

The Worth of School Sanitation and Hygiene Education (SSHE)

Case studies

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List of Abbreviations

C to C	Child to Child
CEFORD	Community Empowerment for Rural Development
CHAC	Children Health Awareness Committee
CINARA	Instituto de Investigación y Desarrollo en Agua Potable Saneamiento Básico y Conservación del Recurso Hídrico
CREPA	Regional Centre for Low Cost Safe Water and Sanitation
DOE	Department of Education
HMG	His Majesty's Government
IEC	Information, Education and Communication
IRC	IRC International Water and Sanitation Centre
MBEL	Ministry of Basic Education
NEWAH	Nepal Water for Health
NGO	Non Government Organization
PHAST	Participatory Hygiene and Sanitation Transformation
PoA	Plan of Action
PTA	Parent Teacher Association
PVC	Poly Vinyl Chloride
RUWASA	Rural Water and Sanitation Programme
SANA	Sustainable Aid in Africa International
SCHWP	School and Community Hygiene and Water Programme
SEUF	Socio-Economic Unit Foundation
SFG	School Facilities Grant
SHC	School Health Club
SSHE	School Sanitation & Hygiene Education
SWASTHH	School Water and Sanitation Towards Health and Hygiene
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
VDC	Village Development Committee
VEC	Village Education Committee
VIP	Ventilated Improved Pit Latrine
VRP	Village Resource Persons
WATSAN	Water and Sanitation
WES	Water, Environment and Sanitation

Introduction

School Sanitation and Hygiene Education (SSHE) is a very attractive issue, not only from a political perspective but also from a social one. A focus on school sanitation affirms the fact that children have a right to basic facilities such as school toilets, safe drinking water, clean surroundings and information on hygiene. If these conditions are created, children come to school, enjoy learning, learn better and take concepts and practices on sanitation and hygiene back to their families, especially siblings. In other words, children become the agents of change in the home, in the community and as future parents, and investment in education is more productive.

Unfortunately, the promises of school health and hygiene programmes have not always been fulfilled. In many countries, schools are not safe for children. The schools often suffer from:

- Non-existent or insufficient water supply, sanitation and handwashing facilities;
- Broken, dirty and unsafe water supply, sanitation and handwashing facilities;
- Toilets or latrines that are not adapted to the needs of children, in particular girls;
- Children with poor hygiene habits and handwashing practices;
- Non-existent or irrelevant health and hygiene education for children;
- Unhealthy and dirty classrooms and school compounds

Over the years numerous Non-Governmental Organisations (NGOs) have been involved in developing SSHE programmes in their own countries. The purpose of this Occasional Paper (OP) is to focus on some of the positive developments that are taking place in SSHE. These case studies do not give a recipe for how to create a successful SSHE programme, but they do give indications of issues to consider when developing, implementing or undertaking such a programme

The paper should therefore be of interest to those directly involved in SSHE programmes. It may also be of use to those indirectly involved in SSHE who would like more insight into what is happening in other countries. Readers should be aware that the paper is an on-going exercise and a follow-up publication will probably be prepared next year. One of the aspirations of this OP is that it will both help and inspire all those working in the area of SSHE.

The paper is divided into case studies from Africa, Asia and South America. Four case studies come from Africa. The first case study focuses on school health clubs in Kenya and illustrates how they are making a change in the behaviour of children as well as adults. The second study is from Uganda, focusing on the scaling up of SSHE programmes – an emerging issue for many involved in SSHE. The third is on SSHE in Ganzourgou province in Burkina Faso and gives an overview of how ‘satellite’ and ‘mother’ schools function in that country. The final case study looks at gender sensitivity in SSHE projects specially in Kenya.

The next set of case studies comes from Asia. The first is on a school health and hygiene promotion programme in Nepal and the impact of its “child-to-child” approach. It focuses on how to achieve sustainability in an SSHE programme. The second case study focuses on one programme in Bangladesh. It shows a unique SSHE programme working with pond sand filters and rainwater harvesting, and highlights some of the main causes of success for this specific programme. The third Asian case study focuses on Kerala, India, where an interesting school health club (SHC) has been formed. This study is of special interest for its girl-friendly toilets. Although one might argue that more empirical evidence is needed to give insight into the impact of the SHC, there are some interesting findings.

The final set of case studies is from South America. The first, from Colombia, focuses on the use of participatory diagnosis, which is a relatively new tool for improving SSHE. The second case study looks at the design of school sanitation facilities from a South American perspective, with examples from Colombia and Nicaragua. It looks at how local characteristics, children’s wishes and imagination assist in designing facilities at schools.

Table 1 gives a summary of the number of schools involved in each initiative and the specific interventions taking place.

Table 1: Case study intervention summary

Case study title	Period	No of schools involved	Specific interventions
School Health Clubs: Can they change hygiene behaviours? (Kenya)	2001-2002	7 communities/ 7 schools	Girl friendly toilets Use of PHAST tools in School Health Clubs
Scaling up School Sanitation Programmes at the national level (Uganda)	1999- present	735 schools	This case study describes a big programme taking place at national level with a lot of hardware components cited.
School Sanitation and Hygiene Education Experiences in Ganzourgou Province (Burkina Faso)	2000- present	26 schools	The use of ‘satellite’ schools throughout Ganzourgou province
Women, girls and water: Gender sensitivity in SSHE projects (Kenya)	2001- end of 2002	150 schools	Gender sensitive training in schools
The SSHE Programme of NEWAH in (Nepal)	2000- present	100 schools	The importance of building sustainability in SSHE programmes
SSHE: The story of its impact on one village and its school (Bangladesh)	1997- present	665 schools (385 boys and 270 girls)	Particular interventions in rain water harvesting and new pond sand filters at schools

T.b.c. >>

The School Health Club project (India)	1989-present	1,230 School Health Clubs (each club having 30-50 members)	Practical activities and information describing how School Health Clubs work in practice
Improving SSHE - participatory diagnosis	2000-2001	11 schools (2,947 children, parents, teacher & 11 school directors involved)	Descriptive research finding on SSHE in Colombia

Each of the case studies clearly suggests another element focusing on SSHE. All of the case studies show that the success of a school hygiene programme is not determined only by the number of latrines constructed, the number of handpumps installed or water connections built. In other words, construction is not enough for a successful SSHE programme. Nor is the success of a programme determined simply by what children know. If SSHE knowledge is not applied to the practice of hygiene behaviours, this may lead to failure of the programme (Snel, Ganguly, Kohli, and Shordt, 2002).

Although each SSHE case study in this publication is unique, the overall goal in each reflects the need to bring the child to the forefront. It is our hope that the case studies will stimulate discussion among those who are interested in the subject. It is not a question of applying the same approach in different areas. We must continue to learn from past and present experiences and act on this information. That in itself may be one of our biggest challenges in the continual improvement towards more effective and efficient SSHE programmes.

Case studies - Africa

1. Kenya - School Health Clubs: Can they change hygiene behaviours?

*A case study of seven schools in Kochieng' East Location in Nyanza Province, Kenya
Rosemary Rop, Maji na Ufanisi (Water and Development)*

Introduction

Poor water and sanitation conditions have created high incidences of related diseases among the children attending rural schools in Western Kenya. This is detrimental to learning and health status as a whole. One area of intervention that has helped is the promotion of School Sanitation and Hygiene Education (SSHE) through the formation of school health clubs (SHCs¹). SHCs are formed to encourage positive health and hygiene practices.

Description of Kochieng' East Area

The project area – Kochieng' East Location, is in Kisumu District in the Kano plains in the western part of Kenya. It is the provincial headquarters of Nyanza Province, covering an area of approximately 30 km²². The area is mainly covered by deep, poorly drained, black cotton soils and is characterised by annual flooding. Communities have found it difficult to construct latrines or water supply facilities, as the latrines collapse after some time due to poor soils and flooding.

The feasibility study carried out in the area prior to commencement of the project revealed that over 85% of illnesses reported in household interviews were water related.

The project area covers two sub-locations (Kochieng' and Okana) of Kochieng' East Location in Kadibo Division of Kisumu District. There are seven primary schools in the area – Mbega, Nyakakana, Okana, Ranjira, Bungu Koraga, Miguye and Rabuor – where the Sustainable Aid in Africa International (SANA) project intervention took place.

The total population in the project area is estimated at about 5,000, living in dispersed family homesteads each with about 10 members. People live in clan-based villages of about 500 persons.

¹ School Health Clubs (or similar groups with other names) can be very useful for: (a) stimulating safe hygiene behaviour among children; (b) helping to organise the children for proper use of the facilities; (c) maintaining facilities; and (d) reaching out into the community.

² A sub-location is the smallest administrative unit in Kenya and is headed by an assistant chief or sub-chief.

Water and Sanitation Challenges in Kochieng East

A project feasibility study revealed serious health problems related to water and sanitation, including malaria and diarrhoea. Nyanza Province was for many years notorious for cholera epidemics, a situation that still recurs once in a while. Water-related diseases continue to be endemic in the area, especially in the Kano plains where the project area is situated.

Lack of sanitary facilities, plus water availability being generally restricted to open ponds, plus poor hygiene behaviours based on negative cultural beliefs, all mean that water-related diseases have continued to claim lives in the villages of Kochieng' East.

Water from ponds is rarely boiled, due to a lack of hygiene awareness and, to some extent, lack of fuel wood. It is common to find the same ponds used for washing, cooking, drinking and, in some cases, bathing.

Intervention

The project, funded by a Dutch NGO, SIMAVI, concentrated on seven communities and schools (see Section 1.1). It began in 2001 and ended in 2002. Seven water facilities were provided and through a demonstrative approach, SANA, promoted the construction of environmental sanitation structures (latrines, refuse pits, dish racks). Strong hygiene education awareness was included to ensure replication of the sanitation component. All seven projects were implemented as a water and sanitation package. Each project area targeted a school and the community at large.

Project targets

Each of the projects has:

- A water point equipped with a medium/ high discharge foot-pump.
- An overhead tank and a small piped system including two drawing points in the school for use by school children for drinking and personal hygiene promotion and a third drawing point for the community.
- Five demonstration environmental sanitation structures (double pit latrines, dish racks and refuse pits) in each of the schools.
- A water and sanitation committee for each of the water points, elected and trained in Participatory Planning Monitoring and Evaluation (PPME).
- Caretakers and village resource persons - five in each community, selected and trained to promote health and hygiene.
- SSHE training embodying the Participatory Hygiene and Sanitation Transformation (PHAST) training methodology, two theatre-for-development troupes as well as seven school health clubs for the primary schools.

Project Cycle

Project implementation included the following steps:

1. Project selection to establish the extent of need and to avoid duplication of efforts.
2. Ensuring community commitment by making the following steps conditional before SANA could be involved: registration, opening a bank account and depositing an initial O&M fund.
3. Conducting a baseline survey of water and sanitation facilities in the sub-locations to provide a basis for measurement of success at the end of implementation.
4. Taking the communities into close partnership, and involving them in the planning and decision-making details and provision of local resources.
5. Collaborating with other actors in the project area such as the local administration and the Government water department officials. SANA continuously ensured they were aware of project progress by sending them monthly progress reports.

Key Approaches Adopted By the SANA Methodology In the Project

The methodologies adopted in the implementation included:

- Community development strategy implemented through an interactive partnership approach.
- Strong hygiene awareness building through SSHE training, using PHAST as a means of influencing negative hygiene practices.
- Choosing an appropriate technology strategy, which included a low-cost groundwater development option and inclusion of a small piped system fed from a manual foot-pump.
-

Conceptions: School Health Clubs

One area of intervention is the promotion of SSHE through the formation of school health clubs (SHCs). SHCs are formed to encourage positive health and hygiene practices.

Behaviour development can only be achieved if it is supported by the provision of hardware. Thus SSHE is combined with hardware, which is the total package of water supply and sanitary conditions and facilities available in and around the school compound (WHO, 1998)

Hygiene education primarily aims at:

- Changing behaviour towards good or safe practices in relation to personal, water, food, domestic and public hygiene.
- Protecting water supplies and promoting safe management of the environment, in particular the management or disposal of solid and liquid waste.

As a rule SANA has taken up health and hygiene training in all projects for both schools and communities.

Having completed other community mobilisation approaches (see Project Cycle), a school health committee was formed in each of the seven schools under the Parent-Teacher

PHAST uses methods and materials that stimulate the participation of women, men and children in the development process.

Association. Committee members were trained in leadership, record keeping, financial management, community organisation and

sanitation. They were also taught to handle the water technology to be implemented. A series of meetings was then held with this school committee to seek endorsement of the formation of the school health clubs, selection of club patrons and 25 children from amongst the primary school as club members. The children selected are from Class 4 to Class 7, so aged between 10 and 15.

A seven-day training followed in which the children and their patrons were trained using PHAST³.

To make PHAST more practical, SANA adopted it to suit local conditions. To begin with, a local artist was hired to draw the different pictorials required for the toolkits, taking into account the local practices and cultural beliefs of the area. Local materials were used during the training. For example, when the children were asked to draw community maps, they were encouraged to search for local resources in their environment to include in the map – perhaps a map on the ground, with the features represented by stones, twigs and leaves.

The focus during the PHAST training was the Child-to-Child methodology⁴ whereby children train their fellow schoolmates on health and hygiene through, for example, relaying health messages, songs and skits. To facilitate this approach, the training was summarised in eleven principal messages and each participant, including the patrons, was given a pictorial 'toolkit' depicting them, along with notebooks, pens and folders in which to store the items. The messages focus on three aspects of hygiene: personal hygiene, food hygiene and domestic hygiene. They are itemised in Table 1.

³ PHAST is an innovative approach to promoting hygiene, sanitation and community management of water and sanitation facilities. It is an adaptation of the SARAR methodology, self-esteem, associated strength, resourcefulness, action planning and responsibility. It entails participatory learning, which builds on people's ability to address and resolve their own problems.

⁴ The Child-to-Child approach gives children new knowledge and skills and a better understanding of what they are doing. It also makes learning more interesting and more fun. The approach encourages children to work together. Instead of teaching children facts about their own health, for example, the Child-to-Child approach encourages them to take health actions for themselves and others. This links school learning with home and community needs.

Table 1: PHAST Messages

<p>Personal Hygiene</p>	<ul style="list-style-type: none"> • Building a latrine • Children washing hands after visiting the toilet • Adults washing hands after visiting the toilet • Safe disposal of children's excreta into toilets or by burying in the absence of toilets
<p>Food and Water Hygiene</p>	<ul style="list-style-type: none"> • Boiling drinking water • Sieving drinking water • Covering food • Safe water storage
<p>Domestic Hygiene</p>	<ul style="list-style-type: none"> • Home cleanliness • Building of dish racks • Using a clean pail for drawing water

To monitor the sustainability of behaviour change, and self-evaluation of progress, the children drew up a monitoring framework for the clubs' planned activities with the help of the trainers and their patrons. The activities incorporated varied, since the ability of the individual schools, especially with regard to finance, was taken into consideration. A sample action plan drawn up by the pupils of Ranjira Primary School during their training in November 2001 is shown in Table 2.

Two factors have strengthened the SHCs in this project. The first is the school health committees that were elected to oversee the water and sanitation project in the school. They supervised and assisted in the block making for the latrines and other SHC activities. They also acted as a link between the school and SANA. The second is the fact that the project also targeted the surrounding community. Ten Village Resource Persons (VRPs) were trained on health and hygiene in each project area (a total of 70). They were then given a target of 10 homes each to train in the same topics. In this way, about 400 in each community benefited from the training. This bridged the knowledge gap between the school and the community.

Table 2: An Action Plan drawn up by members of Ranjira Primary School Health Club in Kochieng' East Location

KEY ISSUES	ACTIVITY	TARGET	MONITORING INDICATORS	WHEN TO MEASURE	RESPONSIBILITY	EXPECTED OUTPUT
DIARRHOEA	Use and maintenance of latrines	All ten latrines maintained and in use	Clean Locked Clearing around Presence of flies Smell A path	Daily	School health club, patrons, duty master, parents, pupils	Well maintained latrines in use
	Construction of adequate latrines	Additional five latrines	Built latrines	Daily	Parents, PTA, SANA	Five additional latrines
	Covering water and food	Ensure water and food are covered	Lids Covers Pots Drums	Daily	Parents, pupils, SHC, patrons	All foods and water covered in school/ homes
	Boiling of water	All drinking water must be boiled	Sufurias Firewood Fire Warm Taste	Daily	SHC, parents, patrons, pupils	All drinking water is boiled
	Avoid stepping in water for drinking (ponds/rivers)	Ensure people do not step into water while drawing it	No footsteps to the water	Daily	SHC, parents, duty masters	Water meant for drinking is not stepped in
	Washing hands after visiting latrines and before eating	Ensure all pupils wash hands	Soap, water, leak tin, basin	Daily	Patrons, pupils, SHC, duty master	All pupils and parents wash hands
	Dish racks and rubbish pits	Rack/rubbish pits in school/ homes	Presence of rack and rubbish pit	Daily	SHC, parents, patrons, pupils	Have racks and rubbish pits T.b.c. >>

MALARIA	Clear bushes around homes and schools	Ensure bushes are cleared	Short Grass Trimmed bush Fence	Weekly	Pupils, parents, SHC	Trimmed fence, short grass, cleared bushes
	Use of nets, coils	All homes use nets, protective clothing	Presence of nets Weaving protective clothing	Daily	Parents, SHC	Use of nets, coils and smoke and protective clothes
	Smoking of houses	Smoke	Smoke in the house	Daily	Parents, SHC	
	Draining stagnant water and filling open holes and empty containers	Stagnant water drained off	No stagnant water No empty containers	Weekly	Parents, pupils, SHC	Drain of water, containers discarded, all holes filled up
	Oiling of stagnant water		Oiled stagnant water	Weekly	Parents, pupils, SHC	Kill mosquitoes
HIV/AIDS	Health education on dangers of HIV/AIDS	Teach all pupils how HIV/AIDS is dangerous	Health clubs in schools Reduction of Sexually Transmitted Infections (STIs)	Weekly	Pupils, Health club members, patrons, Ministry of Health	Awareness through health education to ensure behavioural change

Hardware issues

Following the SSHE training, sanitation facilities were put in place by the SHC with the help of the water and sanitation committee in the school. SANA supplied the materials for the latrines and supervised their construction.

The Ventilated Improved Pit latrine (VIP) was adopted for the schools. Each has a vent pipe which helps in controlling the flies and smell. Each school constructed five double-pit latrines. Those for girls were constructed separately from the ones for boys for purposes of privacy. The SHC and

With free education now available in all public primary schools, the populations in some schools have doubled. This has increased pressure on the water and sanitation facilities in the schools where the ratio of latrines to students can be as high as 1:100

students supplied the block moulds. SANA could only support the construction of five double pits, but the schools were encouraged to construct more, depending on the school population, to ensure a maximum of 35 students per latrine. After sanitation works were completed, the construction of water supply facilities began.

Evaluation Results: SSHE Outputs

Just over a year after the SSHE training, SANA undertook a participatory evaluation. The results were compared with two other schools, Lela and Kobura Primary Schools, where SANA had not intervened and where no SSHE had previously been done. These acted as controls. During the evaluation, the school head teachers or their deputies, the school patrons and the school health club members were interviewed separately to assess the impact of the School Health Clubs.

