use and the skills are available locally for their construction,operation and maintenance. There is a need for a qualtity control measures. The locally based masons need to be trained and the school must be aware of which standard to follow up on. There has been no training programmes in the area to date so contractors continue to use traditional designs and construction methods. The implementation of institutional latrines has been problematic, for both the school latrines and health unit latrines. The qualtiy of construction necessitates rectification (COWI;1999)

7. **Planning of teachers latrines:** It is asumed from everybody that the teachers are the role models that the children are supposed to follow, however often there are no sanitation facilities planned for their own needs. It is important to think about them as they are part of the whole SSH process. The lack of private sanitary facilities for teachers is a contributing factor to fewer women teachers, who are needed to encourage girls to attend school (Doyle, B.A, 1995).

8. **Rehabilitating the facilities in place:** the author believes that there is room for improving the facilities already in place in the schools, school communities can be involved in upgrading what they already possess. Often the problems are minor construction defects like roofing, or allowing more space in the latrines to allow movement. Windows and lighting can be increased.

5.2 Proposed solutions to the poor hygiene behaviour

The main gaps identified by the author in the approaches taken at the moment to deal with the behavioural changes in primary schools were:

- There is no strategy linked with the need to reach out to the mothers as key resource persons.
- There is a need to uplift the role that the teachers play and give them the means to do their jobs properly.
- The approaches taken are not children friendly enough to reassure and motivate the children to adopt new behaviours
- The approaches do not focus enough on getting reinforcing factors like school health clubs functioning.

The following suggestions have therefore been developed in an attempt to solve some of the gaps identified earlier:

1. Emphasis on mothers and the girl child: They are the one that are most susceptible to help the reinforcement of new hygiene behaviours that the children pick in the school There is a need to improve the hygiene practices of school children's families with an emphasis on mothers. There is a need to organise and sensitize local womens groups and community leaders on hygiene. The emergence of organised community groups, in line with the objectives and strategies proposed by the projects could be a a potential catalyst to increase community awareness and participation in school rehabilitation .Women are usually good at organising themselves. If the mothers could meet and report the new behaviours that they have noticed in their children. Most of the girls in rural schools are pulled out of school after primary schools and are married and expected to fulfill their

duties as mothers and household carers. It is important at that stage that a domestic science course is introduced with the mothers and daughters to show them how they can preserve the health of their younger brother and sisters. Emphasis on mother's participation contirbutes to empowerment, opportunities for active women,role models for girls and a context for the need for girls education (Doyle, B.A. ; 1995). Local women's group could help in developping a community school , meaning that they would be invovled in the extra-curricular activties to be undertaken by the schools. The significant feature of the communty school is that much of the curriculum is village oriented. The school and the village have a mutual existence. Students are required to keep track of the health activities they do at home. The aim of the domestic science course was to see to it that children appreciated cleanliness, set higher standards of home life and acquired knowledgeans skills and definite ideas pertaining to the running of their own home and the development of the community at large (Mnzava I.A, 1980).

2. Focus on the teachers: From rapid assessment using focus group discussions in primary schools,it was learned that basic hygiene practices (defecation and handwashing) of most teachers are poor. This poses an extra challenge for the implementation of the initiative. In this regard the importance of teachers as role models has to be revisited, considering that a major effort should be made in the reinforcement and improvement of teachers behaviour. The current primary school curriculum includes hygiene education matereals and although school children are quite aware of the messages and correct practices. However the limited reinforcement mechanisms undermine the results. In the focus group discussions with teachers and schoolchildren, they were all unanimous in identifying as major constraints issues realted to sustainability (water and cleaning materials costs). Teachers should be required to set a good example for the community to follow in terms of proper dress, healthy family surroundings around the home and active participation in community affairs, however this can not be achieved if the teachers do not have the means to do their jobs properly.. However, there is also a clear sense of increased responsibility from the perspective of school administrators,teachers and school children, as they identified as a major impact of the interventions: I) better hygiene practices at the individual and collective level; and ii) improved work environment. There is a need to sensitize the government officicials to pay the teachers on time, to

ensure that they are motivated to do their jobs and therefore for the nation to have an enlightened students community (Unicef, 1999).

3. Collaboration in activities: the coordination of the activities is to be considered as crucial for the success of the interventions. Previous campaigns of sensitization have been led to reach out to communities and schools, they should be build on. A close collaboration of the different actors involved in SSH is a key factor to achieving an effective project implementation and sustainability, among which are:

1. central, district and school level structures of the Ministry of Education
2. central, district level structures of the ministry of health
3. National and local NGOs
4. Ruwasa staff and Unicef (WES)staff

4. User friendliness of services: Behavioural development aims to influence and shape attitudes and habits that can lead to a life-time of healthy living. Achieving this behavioural breakthrough means moving beyond the social mobilization of the easily reached and convinced. Instead, what is required is a programmatic and communication thrust that focuses first on children. Media for, by and with children are at the center of the new communication strategy. Primary schools can become a natural focal point for reaching the child, and the wider community (Bajracharya D., 1998). The author wishes to suggest that the campaign personality could be centered around a character that is recognizable by children. A campaign personality, in the form of a cartoon character could be developped. This friendly, funny character will be intergral to the campaign, creating a visual linkage between the various packages. His/Her appeal to children and adults, based on the development of a personality rooted in a firm understanding of social and cultural norms of Uganda, which will help to ensure the popularity of the campaign. This should enable older children to model correct behaviour through 'child-to-child' activities.

5. **Active school health clubs**: The majority of teachers are not familiar with activity based learning and the existing teaching method healvily relies on rote learning. This Health club curriculum is based on a "student-centered" activity approach which uses

teaching leraning materials and dynamic group activities. Teachers, who are not used to this type of teaching method are being trained by the Unicef and Ruwasa approaches. However, there should a clear understanding of the activities that a school health clubs should undertake. It will possibly be best to have a teacher to oversee the creation and functioning of the school clubs.

Some of the activities can include:

- Students checking each other for personal hygiene
- Organizing extracurricular activities such as essay competitions, quiz contests, plays and dramas, songs, debates, radio programmes, etc.
- The clubs could carry out home vistis in wards,households, nursery schools. The school health clubs need to be trained by a motivated teacher.
- The clubs can keep monthly monitoring statistics on hygiene and see that classes, sanitary facilities and the school environment.

6. Choices for community: The lack of choices turns the community to have a negative attitude towards the facilities in place. They do not have a sense of ownership and do not respect the facilities in place. This affects the attitudes of the children towards the facilities which they will not hesitate to foul. Although communities were consulted and were involved in the process, in this particular case only in digging the pits and the decision making and controlof resources were handled by outsiders. Thus the concept of self-help, local decision-making and control over services and ressources –ther essence of empowerment- lay elsewhere. Involvement and consultation is only the first step towards full participation and empowerment of the community (Duncker,1999).

7. School feeding program: It has been noticed that children often stay in schools in rural areas to have lunch, often with the contribution of parents and surrounding communities. The African culture is such that it is impossible to deny food to the students whose parents have not contributed to the school lunch. Mnanza (1980) from Tanzania talked about this new policy that would stress feeding school children from whatever resources were available locally instead depending upon outside aid. This meant that the school and the local community had to produce food for the school feeding program. To help meet the goal of this Tanzanian program, each school in rural areas

had a garden where the students work 5-9 hours each week aspart of their school and extracurricular activities in order to supplement other available food resources for the midday meal at school.

8. Reinforcement of sanitation activities: In order to deal with the sustainability of the maintenance activities of the sanitation facilities in the schools, it is important to focus upon the clarification of roles and responsabilities in the schools. It is also important to get the political heads sensitized to the whole process. They are the decisionmakers regarding allocation of funds and staff time to sanitation improvement The political heads should be encouraged to visit toilets whenever school visits are conducted.
There is also a need to develop material for health officers to promote sanitation and abe able to support the schools with their expertise (Mqadi N,1999). This material should be linked to the classroom material used by teachers and should have the same cartoon characters mentioned above. Teachers should be free to call these officers whenever they need assistance in sanitation matters. These officers need to be sensitized by their deparmtment to act appropriately in providing support

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The recent implementation of the Universal Primary Education policy which entitles to all school age children the right to free primary education has caused the enrolment of students to double often triple in some schools. This sudden increase has put enormous pressure on the few existing facilities. The study has analysed the problems of the poor provision of facilities and poor hygiene behaviours in primary schools. The study has then reviewed the approaches taken by Ruwasa, Unicef and The Governmentin trying to meet these urgent needs. The study then identifies some gaps that are likely to jeopardise the benefits of the actions. The study then provides some recommendations that can be developed and implemented to fill in the gaps outlined.

6.2 Conclusions:

The following conclusions were found from the study:

1. There is a need for more donors and NGO's involvement in the sector. There are still many more schools that need some sort of facilities.
2. There is a need to include the mothers in some of the sanitation promotion activities and the mass campaign.
3. There is a need to improve on the technological options proposed to the school. The technical options need to be sustainable.
4. There is a need to increase community participation and involve them in choosing the options to their schools.
5. There is a need to clarify the responsibilities of the people in the schools. In all schools, it is clear who cleans the classrooms and to some extent the school yard but not the toilets.
6. There is a need to focus on the maintenance issues of the facilities.
7. There is a need co-ordinate the activities and learn from the different parties involved. Meetings and in job visits among Ruwasa and Unicef should be organised.

6.3 Lessons learned from the Ugandan experience:

Lessons are to be extracted from the successes and weaknesses of the Ugandan approach:

- Political support in favour of sanitation is essential to the success of SSH.
- Schools have to be considered in a holistic perspective , where classrooms, urinals, latrines, handwashing facilities and water supply sources are all classified as sanitary requirements
- Teachers can be overestimated as role models,and schoolchildren's knowledge is often being ignored
- Good awareness level of hygiene issues does not ensure behavioural change
- Focus group discussions, considering gender sensitivity were effective in understanding hygiene practices.
- High level political commitment established through advocacy by Unicef and Ruwasa is the key to successful implementation of SSH interventions
- SSH is not a problem that can be tackled by one ministerial department. SSH programme provides one of the ideals and rare opportunities for different departments to learn about each other's systems, which may affect their work.
- SSH needs a multi-sectoral approach where education, nutrition and health are linked to water supply and sanitation.
- Training of teachers should train at least one of the female teachers in each school , as they are more susceptible to open a communication line with the young girls in schools.
- The willingness of the schools, students, school management teams, and teachers especially headteachers to take part in such programme is crucial.

6.4 Recommendations for further work

There are several areas that need further investigations to ensure the sustainability of SSH actions in Uganda and in other parts of the world:

- Research and development for wider and more affordable technological options. The development of new options accompanied by their costing will help the schools and communities to chose options that they are most likely to afford and maintain.

