# Towards Effective Programming for WASH in Schools

*A manual on scaling up programmes for water, sanitation and hygiene in schools*

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unicef
United Nations Children's Fund

IRC International Water and Sanitation Centre

# Preface

The manual you are reading now is an update of the earlier, popular manual entitled *Towards Better Programming: A manual on school sanitation and hygiene education*, published by UNICEF and the IRC International Water and Sanitation Centre in 1998.[1] It contains many examples, most of which are drawn from a UNICEF-IRC pilot study for School Sanitation and Hygiene Education (SSHE) carried out in six countries (Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam, and Zambia). This pilot programme took place from 1999-2003, with a post-intervention assessment in 2006. Other information and examples reflected in this updated manual are drawn from other UNICEF-supported programmes, notably in Malawi and India.

This manual deals with school water, sanitation and hygiene education. It describes many of the elements needed for scaling up programmes for water, sanitation and hygiene in schools while ensuring quality and sustainability.

The manual is meant for government, UNICEF and other (I)NGO staff responsible for programming WASH in Schools.

Recently UNICEF has noted that the term *SSHE* (School Sanitation and Hygiene Education) may not sufficiently reflect the water supply aspects of the programme. Therefore from this point onward in the text, the manual talks of **WASH in Schools** (Water Sanitation and Hygiene) rather than of SSHE.

Those involved in the revision of the manual from UNICEF include Henk van Norden, whose valuable advice led to the finalization of the manuscript, and Lizette Burgers, who launched and planned the revision. Within IRC, the manual was finalized by Kathleen Shordt with contributions from many staff: Eveline Bolt, Ingeborg Krukkert, Leonie Postma, Christine Sijbesma, and Mariëlle Snel. However, much of the credit for the manual has to go to the teams (generally consisting of UNICEF staff and staff of government departments and of NGOs) who implemented the pilot study, noted above, in Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam and Zambia. They worked hard to develop, analyse and record the experience needed to update this manual.

We hope you, the reader who is involved in WASH in Schools, or other similar programmes, will find the manual useful. The manual is not meant to be read from cover to cover but is meant to be 'dipped into', to provide information and references on specific topics and experiences from other countries.

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1   The manual has been one of the most frequently-downloaded publications of both IRC and the UNICEF-WES section.

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# Abbreviations

| | |
|---|---|
| CBO | Community Based Organisation |
| FRESH | Focusing Resources on Effective School Health |
| HESA | Higiene Escolar y Saneamiento Ambiental |
| IRC | IRC International Water and Sanitation Centre |
| NGO | Non Governmental Organisation |
| O&M | Operation and Maintenance |
| PoA | Plan of Action |
| PTA | Parent-Teacher Association |
| SMC | School Management Committee |
| SSHE | School Sanitation and Hygiene Education |
| UNICEF | United Nations Children Fund |
| VEC | Village Education Committee |
| WASH(E) | Water Sanitation and Hygiene (Education) |
| WES | Water and Environmental Sanitation |
| WHO | World Health Organization |

# Chapter 1    Introduction

Children have a right to basic facilities such as school toilets, safe drinking water, clean surroundings and basic information on hygiene. If these conditions are created, children learn better and can bring concepts and practices on sanitation and hygiene back to their families.

Schools can play an important role in bringing about behavioural changes and promoting better health. Improved hygiene practices are essential if transmission routes of water- and sanitation-related diseases are to be cut. Diseases such as diarrhoea, parasitic worm infections, skin and eye diseases, need to be tackled by making improvements to water and sanitation facilities. These improvements in facilities must go hand in hand with hygiene behaviour change and practice, if the transmission of disease is to be prevented.