There were clear differences between the SSHE and the control schools. The biggest difference was the number of children who were aware of the importance of water and sanitation and had the proper facilities and those who did not.

The seven school clubs are still in place in the different schools but vary in terms of their zest for activities. They were assessed in terms of the frequency of water-borne diseases, hygiene behaviour and how far they had gone to spread the good word concerning health and hygiene.

Water-Borne diseases

An assessment was made of the number of water-borne diseases reported per week before and after the intervention. Before the intervention, all schools would report an average of five cases per week of water-borne diseases ranging from dysentery to typhoid and cholera. Now, according to interviews carried out with the headmasters of the various schools and SHC patrons, a maximum of two cases of water-borne diseases are reported a week and in Rabuor Primary School only two cases had been reported in an entire term. In the control schools, up to ten cases of water-borne diseases are reported a week. The schools have no money to improve water and sanitation and so no action is taken. In addition, since the declaration that all primary education is free, the parents are reluctant to contribute anything to the school. They believe that the government will provide everything.

Personal Hygiene

The children were asked how often they use the toilets for urination and for defecation. In all the schools, the children use the latrines all the time not only for health reasons but also because of fear of ridicule. Boys who at times would try to urinate in hidden corners of the school stopped doing so because other children would ridicule them. Girls, on the other hand, were more than happy to use the latrines. Where previously they had shared minimal facilities with the boys, they now had their own toilets. In a separate discussion with the girls, they admitted that previously it had been embarrassing for them, especially

during defecation, since the boys were right out there waiting. It had also been embarrassing during menstruation when they sometimes would even miss school.

The children use papers torn from their old exercise books for anal cleansing. In some of the schools the poor sanitary facilities had influenced the enrolment rate, since some parents argued that the school was promoting poor hygiene practices.

The latrines are important for behaviour change. This change has been big for some schools like Mbega Primary School where no single latrine existed before, not even for the staff. In Okana Primary School, only one dilapidated latrine had been in place - for staff only. This forced the children to use the bushes around the school.

Mary Adhiambo, 12, a SHC member, says they would get water for use in the home from a pond because one would have to pay for the water from a well. However on Mary's insistence, domestic water is now drawn from the nearby well.

In Rabuor Primary School, the SHC members, with help from parents, patrons and pupils, have constructed two more latrines to cater for the ever-increasing population of the school.

The children wash their hands after visiting the toilet using tins with holes in them (leaky tins) that are stationed just outside the latrines. More often than not, this would be after defecation and not urination. The children had a sense that urination was not as 'dirty' as defecation and thus the need for washing hands was not required.

Before tap stands were installed in the school, some children would carry water from their homes for drinking but not for washing their hands. The water points were at least 200m away, usually a pond, so a trip there was too much of a bother. At present, the challenge lies in changing this habit and all the school health clubs have stationed leaky tins no more than 10 metres from the latrines. The school health club members or other students occasionally fill these tins, following a rota. Usually this is done in the morning before classes begin, during break and during the lunch hour.

The latrines were kept very clean and washed every day by the students, supervised by members of the school health clubs. It was reported that in some schools at first the boys were reluctant to clean their toilets, as they believed it to be 'a girl's job'. The boy members of the club then started to do the cleaning and soon it caught on with the rest of the boys in the school. In Okana Primary School, the children compare which latrines are cleaner and scoff at those who do not clean properly.

In one of the control schools, girls clean the latrines, including those for boys, while the boys pick litter in the school compound every morning. In the other control school, the headmaster hires workers once a week to clean the latrines. Towards the end of the week

the latrines, few in number, become so disgusting that the students (especially the younger ones) admitted to using the bush or waiting until the lunch hour when they can go home.

In the control schools, the children are aware of the need to use latrines and wash their hands but do not do so. This is due to the repellent condition of the insufficient latrines and lack of water in the school compound.

A common problem in the schools is sanitary towels for the girls; less than 1% can afford them. During the training, they were encouraged to use clean pieces of cloth. Sometimes the girls recycle these cloths without washing them resulting in infection. Some cannot even afford proper cloths and stay away from school during their menses. This is mainly an economic issue that the school patrons have tried to address by continuously talking to the girls and encouraging their mothers to provide what is necessary.

Children were also asked whether they used latrines at home and washed their hands. Most said that they would use the latrines during the day but feared using them during the night, so they go to the bush.

Concerning handwashing at home after using the toilet, the children reported that sometimes there was not enough water. This we believe is mainly a case of priorities; mothers fetch water principally for drinking and cooking. They would see handwashing as waste of a scarce resource. The children sometimes use wastewater to wash their hands.

The children were asked about the water sources near their homes. Only 40%⁵ said that the family was now using improved water sources. In most cases, the problem was distance to the nearest source while sometimes it was cost. They said that neighbours with improved water sources would charge for the water, so they continued using unhygienic sources.

Food Hygiene

The main issue here was boiling drinking water. None of the children drink boiled water in school. It was the same in the control schools. The only water boiled in any of the schools was that drunk by teachers.

Cases were sometimes reported of children 'stealing' their teachers' boiled drinking water perhaps because they knew of the importance of drinking boiled water, which they did not have for themselves.

⁵ Of all the children interviewed, including those in the control schools, only 19 out of 48 attested to using improved water sources in their homes. This was evident when pictures of several types of water sources both improved and unimproved were shown to the students who would then pick out the one they or their mothers fetch water from.

However at home, according to the children, drinking water is boiled. Success cases were reported where previously water was not boiled; now children are doing this for the family as a result of the SSHE training. They said the water is then stored in pots and covered or put in drums.

Domestic Hygiene

All the SSHE schools were impeccably clean. The cleaning is organised daily by the school health clubs and refuse is deposited in fenced compost pits. The children also said they helped their mothers with cleaning at home. The control schools were also kept clean but this was mainly a girls' activity. Unlike the schools with SHCs, cleanliness was not a responsibility for both sexes.

Spreading the Word

The SHCs meet weekly or even twice a week to rehearse health messages which they recite to the rest of the school during assembly.

In some cases, in addition to the conventional health and hygiene training in the science curriculum, a half-hour is set aside at least fortnightly in each class during which two or three members of the SHC teach health and hygiene. One school has even recited health messages to the public during barazas⁶ with the chief. A problem reported in most schools though was that sometimes the older students felt that younger students were not capable of teaching. They would not pay attention when a younger student was on the podium.

One student, Anastasia Owiny, 13, when asked what she thought of the Health Club, answered that it has helped the many mothers who didn't care about the need to boil water and buy mosquito nets to do so.

It was clear that girls were more active than boys in terms of attending the meetings and participating in the poems, songs and skits.

Another issue was that there was a lack of new activities and this reduced enthusiasm for the club. It was recommended that the schools organise talks from health workers and also weekend activities. One that the children were keen on was spreading the word in schools without health clubs and also making exchange visits to schools with health clubs.

The SSHE has had a big effect in the homes of the students where better health and hygiene practices can be traced. One mother, interviewed by SANA at Okana Primary School, said that her daughter was now keener on keeping the house clean, helping around the house, sometimes even scolding her when, for example, she forgot to sieve the drinking water after boiling.

⁶ These are meetings called by the chief who is the head of an administrative area known as a location. They are usually called to inform the public on issues affecting the community and they also air their views.

Conclusion

From the evaluation, it was confirmed that SHCs have had some success and are indeed behaviour change agents. They have been regular in their relaying of health messages both at school and at home. However, in spite of this, it was realised that several issues need to be taken into consideration in further SSHE training:

- The school administration needs to be as keen as the students, as there is a distinct disparity in some of the schools. SSHE training should perhaps include the other staff in the school, to increase sensitisation and overall awareness on health and hygiene issues.
- One thing the SHC members have overlooked is their need to assess when the water in the leaky tins is finished and whether it needs to be filled more times a day or the leaky tins need to be increased, as cases were reported of students sometimes lacking water. This issue could be included in the SSHE training and encouraged by the patrons.
- Large-scale disinfection of the water is a problem that the schools need to address. One option could be solar disinfection (SODIS), which makes use of the sun's ultra-violet rays to disinfect water. It is comparatively cheap and requires few resources.
- It has been realised that convenience is an essential factor for behaviour change to take place. Having latrines and leaky tins within easy reach in the school compound has encouraged use of both by both children and adults.

Clearly, SHCs have changed the behaviours of the children and of the community around them. Their effectiveness has been strengthened by the combination of SSHE, which is the software, and the presence of latrines, leaky tins, and compost pits (hardware). SHC members also act as role models in their schools and promote positive behaviours among their peers and should be encouraged globally.

2. Uganda - Scaling up School Sanitation Programmes at the national level⁷

Albert Rugumayo, Consultant- Ministry of Education, Uganda

Introduction

In the mid-1990s, water and sanitation provision in Ugandan schools was non-existent or in an appalling state. Four big programmes have since put in hardware that has significantly improved the coverage of latrines, drinking and washing water. Less investment has been made in hygiene education. The packages of the four programmes differed somewhat and the results seem varied. Without another major effort to monitor and re-plan countrywide, and without more investment in water and sanitation for the surrounding communities, the sustainability of the hardware and the consolidation of behaviour change may be lost.

Background to the School Sanitation Programme

There is a positive correlation between education, quality of life, good health, social and economic activity. Studies have shown that 50% of child morbidity in Uganda is due to poor hygiene and sanitation, children being more susceptible (UNICEF/SIDA, 2002). According to the Burden of Disease Study in 1995 (GoU/UNICEF, 1995), 8.4% of the life years lost due to premature death were due to diarrhoea related to poor sanitation.

A UNICEF study found that over 1,200 school children died because of poor sanitation conditions at school during the 1997 cholera outbreak (UNICEF, 2002). Consequently, 560 primary schools around the country were closed because they lacked acceptable latrine facilities.

Schools, like the rest of Uganda's infrastructure, suffered a great deal of neglect during the 1970s and 80s – because of wars and political and economic mismanagement at every level, from central government down to the community. National latrine coverage was 90% in the 1960s, but dropped to 30% in the 1980s and only rose to 47% in the 1990s. In 1995, enrolment in Primary School was 2.5 million with a pupil:latrine cubicle ratio of 328:1. With the introduction of Universal Primary Education (UPE), the enrolment rose to 5.2 million and the pupil:latrine cubicle ratio shot up to 700:1.

Sanitation Baseline Survey 1999

A baseline survey was conducted by UNICEF in 1999, in nine sample districts – Soroti, Apac, Kitgum, Kabarole, Masaka, Luwero, Kabale, Rukunguri and Mbarara – to identify the

⁷ The reader should be aware that this case study is focusing more on a national SSHE programme and is therefore describing a 'different level' of how SSHE works.

school sanitation situation. It looked at access; use and maintenance of hygienic latrines; availability and use of handwashing facilities; solid waste; knowledge, attitudes and practice of pupils; and the presence of health and science clubs.

The study showed that:

- Latrines were present in 99% of schools in the study area. However, only 44% of the latrines had doors. So more than half of the latrines in the schools visited had no privacy.
- The majority of the pupils said that they used the latrines but only 2% of the schools met the recommended pupil:latrine cubicle ratio of 40:1. In the remaining schools, ratios were between 64:1 and 143:1.
- Only 16% of schools had latrines assigned to girls only or boys only.
- Only 20% of the schools had handwashing facilities next to the latrines.
- 86% of the school had urinals. Of these, 30% were smelly with flies and 15% were poorly drained.
- Solid waste disposal other than faeces was said not to be a major problem; 25% of schools reported that they burnt their refuse in a pit.
- Sanitation and hygiene knowledge among the pupils was high. 44% reported knowledge of diarrhoea-related diseases and others said that cholera was due to poor sanitation. This could have been because of a recent cholera prevention campaign.
- Regarding sources of information on sanitation, 91% of students mentioned teachers as the main source, although 64% of the teachers reported that they had not received any training on sanitation.
- Educational materials present in the schools were posters (50%) and books (31%), but a majority of the schools had inadequate or no materials. Where posters were available, they were not pinned in strategic places.

This baseline survey showed that there had been considerable progress in setting up sanitation facilities but less progress in raising awareness and even less in behavioural change among the beneficiaries.

By this time, there were still a large number of schools that had not benefited from any of the projects, which were still mostly in the pilot phases. Some of those that had benefited were facing serious challenges despite visible progress. The picture painted by the survey was the spur for dramatic changes at legislative and policy level – and increased involvement of Government Ministries, external support agencies and NGOs in School Sanitation Projects.

To achieve their goals, programmes needed to work in a conducive environment. In 1998-9, initiatives began to clarify policy, assign roles to stakeholders and build government commitment to poverty eradication and the provision of basic services. In terms of an institutional framework, strong emphasis was put on decentralising the school sanitation programme.

Intervention

UNICEF Water, Environment and Sanitation (WES) 1995-2000

The WES project established highly successful programmes in community and school sanitation in 34 districts. Its key characteristics were: involvement of the private sector; establishing community involvement by forming 1,500 water and sanitation committees; strengthening hygiene education in the curriculum with three-day courses for 2,468 teachers from 735 schools.

Safe water was provided to over 100,000 primary school students, and adequate sanitation to over 300,000. A total of 1,449 five-cubicle latrines with handwashing facilities were constructed in primary schools. The pupil:cubicle ratio was reduced from an estimated 700:1 to just over 100:1.

The UNICEF School and Community Hygiene and Water Programme (2001-2005)

The School and Community Hygiene and Water Programme (SCHWP) covered 105,040 children, and was able to apply lessons learnt from the WES programme. Having inherited schools with an estimated pupil:cubicle ratio of 700:1 they reduced it in their 235 schools to 86:1. 97.2% of the schools were provided with latrines with concrete slabs, making maintenance much easier; 99.6% of them had separate latrines constructed for girls and 17% had washing rooms for the girls; 85% of the schools have had safe water installed; 60% have had handwashing facilities built next to the latrines. A study has revealed a high level of knowledge of sanitation issues among the pupils.

A new improved latrine design was used to build latrines that were more sustainable and would deal with the problems that had arisen with the structures built under WES (see below).

Every morning the pupils of Railway primary school line up to be checked for cleanliness. The sanitation teacher Mr Kabogoza Samuel is very concerned about improving the children's personal hygiene so he convinced the headmaster to have thirty minutes set aside each day for this purpose. With the help of the other teachers, he checks the children's hands and nails, whether they have washed their uniforms and their bodies, brushed their teeth, combed their hair. Those with dirty bodies or uniforms are taken to the school bathrooms to wash. The school bathrooms have basins, soap and water. They wash under the supervision of the senior woman teacher who ensures those who do not know how to wash learn to do so – in the hope that these skills will be taught to others at home.

That was the intention, but has it worked? According to the senior woman teacher, Ms Wavamunno, there is still a long way to go. It seems to her that children get no encouragement at home to keep themselves clean. They still show up at school in the morning looking as if they did not reach home the previous day. She is however hopeful that, with time, their efforts will pay off.

The School Facilities Grant (SFG) Programme (1998-2003)

The SFG programme, working under the Ministry of Education and Sports, was a direct response to the increased enrolment following the Universal Primary Education (UPE). The programme set out to promote sanitation in schools in selected districts by building latrines and handwashing facilities as well as classrooms and teachers' quarters. To date, the programme has put up latrines and classrooms in over 8,000 schools countrywide.

Monitoring carried out in April 2002 surveyed a number of districts. Nebbish District, where there had been increased enrolment in a number of primary schools, is a fairly typical example. Here, the following improvements were recorded:

- Community Empowerment for Rural Development (CEFORD) had assisted schools to construct pit latrines and classrooms;
- SFG had put up four-classroom blocks with desks and five-cubicle latrines in some schools;
- World Vision had constructed classrooms in a number of schools;
- SFG had constructed classrooms, offices, stores and, in some cases, dormitories in selected primary schools;
- Water tanks had been provided, particularly in areas where there were no natural water sources; in 2001, 40 water tanks with 10,000 litre capacity were distributed to primary schools;
- In 2001, 72 blocks of 5-cubicle latrines were constructed; the pupil:latrine cubicle reduced from 130:1 in 2000 to 97:1 in 2002.
- Communities were helping in the programmes by providing labour and local materials;
- Nurses from nearby health centres were also offering assistance;
- There was an improvement reported in the health of the children in some schools.
- In 2001 alone, 257 teachers from 95 primary schools were trained in hygiene and sanitation;
- Workshops on sanitation and hygiene were conducted for 500 school prefects;
- School sanitation and hygiene clubs had been formed in some primary schools;
- In 2001, 40 schools participated in a school health competition;
- Personal hygiene was being emphasised during school assemblies in most schools visited.

Changing hygiene-related behaviour

Kavumba Church of Uganda Primary School in Wakiiso District is a rural school about three miles off any road. The pupils are from rural families, have no shoes and cannot speak any English. Catching the eye of any visitor to the school are the flyers and posters hanging on the trees around the well-swept compound. These remind the pupils to “wash your hands after visiting the latrines”, “ keep your compound clean” or point to the latrines. Three five-cubicle latrines, a 10,000-litre rainwater-harvesting tank and two 500-litre handwashing tanks have been newly built. The school administration is really grateful to SFG because the situation at the school had been bad. They are playing their part by trying to maximise awareness and behaviour change. They have a senior woman teacher in charge of sanitation, a Sanitation prefect, a school Health and Sanitation Club and even Health Parades. As a result, awareness levels are very high for a rural school.

The Rural Water and Sanitation (RUWASA) Programme (1996-2001)

The RUWASA Programme was a Government of Uganda project funded by the Government of Denmark through DANIDA. The first and second phases, which lasted until 2001, served 12 districts in Eastern Uganda.

Under this programme, a total of 3,650 school latrine cubicles were constructed in the 12 districts and approximately 720,000 people were provided with safe and accessible drinking water sources. In approximately 50% of the schools, the children’s awareness of hygienic practices has been raised through the provision of adequate sanitation facilities and hygiene education.

Most of the facilities built by RUWASA are now over five years old and in schools like Biyinzika Primary School where the population is over 1,000, the capacity of the latrines has almost been reached.

Components of the programme- Latrine and handwashing facilities

Latrine facilities

The latrine facilities were one of the major success features of the programme, being designed in a way that limited the problems of those used by WES. Each school should have received two five-cubicle latrine blocks, one for girls and another for boys (although sometimes this was not the case).

Features included:

- high quality construction materials, reassuring users afraid of collapse, and a vent to discourage flies;
- Specially designed pre-fabricated slabs that could be moved to another pit once the first pit was filled;
- Washrooms for girls and special facilities for people with disabilities;
- an enclosing wall;
- a urinal for the boys' block draining into a soak pit.

Standardisation of the facilities was a deliberate strategy by the government to ensure quality and value for money across the country. It also guarded against corrupt district officials and contractors delivering substandard work.

In the past, girls did not have special provisions but the Government started giving a financial award per term for schools that made provisions for girls. These included separate latrines, a washroom, sanitary materials and games uniforms.

St Kizito Primary school

This school has a population of 1,400 pupils. There has been a lot of effort by the school to promote sanitation since the project visited in 2001. In addition to latrines, a large 25,000-litre gravity water tank was built. This supplies water to 200-litre drums used for handwashing and for cleaning the latrines. The children are enthusiastic about the new facilities because they have never seen anything like them. They are excited about water being so near because at home most of them have to walk miles to fetch water for home use.