- Research is needed on sanitation and hygiene education in schools to generate adequate data for advocacy, planning and development of learning materials related to hygiene education and practices.
- Research is needed to find out whether the messages delivered to children are actually channelled through to parents and other members of the community. There is no research being done on the message delivery and the effectiveness of children to pass on key messages to their parents
- Research is still needed to develop strategies for school sanitation and hygiene promotion that will emphasise on the need to involve and reach out to mothers. They are often in charge of inculcating to the children the hygiene habits at a very young age. They are also the key people in reinforcing or rejecting new messages that children will bring home.
- Research is also needed in finding out how to provide more children friendly sanitation services.

REFERENCES :

Almedom, M. A., Blumenthal, U., & Manderson, L. (1997) Hygiene Evaluation Procedures : Approaches and Methods for Assessing Water-and-Sanitation-Related Hygiene Practices. International Nutrition Foundation for Developping Countries (INFDC). United Kingdom.

Asingwire, N. (1998) A baseline survey : Sanitation and hygiene in primary schools in the rural water and sanitation (Ruwasa) Phase II project area. Final consultancy report submitted to Ruwasa. Unpublished report.

Austin L.M and Holden, R.D. (1999) Introduction of urine diversion in South Africa. Integrated development for water supply and sanitation. Paper presented at the 25th WEDC conference, Addis Ababa, Ethiopia, 1999.

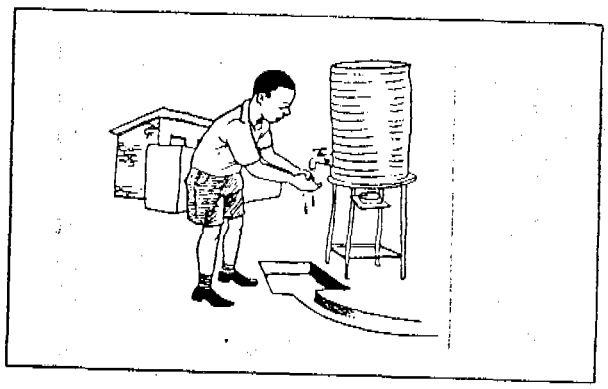
Austin, L.M., van Vuuren S.J.(1999) Case study : Urine diversion technology. Integrated Development for water supply and sanitation. Article presented at the 25th WEDC conference. Addis Ababa, Ethiopia.

Bajracharya, D. (1998) Executive summary : Communication and Social mobilization in Bangladesh : Behavioural Development in Sanitation, Hygiene and Safe water use. Unicef Bangladesh.

Boot, M.T. (1993) Using hygiene behaviour indicators in water, sanitation and hygiene education in water, sanitation and hygiene education projects. Discussion paper for the Unicef workshop on improved sector planning for health and socio-economic benefits 21-22 April 1993. International Water and Sanitation Centre (IRC). the Hague, the Netherlands.

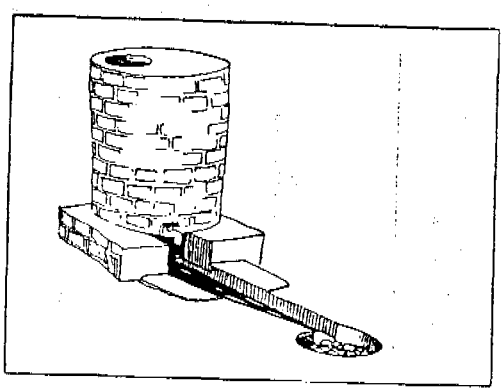
5.3 Handwashing facilities

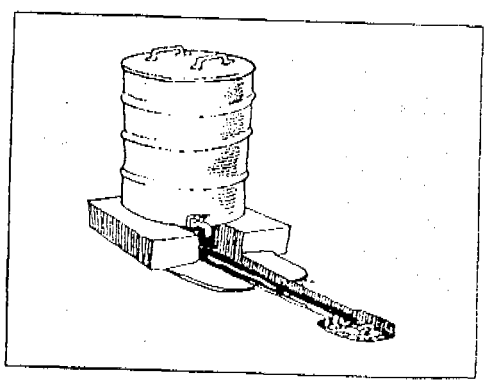
The best and most effective way to stop the spread of disease is for the pupils to be taught to wash their hands with soap after using the latrine and before eating food. Washing hands with soap and plenty of water removes germs. If soap is not available, ash is a good substitute for washing hands.

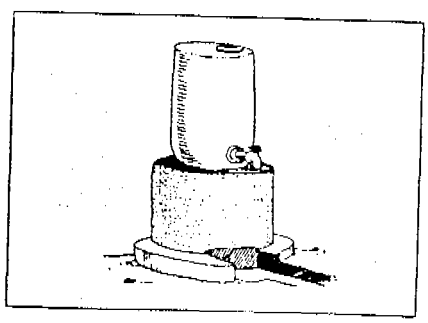


A hand washing facility should be provided next to the latrine for easy access. It could be any of the following:

- A drum fitted with a tap and mounted on a concrete platform
- A small brick tank, fitted with a tap
- A plastic 20 litre jerrican or tank
- A cement tank, big pot/jar (rainwater or filled regularly)







Cadam Enterprises (1998) Pre-fabricated VIP latrine (PVL) superstructure. Unpublished document. Hoima, Uganda.

Carasco, J.F., Munene, J.C., Kasente, D.H.,& Odada, M. (1996) Factors influencing effectiveness in primary schools : a baseline study. Uganda National Examinations Board, Kampala.

Cowi (1999) Rural water supply and sanitation eastern uganda Project pahse IIB. Component Appraisal Report, Draft. Unpublished report. Mbale,Uganda.
District Local Government (1999) Construction of primary school latrines. Unpublished contract document. Uganda.

Doyle, B.A. (1995) Increasing education and other opportunities for girls and women with water, sanitation and hygiene. New York, NY, USA, Unicef .(Paper based on issues raised by the author during the Unicef meeting on education for all, New York, September 1994)

Doyle, B.A. and Faule Doyle, R.C. (1998) Uganda-Keeping a country clean through its schools and communities. Unpublished article. Unicef Uganda.

Duncker, L.C. (1999) Divisons of Building and construction Technology, CISR. Johanesburg, South Africa.

IRC (1998) Notes and News on School sanitation. No.1,1998. International water and sanitation centre, the Hague, the Netherlands.

Kamfut, M. , Olayiwole, C. and Agberemi, Z. (1998) Water and Environmental Section in schools. Case study presented at the Unicef Workshop on Environmental Sanitation and Hygiene, New York, June 10-13, 1998. NY, USA.

Lipholo, M (1988) Community participation in upgrading of school sanitation in Lesotho. Pgdip research project. Water, Engineering and Development Centre. Loughborough University.

Ministry of Education (1997) Universal Primary Education in Uganda, a summary of responsibilities and policies. Unpublished report. Uganda.

Mnanza, I.A. (1980) Primary School Health Education in Tanzania. In Sanitation for developing countries. Proceedings of a workshop on training held in Lobatse, Bostwana,14-20 august 1980. IDRC, Ottawa, CA. Pages 75-78.

Morgan, J.(1998) On site sanitation. Unpublished consultancy report done for Ruwasa. Uganda.

Mquadi, N. (1999) Integrated school sanitation programming. Integrated Development for water supply and Sanitation. Paper presented at the 25th WEDC conference in Addis Ababa, Ethiopia 1999. Water, Engineering and Development Centre, Loughborough University, UK.

National Sanitation Task Force (1998) The national Environmentatl health policy for Uganda. First draft. Unpublished report. Uganda.

Ngaiza-Rutega, I. (1999) An assessment on the exisiting hygiene practices and sanitation facilities in primary schools in Uganda. A baseline survey report. Final report of a unicef consultancy. Unpublished report.

Ruwasa (1997) The School Health Package, partnerships in Implementation. Unpublished report. Mbale, Uganda

Ruwasa (1998) Trainers guide for behaviour change in primary schools. Draft. Unpublished report. Uganda.

Ruwasa (1999a) Guidelines for implementing institutional sanitation. Unpublished report. Ruwasa Uganda.

Ruwasa (1999b) Job Guide for masons involved in the construction of Institutional latrines. Ruwasa. Mbale,Uganda.

Unicef (1997) Better Sanitation Programming, a Unicef handbook. A joint publication of unicef`s Water, Environment and Sanitation cluster (programme division) and USAID`s environmental Health Project. Washington, USA.

Unicef (1998) Water and Environmental Sanitation programme, 1998 Progress Report. Government of Uganda-Unicef country programme 1995-2000. Unicef Kampala.

Unicef (1999a) School Sanitation, Mobilisation information for district leaders.Unicef Kampala.Uganda.

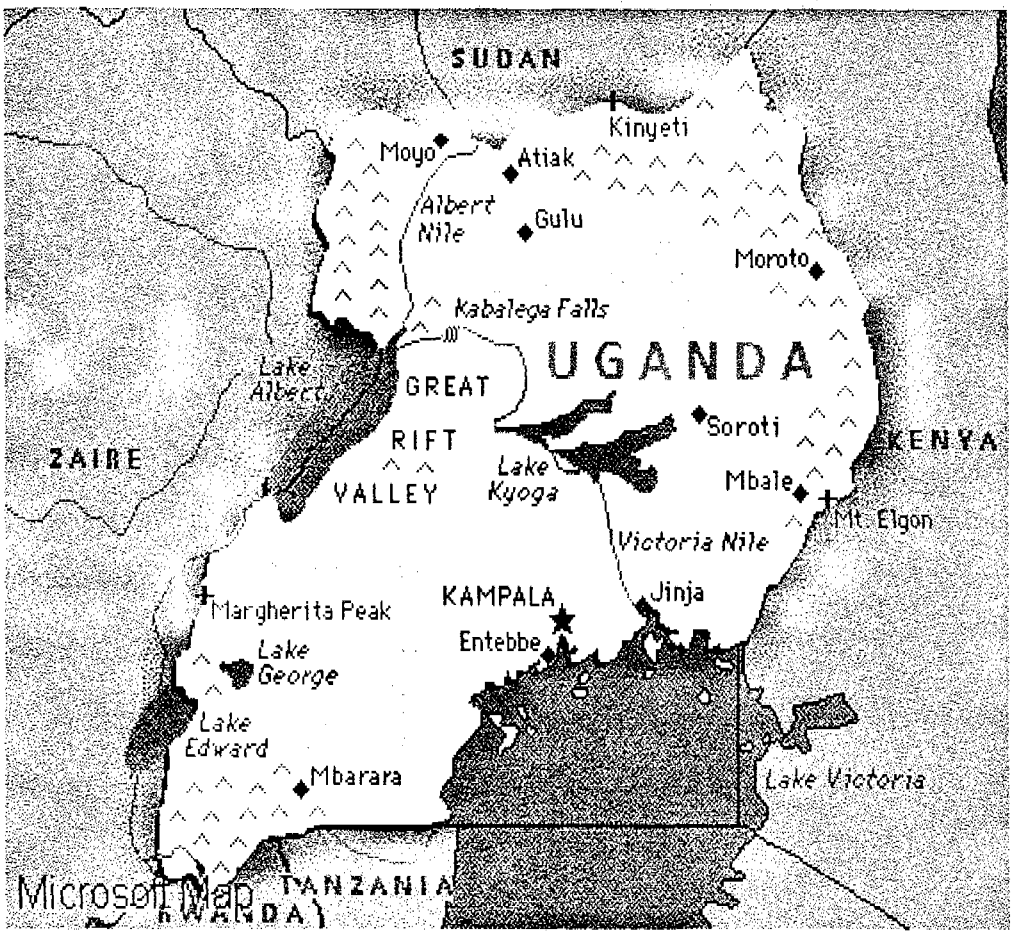
Unicef (1999b) Sanitation promotion, What teachers need to know. Draft. Unpublished report. Kampala. Unicef Uganda.

Unicef India (1987) Promotion of sanitation in primary school. Unicef India, New Delhi, India.

Unicef India (1998) School Sanitation booklet. Unicef India, New Delhi, India.

Annex 1: Field Informations

1. Map of Uganda



Source: Internet maps

2. Sample of the questionnaire run in the schools to assess sanitation and hygiene status :

Questionnaire to assess basic Sanitation Situation in Schools:
Name of school:

Please keep in mind your own school when filling in this questionnaire!!!

1 How many students are in your school?

Female = male = total number =

2 Do you have a latrine in your school? Yes ☐ No ☐

3 How many stances are in your latrine building? Stances =

4 Do you provide anal cleaning materials in the latrine? Yes ☐ No ☐

5 What type? Paper ☐ Leaves ☐

Other (specify) _____

6 Do you have urinals in your school? Yes ☐ No ☐

7 Do you have separate facilities for boys and girls? Yes ☐ No ☐

8 Is there special hygiene education for girls? Yes ☐ No ☐

9 Do you have a hand-washing facility in your school? Yes ☐ No ☐

10 Is soap/ash provided? Yes ☐ No ☐

11 How often is it provided? Morning - Midday ☐ Mid-day - Evening ☐ Whole day ☐

12 How many times does your school organize parades? daily ☐ weekly ☐

monthly ☐ yearly ☐

13 Do you collect your refuse? Yes ☐ No ☐

14 If yes, how do you dispose of your refuse? Burying ☐ Burning ☐

Other options (Specify) _____

15 Where do you get drinking water from? Protected spring ☐ Tap ☐ Unprotected Spring ☐ Borehole ☐ Well ☐

(Specify)_____

16 How do you keep your latrine clean?

Smoking ☐ Sweeping ☐ Washing with water & soap ☐

Washing with water but no soap ☐

Other (specify) _____

17 Who cleans the latrine? The girls ☐ The boys ☐ Other (specify)

_____

18 Who keeps your school environment clean?

Students ☐ Teachers ☐ Hired porters ☐

Any other option ☐

Structured Interviews to Project officers of Ruwasa and chief of WES at Unicef :

It is important to state that even though the questions were in this order, very often they were not being answered in that order.

Question 1 : To which extent is Ruwasa/Unicef involved in SSH in Uganda?

Question 2: Can you describe the package that Ruwasa/Unicef is offering to the schools?

Question 3: How do you involve communities in the process?

Question 4: Do your consider your facilities to be :

- Sustainable
- Children-friendly
- Gender-sensitive
- Environmentally-friendly
- Upgradable

Question 5: Are private contractors hired for the job?

Question 6: Do you have a software package accompanying the facilities offered?

Question 7: What gaps are there between what you are offering and the needs that exists?

Question 8: What do you think is still needed to complete your package?

2.1 Summary notes of the meeting at Ruwasa

Participants:

Hellen Obuya Unit 1 head Hygiene and sanitation

Patrick Tajjuba Sanitation officer

Ruwas is involved in sanitation in three main ways:

- Households
- Institutional sanitation (Schools and hospitals)
- Hygiene Education

Ruwasa assists 50% of schools in each of the 7 districts.

School contribution was 61% and was responsible of :

- Excavation of pit
- Local available materials
- Labout

Ruwasa gives 39% of all costs in terms of :

- 1 slab
- 1 bag of cement
- mason (10,000 shillings per stance)

Main reasons for shifting from this demand-responsive approach:

- District staff were not supervising enough, Latrines were collapsing because of poor siting and poor design. Late deliveries of materials, or slow deliveries

The different part of project:

1. Sensitization of decision-makers in terms of policies operation. This is in order to get the commitment, it includes LC1 and districts
2. District Management team (Mobilization of the schools and they send representatives) Head teachers,science teachers, women teachers, SMT and PTA. PRA tools to generate ideas. The outcomes of this meeting is an action plan with a work outplan with a timespan (three months) of who's responsibilities is what. This is meant to bring out

commitment. This stage is trying to deal with behaviour, because it provides guidelines to training school health clubs, school affairs.

3. At the same time, headteachers, science teachers and the woman teacher are being trained to learn the participatory tools that they could use when teaching the children. They are also taught how to reactivate the school health clubs and to participate more in the school affairs. The teachers also come up with a sanitation action plan for the next three months.

Main gaps identified by Ruwasa:

1. Not enough coverage
4. They are not planning for new pits once the ones that are being provided fill up.
5. They are not catering for disabled students

2.2 Meeting with Bill Fellows, Chief of water and Environmental sanitation unit (Unicef)

1. Unicef involvement in Uganda in SSH:
   34 districts
   1365 latrines are being built
   Districts that do not have accountability problems are given priority
2. they are providing:
   2x5 stances
   handwashing facilities
   Sensitization of teachers
   Mass campaign
3. When all the decisions are made, the communities will dig the pit. We know we are providing the fish, without teaching them how to fish, but the political pressure is very high at the moment to have something done.
4. Demand-responsive approach not Possible: it would require a fundamental change that is not possible. They will try in the next country programme.
5. The facilities are children friendly,because they are common usage around Uganda. However we are not providing for disabled children. A market strategy will be designed to make the covers more children attractive.

6. Sustainability: need to educate the community for replacement. Nobody is thinking in terms of generation
7. No study has been done to find out how much rain to fill up the rainwater tanks

Gaps identified:

1. Communities are not aware enough of the need to have SSH.
2. Not enough schools covered
3. Changes are not enough on schools
4. Improve the skills of the teachers
5. Monitoring supervision
6. Maybe bring an outsiderto do a prefect health job

3. Focus group Guidelines for girls in primary 6 and primary 7

1. How many girls at this stage have their periods?
2. When you have your periods, what do you use? (pads, cotton, clothes)
3. Where do you dispose of materials when you are in schools?
4. What do you think you lack most when you come to schools?
5. Do you have some friends that do not come to school because of lack of sanitation?
6. How can your school become a better school?

3.1 Answers to Focus Group Questions:

Group one consisted of 20 girls of primary 6 and primary 7 of Majubira primary school (Jinja), and those the responses obtained:

1. 12 girls have their periods and are between 11-16 years old.
2. Toilet papers, pads, cotton, old pieces of clothes
3. Throw it in latrines
4. Shame of spoiling the dress

   Not comfortable in those toilets when you have your periods

   Latrines are too small to have any movment

   No water in the latrines to wash the old pieces of clothes, or to clean yourself.

   Fear of smelling bad
5. In terms of priorities:
   - To construct more classrooms
   - Cemented floors in classrooms
   - More toilets
   - Iron sheets
   - More seats
   - More shades
   - Bigger blackboards
   - Costumes for music activities
   - Shoes
   - Hand washing facilities

- Windows and doors
- Books

Focus group 2: Budondo Primary schools (Jinja)

A group of 15 girls from P7, age range from 13-16.

1. 9 girls have their periods
2. old clothes, pads and papers
3. Throw it in latrines or bush
4. Water for bathing
   Pads for changing
   Not enough underpants
   Bad smells with periods
5. good buildings
   iron sheets
   timber
   doors
   bricks
   shoes, uniform
6. Our school is already the best

Article from the New Vision :

The New Vision, Saturday, November 14, 1998

Museveni irked over latrines

By Daniel Sabe

PRESIDENT Yoweri Museveni has directed that owners of homes without pit latrines be arrested. He said lack of proper latrines encourages the spread of diseases, especially dysentery, which can kill hundreds of people at ago.

"If a person with an unregistered gun can be arrested, whereas this can just kill one person at ago, why not you who is bent on destroying a whole village through dysentery?", the President asked.

He was addressing a public rally at Alhul Bait Islamic Institute Buyemba Iganga district Wednesday.

Museveni advised people to practice a high level of hygiene and also immunise children to avoid falling sick.

The President had earlier asked political leaders to liaise with Government research centres to get breeding and planting materials and multiply them for distribution to farmers.

He said that Government has done its part in helping people fight poverty, through rehabilitation of infrastructure and putting in place enabling policies like liberalisation and decentralisation.

Museveni said Ugandans are still poor because of lack of awareness on what to do. He said leaders should sensitise them on what crops to grow and animals to rear depending on the market forces.

The President revealed that the Government has developed a fish pond at Kajjansi in Mpigi district, for the breeding of fish (young fish) to distribute to farmers at a reasonable fee.

PRACTICE HYGIENE: Museveni at a rally in Buyembe, Iganga.

: Guidelines for School Sanitation promotion

GUIDELINES FOR SCHOOL SANITATION PROMOTION

THE REPUBLIC OF UGANDA
ENVIRONMENTAL HEALTH DIVISION
MINISTRY OF HEALTH

GOU-UNICEF
WATER AND ENVIRONMENT
SANITATION PROGRAMME

Sida

TABLE OF CONTENTS

Forward.....

1.0 Introduction..... 1

2.0 Background..... 1

3.0 Relevant laws for school sanitation..... 2

4.0 What is Sanitation.. 3

5.0 School Sanitation requirements 4

6.0 Roles and responsibilities 13

1.0 Introduction

This manual is written for School Management Committees (SMC), local authorities, teachers, community leaders and parents to help them **plan** and **implement** affordable interventions to improve sanitation in primary schools and other institutions of learning.

The manual gives guidelines on the areas to be covered and suggests ways to improve each area of sanitation in accordance with the relevant school regulations.

These guidelines have been developed to assist you and the community to meet the required sanitation school standards including the promotion of hygiene practices.

2.0 Background

In 1995 there were 8,531 government-aided primary schools with a total number of 2,628,409 pupils. Of these schools, 3,812 (33.5%) had a water supply and the reported ration of students to latrines was 328:1. Many schools, particularly rural schools, had no latrines at all and those with latrines, did not have separate latrine facilities for girls and boys. A study undertaken by the Uganda National Examination Board (1996) in a number of sampled districts found that:

- 66.7% of schools had safe water
- 8% schools had adequate number of latrines
- 33% had separate latrines for girls.

As of now few schools in Uganda have access to adequate sanitation facilities. In addition some local leaders/administrators, politicians, and school management committees do not regard school sanitation and hygiene as their responsibility. Sanitation and hygiene issues are left to the teaching staff who mainly concentrate on academic performance.

Children are very receptive to new ideas as they grow. Many children in Uganda spend their time at school. The school practices they observe have great influence on their behaviour. It is important that primary schools provide an environment and opportunity, which can reinforce good hygiene and sanitation practices in children while they are still at an impressionable age. What children learn at school will develop into good hygiene habits which will be practiced at home and pass on to their own children.