One pupil mentioned how amazed they were about the facilities and how it made it so easy to clean up their latrines and themselves – they had nothing comparable at home, where water is seen as too important to be wasted on washing hands. At school, he said, they could practise good sanitation habits but when they went back home they had to forget them. He added that it was difficult to tell his parents about good sanitation habits since water was so scarce.

Handwashing facilities

To encourage students to wash their hands after using the latrine and before eating food, every five-cubicle latrine block was provided with a 200-litre PVC handwashing facility, installed on a raised concrete platform. Schools were encouraged to use part of their funds to provide soap.

To ensure safe water, rainwater harvesting has been encouraged as a sustainable method. The PVC tanks provided had a capacity of up to 10,000 cubic litres and a tap. They were centrally purchased and distributed to districts. The districts then identified the schools with the greatest needs.

Activities linked to behaviour change

To influence behavioural change, the programme set out to sensitise school communities to the benefits of good sanitation behaviour, the disadvantages of poor sanitation behaviour and how to improve overall standards.

Training seminars were held for the teachers which included information on latrines, excreta disposal, solid and liquid waste disposal, personal and food hygiene, and a safe water chain and vector control. They were also helped to find the tools they needed for teaching these subjects through publications with suggestions from the child-to-child approach, behaviour change techniques, personal and environmental hygiene and the effects of good or bad sanitation. In 2001, about 718 head and science teachers (with 115,000 pupils) were trained and used to supervise the construction of facilities and carry out mobilisation activities. For the communities there were radio and television advertisements plus local drama groups.

In Jinja district the top District Officials have involved themselves whole-heartedly in the campaign for improved sanitation. A Sanitation Calendar was published featuring the District Inspector of Schools cautioning the children about sanitation. This calendar for 2003 is expected to play a huge role in awareness because the District Inspector is a prominent figure in schools and all the pupils look up to her as someone they would obey.

Mukono district benefited from a very active District Management Team chaired by the District water officer. A lot of effort has been put into improving the school sanitation situation, especially on the software side.

The District health and education officers have gone to exceptional lengths to increase awareness and behaviour change. A mobilization committee has been established, headed by Eunice Nanjiwe. The mobilization teams visit schools, carry out seminars, train teachers, arrange drama and essay committees and plan the year's activities. As she works so tirelessly to promote sanitation in all schools, Eunice is fondly referred to by her colleagues and even the pupils as 'Sanitsoni' (Sanitation). Eunice has this to say about behaviour change: "Continuous assessment will lead to behaviour change! Our team is determined to go on teaching about sanitation for a long time, confident of the fact that some years down the road they will see the behaviour change in each and every school."

Problems encountered in changing behaviour

- Programmes that concentrate on putting hygiene into the school curriculum may have increased the knowledge of students without necessarily ensuring that knowledge is translated into changed behaviour.
- Where the concept of good hygiene behaviour is limited to washing hands after using the latrine, it is limited indeed. If behaviour change is not reinforced by similar changes in the home it might well not take root.

The Teacher John Njoye

"I am a teacher in Kibuuka primary school in Mpigi. I have agreed to be the teacher in charge of sanitation and I needed to make an effort to find time for this. I am not paid for this extra task; however, I would be satisfied if I got a positive response from the pupils. But this rarely happens. The children still continue with their old habits despite my getting at them to wash their hands after going to the latrine...and to clean their black nails! I blame their families and homes. The children have all sorts of beliefs – that it is better not to use latrines, what girls should and should not do during menstruation. Some children even take their lunch into the latrine. I love my job but sometimes I am overwhelmed by the lack of response from the pupils and I get very discouraged".

Nyakhanga primary school

This school in Ntungamo district took advantage of the competitions for schools. Nine different posters carrying different sanitation messages were developed over the past four years. These were distributed to schools and other public places. In addition a TV documentary was produced and broadcast on three TV stations for three months. T-shirts and caps with the slogan, "Better school sanitation – a responsibility for all" were printed and distributed. The teachers are preaching sanitation and the pupils are now equally excited. For now the hygiene practices have not improved much, however it is hoped that with the increased awareness within the two groups, the teachers are going to know how to teach the pupils better sanitation practices – and the pupils will surely respond to it and positive behaviour change will be attained.

Regular handwashing after latrine use

One school faces a challenge: members of the surrounding community have been very uncooperative. They misuse the school toilet facilities, they steal jerricans and buckets belonging to the school, and on several occasions they have tried to carry away the 200-litre drums. The school has had to wrap barbed wire around the drums and the tanks to stop it.

Accommodating the Girl Child

The School Sanitation Programme was notable for emphasising the special needs of girls. Many girls miss school because of the difficulties of managing with no latrine, in particular the difficulties of managing menstruation. As a result, more appropriate sanitation was prioritised as part of promoting the Girl Child Education programme. Hardware included changing/washrooms which enabled girls to wash and change at school. They ensured that the girls had their own enclosed latrine facilities to guarantee privacy. And a senior woman teacher would give guidance as they approached puberty. As a result, awareness levels in the programme schools were very high. However, the behavioural changes still left a lot to be desired.

Mafubira Primary School

"My name is Rosemary. I go to Mafubira Primary School in Bugembe, Jinja district. When I first started at the school in 1996 I was the only girl with more than 500 boys. I got a lot of teasing and sometimes it was very hard. There was only one dilapidated three-cubicle latrine. There were no doors or shutters and yet it faced the main road. Imagine how I felt at the idea of using it! Twice, when I went into the bush to find a private corner, boys followed me and I was afraid of what might happen. I ran back to the school and had to wait until I got home to do what was necessary. Then the project started. They built two five-cubicle latrine blocks in the school compound. The latrines have doors and each block is surrounded by a wall. We can feel really safe and private. When we are menstruating we can change and wash. Many more girls have been registering and now we are 725 girls and 655 boys. My school won the 2002 School Performance Award for Girl Child Education for Jinja District. I think it deserved such a prize. The teachers were serious about our difficulties and needs and put a lot of effort into making it easier for us to stay in school".

Many other schools have also tried hard to consider the special needs of the girls. However there is rarely enough money to buy construction materials.

Accommodating the disabled pupil

The School Sanitation Programmes also planned for pupils with disabilities, considering the discomfort caused by poor sanitation facilities for this group. In order to cater for pupils with slight disabilities who enrolled in public schools, SFG made a provision for at least one teacher in each school to be educated in special needs education, whether or not they currently had a disabled pupil in their school. It also made a provision for one cubicle to be built especially for such pupils. It is assumed that those with more serious disabilities are in schools for the physically disabled.

Nakisunga Primary School

Nakisunga Primary School in Mukono District is specifically for disabled children. The school sanitation project was adapted in this school in two ways. It erected special latrines large enough for wheelchairs and with horizontal poles on the latrine walls to act as handles to help the children use the latrines comfortably. It also provided special needs education training for all the teachers, specifically in relation to sanitation and how to bring about behaviour change for people with disabilities. Having received better facilities the pupils are now excited about keeping them clean. There is also increased awareness about sanitation and health.

Actors in School Sanitation Programmes

The following actors are involved:

The District Management Team (DMT) has been actively participating in school sanitation activities. Its actions included the appointment of personnel from the respective departments onto the school water and sanitation boards and physical visits to the school .

Health Inspectors from the Directorate of District Health Services (DDHS) office have been programming visits to schools and teaching about sanitation and the effects of poor sanitation.

NGOs and CBOs have been playing an active role in the construction of sanitation facilities and provision of clean water. Some have drilled boreholes, others have provided water storage tanks and protected springs and wells. They have also participated in the sensitisation of the community in relation to water and sanitation.

Teachers, children and parent-teacher committees take part in the School Sanitation Programme at a practical level. They also provide information to the District Education and water officers regarding how the water and sanitation facilities are working in their school.

The District Education Officers inspected the schools in the district and decided which were in most need of the facilities. They co-ordinated the activities of implementers in the schools.

District Water Officers are the Heads of the District Management Teams and oversee and coordinate the implementation in the district.

Overall problems and achievements

- This case study has looked at programmes that have tackled a national problem with varying packages of interventions. It is not surprising that the picture of results so far is very varied.
- The WES programme ended in 2000, having provided water to over 100,000 primary school pupils and adequate sanitation to over 300,000. With the involvement of the private sector in construction the pupil:cubicle ratio was reduced from about 700:1 to just over 100:1. Rainwater tanks were constructed. Educational and media promotional materials were developed.
- A 20% increase was achieved in the proportion of the total 2000 population using and managing protected water sources.
- Approximately 721,800 people in RUWASA Phase I & II districts were provided with safe drinking water sources within walking distance. In RUWASA Phase II this corresponded to a 20% increase in safe water coverage in the project area.

- The sanitation coverage was also increased by 33% among users of the water facilities. This contributed to improving living conditions as well as reducing the burden of work for women and children.
- The UNICEF School Water and Sanitation Programme also showed significant achievements. It developed a new standardised design for latrines.
- The School Facilities Grant and the RUWASA programme have also had significant achievements in the various districts.
- The programmes with more success in the schools were the ones with a better balance between the hardware (sanitation facilities) and software (components concerned with awareness and behaviour change). Overall, the hardware components of the programmes have received the most attention and there have been impressive quantifiable achievements in the number of latrine cubicles and water points built.
- Investment of money, time and effort into hygiene-related behaviour change has not been anything like as great. It was claimed that children's awareness of hygienic practices has been raised through the provision of hygiene education and adequate sanitation facilities. Awareness, however, is not behaviour change and there is very little evidence of change beyond handwashing within the school. One very large problem is that the facilities available in the schools, like water for washing and latrines, are not facilities available to most of the families of the school children; until they are, hygiene education will be limited in effect.

The issue of sustainability

The chief donor has been UNICEF. Other donors have been the World Bank, DANIDA and World Vision. However, all these sources of funds have ended or will end soon. The RUWASA programme claims that it has ensured the sustainability of functioning hardware by establishing a community-based Operation and Maintenance (O&M) system. However such systems are difficult to get right – as is shown by the failure to maintain millions of village pumps in Africa. After the end of the funded programmes, the prospects of effective O&M are poor.

The continued commitment of teachers is also essential to the continuation of school sanitation and hygiene education, but this has not yet been assessed in Uganda. In programmes elsewhere in Africa, many teachers see a sanitation programme as another burden when they already have too many duties. This might help explain why in many instances during follow-up, good facilities were found unused.

Conclusion

This summary includes points on the overall project that are not only relevant for schools. The main conclusion is that government has a dilemma, in that its performance is often judged in terms of how much infrastructure has been put in place. Therefore latrine construction and provision take priority. A balance has to be struck between what is judged

as performance and what is actual performance. This remains a challenge to planners of sanitation interventions.

The list of what is still needed is a long one. The most important task at central level is to establish a monitoring and evaluation system to inform decision-makers. They need to know whether the enormous amount of hardware installed in the last ten years is kept in a functioning condition, and act accordingly; whether the hygiene awareness created in the schools is beginning to translate into changed behaviour, starting with handwashing; whether it then starts increasingly to influence home-based behaviour and that of pupils' families. Decision-makers also need to be aware of the continuing need for funding, when the big donors leave.

At the community level, sanitation needs a much higher priority and interest has to be raised among community members. There needs to be fair and transparent distribution of facilities.

At school level, the needs are to give greater priority to sanitation in terms of: the allocation of school funds and attention; hygiene habits and life skills; the building of better links with the local community and giving attention to their sanitation needs; the need to find the money to continue building latrines; and assigning them fairly between boys and girls.

The schools and communities need to work together more to remedy sanitation problems and ensure that children acquire life skills and better habits. Private contractors need closer control to prevent shoddy workmanship, and the community could take on the role of supervising the building of the facilities. This would ensure that they are not cheated and would build their commitment to the project. It would also contribute to sustainability and behavioural change.

The schools could take on the child-to-child approach in ensuring capacity building among the pupils. In this way the children, under the guidance of their teachers, can exchange ideas and suggestions, make the decisions and take the initiative in developing and maintaining a better sanitation standard. This builds enthusiasm and commitment among the students.

Projects need to stay longer to ensure that the required capacity has been built and that the school and the community can manage on their own from there on. The implementers should leave only after they are sure that the technology used is not too complex for the community or school.

There have been significant achievements in terms of latrine construction, handwashing facilities and behaviour change. The challenge remains to prioritise behaviour change because once this is in place other initiatives will also be sustainable.

In preferring behaviour change as the key element to sustainability of sanitation interventions, the success of controlling the AIDS pandemic can be referred to as a model. Emphasis was on behaviour change and the infection rate dropped from 20% to 6% in the past years.

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3. Burkina Faso - School Sanitation and Hygiene Education experiences in the Ganzourgou province

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Introduction

This case study presents a School Sanitation and Hygiene Education (SSHE) experience in the Ganzourgou province in Burkina Faso. Initiated by the Ministry of Basic Education and Literacy, this pilot project was implemented in 26 schools. It received financial aid from UNICEF and the Dutch Government, and technical support from CREPA (Regional Centre for Low Cost Safe Water and Sanitation). Schools were equipped with water and sanitation facilities, while capacity building and training of teachers, children and communities resulted in change of behaviour and improved living environments.

Intervention

As is sometimes the case in many African countries, schools in Burkina Faso, especially in rural areas, are major centres of community interest, coming second after sanitation facilities. Even though many of them are overcrowded, schools are the best places to stimulate child development and are quite often important for the children's survival, as they provide school meals.

UNICEF and IRC launched a programme to promote sanitation and hygiene education in primary schools of six developing countries of Latin America, Asia, and Africa. Burkina Faso and Zambia were the two African countries chosen to participate in the project. The programme aims to show that a global and integrated approach to improved sanitation and hygiene conditions of school children and communities will directly benefit children's learning abilities, preparing them more effectively to participate in the development of their country.

In recent years, the SSHE initiative has attracted the attention of private and semi-public institutions, including PLAN International, as well as community-based organisations. To implement their activities, they seek the approval or the support of the Ministry of Education.

The Ganzourgou project is different because, even though it is a joint initiative of the Ministry of Basic Education and Literacy (MBEL), UNICEF and IRC, and is supported by CREPA, it is implemented entirely under the supervision of the MBEL. The Ganzourgou SSHE project is a pilot project, which could be extended to other schools in the province, and/or to other provinces if the results are positive.

Satellite schools

The **satellite school** is a new concept being tested in Burkina Faso. These schools, which are built in villages that don't meet the conditions (i.e. not enough inhabitants) to receive a normal school, house the three first grades of primary school. Children of seven and eight attend classes at this local school for three years. During this time, they will acquire sufficient skills to be able to go to the mother school.

Local language, as well as French, is used to implement a new method of acquiring knowledge. During hygiene and environmental sanitation lessons, existing water and sanitation facilities are taken as reference. From the start of the project, the community is involved in construction and in setting up parents associations, management committees and Helping Mothers Associations.

The mother school is a normal school with six grades, taking in children having been to satellite school, as well as other children from seven years onward. The normal cycle lasts for six years, which means the children can attend classes until they are sixteen.

Conception - Ganzourgou Province

Ganzourgou province, situated in the East of the country, has an estimated population of 223,555 (figure from 1991). The road from Ouagadougou to the Nigerian border runs right across it. Covering an area of 4,087 km², the province is divided into three districts and seven departments. The main town is Zorgho, and the average population density is 50 inhabitants per km². The population is mostly Mossi, the country's dominant tribe, and there are some Peuhl and Bissa. Ganzourgou has 21 health and social service centres, one medical centre with an operating room, and seven dispensaries.

In the MBEL organisation, Ganzourgou province is part of Centre East region, which comprises three other provinces: Boulgou, Koulpélogo and Kouritenga. Each province has its Provincial Director for Basic Education and Literacy affairs. The regional head office is based in Boulgou.

Why Ganzourgou Province was chosen?

This province was chosen for two main reasons:

- Ganzourgou is part of the intervention area of the funding partner UNICEF, and it is not very far from the capital Ouagadougou (105 km).
- As the province has quite a large number of satellite schools, it will be easy to make comparisons with normal schools. The results can be used to make suggestions to improve all schools in the country.

The project is carried out in 26 schools in the Ganzourgou province, in Zorgho, Mogtédou, Boudry and Méguet. It was launched in July 2000 with an informative session for all actors involved.

Objectives and expected results

The main objective of the project is to bring about a noticeable improvement in the children's and the teachers' living environment, as well as better school results, while at the same time achieving greater involvement of the community in school activities.

Specific objectives are to:

- Assess the baseline situation in 19 satellite schools and 9 public primary schools in Ganzourgou province.
- Improve basic health, hygiene, and sanitation conditions in these schools.
- Revise school curricula with the aim of integrating a life skills-based health education component.
- Strengthen capacities of educators and pupils regarding hygiene and sanitation.
- Involve families so that they too will adopt hygienic behaviours leading to improved health and living environments.
- Bring together all agencies involved in activities at school level in the project area.

The results that have taken place include:

- Hygiene practices and health have improved noticeably in children of all 26 schools, and they can take care of their environment.
- Life-skills components have been incorporated in the curricula.
- Educators have acquired sufficient knowledge to bring about changes in behaviour in schools and in the community at large.
- More than 500 families around the schools and 182 members of school committees are effectively putting into practice hygiene, sanitation, and health messages.
- In agreement with the technical services, NGO's involved in SSHE promised to set up a consultative and operational framework for the different activities.

Implementation strategy

Drawing upon its experience in the field of SSHE and participatory approaches (PHAST or SARAR methods, gender issues, etc.), CREPA, which is in charge of the technical support of the Ganzourgou project, submitted an action plan to all actors involved. CREPA interventions included:

- construction of water storage tanks for drinking and sanitation
- capacity building (training)
- monitoring the implementation of the planned activities.

Preliminary activities

Before the project leaders started the implementation, they carried out the following preparatory activities:

1. **Identification of the schools concerned**, of the different stages of the action plan and of the timeline, in order to determine the responsibility of each actor. Although

initiators dealt with these issues, all actors were involved in the preparations, including school staff and community members.

2. Organising workshops to **inform participating institutions, policy makers, local chiefs, and representatives of Parent Teacher Associations** about the project's objectives and to seek their support.
3. **A baseline study** in the project area, questioning school children, teachers, PTA's, Helping Mothers Associations and community members of all 26 villages on **Behaviours, Skills and Practices**. The results of the study were used to complete the information and training programmes of the main school actors, i.e. the teachers, educators, and inspectors. They will also be used to develop indicators for the monitoring stage of the project.
4. **Teachers training** was an important part of the preparations. It focused on strengthening the teachers' capacity to implement the SSHE project. The 98 teachers, educators, and inspectors participating in the training were taught:
 - the broader context in which the pilot project would be implemented;
 - transmission routes and barriers of water and sanitation-related diseases;
 - new approaches and learning methods for teaching hygiene and sanitation at different school levels;
 - how to set up a timeline for the implementation and monitoring of an SSHE action plan in their school;
 - how to develop strategies to stimulate greater involvement of other actors in the project.