3.0 Relevant Laws for School Sanitation

The Government of Uganda has created an enabling environment for the promotion of sanitation in schools through the provision of regulations.

The following are a few:

3.1 Constitution

The 1995 Constitution of the Republic of Uganda states that 'It is the duty of every citizen of Uganda to create and protect a clean healthy environment' (Chapter 3, Article 17 (j)).

3.2 Local Government Act

Part IV, article 7 (a) and 14 (a & b) of the Local Government act (Act 1, 1997) refers to the need for provision of hygiene services and the enforcement of building and maintenance standards to include latrines and proper disposal of refuse.

3.3 Public Health Act

Which gives basis for the subsidiary legislation of school building rules.

3.4 The Kampala Declaration

The Kampala Declaration on Sanitation (KDS) (October, 1997) signed by all the districts focuses on schools. "We shall ensure that every primary school and all other institutions of learning have adequate sanitation facilities (latrines, safe drinking water supply and hand washing facilities; with separate facilities for girls) by the end of 1998. We further endorse the immediate reintroduction of school health inspections of pupils and premises in all sub-counties".

3.5 Ministry of Education Policy

The Ministry of Education Policy on Universal Primary Education (UPE) of 1997 emphasises that all primary schools shall be involved in school health programmes.

4.0 What is Sanitation ?

Sanitation refers to personal and environmental cleanliness.

Better sanitation is the promotion of facilities, skills and practices that enable individuals, families and communities to improve their quality of life through:

- safe disposal of human excreta (faeces and urine),
- practicing of good personal, domestic and food hygiene,
- safe disposal of solid and liquid waste, (rubbish, garbage, animal waste, dirty water),
- safe collection and storage of water especially for drinking
- control of insects and rodents that can spread disease (flies rats, mosquitoes)
  - safe drinking water
  - washing hands
  - disposal of refuse
  - pit latrine with hand washing facility
  - safe storage of food.

Sanitation is more than the promotion of latrines. Traditionally, in Uganda, the term "sanitation" has a broad meaning. It includes not only health aspects but social aspects like esteem, enlightenment and admiration.

ool Sanitation Requirements

To meet the required sanitation standards, every school should have the following:

- Excreta disposal facilities
- Well maintained latrines
- Refuse collection and disposal facilities
- Water facilities
- Storm water drainage
- Vector Control
- food hygiene
- Classroom accommodation
- Sleeping accommodations
- Playground
- Personal hygiene.

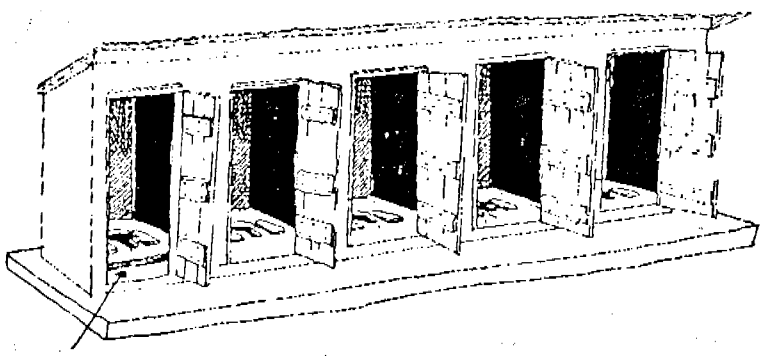
5.1 Excreta disposal facilities

Every school (Day or Boarding) shall have adequate proper and sufficient latrine accommodation in accordance with school building rules. Urinals should also be provided for boys as they reduce the number of latrine stances required.

The following shall be the minimum requirements for latrine accommodation.

a) Water closets, pit latrines stances

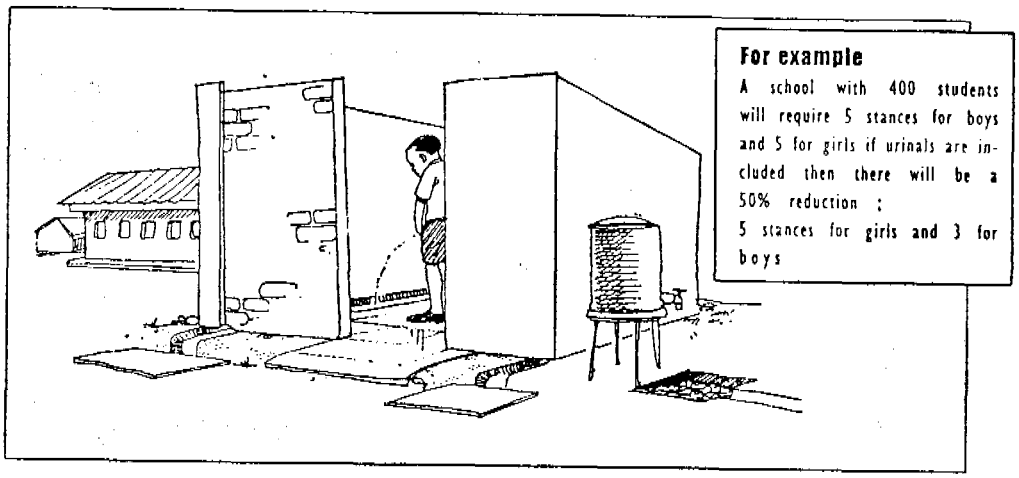
- Boarding schools - 1 stance for every 15 students
- Day schools - 1 stance for every 25 students up to 100, thereafter 1 stance for every 40 students
- Internal measurements of a latrine stance/accommodation should be 3ft wide, 41/2ft long and 6ft high (height of the walls).



1 STANCE FOR 40 STUDENTS

b) **Urinals**

- A reduction of 50% in the number of latrines stances can be made for males by providing urinal channel of at least 1ft 10 inches for every 25 males.
- The urinals should be provided with a soak away pit filled with stones or charcoal.

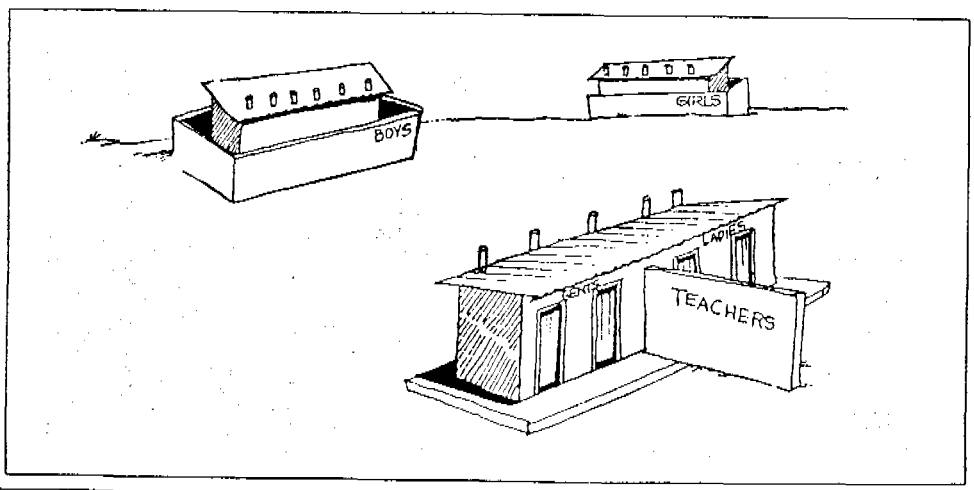


For example

A school with 400 students will require 5 stances for boys and 5 for girls if urinals are included then there will be a 50% reduction ;
5 stances for girls and 3 for boys

c) **Special considerations**

- For schools that are both boarding and day schools, calculate the number of latrine stances depending on the ratio of boarder to day students
- For mixed schools (males and females):
  Provide separate latrine accommodation for students of each sex over seven years of age.
- Provide separate latrine accommodation for teachers; and if teachers of both sexes are employed, separate latrine accommodation should be provided for each sex
- Such latrine accommodation should be constructed so as to ensure privacy, with the entrances for females effectively screened from those for males.

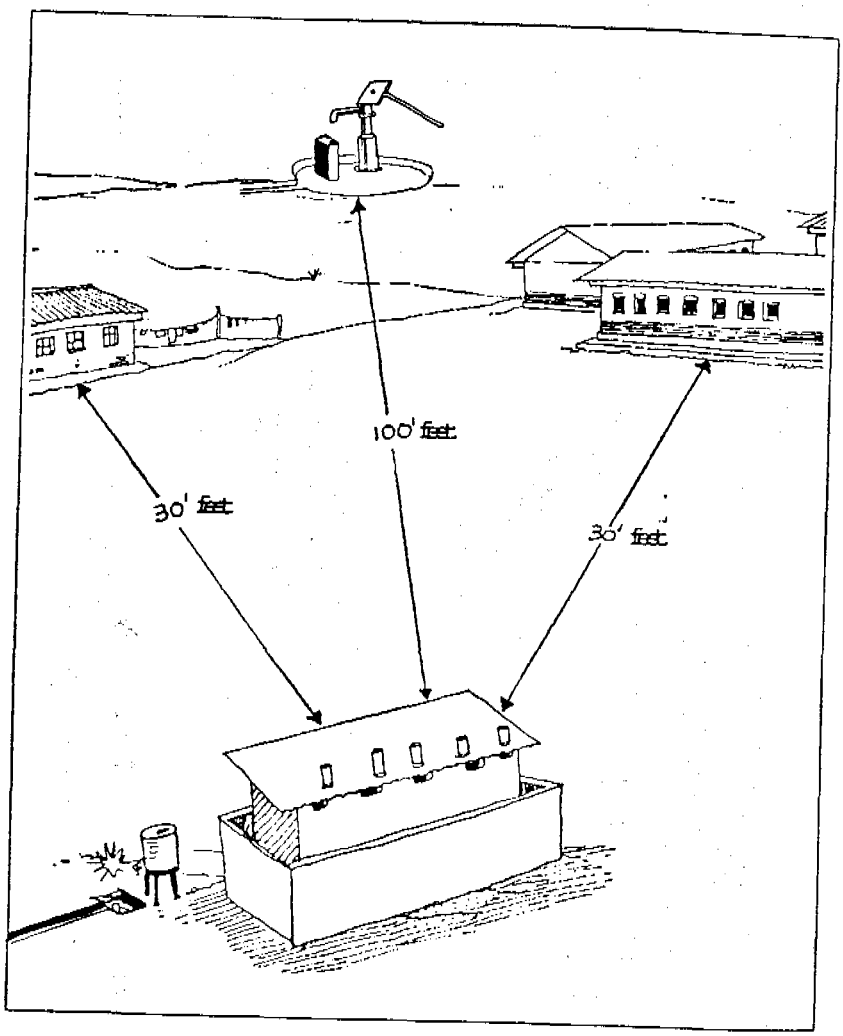


d) **Siting (location) of pit latrines should be:**

- Not less than 10 metres (30 feet) and not more that 50 metres (150 feet) from a classroom.
- Not less than 10 metres (30 feet) and not more than 20 metres (60 feet) from a dormitory
- At a distance of not less than 30 metres (100 feet) from a water source.