At the end of the training sessions, each school launched the activities described in the action plan developed by the teachers. CREPA trainers and MBEL female inspectors led the sessions. The head doctor of the area was asked to explain specific health issues. To stimulate the teachers' creative thinking, only one practical tool was handed out to each school – SARAR's kit on "diseases: transmission and barriers". Participatory learning methods were widely used for teaching hygiene and sanitation.

Physical results

No behavioural changes in the field of hygiene and sanitation can occur unless safe water sources and adequate sanitary facilities are made available. To meet these practical preconditions, without which implementing action plans would be pointless, the following structures have been build in each school:

1. Water points: With UNICEF's financial aid, all schools but five were equipped with a tube well. The five schools left out are situated less than 500 m from a village water point.
2. School latrines: each school was provided with two latrine blocks, one for girls and one for boys, taking into consideration the physical and cultural needs of girls, who may refuse to use the facilities if they are not separate. Special provisions for menstrual hygiene were not made, as the children are still too young. Teachers use the latrines located on their nearby premises.

3. Handwashing facilities: using the latrines implies several actions such as cleansing and handling various materials. As the children are small, and contact with the faeces is likely, latrine blocks were equipped with facilities for washing hands after using the latrines.
4. Drinking water posts: drinking water devices have been placed in the classrooms to allow children to drink if they are thirsty. They will also enable children to acquire certain skills: filling up the container, handling the faucet, cleaning the device/ canari, etc.

Other results

At the school level

Water and sanitation facilities can only be effective and will only bring about a better living environment if they are properly looked after and used regularly. To assist children and parents in charge of maintenance, a team of female health technicians visit the villages across the project area.

1. According to a timetable established jointly with the teachers, the health technicians helped the children of each school to set up a School Health Committee. The pupils in this committee are taught how to co-ordinate water, hygiene, and sanitation management activities and are given the responsibility of these tasks. The monitoring and self-monitoring activities carried out within the school framework will contribute to improve the environment, as well as personal and dress hygiene. Considering the young age of the children, each committee is assisted by two parents and supported by a master educator.
2. Posters are hung in the classrooms, depicting examples of personal hygiene, handwashing and cleaning of the school premises. These pictures are not just there for decorative purposes, they are teaching aids providing practical illustrations of hygienic behaviour designed to encourage pupils to do the same.
3. A cleanliness competition and a drawing contest on the hygiene and sanitation theme were held to stimulate teachers and pupils efforts towards better hygiene and cleanliness. The cleanest schools and the most dedicated teachers were rewarded, and the children who made the best drawings received a prize.

At the community level

4. The community constitutes the children's living environment. Conditions in the villages should not be out of step with conditions created by the SSHE project. Teachers and health technicians helped to set up Community Health Committees in each village. Having received appropriate training and information on water and sanitation-related diseases, these committees serve as a relay station, disseminating health messages in the community, so that the lessons learned in school can be backed up by the parents at the family level.
5. To ensure that children can keep up the hygiene practices acquired in school, parents are supported financially to build family latrines. Local masons are trained to take into account the needs of the households on the one hand, and the constraints

of the chosen building technology on the other hand. Five hundred demonstration latrines are to be built in the 26 villages benefiting from the project.

Evaluation results of the project

Strengths of the project

- The Ganzourgou project was implemented under MBEL supervision. This will make it easier to advocate the extension of the project with decision makers and the outlook is promising.
- The action plans developed by the teachers are carried out as far as possible, indicating the commitment of the main school actors to the SSHE project. What is more, working with clean children is a decided advantage.
- Pupils and teachers drew up hygiene and sanitation promotion messages in a participatory manner. They will engrave these messages themselves on the latrine entrances and on the handwashing facilities.
- The drawing contest generated a colourful collection of children's illustrations that can be used for making a calendar.
- Personal and dress hygiene have considerably improved, as children supervise each other. Wearing shoes is slowly becoming a common practice.
- Providing a school with a water point can be a benefit for the whole village. In some project communities, the first water point they had was the one constructed in the SSHE project context.
- The documentary film that was made of the project will provide useful information for those who want to initiate a similar project in their community.

A pupils point of view

My name is Issaka Kabore from the Tinsobdogo school.

Before the project came to our school, the pupils didn't have a plan for cleaning up the classrooms and the schoolyard. Our teachers did it, but it wasn't organised.

The old latrines were badly looked after and very dirty. The doors didn't close, so the villagers and even unknown passers-by used them. Nobody wanted to get inside the latrines anymore, so the children defecated around them. There were no containers/ canaris for drinking water in the classrooms.

Since the project started in our school last year, there have been many changes. With the health clubs we learned how to clean, how to use the latrines properly and look after them, we have drinking water in the classrooms and our environment and our health has improved.

A teachers point of view from the same school

My name is Serge Nikiema, I'm in charge of the second grade.

Before the SSHE project in our school, we tried as best we could to keep the classrooms and the schoolyard clean, but with the children, it isn't easy, especially with the little ones. The latrines were very dirty and disused. The fact that there was no water point on the premises didn't make things easier.

But since the project activities were launched, and with the support of the health technicians, so many things have changed in the school. You can see it in the classrooms, now we have drinking water devices, posters, and a chart for garbage disposal.

The latrines have also much improved: they are used and maintained properly; the handwashing facility is always filled with water so that children can wash their hands after using the latrines. What is more, the school has been equipped with a well, which is a great help.

I'm extremely pleased with the project, and I think we will continue and maintain what we have learned and acquired.

Weaknesses of the project

- The implementation of the planned activities was behind schedule. The time allocated to monitoring was too short, due to holiday closure of the school in June.
- All the water points in the schools are also used by the communities. This makes it difficult to apply the hygiene rules learned by the children.
- Some activities, such as planting trees, are difficult to carry out for small children. Buckets of water for example, necessary for watering the young trees, are too heavy for them to carry. That is why two parents, either from the PTA or the Helping Mothers Association, have been transferred to the School Health Committee.
- The presence of stray animals hampers the reforestation process.
- The planned consultations between all stakeholders with the aim of setting up a data bank did not succeed. Only one party involved showed up regularly at the meetings to discuss the proposed activities.
- Transferring benefits from the school to the community is also slightly behind schedule.
- Some of the teachers were not very motivated, especially those of the satellite schools, as their status as state-employed teachers has not yet been clarified.
- Active involvement of PTAs in school matters was poor. The Mothers association showed more commitment.

Conclusion

The Ganzourgou SSHE project is original in that it has been implemented under the Ministry of Basic Education. Even though teachers are transferred on a regular basis, we are convinced that the hygiene and sanitation activities will be continued, because:

- The newly appointed teachers in the project schools have found facilities (water points, handwashing facilities, water containers/tanks, posters) that are not common in the majority of schools in Burkina Faso. They have kept up the hygiene practices acquired by the pupils and the previous teachers.
- The learning techniques developed with the teachers has allowed them to differentiate themselves from teachers in “classic” schools, thus attracting and focusing the children’s attention, and making them participate actively in hygiene and sanitation lessons.
- The action plans and the posters developed during the teachers’ training have been promising and stimulating tools. The posters are quite popular, and there has been a demand for them from other schools and stakeholders, in and outside the province.

4. Kenya - Women, girls and water: Gender sensitivity in SSHE project in Kisumu District

Alfred O. Adongo, Team Leader of SANA and Rosemary L. Rop, Team Leader of Maji na Ufanisi (Water and Development).

Introduction

Women and girls in urban Africa are socialised from an early age to look after family and household. But now, at the beginning of the twenty-first century, the sum of their duties constitutes a serious burden. The male role of provider has been eroded to the point that the majority of households in Kisumu are female-headed.

There are two NGOs – Sustainable Aid in Africa International (SANA) and Africa Now (AN) – which, while recognizing that their ability to change society is limited, are making it a priority to direct their help to girls. A good point for intervention is in the schools. Both NGOs have started School Sanitation and Hygiene Education (SSHE) projects that not only provide practical help but also aim to empower girls and challenge the exploitative aspect of their traditional roles.

Description of Kisumu

Situated on the shores of Lake Victoria, with an estimated population of 500,000, Kisumu is the third largest city in Kenya and the provincial headquarters of the western Nyanza Province.

Informal settlements currently hold around 50% of the population of Kisumu (BG Associates, 2001). The lack of any clear policy framework or effective programme for meeting the needs of the poor has resulted in rapid expansion and overcrowding of these areas, with the majority of the residents living in absolute poverty without access to sufficient water or sanitation.

The majority of houses in peri-urban Kisumu are female-headed, the result of one or more of the following:

- Kisumu has one of the highest rates of HIV/AIDS in the country. The husband dies first leaving his wife and children. The death of his wife usually follows, leaving the oldest girl in charge of the family.
- Polygamy is a common tradition in the area. At any one time, one or more wives and their children may be neglected.
- The civil service and small enterprises are the major employment sectors in the area. With the civil service, out-of-town postings are common and the wives are left in charge of their families, receiving no part of the husband's wage packet.

Sources of Water

In peri-urban areas, water is obtained from a wide range of sources. Local Authorities often sell water through kiosks, where it is usually up to standard in terms of quality. However,

long queues at water kiosks mean that clients, usually women, wait for up to three hours. They may opt to walk to other sources such as Lake Victoria, rivers or streams. In the informal sector, more than one thousand inhabitants have dug wells and a few have drilled boreholes. Water is also distributed by water hawkers using the same range of sources and selling water door-to-door. In the dry season, they charge higher rates than the water tariffs gazetted for low-income groups. The government flat rate tariff is Ksh. 0.005 per litre. Water vendors using handcarts charge between Ksh. 0.25 (wet season) and Ksh. 0.75 (dry season) per litre. The hawkers have no legal status, pay no taxes or local government rates, but are 'accepted' since they supplement the water distribution system (SANA, 2000).

Women, water and earning a living

Female-headed households have to earn a living and this needs water. The same applies to communal areas like day care centres, community bathrooms, washing facilities, communal kitchens, etc. – all places where girls and women collectively take care of domestic duties. At this level women can play a decisive role in management and maintenance. Small business enterprises, ranging from salons and dress boutiques to food and snack kiosks have their own water needs – such as the preparation of sweets, ice cream and other food, or washing and ironing. Water may be used for money-making before family use.

A water kiosk in Manyatta. Here the pump's owner's daughter pumps water for waiting water hawkers

Sanitation in Kisumu's Slums

The majority of slum residents defecate among the bushes or use 'flying toilets' (paper bags into which people defecate and which are then thrown away). The cost of digging and constructing latrines is too expensive for most, at Ksh.250 per foot [Ref. 1]. Where latrines are available they often malfunction at times of heavy rains. These cause the contents of the pit to overflow onto surrounding ground surfaces. Emptying the latrines using machines is difficult and expensive. Most of the pit latrines are not accessible by machines in any case, due to the narrow roads, so skilled labourers can be hired on a job basis to empty the pits manually.

The Domestic Roles of Females and Males

The people of Kisumu are mainly Luo, and, like most African communities, the women and girls are held responsible for the wellbeing of the household. They clean and cook, ensuring that there is food on the table at the end of each day. The girls are trained into these roles from a very early age, learning from the previous generations and socialising the next. Such roles, though, are being subverted by the current need for the females to provide for the household financially as well – formerly the role of the males. By custom, their efforts can be supplemented by female earnings, but the women should not out-earn

their men. This traditional division is becoming less common as AIDS takes hold or males refuse to provide for their dependants.

Girl children are generally responsible for fetching and purchasing water for the household. Boys are socialised early to do nothing for the household and to be looked after by their females.

Girl-headed Households & AIDS

Up to two-thirds of the children in most schools are AIDS orphans. The replacement “parents” are usually the eldest girls. Orphans in schools are often stigmatised by their schoolmates. Many girls are missing out on their childhood. They have to find an income in ways that often expose them to financial exploitation and/or physical or sexual abuse: as domestics, bar workers, making and selling things in the streets – or even working as prostitutes in exchange for as little as Ksh. 10 or a bar of soap. Most relatives of these children can barely feed their own families.

Water, Women and Power

In the water and sanitation sector, men have the public roles, managing and repairing facilities and making public decisions. Women have the domestic roles – collecting and using water, disposing of waste and educating children. Even projects that improve water supply and sanitation on a participatory basis often quickly establish men as being responsible for the technical and managerial tasks and women for caretaking, cleaning and hygiene education.

At the heart of gender issues in water and sanitation is the fact that women are the principal beneficiaries. They are the most directly affected by lack of water. They often have to use their time looking for water rather than getting on with earning a living. But the power position of women is poor, with little negotiating capacity.

In Kisumu, where male water vendors make a lot of money, the women and child parents have no say on source or pricing. The price is often beyond their financial capability and they are forced to fetch water from unhygienic sources.

Often water projects are supply oriented and the capacity for offering a reliable service is still weak at the agency and water committee levels. Projects need conscious strategies focusing on providing management tasks, leadership positions and training in water system management for both women and men. Where strategic needs are met, the practical needs likewise become easier to meet, as the management is systematically co-ordinated.

School water, sanitation and health education

What should be – and What Is

For NGOs in the field there is always huge tension between what should be and what is. UNICEF had laid out what should be: “After the family, schools are the most important places of learning for children: they have a central place in the community. Schools are a stimulating learning environment for children and stimulate or initiate change. If sanitary facilities in schools are available, they can act as a model, and teachers can function as role models. Schools can also influence communities through outreach activities, since, through their students, schools are in touch with a large proportion of the households in a community” [Ref. 12].

However the situation and role of the 150 schools in Kisumu is very poor. Few of the schools have sanitation and even fewer have safe water. Children fetch water from ponds or streams or carry it from home. There are usually not enough latrines (sometimes there are none). This means long queues during break and lunch hours. Due to improper lining and the soil structure, some latrines have collapsed year by year.

The infrastructure in most of the schools is in serious need of repair, with collapsing or non-existent roofs, collapsing walls and inadequate classroom space.

Girls’ roles in Schools without SSHE

In those non-SSHE schools that still pay attention to hygiene, the jobs of cleaning classrooms, yard, latrines, etc. is usually assigned to girls. One result of this showed up in Kasagam Primary School, where girls were having chest infections. This was traced to their way of sweeping the earthen classroom floors. With no water available, they had to sweep without sprinkling water on the ground to reduce dust. A related issue is that when students are sent home sick and they are AIDS orphans, there will be nobody at home to care for them. One girl who had malaria died.

In those schools that had no usable latrines girls also have to drop out because it is too difficult to manage menstruation.

Girls’ roles

In some schools, the girls also cooked for their teachers, leaving class at least one hour before lunch to prepare the meal. This practice has been discouraged by the Ministry of Education and the SSHE schools but still continues.

SSHE activities in Kisumu schools

The following account of SSHE activities is a combination of the experiences of both Africa Now (AN) and Sustainable Aid In Africa International (SANA).

SANA

As a rule, SANA has integrated health and hygiene training into all its projects, both in schools and communities. Poor water and sanitation conditions around the rural schools have led to a high burden of water-borne diseases. The students' health suffers and so does their ability to learn. SSHE, through the formation of school health clubs (SHCs), can make a difference. SSHE hopes to reduce health problems related to water and sanitation in and around the school, while SHCs are formed to encourage positive health and hygiene practices.

In Kisumu, SANA obtained funding from the French Government to assist two peri-urban areas: Manyatta 'B' and the eastern side of Kogony Sublocation. From each, one school was selected for SSHE: these were Wandiege and Nawa Primary Schools. SANA, in planning SSHE, drew on its experiences in seven school-based Water and Sanitation projects funded by SIMAVI in Kochieng' East Location, which neighbours the Manyatta Sublocation (described in the first case study).

The peri-urban project had four key activities:

1. improving the water supply through borehole drilling; the water would be sold to users outside the community to facilitate financial sustainability. The boreholes would provide safe water to two schools as well as the surrounding two communities;
2. safe disposal of waste through promotion of appropriate latrine technology in both schools and in the community;
3. community training and empowerment in order to ensure ownership and capacity for operation and maintenance of the installed facilities;
4. PHAST training through School Health Clubs in the local Primary Schools. The training focussed on hygiene behaviour and awareness creation on major local endemic diseases including Malaria, and HIV/Aids.

Behaviour development can only be achieved if it is supported by the provision of hardware. Thus SSHE is combined with hardware, which is the total package of water supply and sanitary conditions and facilities available in and around the school compound. (WHO, 1998)

As an example of typical need, one of the two SANA schools previously had no formal water supply within 200 metres. At the other, no improved water supply existed and the residents of the area have to fetch water from Lake Victoria, which is heavily polluted by industrial and organic effluent. The children go to school with water carried from home or fetch water from ponds during the rainy season.

Africa Now (AN)

Africa Now (AN) was able to take on 27 schools. It is the only other NGO in the area carrying out SSHE training in Kisumu. SANA drew valuable lessons from AN's experiences in urban and peri-urban settlements, and worked closely with the organisation through its

Project Manager, Ms. Doris Ombara. AN's SSHE training started in 2001 and ended in 2002, with funding from the British Council and Water For People. This project focussed mainly on awareness concerning health and hygiene issues, as funding was not sufficient for the provision of water supplies. Afterwards, however, ten of the trained schools applied to both AN and another NGO, World Vision, who constructed water tanks for rainwater harvesting.

Description of the SSHE Project Activities

Training:

Each training activity began with a sensitisation meeting, for the entire staff of the school, on water and sanitation needs and possible interventions. This was followed by a joint six-day orientation workshop for the teachers who would be the health patrons. Two, one male and one female, were selected from each school. The idea was that the teachers would train the students, with the implementing agency providing support and back-up. A School Health Club (SHC) was created, to be run by the patrons. The teachers were taught the Child-to-Child (CTC) methodology.

Water Supplies & Sanitation:

The two SANA Schools have water piped from the new boreholes. Ten of the AN schools now have rainwater tanks. Latrines have been constructed or repaired in all the schools. They are provided with water-filled tins that leak slowly, allowing pupils to wash their hands after using the facilities. Keeping them filled is the responsibility of members of the School Health Club – both boys and girls.

School Health Clubs:

Membership of the School Health Clubs in the trained schools range between 20 and 120 students, aged six to fifteen. It was ensured that each class had a SHC member. SHC members received training in health and hygiene, after which they were supposed to teach their classmates and family members. PHAST was the key tool here. The health patrons ensured that an activity book was kept detailing the SHC Action Plan and daily activities. The SHC also had a visitor's book and a file containing minutes of each SHC meeting.

Gender Sensitivity:

The teachers involved with the School Health Clubs have encouraged girls and boys to divide the activities equally – sweeping the compound, cleaning the latrines and refilling the tins. Since for many boys this would have been the first time they had performed such tasks it challenged their preconceptions and led to discussion. Peer pressure ensured that the boys performed their school tasks as well as the girls.

Child-to-Child Activities (CTC):

- AN facilitated the painting of a CTC logo with a brief description of its function, promoting positive health and hygiene behaviours in the school and community.
- AN ensured the presence of a CTC corner or room, where the SHC would meet and students could put up their posters, pictures and essays focussing on SSHE.
- Each SHC was given a dozen storybooks written for the CTC series, which the SHC would then lend out to students.

Overall Cleanliness:

The school compounds and classrooms are now kept swept and tidy. All the SANA partner schools maintain a rubbish pit in the compound and the SHC is responsible for its maintenance including the regular burning of the contents.

Health:

For the child-parents especially, health care is a major problem. Now a class “doctor” monitors the attendance of each class. If a student is absent, the class doctor asks the student on return for the cause of absence and notes it down. It was realised that students may be shy of telling their teachers about certain problems such as diarrhoea and were more comfortable telling a student. The record helps the school be aware of the common diseases or problems faced by students. The class doctor, a SHC member, is changed weekly.

AN is initiating a “School Pharmacy” project whereby drugs for common diseases are stocked by the schools and administered by a clinical officer. Links have also been made with the local nurses and workers in the environmental department. The schools invite these experts to give talks on topical issues relating to health and hygiene.

The effect of SSHE with reference to gender

The Schools after the SSHE Interventions

There was no structured monitoring or overall evaluation of the projects upon completion, as would have normally been the case. SANA was going through a process of restructuring at the time and was not able to find the resources.

However there was information from SANA’s other project in seven rural schools near Kisumu. The two NGOs also observed and talked to teachers and students. In particular, Ms. Rosemary Rop of SANA and Ms. Doris Ombara of AN talked over time with pupils. Many of the observations in this paper are from them. The key findings were:

- With the new latrines, the girls said they were managing menstruation much more easily and were more committed to remaining in school.
- With the cleaner water and environment, and some improvements in the homes, teachers and pupils thought that water-related sickness had reduced significantly. In the other seven-school project, reported cases of water-borne illness dropped from

an average of five to two per week. The use of the sickness register and a school pharmacy could also be tools in reducing the burden of sickness for all students.

- The girls are keener on the SHC activities than boys, practising health messages, songs and skits. More girls than boys attend and participate each day.
- Because of the way girls are brought up to be more responsible than boys for the wellbeing of their families, they are more influential as change agents in their homes. Where change had occurred in hygiene habits in the homes of students, more cases were occasioned by girls than boys.
- However, in the school, boys in the SHC perform the same task as girls. They wash latrines, clean the compound, fill the leaky tins and relay health messages. But these actions seem to end once they leave the school. During discussions with some of the boys, they said that it was their sisters and mothers who would, for example, fetch water. The boys would only fetch water if it was for personal use such as bathing; even then, their sisters would sometimes do this for them. The female members of the household were also responsible for cleaning family latrines and boiling water.

When asked why they would do these activities in the schools and not in their homes, boys said that their mothers would not allow them. It was clear that the school environment is felt as very different from that of the home. In the school they were socialised to perform similar activities to girls and felt a need to prove themselves equal to the task of being responsible. In their homes however, they have been socialised to accept that the household chores are for girls and that that arena is out of bounds for them. A few, however, reported a change of hygiene habits at home such as boiling water where it had not been done before, as a direct result of the SSHE training.

Challenges and problems facing SSHE projects in schools and communities

Girls' Roles after SSHE –Increasing the Burden?

Compared to schools with no SSHE, the burden on girls in SSHE beneficiaries is reduced – since they share the tasks of cleaning the latrines and compound equally with the boys. In the control schools, when students do the cleaning it will be the task of the girls. Some headteachers hire paid labour to clean the latrines.

Boys as well as girls are involved in the School Health Clubs. They are expected to carry out certain tasks and to be possible change agents. But in fact girls are viewed by those involved in SSHE as more influential change agents in their schools and homes than boys. The stated reason is that “the upbringing of the genders generally dictates that girls are held responsible for the well-being of the household”. So it is natural to put the extra burden on the girls. But it means the built-in inequalities of the culture are accepted at an unconscious level, not least by the adults involved – SSHE workers and teachers.

If the accepted ideas are to be challenged, perhaps boys should be placed more centrally in the SSHE activities. It could be asked: what is expected from these boys when they are young men with families, in terms of roles within the house and family?

Constraints

A number of constraints are facing SSHE projects:

- The current education system has a wide curriculum that needs to be accomplished within a limited period of time, so schools tend to be results-oriented. In consequence, SHCs are often seen as merely time-consuming. Achieving full support from the headteachers can be difficult.
- The recent free primary education policy has caused an explosion in pupil numbers, stretching every resource, including water and sanitation facilities, even further.
- Where no physical water and sanitation facilities exist, a SHC member may know proper health and hygiene behaviours. But without a supporting environment, behaviour change becomes even more difficult to achieve.
- The communities in the different peri-urban areas have no cohesion with which to tackle their WATSAN problems. People concentrate on earning a living – on surviving.
- Teacher transfers affect the continuity of the SHCs, sometimes before they can even get started. In other cases, patrons become sick and die as a result of HIV/AIDS.
- SSHE promotes a healthy childhood. A healthy child requires a nutritious diet – a problem for most of the children in the project area. In addition, the environment to which peri-urban children are exposed is detrimental to their psychological and physical wellbeing, exposing them to violence, hunger, drunkenness and disease.
- There is a distinct disparity in the performance of SSHE in schools. They will be poor where the school administration is less keen than the students. SSHE training should perhaps include more decision-makers – headteacher, teaching staff and parent-teacher association members.
- Large-scale disinfection of the water is a problem that the schools need to address. One option could be solar disinfection (SODIS), which makes use of the sun's ultraviolet rays to disinfect water. It is comparatively cheap and requires few resources.
- Convenience is an essential factor to ensure behaviour change. Having latrines and leaky tins in the school compound has greatly encouraged use of both by both children and adults.

Conclusions

This initial review of the roles of women and girls in and outside SSHE schools has revealed how much more there is to study and understand. The SSHE schools in Kisumu have made two major achievements:

1. They have made the schools more girl-friendly places – where girls are more likely to complete their education and enter adulthood with some strengths;
2. They have created a culture in which boys share with girls the duties of the School Health Clubs – cleaning latrines, sweeping the classrooms and compounds, providing water to the latrines etc. Normally boys do not do such tasks in school and even after SSHE they do not as yet continue the practices back at home.

The possible negative side is that the girls are seen as the main agents of change; given the enormous burdens they carry already, the workers in SSHE need to start considering the overall results of what they ask.

The needs of orphaned girls are many but a priority that should be quickly addressed is their need for sex education. This could be integrated into SSHE.

To help adult women – and these girls will be adult soon enough – all Water and Sanitation projects need to provide training and structures to enable women to take management roles and acquire some power over the process of sourcing, pricing and quality-controlling the water they all need.

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Case studies - Asia

5. Nepal - The School Sanitation and Hygiene Education (SSHE) Programme of NEWAH

Manoj Rayamajhi, Sanitation Coordinator NEWAH, Nepal

Introduction

The purpose of this case study is to disseminate the approach taken by NEWAH, an NGO in Nepal, in its implementation of School Sanitation and Hygiene Education (SSHE). It is a way of sharing NEWAH's experience with similar organisations in the same field. NEWAH has been implementing a package of interventions that it believes is acceptable and effective. This case study is based on the NGO's documents, reports and evaluations and a review of relevant literature.

Background

Nepal is one of the poorest and least developed countries in the world. Its population is largely Hindu - 86.5 %. Nepal is 147,181 km² in area and almost rectangular in shape. It can be divided into two main ecological regions, the mountainous/hilly part and the plains. 55% of the population live in the hills and mountains and 45% live on the plains. Nepal's geography hinders many aspects of communication and services, in particular the barriers created by the hills and mountains and the distance from the capital to the Western regions. The country's growth rate is high, so children form a much higher proportion of the population than in countries of the developed world. (Nepal Country Profile, 2000).

Problems of poor sanitation and water supplies

Water-related sicknesses together form one of Nepal's major killer groups. An estimated 28,000 children under five die every year from diarrhoea. The Country is losing about 9-10 billion rupees each year because of poor water and sanitation practices. The challenges in sanitation remain huge and continue to grow rapidly. In urban areas of Nepal an estimated 61.4% of households have latrines; in rural areas the number falls to 17% of households (Nepal State of Sanitation Report, 1999/2000).

The problem is made worse by poverty, lack of resources and inadequate education. Most schools in rural villages lack even a proper physical infrastructure. The building of proper sanitation facilities is not on any priority lists – the overwhelming need is for roofs that do not leak; providing these would enable classes to stay open even during the rainy season.

The NEWAH Response

Faced with the effects of the sanitation problem in schools, a National NGO, Nepal Water for Health (NEWAH) initiated a programme for school sanitation, supplying schools in the rural villages with proper sanitation facilities and awareness education for the school children. The package of SSHE interventions currently being implemented by NEWAH is

described here in terms of its strengths and weaknesses - the hardware, the hygiene education, the actors involved and their training and the gender component.

The Existing Situation of Schools, Water and Sanitation

Number of Public, Community and Private Schools by levels in Nepal

According to the Department of Education (DOE), Statistics Section (School Level Educational Statistics of Nepal, 2000), there are three types of schools:

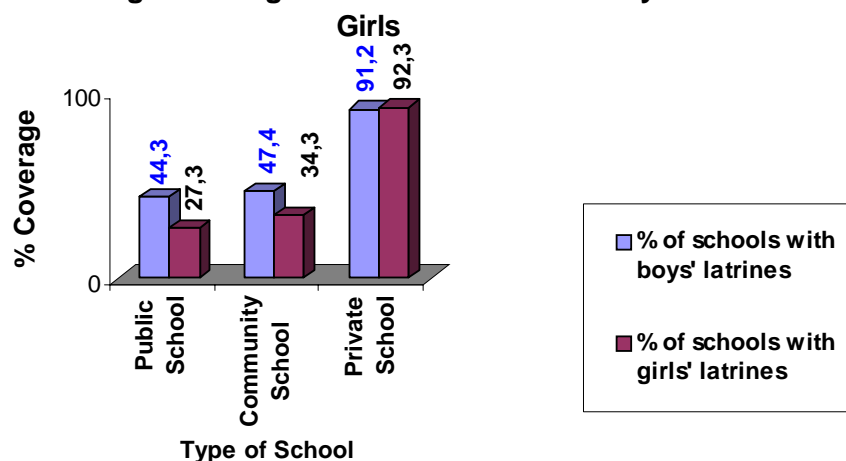
- Public:** Schools, which have the financial support of the government. Number of schools: 28,579
- Community:** Schools run by people from the community with financial support from local committees and individuals. Number of schools : 7,511
- Private:** Schools with full private funding, Number of schools: 7,990.

Most of the teachers in the Community Schools do not get a salary from the government. They depend on the local committees. In remote areas, the life of a teacher is not easy, for example the school buildings are often of poor construction and the school closes if it rains during term time.

Schools and sanitation

For schools without basic infrastructure, latrines are only things of dreams. Students use the surroundings and bushes for urination and defecation.

Percentage coverage of School Latrine for Boys and



Source: School level educational statistics of Nepal, HMG Nepal, 2000.

The above chart indicates that, in public and community schools, latrine coverage is inadequate and worse for girls than it is for boys.

The percentage of schools with a drinking water supply ranges from 63% of public schools to 90% of private schools. This is about the same coverage as male latrines. Schools without sanitary facilities or with facilities poorly maintained may be sources of illness rather than sources of wisdom (School Level Educational Statistics of Nepal, 2000).

Girls and School

Due to gender discrimination, many families send their sons to private schools, where the educational quality and facilities are good but costly. In these schools the teaching language is English. The girls are sent to the government schools where, in the urban government schools, there are more girl students than boys. Because many schools lack toilets, or have toilets for boys but not for girls (see table above) girls who are menstruating cannot come to school for both religious and practical reasons - they have nowhere private to change and clean themselves; in addition, in this culture, they are not allowed to touch others for a four-day period.

The notion of "being untouchable" during the four days of menstruation is common in higher caste groups such as Bahun and Chhetri. Mostly the girls from these caste groups drop out of school after they reach puberty. The parents teach the girls to be untouchable during this period, especially with boys. With latrines providing privacy and the ability to keep really clean, the situation has slowly been improving, at least in the schools where there are proper sanitation facilities and an awareness programme.

Schools as the place to teach Sanitation

Childhood is the best time for learning and schools are the best place to reach children. After the home, schools are the place where children spend most of their time, and learn a lot. They are the right place for carrying out hygiene education. If water and sanitation facilities are provided, the students can practise the behaviours learnt in hygiene education classes.

Some general problems however are that:

- The government has given low priority to sanitation in terms of technical and financial support;
- There is no good hygiene education in the basic school curriculum;
- Most homes have poor sanitation; and
- At the beginning there is a lack of commitment from schoolteachers, students, parents, leaders etc.

The SSHE Package offered by NEWAH

As a response to these problems, NEWAH implements a health and hygiene promotion programme with a Child-to-Child (CTC) approach in at least twelve new schools each year. The number of schools obtaining this support is increasing every year. To date, it has started the approach in more than 100 schools – a precise figure is not available (NEWAH Project Completion Reports, 2002).

Below are the components of the package:

- Priority is given to remote schools having their own land for latrine construction, schools with at least two permanent teachers, those where a female teacher is also working and schools without any latrine facilities.
- NEWAH supports, organises and conducts orientation workshops for schoolteachers from the selected schools. A children's committee is formed of 13 to 15 members, with 50% girls; NEWAH provides it with four days' training. An Advisory Committee is formed to support the Children's Health Awareness Committee (CHAC). This Advisory Committee includes representatives of the School Management Committee, the Village Development Committee, the Project Management & Maintenance Committee and the teachers.
- From the beginning, school committees and concerned partners are encouraged to participate in the construction of suitable latrines according to the requirements of the school and the needs of both sexes.
- There has to be a 20% contribution of the total cost from the local school in the form of cash, kind or labour.
- The Child-to-Child approach means that students are encouraged to pass on what they have learnt to parents, siblings and neighbourhood children. So the programme reaches some of those children who do not go to school. The Child-to-Child committee members are expected to be role models in the school and the community. They should help to keep the school clean – classrooms, lawns, latrines - and also the public places of the community. They help the Health Motivators to provide hygiene education to the community with support from NEWAH's health supervisor (NEWAH School Health Education Programme, 2001)
- Clean drinking water is supplied.
- There is a systematic package of hygiene education. Health Motivators (Refer to the following box which explains the role of health motivators) employed by partners supported through NEWAH go into the schools to give lessons on Hygiene Education. These lessons cover handwashing, the need for routine cleaning of the classrooms, etc.; the knowledge and skill to prepare oral rehydration solution (Jeevan Jal); the importance of latrines and hygienic practices at home. These lessons are also given in the community.
- NEWAH supports implementing partners in conducting health and hygiene promotion activities through the schools and their communities in the project areas. All adult women, men and children who cannot go to school - different castes, ethnic groups and classes - are involved in health/hygiene promotion activities in the community organised by the Health Motivator. The Health Motivator works together with the Community Health Volunteers (CHVs) who work under the supervision of local Health Centres.

Laxmi in Malladehi

“My name is Miss Laxmi Bam of Malladehi village. That is in Baitadi district in the far western region of Nepal. I was recruited as a Health Motivator for my village by Nari Bikas – an NGO which was working in the schools providing latrines and education for the children.

I went for an interview and got the job so I was very pleased. They sent me on a three-week basic training course about “Health and sanitation”. It was run by another NGO called NEWAH. I learnt a lot I did not know before about health and sanitation. I learnt to recognise diseases like diarrhoea and how they can be prevented. I looked through a microscope at some faeces and saw a worm! They taught us how to talk to people in the community and how to get children to help each other, how to use methods like puppet shows.

After completing this training I started working in the community. The health supervisor helped me from NEWAH and the Community Health Volunteer (CHV). We did so many things. We collected some data, we helped form Child Health Awareness Committees (CHAC), Tap Users Committees and Project Management Committees. I helped the CHV give training of four to six days to the community and to the CHAC, we talked over 18 days to each tap user and went into the schools giving health education to the students one day a week for 15 weeks. We visited households, motivating community members to construct household latrines.

People can be ignorant and block progress. Their ideas can be very complicated and they may not want to change. Even so, when I think of my community and all our activities, things are changing and I can be proud. More children and adults are washing their hands after defecation and before taking their meals. The school children can be seen helping their younger brothers and sisters to wash their hands. I see water pots cleaned before filling and then covered for better storage. We have 18 kitchen gardens started now in the village. When I go round, the compounds smell much cleaner as families remove rubbish and faeces – though some people do not want to change and the smells round their places can be bad. Two women have said they are getting fewer intimate infections since they improved their personal washing.

Building Sustainability

Most of the existing school latrines in Nepal are unhygienic; many have become unusable because there is no system for Operation and Maintenance. NEWAH has adopted the following approaches to build some sustainability into the package:

- **Launching an integrated programme:** starting with water supply, health awareness and sanitation at the same time influences the effectiveness and success of the programme. The teachers are more likely to feel some ownership and it is they who are responsible for the continuity of the SSHE programme in the years after the completion of project.
- **Sense of ownership towards the school latrines:** those involved in the school - the teachers, students, school committee and the community - all participate in the

activities from the planning stage to the post-construction period. This builds some feeling of ownership of the package of activities, including longer-term maintenance of the latrine etc.

- **Low-cost technology:** the technology applied in the construction of school latrines as well as community latrines is affordable and easily maintained by the owners, with low cost and effort. This is possible by using local resources (local material and work-power).
- **Regular latrine cleaning by students:** latrine cleaning is the responsibility of students on a rotation basis. Some schools give an award to those who have best maintained cleanliness. Also to maintain sustainability they transfer the responsibility to new students.
- **Students and teachers use the same latrines:** Most schools provide separate latrines for teachers. These are usually kept clean and maintained – even when the latrines for students are dirty and non-functioning. With the same latrines for teachers and students, regular cleaning and supervision is automatically put in place by the teachers.
- **Two years follow-up visits by NEWAH:** After the programme is completed NEWAH carries out regular follow-up visits for up to two years to ensure some sustainability of the SSHE activities.
- **Operation & Maintenance fund collections and financial sustainability:** most schools, with SSHE or not, regularly raise funds for their needs. The SSHE schools extend these activities to cover Operation & Maintenance. In principle, some of the money should be used for the purchasing of buckets, mugs, soap, cleaning brushes, antiseptic cleaner or perhaps a new faucet cock for a tap. In the follow-up survey, 77% of the schools were found to be collecting money for various uses on a regular basis. The strategies were different in different schools: sometimes a minimum regular contribution from students and teachers was being collected on a monthly or yearly basis; some had fines for absenteeism, and some played the Deusi & Bhailo Programme (see below). However, in reality, the cash is rarely spent on the running of hygiene activities or repairs of latrines. Most schools were short of cleaning materials like soap, phenol, brushes etc. after finishing the initial stock. This suggests that the SSHE programme is still not seen as high in the priorities of many schools (NEWAH School Latrine Evaluation Report, 2001).

Deusi & Bhailo Programme

Tihar is the festival of lights. It is the second most widely celebrated festival of the Nepalese people and is celebrated at the end of October or the beginning of November. This festival is celebrated for five days. The houses and their surroundings are cleaned and various ceremonies take place worshipping cows, dogs, cows and bulls. The third day is called Laxmi-pooja and is the main day. All the households burn oil lamps and place candles around the houses during the night. People in groups go singing and dancing with musical instruments, house-to-house, and they collect money. This is called a Deusi and Bhailo programme. Generally the money raised is spent on community activities. There are some organised Deusi and

Bhailo programmes carried out by school children and staff to raise money. This money may be used for operating and maintaining the latrine.