Location and distance from the latrine recommended.

- Latrine Construction

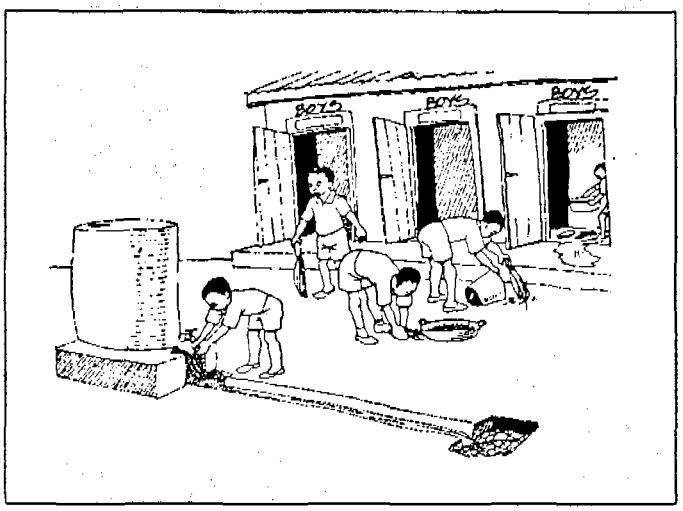


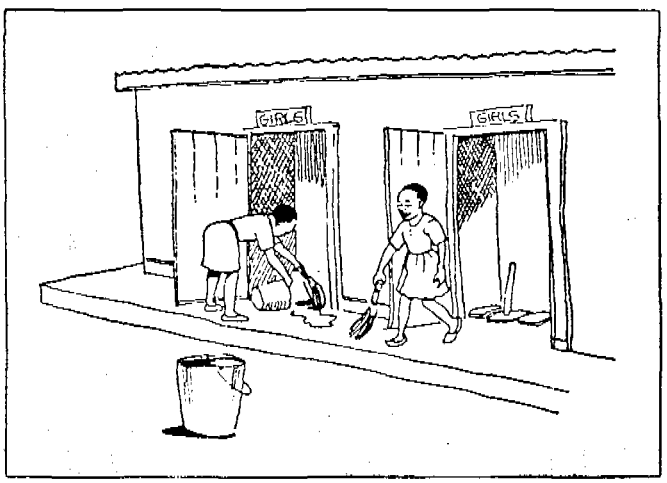
.2 Latrine Maintenance

It is important that latrines are kept clean, free from flies, bad smells and safe for users, with a strong floor and squat hole.

This includes:

- Sweeping the floor every day and washing it with water and soap (if the floor is cemented).
- Smoking the latrine regularly to control the smell is recommended
- Closing the pit when the contents are within 1 metre (3ft) of the ground, the building demolished and the pit filled with earth. Alternatively the contents can be emptied and buried.

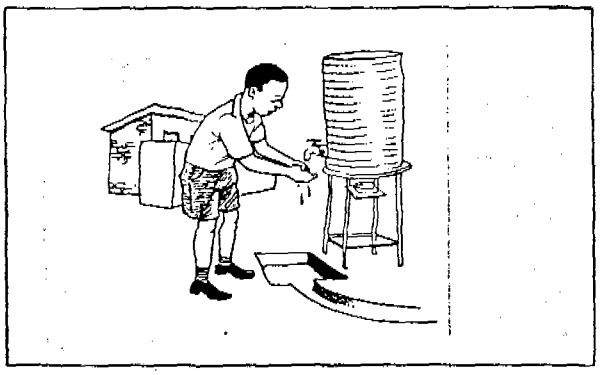




A latrine provided with cement floor or slab/sanplat is easier to keep clean.

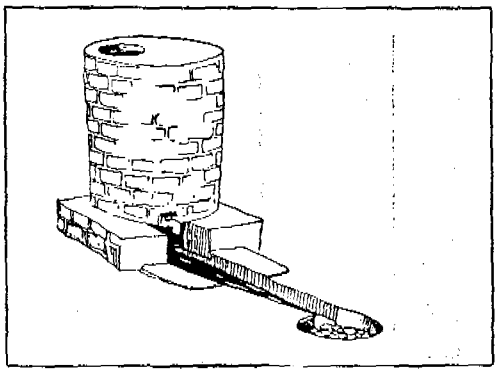
5.3 Handwashing facilities

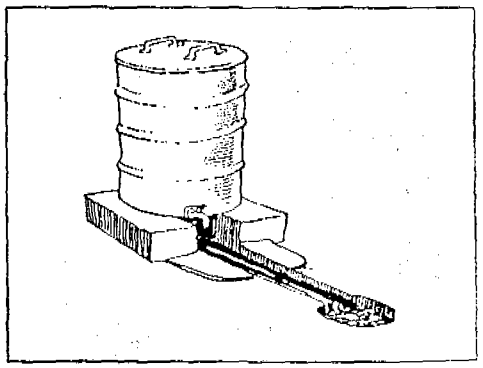
The best and most effective way to stop the spread of disease is for the pupils to be taught to wash their hands with soap after using the latrine and before eating food. Washing hands with soap and plenty of water removes germs. If soap is not available, ash is a good substitute for washing hands.

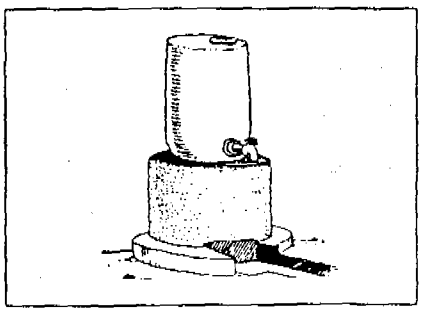


A hand washing facility should be provided next to the latrine for easy access. It could be any of the following:

- A drum fitted with a tap and mounted on a concrete platform
- A small brick tank, fitted with a tap
- A plastic 20 litre jerrican or tank
- A cement tank, big pot/jar (rainwater or filled regularly)



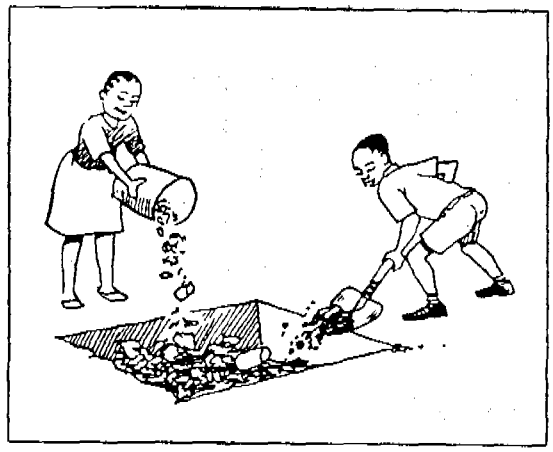




5.4 Refuse (Rubbish) Collection and Disposal Facilities

The school should make sure that all refuse is collected and disposed of properly. Suitable waste bins/containers should be provided in class rooms, and around the school compound. Pupils should be educated to put all refuse in the bins.

There are many suitable ways of disposing refuse. For rural schools refuse pits are recommended (a pit of reasonable size about 4ft deep x 8ft long 6ft inside. All refuse should be deposited in the pit and covered with earth.



Burning refuse is discouraged; however, it can be used for non decomposing materials e.g plastics, polythene bags etc.

For urban schools where refuse bankers or skips (big containers) are provided, all refuse should be deposited there and regularly collected by local authorities.

.5 Water Supply Facilities

Schools should be provided with sufficient supply of safe water, for drinking, washing and bathing for pupils and staff. Where there is no piped water supply, the water for drinking and washing hands should be provided in clean containers. Arrangements should be made to ensure that water is made accessible without danger of contamination.

Other forms of water supply can be provided and these include:

- boreholes
- protected springs
- gravity flow schemes
- rainwater tanks

Water from such sources may need to be treated. Such treatment can either be by chlorinating or boiling.

Ensure availability of safe drinking water, which should be stored in clean containers free from contamination.

5.6 Waste Water Drainage

Waste water from bathrooms, hand washing facilities, stand pipes sun drying tables, house cleaning and boreholes should be disposed of in soak away pits.

Also storm water from other water points should be disposed of in well maintained drains.

5.7 Vector Control

Vectors are responsible for the transmission of some diseases and others are a public nuisances. These include houseflies, cockroaches, rats, mosquitoes, lice and fleas. The table below shows some diseases, their cause and how they can be controlled:

Vector	Disease Transmitted	Control Measure
Housefly	cholera trachoma diarrhoea polio dysentery typhoid fever	proper collection and disposal of refuse proper use and maintenance of latrines use of insecticides
Mosquitoes	malaria yellow fever elephantiasis	drain breeding places cut long grass application of oil in the breeding places remove empty containers tins and motor tyres
Cockroaches	dysentery typhoid	fill cracks on walls and floors proper refuse collection and disposal proper use and maintenance of latrine use of insecticide
Fleas Rats	bubonic plague	avoid rats in school clear vegetation around the school use ant-rat drives burn dead rats immediately

3 Food Hygiene

In schools where food is prepared and served or brought in by pupils, measures should be put in place to ensure adequate food hygiene. These include:

- storage facilities to guard against contamination
- food must be cooked properly and served hot
- a kitchen of a suitable size, type and construction should be provided
- facilities for proper washing and sun drying of food utensils should be provided
- food vendors should be clean, medically fit, and foodstuffs sold hygienically.

9 Sleeping Accommodation - Dormitories in Boarding Schools.

- Separate dormitory accommodation with adequate space for pupils of each sex who are over 7 years of age should be provided.
- Minimum floor space required:
  - 30 sq ft per pupil under 12 years of age
  - 40 sq ft per pupil over 12 years of age
  - Where two tier beds (double beds/deckers) are used, 30 sq ft per pupil.

10 Classroom Accommodation

Adequate classroom accommodation shall be provided to enable a proper sanitary learning environment.

- Spacious classroom:
  Minimum floor space $12^{1}/_{2}$sq ft per pupil and 50 sq ft per teacher. Height of walls: a minimum of 10ft with smooth finish.

- Cleanness:
  Should have a smooth floor and swept clean

1. Lighting should be 10% of the total floor area with main lighting falling on the left handside.

2. Ventilation to be at least 1% of the total floor area well distributed to opposing or adjacent walls to ensure cross or through flow of air.

11 Play ground:

Physical exercises promotes health, space should be provided.
Space should be availed for recreation purposes. This should cater for both girls and boys. They may include, football and netball pitches; tennis courts, etc.