Kamala Devkota is proud of her latrine

“My name is Kamala Devkota, and I am eight. I am in grade three at Bal Jyoti Primary School in Pokhara. It is a government-run school. My family is very poor. We have a bit of land, the size of a schoolyard, with a small house. My dad was a drinker and died eighteen months ago. He spent all our money on wine. He would take my schoolbooks and clothes and sell them for booze. I have an elder sister and two older brothers and we are very proud because we all go to government schools. That’s because my mum really wants us all to get an education. She works as cleaner in the home of this foreigner – her job makes most of the money we have. She goes three days a week so those days my elder sister misses school and does the cooking.

Last year these people called NEWAH built a latrine in my school. I watched how they did it. And they started teaching us about how we could keep healthier and keep our brothers and sister healthier with this Child-to-Child thing. Before, I went down to the river to shit or if I got sick I was allowed to use my uncle’s latrine. If I had diarrhoea on a school day I would have to ask the teacher to excuse me and run out of the school grounds looking for a bush. Now I can use the school latrine. It is a real blessing. So I started nagging my mum to build a latrine by our home. The family helped and they found the money and materials for a kutchhi latrine – that means it’s built of locally available stuff. Mum asked her boss if she could take the ends of soap-bars home; now I can clean my hands with soap after the latrine and before preparing food and before eating, and I know it’s important to keep my nails cut. I’m the main latrine cleaner because my brothers say it’s a girl’s job. Now, when I talk with my friends, I feel really proud. We may be poor but we have a latrine.”

- Sustainability of hygiene education: This depends on the continued commitment of teachers and Health Motivators over time as school children leave and start school. Remuneration of Health Motivators stops with the end of the project. Health and Hygiene is still not part of the official curriculum. The two years of follow-up visits, it is hoped, will maintain some commitment at least for the two years.

Impact of the Child-to-Child approach programme

NEWAH needed to know how effective its activities were. So an impact study was carried out in 52 schools where Child-to-Child activities had been part of the SSHE package between 1997 and 2001; below are the main findings – bearing in mind that they are self-reported behaviour not observed behaviour:

- 73% of the students said that their personal hygiene behaviours had improved, as had those of their brothers and sisters at home;

- 21% said that the family had constructed a safe latrine – through them nagging their fathers!
- 19% had helped build a waste disposal pit at home;
- 17% have helped clean the community meeting place, often under a central tree, and improved the environment by sweeping roads, junctions, etc.(Ref.5)

Summary & Conclusions

The package of hardware and hygiene education implemented by NEWAH's programme has achieved a good degree of behavioural change in the selected schools and their surrounding communities. The hardware provided – latrines and drinking water – meets the concrete needs of the students. Girls are encouraged to stay in school by the provision of latrines for both sexes. Students find hygiene education interesting and see it as relevant. They are encouraged through Child-to-Child activities to take what they have learnt back home to their brothers and sisters. For the community, the sanitary facilities in the schools act as models, with students, teachers, Health Motivators and Community Health Volunteers acting as motivators. At the same time, the older children are bringing home health education messages.

However, the programme still requires more and continuous strengthening. The area of sustainability is still weak. This is especially true regarding financial sustainability. When money is available it still does not go into the SSHE projects. The continuity of hygiene education is also in doubt. Teachers do not seem sufficiently motivated to continue activities once the support and rewards stop; Health Motivators are unlikely to continue after the end of supervision and pay. In view of this, the role of the CHVs, who are permanent local workers and who get supervision and support from the District Public Health Office, should be reconsidered and perhaps strengthened.

Considering the issues from a broader perspective, decision-makers should remember that today's children are future citizens and guardians. Simple sanitation and hygiene education helps them to grow to their full potential, with fewer infections and episodes of sickness that limits their ability to study. Providing such facilities, within a structure that will keep them functioning into the future, should be put higher on the list of the nation's priorities.

6. Bangladesh - School Sanitation and Hygiene Education: The Story of its Impact on One Village and its School

S.M.A. Rashid, Executive Director, NGO Forum

Introduction

This paper describes a water, sanitation (WatSan) and hygiene project in one remote Bangladeshi village together with a school sanitation and hygiene education (SSHE) component in the secondary school there. The village is located in the south-western part of Bangladesh. Because such programmes are about people, the paper starts with the Headmaster's story:

"Before the SSHE programme, our school did not have any safe drinking water and there was only one latrine for the students. I knew that if the programme were started here it would create a lot of extra work for me. But I felt it was worth it. During Teacher Training, we had some classes on WatSan and its relationship to disease and health. I often saw students take days off sick and the reason was often diarrhoea or, with girls, their times of the month. So I had been concerned for some time about the lack of good water and latrines with facilities. And I recognise that I am respected in this community – not well paid but respected. People listen to me. My children go to the school; they too would get an infection and miss classes. I would come home and see them sick in bed and as a father I felt a failure. I also have a big extended family in the village and all over this district. I feel a lot of responsibility."

The programme created great enthusiasm among all the students and teachers. We now have good drinking water and three good toilets. During the awareness-raising campaigns, I personally visited around 120 to 140 households. Many are extremely poor and without facilities. I tried my level best to make the people understand about the advantages of using safe water, a sanitary latrine and personal hygiene. I feel proud thinking of my students' efforts in improving the situation of our village."

Background

In 1997, The Umbrella Organisation, NGO Forum, started rethinking its approaches to water, sanitation and hygiene education at village level. One approach that seemed promising was to start with the village schools. Young people of school age are open to new information and can be easily motivated. What they see or learn, they then try to apply to their own situation. During their leisure at home they can play an effective role in motivating their parents, relatives and neighbours towards safe water, sanitation and hygiene practices. If their potential is released through a school programme there will be adults to guide, to deal with practical issues and to assure sustainability.

So how can this potential be used? It is recognised that for schools, water and sanitation (WatSan) facilities are important and that hygiene education should be part of the curriculum, recurring in different subjects and referred to by authority figures. In practice, however, the situation in many schools in developing countries is deplorable. The sanitation is non-existent or very poor, sometimes even unsafe, and a cause of much disease. The children in these countries acquire early on a heavy infectious load. Schools should not be adding to it. Infections impair the growth and development of the children, limit their attendance and negatively affect their ability to concentrate and learn.

In Bangladesh, there is a school in almost every village⁸. If WatSan facilities are made available in schools they can serve as examples, with teachers and students functioning as role models. Schools have the capability to influence the community through different activities. One agency involved in School Sanitation and Hygiene Education (SSHE) is the NGO Forum, the apex body and networking agency of more than 600 partner NGOs, CBOs and private sector actors. The SSHE Programme ensures that the schools:

- Are provided with safe water and hygienic latrines;
- provide hygiene education that changes the students' attitudes towards regular practices concerning water, latrines and personal hygiene;
- encourage students in motivating their family members and neighbours to use safe water and sanitary latrines, and keep the house premises clean;
- encourage the school teachers to unite in promoting safe water, environmental sanitation and personal hygiene, ensuring an enabling environment for continual awareness-raising campaigns; and
- improve the health and attendance of children, lowering student dropout, especially for the girls.

The WatSan and SSHE Programme

After the rethink in 1997, NGO Forum designed a pilot scheme. Starting in January 1998 it aimed at improving the WatSan and hygiene situation in one village with a secondary school, involving the school teachers and students. Their consulting partners were the NGO Forum's Khulna Regional Office and Palli Chetona, a partner organisation that has worked with the NGO Forum since 1993. They agreed on a village named Gava, located 14 km away from Satkhira District Town. This was because Palli Chetona had been involved there on a small scale, with tree planting and homestead gardening. They had a good idea of the situation in Gava village and knew there was low coverage of water supplies, latrines and hygienic practices. This was confirmed by field visits to Gava.

⁸ Bangladesh has around 68,000 villages, and, according to the Statistical Pocketbook of Bangladesh 2000 published in January 2002 by the Statistics Division of the Ministry of Planning, Government of Bangladesh, there are 65,610 primary level educational institutions (Source: Directorate of Primary Education, Government of Bangladesh). In addition, thousands of non-registered schools are being run by different NGOs throughout Bangladesh. Hence it is claimed that almost every village has at least one school.

Gava High School is the only secondary school in the village. When the SSHE activities started, the school had 655 students, 385 boys and 270 girls. There was no tube well (water supply borehole) on the premises. The school authority could have installed a shallow tube well, but decided not to because of the salinity problem. However, there was a pond with sweet water within 150 m of the school. The government had installed a Pond Sand Filter, popularly known as a "Ghudam (Store) Filter", a few years before. Due to inadequate maintenance, it was non-functioning for most of the year. There was only one toilet, which had no water seal or tank; both it and its surroundings were unhygienic. Since there was no water nearby, there had been no attempts to keep it clean.

The Baseline Survey

The first step was a baseline survey - an assessment of the existing situation. This was felt to be critical in determining how forcefully the WatSan and hygiene messages needed to be transmitted. It was conducted in mid-March 1998 and covered all households. A structured questionnaire on sanitation, personal hygiene, diarrhoeal diseases and some socio-economic and demographic indicators was developed and used for this survey. The main findings of the survey are in the second column of Table 1. The survey gave a bird's eye view of the conditions of the village households. The findings were shared in different orientation sessions organised for the teachers and students, and acted as a wake-up call.

The Plan of Action

After the survey was completed, a planning meeting was held at the school, attended, by the school headmaster, the teachers and the staff of Palli Chetona and NGO Forum Khulna Region. They drew up a detailed plan of action, which identified the responsibilities of each actor.

Following the meeting, a School WatSan Committee and Class WatSan Committees were formed. The school headmaster was selected as the Chairperson of the School WatSan Committee. The Class WatSan Committees consisted of class teachers and students, both girls and boys, for each class of the school. A number of orientation sessions were organised for these committees, covering issues such as the promotion and use of safe water, better sanitation and hygiene practices, effective inter-personal communication with students and parents, community mobilisation, etc. Motivational film shows were organised and different Behavioural Change Communication (BCC) and Information, Education and Communication (IEC) materials were used and distributed among the teachers and students for use in conducting group discussions in the community.

The school students then organised regular rallies and processions using different types of promotional posters and banners, chanting slogans on the importance and use of safe water and hygienic latrines, and practising personal hygiene. This raised mass awareness all through the village. As well as the committees, Student Brigades, consisting of five boys and girls, were formed in each class. These groups monitored the use of safe WatSan and hygiene practice at the household level. They also provided help with non-technical

primary health care services such as oral rehydration. The brigades also made plans to cope with natural disasters.

The School WatSan Committee arranged debating competitions for the students focusing on WatSan-related issues. The students participated in the competitions with great enthusiasm and the best received awards. Another committee, called “Teachers’ and Parents’ Forum”, was created and held quarterly meetings to review progress

I am 12 and a student of Class VII. Before the project we knew little about the impact of bad hygiene. Now we are better informed and we have been working very hard to make our family members and neighbours understand and change what they do. Sometimes we got upset. For example some very elderly neighbours made remarks that were discouraging. They said that latrines were a bad idea. Latrines meant squatting in a small box, pooping where other people had pooped; much better to go out into the fields in the fresh air where you can chat with your friends. But when these attitudes came to the attention of our head sir (headmaster), he intervened and made those people understand why latrines are good.

We were told to be very polite when talking to people. Our parents and neighbours knew that because we were high-school students, we have had some education and they were ready to listen to us. But my father did once get cross and say that I was nagging and pressurising him. After that I was quiet at home for a whole week! And in the end my father and his brothers built a latrine next to our house and others at my uncles’ houses.

We were successful in getting changes made among our parents, relatives and neighbours, and in encouraging others to use safe water, keep hygienic latrines and have a personal wash daily. We are still busy with all this. We are also encouraging younger students to get involved in the project.”

Hardware issues

The NGO Forum had a new pond sand filter and eleven rainwater harvesting plants constructed. Three separate sanitary latrines were built connected to a big septic tank in the school premises. The defective pond sand filter, located close to the school, was repaired and one arsenic-free tube well was sunk close to the toilets. The water supply structures were provided to the community through cost sharing. The NGO Forum provided 80% of the total cost, the user groups 20%. This was to establish a sense of ownership among the user groups.

Effective operation and maintenance (O&M) is vital in this kind of project. To ensure it, villages selected two caretakers (one male and one female) for each water source and provided them with the necessary training. At the end of the training, the caretakers received tools with which they could repair and maintain the structures. The students

regularly visit the plants/filters and check whether O&M is being carried out properly. If spare parts are needed, the caretakers collect money from the user groups. The students also pay regular visits to the sanitary latrines and keep the community informed about cleanliness.

Some households still do not have household sanitary latrines. Poverty is the main reason, so the NGO Forum is planning a micro-credit scheme to finance hygienic latrines, users repaying weekly or monthly. There may still be a group, the poorest of the poor, who cannot afford to borrow – single elderly households, households with budgets affected by addiction, etc. This remains an issue that NGO forum will focus on more in the future. The hardware and software activities took place between January 1998 and December 1999. Most of the promotional activities were carried out during the first year. The hardware construction and caretakers' training took place in the second year.

The Post-intervention Survey

In February 2000, the School WatSan Committee undertook another survey through observation, working with the students, to research the impact of the two years of activities. The issues covered the same topics as the baseline survey. The survey findings are as follows:

Table 1: Results of the Baseline and End Surveys in Gava

	Gava Village Baseline	After Project
Total no. of households	321	345
Total no. of persons	1,819	1,911
Average size of household	5.6	5.5
No. of children under the age of five	291	317
Households with independent hygienic latrine	13%	83%
Households using drinking water from safe sources (tube wells, pumps and plants)	70%	93%
Households using water from safe sources for other domestic purposes	26%	62%
Households with latrines used by majority of family (excl. children <5)	17%	89%
Heads of households washing hands after defecation using soap/ash/soil	15%	86%
Respondents with knowledge about diarrhoeal disease	70%	93%
Respondents with knowledge about other water-borne diseases	14%	45%

Levels of awareness about WatSan and hygiene increased in the community. To further assess the programme's effectiveness, a visit was made in June 2002 to the Gava village. It was informal in nature, discussions being held with the school headmaster, teachers, students, parents and caretakers of the water supplies.

Tahmina Sultana's story

My name is Tahmina Sultana and I am a student of class eight at the Gava High School. I am 14 years old. My father is a fisherman and my mother runs the household. I have a brother of six and a sister of ten who go to the same school. My father earns the money for the family; he goes fishing and he has some land, which is leased out to one of our neighbours; we get a small amount of cash and some rice every year in return.

I have been participating in the school programme and helped with some of the activities around the village. My parents have now constructed a hygienic latrine in our house compound and I make sure the younger children use it. In the earlier days, we did not know much about hygiene and did not practise such good personal cleanliness. Because of everything that has gone on in the school and around the village I have made changes. I make sure that we children wash all over every day and brush our teeth with twigs.

I am blessed to be in school. When my mother was my age, her parents were planning for her to leave and be married. But this government says we should not get married until we are 18 and it helps us to stay in school. Boys pay school fees; girls don't. Two girls in our class even get small scholarships to pay for clothes and so on. One thing that really helps is the new girl's latrine. Before, the girls who were menstruating found the situation too difficult and would stay away from school. But the girl's latrine is bigger than the boy's and there is always water for washing. If we have natural female issues we can stay dry and clean – and keep following our classes.

Follow-up Mission

During the follow-up mission by NGO Forum, it was evident that the WatSan and SSHE programmes had resulted in an increase in safe practices in the community. The difference between the findings of the Baseline survey and the End survey clearly shows this change. Improvements in hygiene-related behaviour among the students were also recorded - for example, regular use of the sanitary latrines.

Using the Results of the Pilot Project

The NGO Forum is now working in other parts of the country, implementing a type of SSHE programme similar to that undertaken in Gava village. It has made some changes in the reporting formats of the programme and introduced some new planning processes and progress monitoring methods such as PRA, (Participatory Rural Appraisal), VIPP (Visualization in Participatory Planning), Pocket-voting, etc. Several new BCC and IEC materials have also been developed and used in the ongoing programmes. The PRA provides a way to identify why some households do not construct latrines; if this is due to poverty it should tell the project whether loans would solve the problem or whether there is a very poor group that cannot even afford to borrow.

Causes of Success

The School WatSan Programme was successful because of some important factors;

- The strong commitment and dedication of the headmaster, teachers and students. Staff used their knowledge and skills to inform and motivate the students. Their support and encouragement played a vital role when students undertook different campaigns.
- The school students were determined to make their beloved village healthier.
- “Motivation is Power”. Basically the main focus of the programme was on motivation, and the process started from the top and continued to the bottom.
- Once the community understood the importance of safe water, sanitary latrines and effective hygiene practices, they could mostly get the help they needed to translate this into action.
- There was a vast cultural change within Gava, which was possible through the student groups.
- Schools can be an important energy source for development, with great potential for contributing to the improvement of society. All that is needed is proper guidance and good leadership.

Conclusion

SSHE can contribute to the well-being and performance of students - for example in helping to keep girls in school. Involving schools and students as community motivators is a powerful weapon in improving WatSan and hygiene practices. In Gava village, before-and-after studies show increased knowledge about related diseases, an increase in the construction and use of hygienic latrines, more use of safe drinking water and handwashing by heads of households. The process of motivation started from the top and continued to the bottom.

Challenges

Now, the NGO Forum is moving from working in a few pilot villages to working in many more, each needing a programme approach. It is faced with two major issues. One is to refine the finances of such village projects so that maintenance becomes self-sustainable, and the other is to achieve the same impact in the many villages, but with the far fewer inputs that it can make available to each. Nevertheless there are great potential benefits from such programmes to the students of the schools and the communities they live in. Pilot projects such as this one in Gava demonstrate that the benefits are achievable.

7. India - The School Health Clubs Project in Kerala

Kochurani Mathew, Director of the Socio-Economic Unit Foundation (SEUF) branch in Alaphhuzha, Kerala- India

Introduction

Kerala is one of the smaller Indian states, occupying only 1.2% of India's land area but with 3.4% of its population. It is an elongated strip of land cushioned between the Western Ghats and the sandy shores of the Arabian Sea. Kerala has a population of 29 million. The rural:urban population ratio is 7:3. All the world's major religions are well represented here. The systems of matrilineal joint families, the Malayalam language, the caste and religious divisions, rules and rituals about purity and pollution bind them together. As a result of the population's distinct histories and religions, there is a wide variation in their social and economic development. Though the state has two rainy seasons and 44 rivers, it still has drinking water problems. Over half of the households in Kerala are without sanitary latrines.

The Socio-Economic Unit

The Socio-Economic Unit was formed in 1987-1988, as part of co-operative Indo-Dutch efforts to integrate 'social inputs' into rural water supply and sanitation programmes – i.e. hygiene promotion, awareness generation and community participation. In 1996, the Socio-Economic Unit became an independent foundation under the Societies Act and extended both its physical coverage and project components. SEUF is an agency accredited by the Government of Kerala to implement community-managed water supply programmes, environmental sanitation, solid waste management, health education, women mason programmes and training.

Start of the School Health Clubs

The primary objective of SEUF is to create awareness among the population about the value of water, the importance of handling it in a sanitary way and how to improve the sanitation and hygiene conditions of people in the project area. This ensures that people participate in rural water supply schemes. It was as a component of this objective that SEUF launched the School Health Club Programme in 1989. SEUF believes that children have more potential to affect changes in their families than their elders. The School Health Clubs are considered as complementary to other programmes in relation to the management of drinking water and sanitation. In the initial phases, activities were concentrated on classes V to VII (age group 10-12). Later the programme expanded to involve all classes.

Objectives of the School Health Clubs

The objectives of the School Health Clubs are:

- To stimulate and increase children's awareness of improved hygiene; to promote the adoption of better practices related to the collection, handling and use of water, to promote safe disposal of excreta and waste and good personal hygiene habits;
- To influence other family members and ultimately the community by popularising healthy habits in personal hygiene and environmental sanitation;
- To motivate the pupils to avoid the hazards of gastro-enteritis and other water-borne diseases and to use sanitary latrines;
- To make pupils aware that the health of a person is the health and wealth of the family and society.

Membership Patterns of School Health Clubs

To achieve their objectives, the School Health Clubs need a fairly big membership. They have 30-50 members per school. Five boys and five girls from each class can volunteer. The headmaster is in charge of the club. Two teachers, one male and one female, are responsible for activities and follow-up. The headmaster, teachers and the Parent Teachers Association (PTA) are given the necessary training, including:

- how to analyse their own problems related to WatSan; and
- how to prepare their own action plan for school hygiene.

All SHCs were started under the direction of the Director of Public Institutions. Each headmaster is responsible for the SHC programme. Two teachers who are trained by SEUF are responsible for immediate supervision and follow-up. The PTA president and the mothers' PTA give full support. The services of the Primary Health Centres are sought whenever necessary. Members of the SHC plan and implement the programme with the help of teachers and the SEUF.

SEUF & Core SHC Activities

There are now 1,230 SHCs that have been organised in Kerala. Their activities are well supported by parents in every region. The entry point in schools is through water and sanitation with hygiene promotion. SHCs focus broadly on three areas:

1. **Discussions to generate awareness on issues related to health, sanitation and hygiene** are made through:
 - Preparing health messages and presenting these messages in school assemblies;
 - Organising lectures by inviting experts;
 - Using posters to spread health messages in classes and setting up health corners in schools.
 - Organising health walks, which allow children to observe nature and discuss issues related to hygiene, sanitation and other aspects of healthy living.
2. **Forming healthy habits.** This is achieved through involving the children in:
 - Keeping classrooms, school surroundings and the school latrines clean;

- A campaign to build healthy habits linked to water use and school latrines;
- Maintaining village community taps and keeping their surroundings clean;
- Collecting and processing lunch waste in the schools, keeping waste bins in the classrooms, making compost pits and making paper bags;
- Campaigns to develop healthy food habits and avoid food that is kept unhygienically, sweeping the eating area and sitting away from flies.

3. Dissemination of knowledge and practices:

The dissemination of knowledge and practices acquired in the SHCs happens primarily through meetings and campaigns organised in the school. SHC members explain health messages and other issues. This programme is carried out in areas where sanitation programmers are working, as part of the project. The sanitation programmers work within the Panchayat, the lower administrative level of local government. In addition, SHC members:

- Visit poor neighbourhoods and people in their homes;
- Participate in community cleaning campaigns in selected public places;
- Encourage children to discuss these topics with parents and other family members.

Toilet facilities

Construction of sanitation units or latrines, with the help of the Parent-Teachers Associations and the Panchayats, was a major component of the Panchayat total water supply and sanitation project. Once children have household sanitation, it is understandable that they would like the same facilities in their schools. SEUF has now constructed a total of 1,230 school sanitation facilities with the help of The Royal Netherlands Embassy, UNICEF and Panchayat institutions. The building work was carried out at the same time as the hygiene promotion and technical improvements. In all the schools, double-pit pour-flush latrines were constructed with pit dimensions dependent on the number of users. Monitoring cards were distributed to club members.

Girl-friendly toilets

SEUF developed a girl-friendly toilet design for school sanitation with menstruating girls in mind; it had a small incinerator⁹, which could be handled manually. Twenty units were constructed and girls, teachers, and parents are very happy with them.

⁹ An incinerator is machine which burns the waste a high temperatures.

Santhimol's Story

"My name is Santhimol and I am a student in VIII Standard in the N.S.S. Girls high school Karukachal in Kottayam District. I am very happy and proud to study in this school and one reason is because it has an incinerator in one of the girls' latrines. We have a School Health Club with a lady teacher in charge and she talks to us teenage girls. She shows us how to use the incinerator and explains how we can keep clean and not smelly when we menstruate. Before this facility I usually did not come to school during the menstrual period; if I had to come during examinations I got so irritated and ashamed of myself. Now I feel freer and I can move with confidence. I also talk with friends regarding the use of the incinerator. Before we had one, some of my friends put the cloth used for menses in their book bag and throw it into the next compound during the break or they would pack it back to their home. The government should put these incinerators in every secondary school and make sure there are good lady teachers; that way, girls will be happy to stay on and get an education".

Education programme and IEC materials

The first book printed was "Water and Health– A reader" and targeted students. It dealt with the values of water, safe handling of water, health problems created by impure water, and community involvement. Awareness generation was carried out by discussing the content of the book among the members in meetings organised once a week. The meetings also provided practical lessons on drinking water and methods of storing and handling. Schools were provided with glasses and mugs. The club members were encouraged to interact with the ward water committee and be involved in activities for keeping the public taps and wells clean and discouraging any misuse of water. The SHCs also organised campaigns, going to nearby hospitals, primary health centres, markets, bus-stands etc. When they went outside the school for cleaning activities they wore badges. They also sang songs and shouted slogans like "wash hands with soap after defecation", "handle water with care", "all family members should use the latrine", etc. Other IEC materials prepared by SEUF were: a "Water and Health" reader, a school diary, a cycle disc, snakes and ladders, name badges, picture cards, printed messages, and leaflets on SHCs, diseases, chlorination, and worm composting.

Sanitation vacation camp

A one-week sanitation camp was an eye-opener for both children and officials. The sanitation facilities and hygiene behaviour of Aryad Block Panchayath and Mararikulam Grama Panchayath were studied by two groups of students. The Block president and Panchayath president were invited to this camp to share the results. The group started narrating their observations: they had witnessed unclean latrines, no water inside the latrines, discarded cigarettes and match boxes, three of the officials urinating outside the latrine, boiled drinking water kept near the window, unclean surroundings, food waste, paper waste, a dirty glass used for drinking. They provided a written copy of their observations. Both the Block and Panchayath took their comments very seriously and the students were invited by the Aryad Block president to present their observations in front of all the staff.

Competitions for School Children and Teachers

Awareness generation about hygienic habits related to water and sanitation (WatSan) is one of the major objectives of the SHCs. The main campaign programme included competitions for different groups like teachers, mothers and children. These included essay writing, elocution, drawing, songs and skits. Parents, teachers and Ward Water Committee members came to witness all the competitions, which took place at school, Panchayath and district levels. This created great enthusiasm among parents, teachers and children. Good posters, skits and songs were used in the mobilisation programme. The PTAs, local clubs, merchant associations, etc., sponsored the prizes.

The Headmistress's Story

"My name is Ms. Omanakuttyamma. I am the headmistress of KP Memorial UP School at Muhamma Grama Panchayath, Alleppy District. I took the local SHC very seriously when it started and did all I could to build it up and make it strong. I have 400 children, both boys and girls, studying in my school. Most of the children are from the fishing and farming families and most are very poor. Sanitation in the community – it was not there. How could people keep healthy? Well, I got an SHC organised three years back and I put effort especially into the wall painting programme with its hygiene messages and pictures. Since then I have seen many improvements in the school. The main change is that all my children now use the urinals and also use the waste bins kept in the classrooms. Personal hygiene has also improved; more children have cut nails and wear clean clothes. All the wall paintings are kept clean without any cracks.

I do not have to repeat each and every time the messages regarding cleanliness. I think the wall paintings with pictures have proved to be a very good educational tool."

SHC activities beyond the standard package

The main points of focus of the SHCs were awareness generation, the formation of healthy habits and the spreading of effective practices. Some schools, though, as well as carrying out the regular activities of the SHCs, initiated extra activities. These can be seen as pilot projects, which will provide lessons for the whole programme. These extra activities are described below:

Worm infestation camp

A worm infestation camp was organised in one of the coastal Panchyats, Anjuthengu. The population density was very high here. Most of the children came from very poor fisher households. When the SHC programme started in the schools, they organised a worm infestation camp to test the stools of the children. This made them aware of one serious problem resulting from no latrines and also ensured treatment for the problem. During the camp, children insisted that their mothers also attend when the stools were tested. The children had the opportunity to look through the microscope and count the number and type of worms present. Most of the children were anaemic and had roundworms,

hookworms and sometimes tapeworms. The Primary Health Centres followed up with treatment for infested children. The total experience had a major motivational effect on many participants and increased demand for household latrines.

Adopting poor neighbourhoods

The Poor Neighbourhood programme was special. Throughout the Panchayats there were clusters of twenty to thirty households with poor facilities and hygiene. Most of these neighbourhoods had no land, no decent houses, no latrines and no proper drinking water. In order to create a feeling of civic responsibility among the school children, a few schools decided to adopt a poor neighbourhood in their area. The SHC members first visited the neighbourhood and conducted a survey. They then shared their findings with the community. Next they started planning to improve water and sanitation. The SHC members, working with teachers and the community, organised cleaning programmes, construction of latrines (within the SEUF Project area), and monitored the latrines once built.

Mothers' meetings

SEUF believed that children had the ability to bring about changes in their families, especially through their mothers. The Mothers' PTA was very strong in many schools and some SHCs organised hygiene education meetings for mothers. PRA tools, like the picture series and pocket cards, were used to influence and later measure the hygiene practices of mothers. About 3,000 mothers have attended different meetings, bringing their children. When questioned later, 73% of the mothers said they washed their hands with soap and water after using the latrine and 27% that they washed their hands with water only. They also reported that these were recently acquired habits, with the SHCs and the children playing a dominant role in their acquisition.

Waste, Worms and Soil

Sanitation is not merely the construction of infrastructure. It can also involve making practical use of waste as a resource. Ideally, organic waste should not be seen as something to be got rid of – it is a resource that can enrich the soil and the environment. So SEU introduced a Vermiculture (cultivation of earthworms to assist in making vermicompost) Programme in selected schools. Children could recycle waste from lunches and gardens in the vermibeds to make compost. This provided an opportunity for the pupils to interact with the soil, which is often seen in today's world as inferior and dirty. The clubs started their own kitchen and flower gardens in which the children used the compost productively.

School Health Clubs, impact and cost

Impact of SHC hygiene education on club members.

Among various studies carried out by SEUF was research to measure the impact of hygiene education among the children, parents and community in terms of washing hands with soap after defecation, handling of water, drinking boiled water, waterborne diseases and preventive methods.

A hundred SHC members from different schools were interviewed for the study. The responses therefore are self-reported and not observed behaviour. One group of the multiple responses is shown below: the respondents reported that, when handling water, they:

- | | |
|---|-----|
| 1. Kept container closed | 50% |
| 2. Used utensils with handles to take water from pots | 56% |
| 3. Did not dip fingers in water | 46% |
| 4. Stored water in clean vessels | 65% |
| 5. Drank boiled water | 59% |

It is worth saying that regular follow-up and education programmes through participatory approaches are needed to improve the situation further.

Awareness of how to handle water well is important because it inspires children to react positively. The survey attempted to find out whether there is any difference in this regard between boys and girls. For the questions on storing water, responses were marginally weighted in favour of girls. The reason for this was not explored in the questionnaire but it is possibly because, on the whole, the handling of household water is the responsibility of the females of the family.

Regarding washing hands after defecation, 87% of the children said that they now washed their hands with soap and water. This behaviour was new and can be attributed to the SHCs, since before the clubs it was not done by any students.

The study also included 15 students from three schools as a control group. They were from schools where they had received government orders to start SHC programmes but had not yet begun. Of these, none washed their hands with soap after defecation and all were ignorant of the dangers of open-air defecation.

The impact of SHC hygiene promotion on parents

To understand the impact of SHCs on parents and the community, 50 parents were interviewed. 94% of these said that children discussed the activities of their SHC with them. This had compelled them to change their outlook and modify their behaviour. At the time of the interviews, 83% of mothers were storing water in clean vessels and did not

keep water for more than two days. Very few parents did not touch the water with their fingers while taking out water. The majority of mothers boiled water before drinking.

When asked about sanitation practices, 89% of the parents reported that they washed hands with soap and water; 11% washed only with water. The parents were by and large aware of the issues discussed in the health club concerning drinking water, sanitation and personal hygiene. They also gave suggestions for improving the SHCs. For example, they wanted more activities such as quiz programmes, more discussion with experts, more books and information materials and also some exposure visits.

Cost

School Health Clubs were started in connection with the water supply and sanitation project in 1989. Each project period lasts from one to two years. The SHC package includes orientation for department heads and headmasters, teacher training, hygiene education programmes at the school and community level, distribution of IEC materials, and construction of sanitation facilities. The allowance per SHC is around Rs 3,000-5,000 for software and Rs 9,000-15,000 for construction. The total cost for construction may go up to Rs 20,000-35,000 according to the need and design. Extra money had to be mobilised from Panchyathraj institutions and PTAs. UNICEF provided a contribution of Rs 9,000–12,500. For the effective support and continuation of the programme, a regular systematic participatory approach is needed for at least three years. The minimum cost is around Rs 15,000 for software activities and Rs 20,000 for constructing sanitation facilities (total about 452 euros: currency equivalent: 100 Indian Rupees = 1.29euros, March 2003)

Challenges for the future

Even though most of the schools had sanitation facilities when the SHCs were started, they still had problems with not enough units, the design and quality of construction, and a lack of proper use and maintenance. Issues identified include:

- Sites for sanitation facilities need better selection;
- Action Research programmes need to be done, to test ideas like the adoption of poor neighbourhoods and sanitation camps;
- There is a lack of co-ordination between various departments in the implementation of SHC programmes;
- Follow-up activities are not taking place;
- Evaluation studies, the sharing of information, documentation, etc. are not taking place;
- Capacity-building programmes for the teachers and SHC members are not done regularly.

The way forward

- Constant monitoring and support is needed to convert emerging habits into sustainable habits. This part of the programme should last at least three years;
- The effectiveness of the SHCs depends mainly on teachers, so capacity-building programmes have to be organised regularly;
- Girl-friendly, child-friendly and user-friendly designs have to be developed;
- More IEC materials have to be developed;
- PRA tools need to be used for SHC training;
- National-level and state-level seminars and workshops should be arranged.

Conclusion

Over a thousand School Health Clubs have been created. They have had success in changing behaviour in areas such as the following: children are using the toilet facilities in schools; they are aware of the need to wash their hands with soap or ash after defecation; children are influencing their parents to construct toilets and keep them clean. While behaviour is not yet changed in 100% of students, it is estimated to be between 50% and 80%. The SHCs help with the speedy construction of household latrines in the project area. A further monitoring and support stage of at least three years is crucial if the SHCs are to ensure that all children lead a healthy life at and outside school. Children can also act effectively as agents of change within their communities. Children have the ability to observe, learn and transfer knowledge more deftly than many adults. Teachers play a crucial role in making the SHC effective, so an effective plan for participatory training and retraining of teachers is crucial for the SHC sustainability.

The Panchayat institutions now responsible for education should take a stronger role in supporting the SHC activities and should co-ordinate various departments using a partnership approach. If support goes on for a sufficient length of time and acquired habits are consolidated into routine good practice, then the project can claim to have made a serious difference to health and well-being.

Case studies – Latin America

8. Colombia - Improving School Sanitation and Hygiene Education: using Participatory Diagnosis¹⁰

Alexander Aponte Reyes, Sanitary Engineer, Cinara/Univeristy del Valle

Introduction

This paper describes a School Sanitation project in eleven schools in the South-Eastern Department of Cauca in Colombia. A participatory diagnosis methodology was used at the beginning of the project to look at school sanitation and hygiene behaviour, to provide the information needed to improve direct interventions in School Sanitation and Hygiene Education (SSHE).

Background

In Colombia, 41.5% of the population is under 18: nearly 17 million young people. About 2.5 million are not included in the education system and 1.1 million live in extremely poor conditions.

It is estimated that 10 million of Colombia's inhabitants lack access to clean water supplies and 16 million are without sanitary facilities. (UNICEF et al, 2000). In response to these statistics, an international programme on School Sanitation and Hygiene Education (SSHE) is being carried out in six countries, including Colombia, promoted by UNICEF and the IRC International Water and Sanitation Centre. The programme in Colombia was developed by CINARA, a research institute of the Universidad del Valle, which has been working in school sanitation and hygiene education for more than 10 years. The process involved several phases, the first being a participatory diagnosis.

Scope of participatory diagnosis

The Work

Better understanding leads to improved strategies for trainers and teaching materials. Therefore an identification of constraints and problems in the provision of sanitary facilities was seen as the first step towards developing guidelines for introducing SSHE into schools.

The guidelines took into account realities at school level, including the preferences of the children, teachers and managers. Operational strengths and weaknesses were also identified, including maintenance requirements and problems. The money and resources

¹⁰ The reader should be aware that this is more of a descriptive research overview focusing on SSHE research techniques than a case study on SSHE.

needed to ensure that managers could maintain facilities and activities in the long term were also assessed.

General objective

To validate a set of tools and methodologies used to implement participatory diagnosis in SSHE.

Specific objectives

- To identify the state of the sanitary facilities and teaching materials available in schools and the perceptions of the school community about their hygiene habits, through participatory techniques, tools and approaches.
- To establish the relationships between the different stakeholders and their perceptions of their school environment.
- To improve strategies for planning future actions in the fields of water supply, sanitation and hygiene education.

Methodology

The project has so far worked with 11 schools in three municipalities in Santander de Quilicaho, Padilla and Silvia. Six of the schools are urban schools and five are rural. In all, 2,947 children were involved along with their parents, teachers and the 11 school directors.

The process involved **nine** stages:

Stage 1: Agreement

The facilitating team made an agreement with the teachers and managers of the 11 schools for the collection of the information required to identify and diagnose problems concerning sanitation facilities and hygiene education.

Stage 2: Review

The activities and strategies currently used in SSHE projects were reviewed. National and international experiences and research about useful participatory strategies were considered. This included the Life Skills approach¹¹, which promotes a teaching process through which the children develop emotional and social abilities. In an SSHE context, this approach would be a way to integrate healthy behaviours into daily life and so improve conditions for children at home and school through the learning process. (Goleman, 1996 et al).

¹¹ The life skills approach focuses on the knowledge, attitudes and behaviours that support people in taking greater responsibility for their own lives. It focuses on promotion, among children, of positive attitudes, and skills as well as habits for risk reduction. Life skills education recognises that it can be challenging for children to make healthy life choices, or resist negative pressure, or reduce risky behaviours.