5.12 Bathing facilities

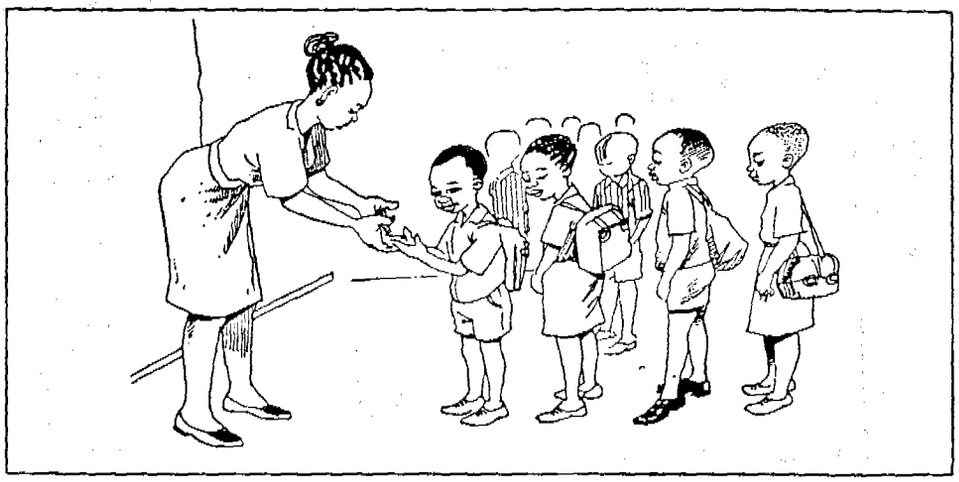
Bathing facilities should be provided for both sexes.

5.13 Personal Hygiene and General Cleanliness

School authorities should promote and monitor personal hygiene and general cleanliness of the school environment.

- Health inspection parades every morning should be carried out with special emphasis on body cleanliness, teeth, nails, clothing etc
- Records of the hygiene and sanitation status of the school should be kept.

All measures outlined above will not yield the intended benefits if personal hygiene is not practiced.



Provide perimeter fencing and keeping the compound clean.

6.0 Roles and Responsibilities

It is the responsibility of the District and sub-county authorities, School Management Committee (SMC) and in primary schools Parents Teachers Association (PTA); teachers and pupils to promote sanitation.

Below are the responsibilities of the various players:

SMC and PTA

- Budget and allocate funds for promotion of school sanitation and hygiene
- Supervise sanitation and hygiene education activities
- Construct pit latrines as prescribed under these guidelines
- Provide hand-washing facilities
- Develop and implement a school sanitation improvement programme
- Construct classroom blocks in accordance with the guidelines
- Construct a kitchen (in case of boarding schools) of suitable size and
- Ensure a regular sufficient and properly balanced diet for the pupils

Teachers and Pupils

- Conduct health inspection parades every morning. Special emphasis is to be placed on personal hygiene (body cleanliness, teeth nails, etc). A good way to do this is for the children to check each other
- Inspect for general cleanliness of latrines. Special attention must be given to presence of cleaning materials and hand washing facilities
- Collect and dispose refuse properly
- Dispose off wastewater properly. Give special attention to storm/stagnant water, which should not collect on the school compound
- Monitor that food is thoroughly well prepared, cooked, served hot and protected from flies and other sources of contamination. If children are coming with packed lunch, it should be stored in a good facility
- Ensure that all foodstuffs are not stored in dormitories or other sleeping quarters in a school and all food utensils are properly washed, sun dried after use and stored properly for next use.
- Inspect the school compound for general cleanliness. For example, grass must be kept short.
- Conduct hygiene education geared towards behavioural change. Teachers should discuss with pupils the relationship between sanitation/hygiene behaviour and disease.

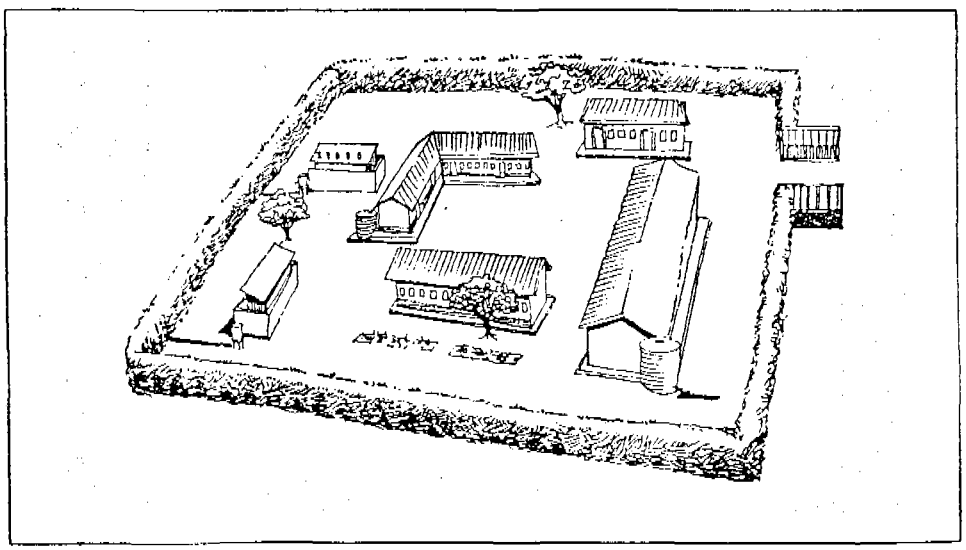
District and Sub-counties

- Plan and Budget for sanitation promotion activities in schools. The funds budgeted be used for sanitation activities
- Monitor the pro
- Monitor UPE support for sanitation promotion in schools
- Organise annual school improvement competitions/festivals, sub-county level to minimise expenses. Trophies and prizes should be awarded to recognise outstanding achievements
- Ensure that every school has updated plan for water and sanitation promotion activities.

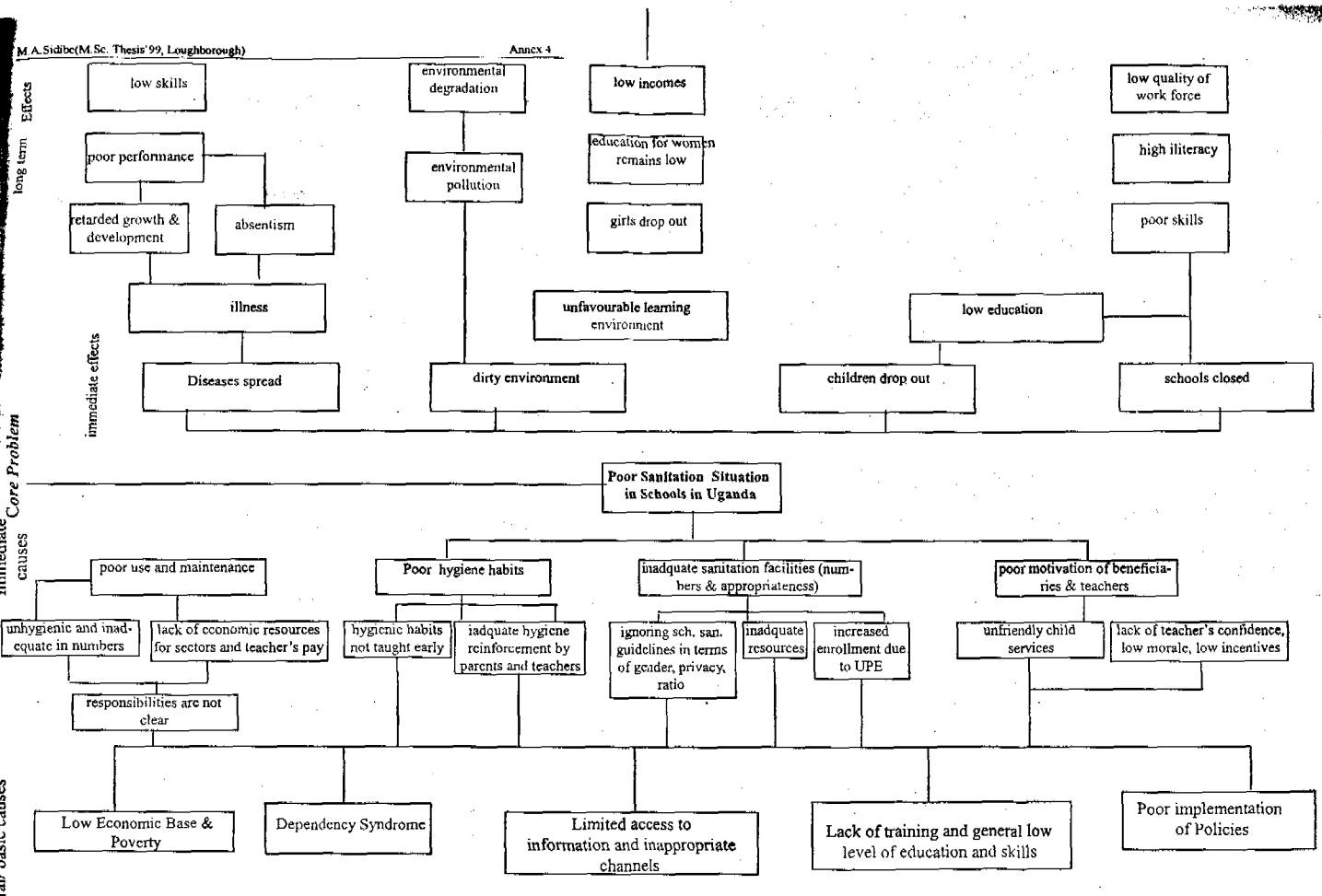
Additional support for school sanitation

For additional information on sanitation, please contact the following organisations:

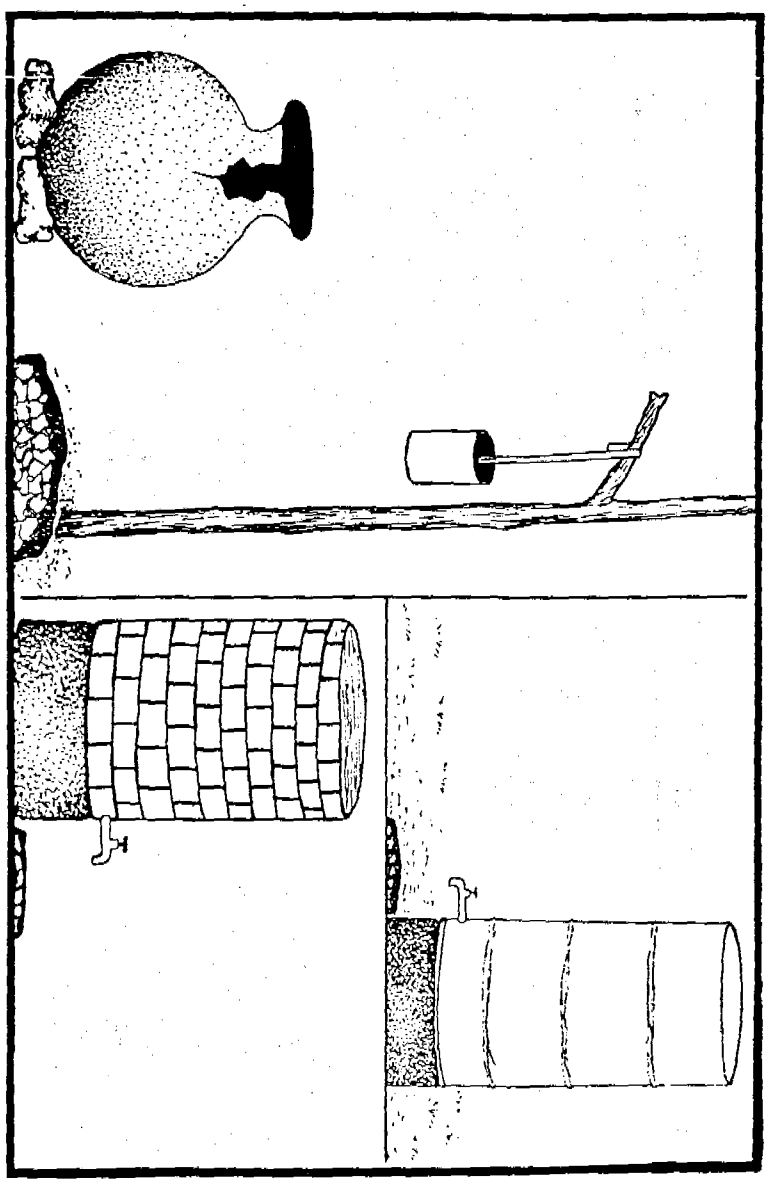
- Ministry of Education
- Environmental Health Division (EHD) - Ministry of Health
- UNICEF - Water and Environmental Sanitation (WES) Programme
- Rural Water and Sanitation Programme - Eastern Uganda (RUWASA)
- World Health Organisation (WHO)
- Regional Water and Sanitation Group - East Africa (RWSG -ESA)
- Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs).

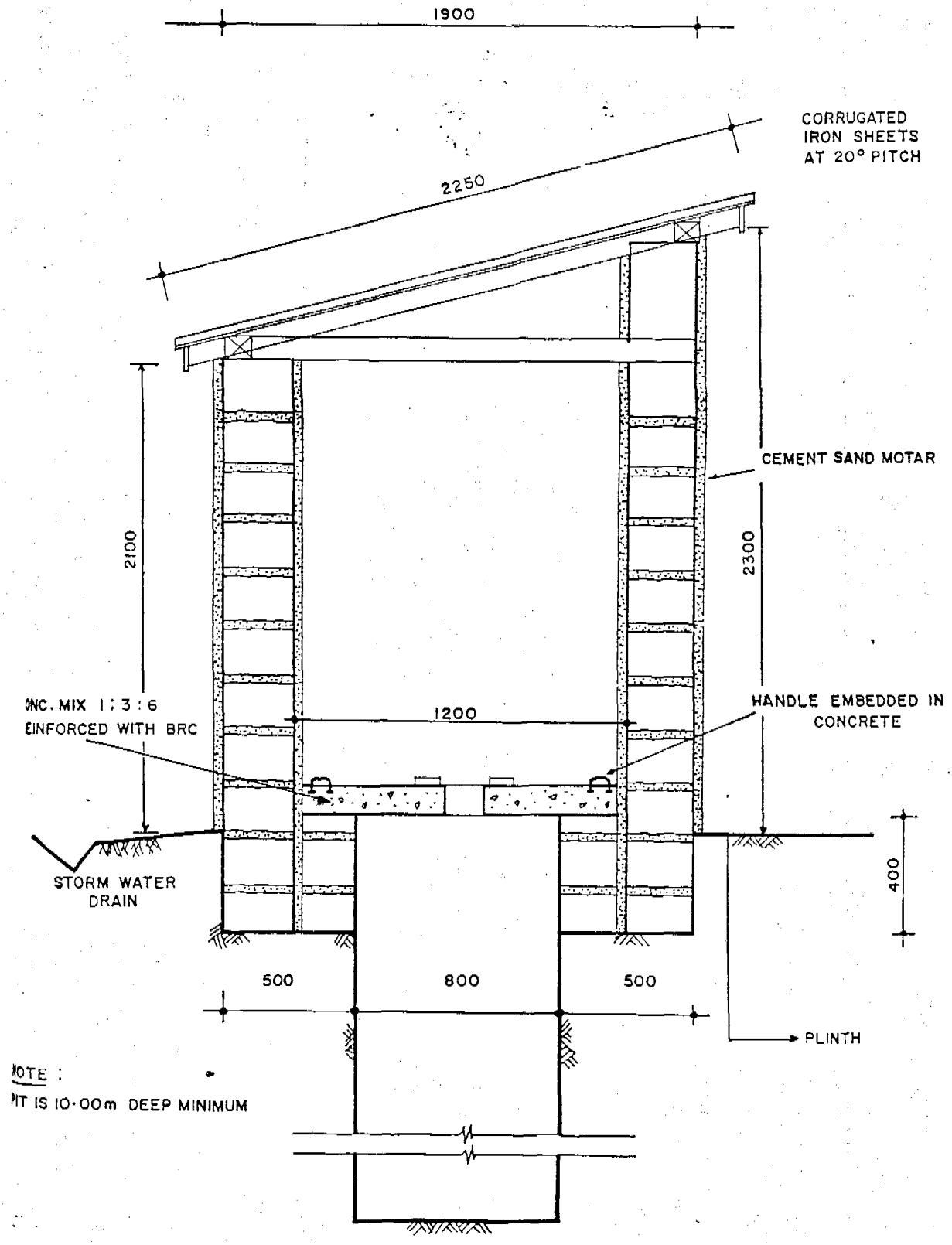


A CLEAN SCHOOL IS A HEALTHY SCHOOL
A HEALTHY SCHOOL IS A HAPPY SCHOOL
A HAPPY SCHOOL WILL HAVE BRIGHT CHILDREN
BRIGHT CHILDREN WILL HAVE A BRIGHT FUTURE.



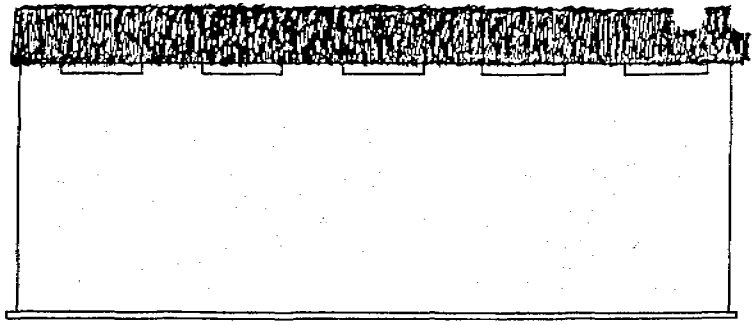
Annex 4 : Tentative problem tree developed by the author and Unicef staff