Life Skills in the School: school communities finding solutions by applying the 'Life Skills' approach:

Modesto, teacher at Francisco Jos de Caldas school: "In any school, any problem or trouble has causes and the causes can be identified and modified. Using this Life Skills approach we identified hygiene practices as a problem in the school. We went through a process in which we heard recommendations and thoughts about possible ways to get improvement. We did this through expanding and then applying the children's knowledge about sanitation, water supply, and hygiene in a friendly way, through games, role playing, songs. We included these themes in the curriculum and in the daily routine of the classroom."

Hernan, teacher at Libertador school: "The process carried out in the teaching of Life Skills makes it possible for us to really get to know students, teachers and, parents, their ideas, motivations and behaviours. We can then better teach hygienic habits and use of the school facilities. We participated in this process and identified, among other things, just how important the gender concept was."

Stage 3: Visits

Next, visits took place to the eleven schools and communities. Meetings were held with the stakeholders, the teachers, head teachers and local authorities at each school to plan an action agenda. It was explained that a diagnosis would be made of the school sanitary and hygiene education conditions, involving a participatory approach and different strategies. All the school community was to be involved, including children of both sexes, teachers and school parents. Table 1 presents the techniques used (Cinara, 2000).

Stage 4: Assessment of Services

Working with the community and school representatives, it was possible to identify contrasting perceptions held by different groups. Aspects researched included comfort, risk, use, availability of cleaning materials, operation and maintenance.

Stage 5: Plenaries

These meetings were times for thought and reflection. Issues and dilemmas were formulated, taking into account participatory diagnosis, mapping and daily routines. Discussions were wide-ranging, covering school sanitation facilities, operation and maintenance, hygiene education, nutrition, the causes and routes of diseases and the use of training materials. Different viewpoints about SSHE could be voiced and integrated.

Stage 6: Questionnaires

These were designed to gather both qualitative and quantitative information, especially from teachers, directors and institutional representatives. The findings clearly showed disparity of knowledge and lack of co-ordination in actions, as well as providing information about financing, use, operational and maintenance personnel.

Stage 7: Mapping

This was done by parents, children, directors and institutional representatives. The process stimulated discussions around risks, interests and environments in terms of the school and community, in a playful and dynamic way. Children and women managed the skills better than men.

Stage 8: Drawing

Understanding the expectations and aspirations of children through drawing was important because it allowed them to express what they could not say in speech. For children, such activities are fun and dynamic - like themselves. The drawings suggested ideas which could be used for improvements in the design of future facilities, for example, the need for more privacy, attention to environmental conditions, painting walls with bright colours. The process made it easier for children to visualise a fact: the school is a unity, which includes all facilities.

Stage 9: Sanitary Inspection

This was done individually with different school representatives, so that discussion was possible about behaviour related to the facilities. Plans were discussed for improvements needed to the facilities in the short, medium and long term, identifying the contribution of each stakeholder to improvements.

Table 1: Techniques, methods, and audiences

Topics	Children of 1st, 3rd and 4th grade	Teachers	Director	Parents
Infrastructure Facilities	<ul style="list-style-type: none">• Service assessment• Sanitary inspection• Mapping• Drawing	<ul style="list-style-type: none">• Questionnaire/ forms• Drawing	<ul style="list-style-type: none">• Questionnaire / forms	<ul style="list-style-type: none">• Mapping of the village showing: water supply and excreta systems, sullage, solid waste.
Benefits	<ul style="list-style-type: none">• Benefits assessment• Plenary	<ul style="list-style-type: none">• Questionnaire• Benefits assessment	<ul style="list-style-type: none">• Questionnaire	<ul style="list-style-type: none">• Benefits, services and systems assessment
Hygienic aspects	<ul style="list-style-type: none">• Service assessment• School routine• Housing routine• Plenary	<ul style="list-style-type: none">• Questionnaire• Daily routine• Plenary	<ul style="list-style-type: none">• Questionnaire• Daily routine	<ul style="list-style-type: none">• Daily routine• Plenary
Transmission and disease routes	<ul style="list-style-type: none">• Plenary	<ul style="list-style-type: none">• Plenary	<ul style="list-style-type: none">• Questionnaire	<ul style="list-style-type: none">• Plenary
Teaching / Training Materials	<ul style="list-style-type: none">• Plenary	<ul style="list-style-type: none">• Plenary	<ul style="list-style-type: none">• Questionnaire• Inspection of the material	

Findings

Most of the schools were open in the mornings, with five primary-level classes. Of the 2,947 children in the schools, 1,286 were girls and 1,661 were boys, aged 7 to 14. There were 96 teachers (80 women and 16 men).

- **Drinking water**
All the schools have water supply systems, but most have problems getting a continuous and sufficient supply. Nine of the schools used connections from the municipal water supply system. In the other two schools, children had to fetch water from a nearby river or other source.
- **Sanitation systems**
Half the schools had latrines which discharged into the municipality's collective sewer system and the other half had pit latrines using on-site sewage facilities. In three of the schools, children said that open-field defecation went on because of the water supply problems. In one indigenous community open-field defecation was the cultural norm.
- **Toilets and handwashing facilities**
All the schools had some latrine provision. In all but one, the cleaning and maintenance of the toilets (and classrooms) was done by the school children, both boys and girls. Activities included fetching water from the nearest source when necessary. Pipe repairs or replacements were being done by parents or municipality personnel.
The average number of children per cubicle was 30 to 50 but in some cases it was as high as 90. Handwashing facilities were also overcrowded, seven of the schools having 30 to 50 children per tap and the rest even more, up to, alarmingly, 167 children per tap.

In four schools, the latrines were for general use by both students and teachers. Of the seven who had separate student facilities, three had latrines for use by all children. In two others, they were assigned by class, and in the other two, by gender as well as class.

Only in five schools was there mention of the presence of both soap and toilet paper. Even then, the supply was often interrupted or children had to ask the teachers for an allowance in the classroom, which made them feel uncomfortable. In the other six schools there was no soap for handwashing. This was one of the things seriously demanded by most of the children. In four of the schools there was no toilet paper either, although soap and paper are paid for by parents at the beginning of the academic year.

In half the schools, the children found the toilets acceptable; in the others they definitely did not like the toilets. In all the schools, children said that toilets could be improved and that they wanted better facilities. The most common problems in the

sanitation facilities mentioned by the children were: poor ventilation/bad odour, poor lighting, the intimidating size and height of the toilets, poor handwashing facilities and urinals or a lack of these. In 40% of the schools, teachers said they did not feel comfortable with the sanitation facilities. In the rest, teachers said the toilets were in good or tolerable condition but that facilities could be improved to ensure that they offered better hygiene.

- Health and hygiene aspects

The diseases mentioned most frequently by all participating stakeholders were: diarrhoea, stomach pain and colic, gripe, headache and fever, skin allergies, tooth pain and general body pain. These were often attributed to environmental factors: sun and dust; a result of daily events like playing games, etc. Other causes mentioned had little relation to the actual transmission route of these diseases.

Only a few of the participants, mostly teachers and parents, mentioned the relationship of health to hygiene behaviour and habits or referred to water supply and sanitation conditions. Examples cited included: drinking untreated water or raw water from rivers, bad food management habits, and poor hygiene such as neglect of teeth or failure to wash hands before eating or after using the toilet.

- Health Benefits

Different actors saw benefits differently:

In the overall view of the stakeholders, the main benefits of having toilet facilities at schools were social, benefits such as comfort and privacy, then aesthetic aspects.

Children were primarily interested in space for recreation, showing little interest in sanitary facilities and the risks associated with defecation or food handling. They saw sanitary facilities mainly in aesthetic terms, mentioning cleanliness more than health. A few saw benefits in terms of a healthier environment. Several children mentioned their satisfaction at having a toilet at school to use rather than having to wait until the end of the classes to go home and use the toilet there.

Other stakeholders saw benefits more from health and environmental aspects.

- Hygiene habits

Understanding was gained of daily routines, essential in order to understand the hygiene behaviour in school communities.

In about 50% of the schools it was clear that children have incorporated health and hygiene aspects into their day-to-day habits. The actions they mentioned most often were care of the teeth, showering daily and handwashing. In these schools, only a few teachers and parents failed to mention these daily routines in the context of hygiene and health. But in the other 50% of schools, only a few mentioned something like handwashing or care of teeth.

- **Hygiene Education Skills in teachers**
In seven of the schools, teachers had received some training in hygiene and health. In all schools, even those where teachers had not received training in these topics, hygiene education and sanitation were in the curriculum. They were included mainly in natural and social science courses. Teachers explored these themes during the classes using verbal explanations, small cards and posters. Teachers also brought up these topics during Parents Meetings which are frequent, since parents take a keen interest in their children's progress.

The main subjects covered were: handwashing after using the toilet and before eating, and de-worming the children.

Sanitary facilities not properly used.

Las Delicias School, in the municipality of Silvia, has a mainly indigenous catchment population. About 320 children attend. The water supply and sanitation practices of the community do not meet national criteria for quality, environmental protection, comfort and privacy. So the children are not used to latrines and tend not to use the ones at the school, especially the younger children. There have been no previous attempts to explore the point of view or desires of the local communities. The SSHE project tried to find ways to incorporate these for the first time

La Milagrosa School covers an outlying area of Santander de Quilichao municipality. Most of the population has settled there to escape violence in the rural area. The children tend to be ignorant about use of toilets, and use the open field practices of the rural areas. The SSHE project allowed activities for integration between infrastructure and hygiene behaviour changes.

In both schools, the Life Skills approach was an interesting tool for initiating behavioural changes in the community.

Children's and parent's voices.

Children from class 1, Quinamay School: "Getting the water supply for the school is very difficult. Sometimes we have to carry it from the river or neighbourhood houses. The Panamerican Road is very close and is dangerous. We want to have the bathrooms closer to classrooms and under trees - this place is very hot. Because the water supply is difficult, sometimes the bathrooms are dirty and a terrible mess".

Parents of La Milagrosa School: "The biggest problem is the water supply. In our houses there is little water and it does not have pressure. In summer this problem is more critical".

Girls from class 3, Francisco JosT de Caldas School: "We do not like the boys' attitude; they look under doors when we are using the bathroom".

- Educational aid material used by teachers
Only in three schools did children and teachers mention training materials about hygiene and sanitation. In the other eight schools there were none. Nonetheless, in almost all the schools, children expressed their satisfaction with the way their teachers explained the topics and the material they used. This consisted mainly of small booklets, songs and some games. They also used small posters to encourage the efficient and correct use of water and the need for handwashing before eating.

The teachers' perceptions were not as enthusiastic as the children's. Only in three schools did they express some satisfaction with the teaching aids on hygiene and sanitation themes.

Using the collected information

Reflecting the information back

In this phase, all the information collected during the participatory diagnosis was presented to the school communities, along with proposed actions. Adjustments were made based on feedback. This made it possible to generate effective planning tools for short, medium and long-term SSHE activities.

Other factors playing a role in designing optimal SSHE activities

The role of the following factors was recognised:

- Sanitary facilities are not yet considered to be a routine part of an overall school plan; much more attention is paid to classroom facilities than to sanitation facilities.
- Differences in the concepts of school sanitation and school health and a neglect for school sanitation within school health was shown by a) a general resistance to allocating resources for school sanitary facilities and b) the poor support given to teachers involved in SSHE, including monitoring and evaluation.
- Integration of SSHE into the 'Child-Friendly School' concept had not happened. The Child-Friendly School was a bigger concept than SSHE, but in reality, SSHE had achieved more. In the future, consideration of topics such as food facilities and learning spaces could and should help integrate SSHE into the Child-Friendly School concept. Likewise, the school should be more integrated into society and the community. Stakeholder groups and advocacy activities are needed to get the attention of policy-makers and decision-makers.
- It was apparent that the 11 schools selected for this study had relatively good facilities and conditions. The majority did not fall below national or international standards for the number of users per facility. It was said informally in the municipalities that the needs of other schools were much greater.

Using the findings to improve SSHE activities

General improvements

In the past, the design and construction of the facilities has not taken account of factors such as gender, privacy, comfort or the size of the children. Nor has consideration been given to integrating the operation and maintenance of facilities with the hygiene education curriculum.

As a result of the process described here, guidelines to be applied in schools are being developed. These include a formula for participation and technical guidelines for the design of sanitation solutions. It is proposed that these guidelines be incorporated at national level.

Building in Life Skills

The Life Skills approach recognises that hygienic habits, health, and well being are founded on basic human skills such as: empathy, self-knowledge, self-care, self-control and the ability to take decisions. Encouraging the development of these skills during the participatory diagnosis is particularly useful for initiating change in the parents and teachers of the school community.

Accommodating differences

There are major differences between the genders in perceiving factors such as comfort, risks, health, rights and privacy. If these are better identified and considered in the design process, better plans can be proposed and facilities will be more used and appreciated. Differences in perception also exist between children, parents and teachers and need to be allowed for when planning better SSHE actions.

Better Training

Results can inform the planning of training and training materials for teachers, using local human and material resources. In designing hygiene education materials and strategies, (role) play, music and hands-on activities are preferred to more conventional approaches.

The decision-making process

Involving the school community in the decision-making process allows them to define their financial, technical and institutional responsibilities at local level, contributing to a regional and national process of decentralisation.

Links

This pilot research project has caught the interest of other organisations. For example, Plan International is going to use its results in initiating a Child-Friendly Schools project in one of the municipalities. In addition, the results of this research and the work with UNICEF will be incorporated into another project that UNICEF is carrying out in 120 schools in Colombia, in which SSHE will be one of the most important aspects.

Conclusions

- This programme has developed a strong, child-centred participatory approach. It is also a decentralised approach, focusing on the districts, and this provides great opportunities for further expansion of the programme. Tools and methodologies need to be finalised and validated by demonstrating that they can strengthen the outputs of the programmes, particularly infrastructure and training tools.
- The schools are communities made up of different actors: children, parents, teachers, directors. Exploring their motivation, thinking and perceptions about SSHE improves both planning and activities. It is well worth doing. The children find it easy to express their enthusiasm for progress in their school. Such clear and steady vision, capable people and a well-adapted approach are necessary to meet the next phase of challenges: design, construction, operation and maintenance.
- The process described in this paper generated a lot of expectations. The main hope is that common and participatory solutions will be found for problems identified. Informed people working together can build a child-friendly school.
- The majority of the schools in this study were not below national or international standards for the number of students per facility.

Summary

The project was carried out in 11 schools with 2,947 children in the southeast of Colombia. It used a participatory approach and drew on Life Skills to involve the population and find solutions to SSHE issues. The project gained a great deal of information about the different perceptions of parents, teachers, girls and boys concerning SSHE. The results will be used to strengthen future projects in the region.

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Concluding remarks

There are various conclusions that can be drawn from the case studies included in this publication. Some readers may have focused on specific case studies, while others may have read them all. Here we try to draw together some of the main themes/issues that are reflected in the document as a whole:

- **Need for sustainable projects/programmes**
The main question here is how can SSHE projects/programmes remain sustainable. More specifically, will some of the SSHE cases described here still be functioning in the coming years, say after five years? Clearly the issues that affect sustainability, ranging from financial requirements to institutional frameworks, need to be carefully considered.
- **Need for financially sustainable projects**
Reflecting on the case studies, it does appear that financial sustainability is a weak element in them all. Put simply: if something breaks in five years time, will it be repaired? The answer is probably not, especially in the case studies from Bangladesh, India, Nepal, Burkina Faso, Kenya and Uganda.
- **Need for a balance between 'hardware' (e.g. equipment such as water and sanitation facilities) and 'software' (namely hygiene education)**
In the case study from Uganda, nationwide, the balance went wrong with far too little emphasis on hygiene education and very limited behaviour change –probably limited to the school and to handwashing after latrine use. The case studies in Nepal and Burkina Faso reflected that constructing the hardware early on made everyone more committed to the hygiene education part of the programme. The key however is that there is clearly a need for a more effective balance of both 'hardware' and 'software' issues in SSHE programmes.
- **Need for quality hygiene education in schools**
A key group of teachers in each school need to be trained in hygiene education to get SSHE activities off the ground. In Bangladesh, it was the headmaster and two other teachers that made this part of the programme a success. This was also reflected in the case study from Burkina Faso, where a lot of attention was given to training teachers. In the case of Uganda, much attention was given to different groups of teachers who were trained in different ways. However, in the end, the group of teachers ended up being more discouraged than encouraged. Could it be that too much attention on diverse training for a group of teachers may have a counter-productive effect?

In Nepal the NGO running the SSHE project also trained and supplied Hygiene Educators - although this was for a limited time only. However, there was no valid reason as to why local government health workers were not used in the programme since they were and continue to be 'permanent' staff. It is also interesting to reflect

that in this case study, teachers were not involved and never felt committed to the SSHE. Again this reflects the importance of training teachers in SSHE.

- Students as active educators in the community
An inspirational case study from Kenya focused on how school children can become effective educators for the community. The question here might be: could students not be utilised more effectively in SSHE programmes/projects? In the case studies from Bangladesh and India this also seems to have worked well.
- Need for hygiene education to be translated into significant behaviour change
This was clearly reflected in the case studies from Bangladesh and Burkina Faso. In Kenya, the behaviour (washing hands after using the latrine) remains if the hardware stays available.
- Need for a positive attitude with a sense of 'ownership' by teachers in the schools
The sense of ownership is one of the main roots of successful community management, including that of SSHE programmes. A sense of ownership means that community members/school members (teachers and students) behave as if they do own the facilities, and people who own things (particularly poor people) do their best to protect them (Schouten and Moriarty, 2003). In the case studies from Nepal and Uganda, it is clear that the projects did not get as far as creating a sense of ownership among the teachers, which could mean that there is little likelihood of the projects succeeding in the long term.
- Need for a stronger link between behaviour changes taking place at schools and those taking place in the homes
It is interesting to see that in the case study from Kerala, India, there was a community programme taking place simultaneously and that has led to a successful SSHE programme. Similarly, in Bangladesh, the project was high in resources, covering a small community and training the students to be active in the community. In Uganda some communities were getting hardware from parallel programmes. However, in Uganda they were not getting hygiene education and as a result there was little behaviour change.
- Need to consciously help girls and disabled who are going to school
In all the case studies we see a conscious effort to help girls in schools. This is reflected particularly in the case studies in Bangladesh, India, Nepal and Uganda. In the case of Uganda we can also see a specific effort focusing on the disabled.
- Ideas to be replicated
There are parts of every case study that provide good practices that could well be replicated elsewhere. Separate latrines for girls and the disabled are obvious examples. There are also several imaginative training approaches described in the cases from Colombia and Burkina Faso. However, lots of resources and people, as was specifically reflected in the case from Bangladesh, does not automatically lead to replication.

- Need for schools to view SHHE as a priority
This is not only a statement but also a question. In the long term, as SSHE gains more political backing at the national, state and local level around the world, continuous positive development in this area is inevitable. However, as these case studies have reflected, much more work needs to be done.

As a final note to the reader, we point out again that this compilation of SSHE case studies is on-going process. This publication is timed to coincide with a Symposium on SSHE, which will be held this year (2004). The case studies have hopefully raised some fundamental questions regarding which aspects of SSHE programmes we need to tackle more seriously so as to get better results. Only through sharing knowledge are we able to find a better balance in more effective and efficient SSHE programmes. Finally, the work towards developing better SSHE programmes is not only part of our concern but should be part of the larger debate regarding development work, especially as it focuses on children – the leaders of tomorrow.

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