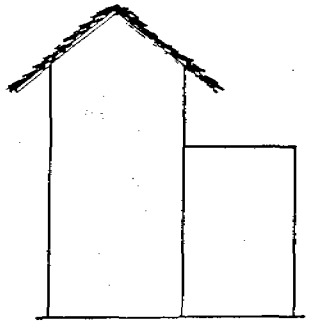


SECTION THROUGH LATRINE

DESIGN I 5 STANCE LATRINE WITH SUPER STRUCTURE MADE OF TEMPORARY MATERIALS

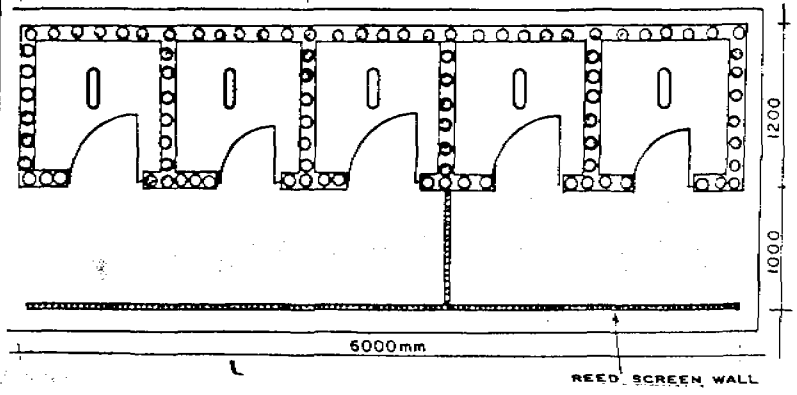


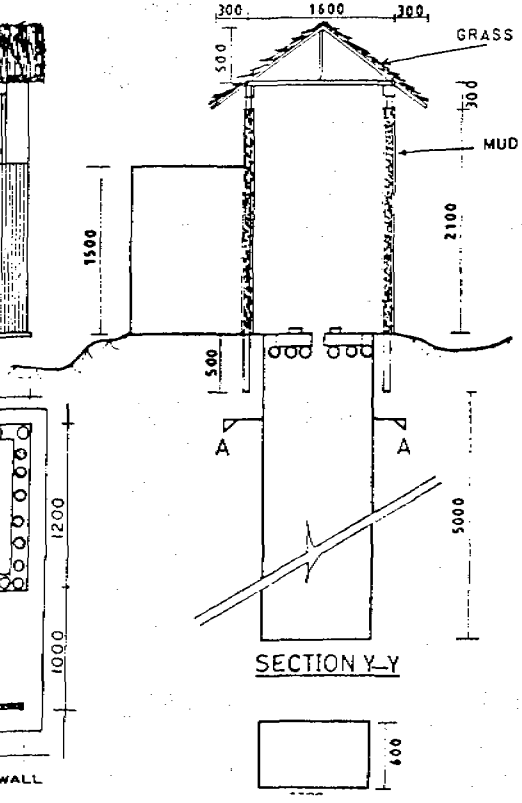
REAR ELEVATION



SIDE ELEVATION

FRONT ELEVATION

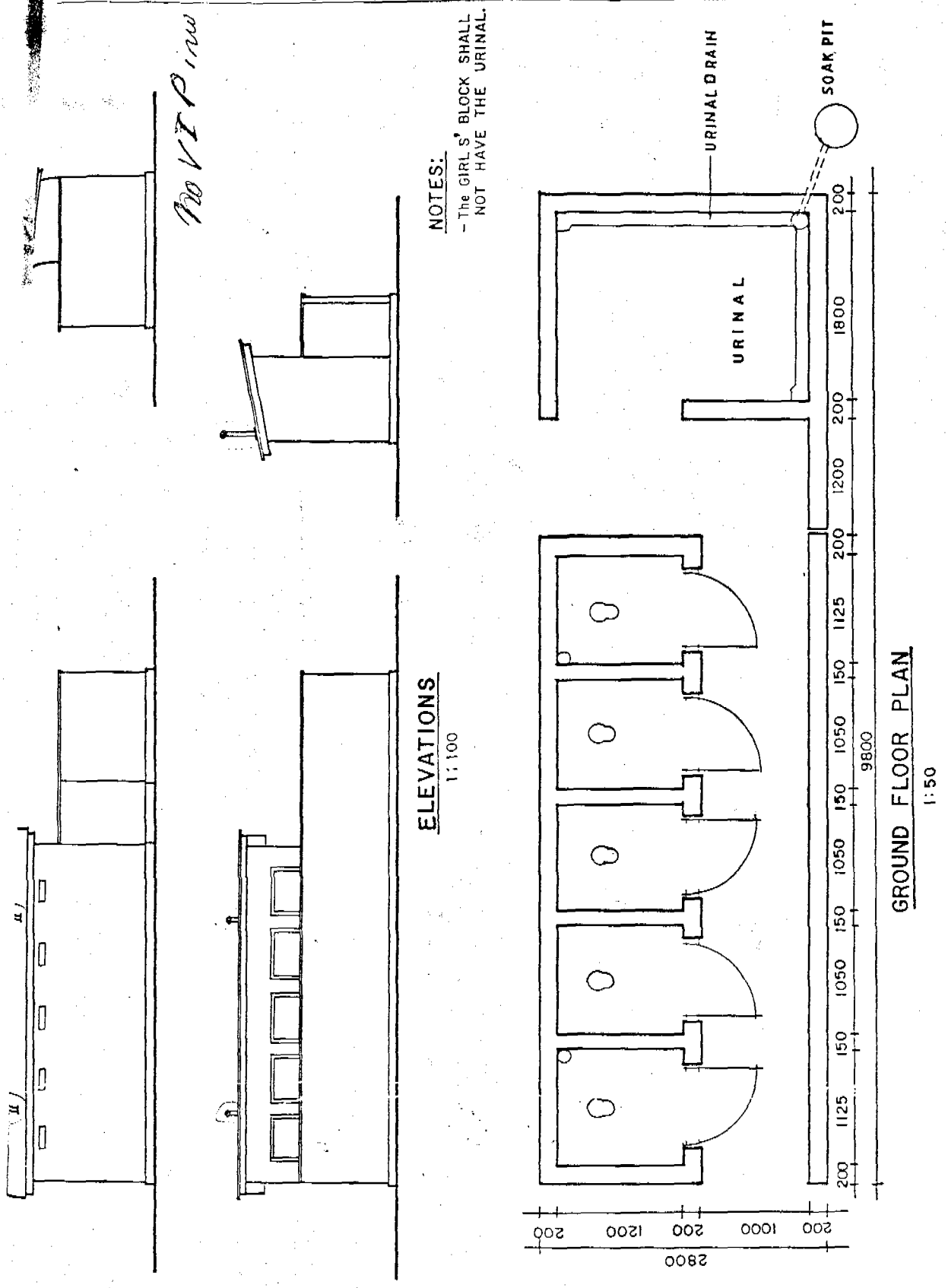




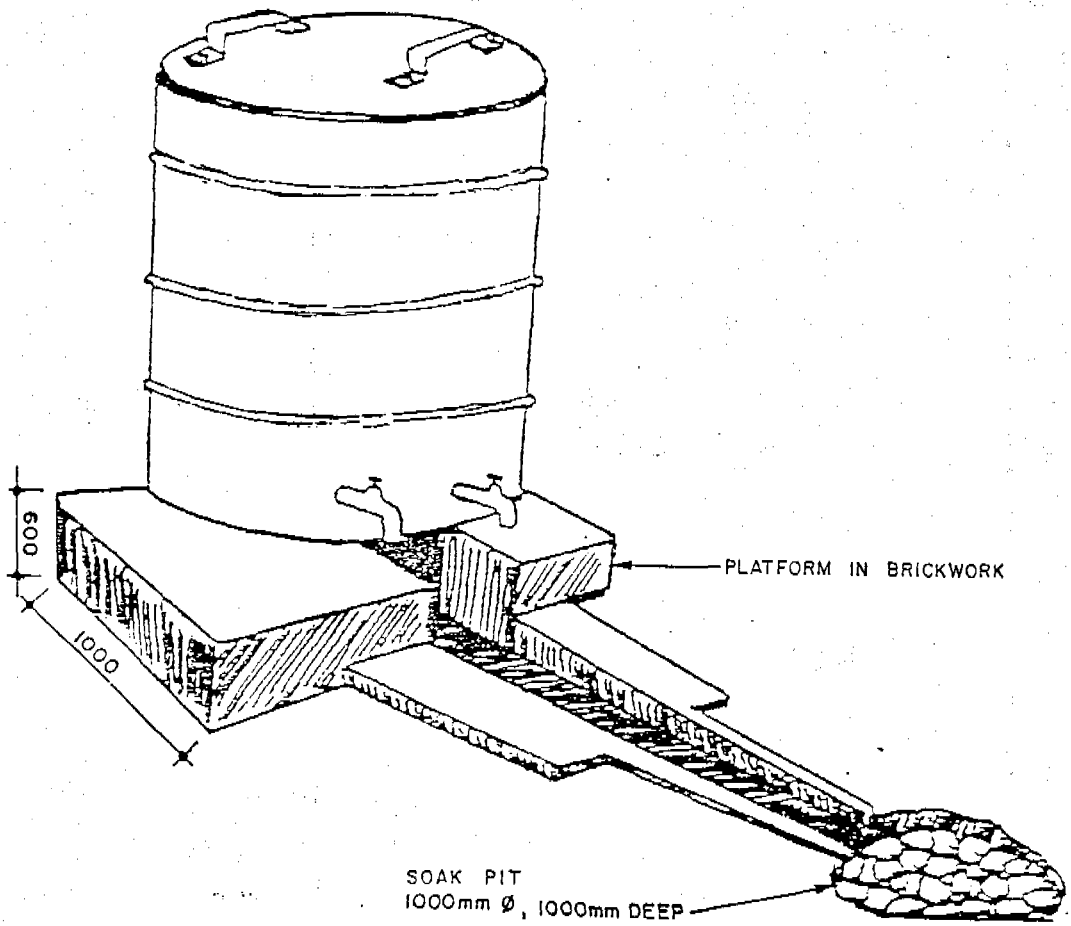
SECTION Y–Y

THE TEMPORARY MATERIALS MAY BE MUD AND WATTLE OR UNBURNT BRICKS. THE WALLS SHOULD BE FINISHED WELL WITH A MIXTURE OF COW DUNG AND MUD WHICH MAY HAVE WASTE WATER FROM LOCAL BREW (WARAGI)

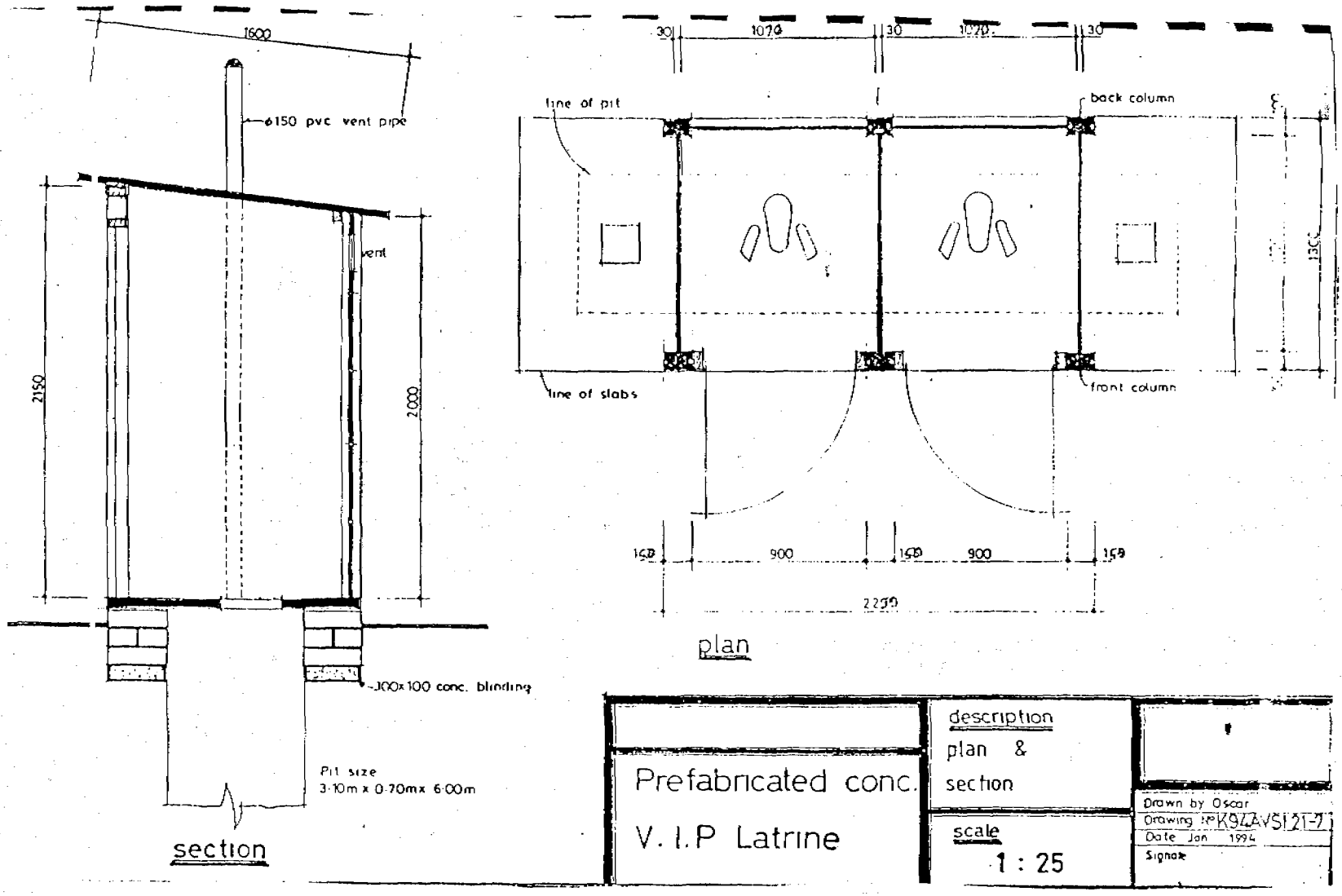
A SEPARATE URINAL SHOULD BE CONSTRUCTED FOR BOYS AS THAT IN DESIGN I OF PERMANENT STRUCTURE LATRINE



Annex 6 : Unicef package detailed designs



HAND WASHING – FACILITY


1600
ϕ150 pvc vent pipe
vent
2150
2000
300x100 conc. blinding
Pit size
3·10m x 0·70m x 6·00m
section
30
1070
30
1070
30
line of pit
back column
1350
line of slabs
front column
150
900
150
900
150
2250
plan
description
plan &
section
Prefabricated conc.
V.I.P Latrine
scale
1 : 25
Drawn by Oscar
Drawing No KSZA/VSI 21-7
Date Jan 1994
Signed

ACKNOWLEDGEMENTS

I would like to thank the people that were essential to the making of this document. Without them, I would never have reached the final line :

- The Unicef WES team in Kampala for letting me be one of them. A special thanks to Agnes Bitature and Bill Fellows for making my stay in Uganda so enjoyable.
- Abraham Nehemia, I think there are no words to express the gratitude that I feel. Thank you for being the best mentor. I really appreciate our friendship.
- Margaret Ince for her support in turnig this document into ``my masterpiece``.
- The Ruwasa team for their flexibility and their time.
- Bob Reed for providing me with the original idea of this thesis.
- Tricia Jackson for the encouragement smile in the Resources centre