Rapid action is required—far too many schools have poor hygiene conditions or do not have water, sanitation and handwashing facilities at all. While worldwide statistics are still scattered, recent studies show that in many countries more than half the primary schools do not have safe drinking water on the school premises or any type of toilet or urinal. Schools often suffer from:

- Non-existent or broken, dirty and unsafe water supply, sanitation and handwashing facilities.
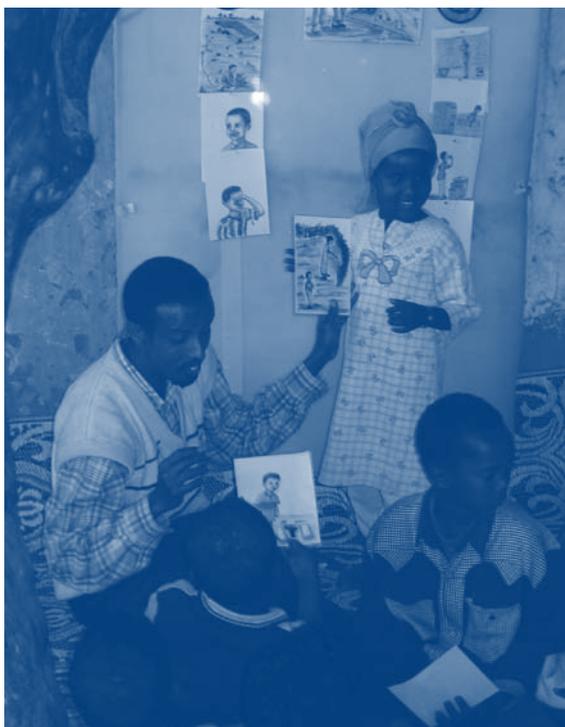


*Somalia: Children participate in class*
Photo: Caritas-Switzerland

- Toilets or latrines that are not adapted to the needs of children, in particular, girls.
- Children with poor hygiene habits and practices.
- Non-existent, irrelevant or passive health and hygiene education for children.
- Unhealthy and dirty classrooms and school compounds.

The provision of water and sanitation services needs to be accelerated urgently **together with** sustainable operation and maintenance, meaningful hygiene education, and consistent use of facilities by all children and teachers.

## Putting girls first

Household chores, such as fetching water from long distances, keep many girls out of school. Providing water closer to homes increases girls' free time and boosts their school attendance. Most other household chores—including cleaning latrines and disposing of garbage—also fall to women and girls. When family members become sick (often due to hygiene-related diseases), girls are more likely to be kept home to care for them (Burgers 2000).

All children need a sanitary and hygienic learning environment, but the lack of sanitation and hygiene facilities in schools has a stronger negative impact on girls than on boys. Girls need safe, clean, separate and private sanitation facilities in their schools. A study undertaken by the Government of Bangladesh and UNICEF (DPHE-DPE-UNICEF 1994) revealed an 11% increase in girls' enrolment mainly due to the provision of sanitary latrines. Project evaluations and research has found a 15% increase in school attendance in Bangladesh, when water was available within a fifteen-minute walk compared to one of an hour or more. Similarly, a study in Tanzania showed a 12% increase in school attendance when water was available within 15 minutes instead of being more than an hour away (Redhouse 2004).

> **Box 1.1 The importance of safe and secure facilities**
> In a recent study of violence in and around schools in Swaziland and Zimbabwe, the researchers asked young people to take photographs with disposable cameras of places in and around the school that they saw as safe or unsafe. Time and again the girls took photographs of the toilets as unsafe spaces. The unsafe toilets were seen to be cut off, isolated, whereas, in contrast, the latrine outside the headmaster's office was presented as a safe place. Every school should be equipped with latrines, but again the point is underlined of the importance of separate facilities for boys and girls in safe and secure child-friendly environments. We also have to keep working with children, in particular girls and those who design and construct such facilities, to take isolation and insecurity out of the picture.
> *Source: Mitchell and Mothobi-Tapela (2004)*

## 1.1    Facing health challenges

Although school-age children have a lower mortality rate than infants, the school-age child continues to be at risk of ill health. Diarrhoea, skin and eye diseases, and worm infections are common. This graph (figure 1.1) is based on an analysis of 144 water and sanitation studies, which show the importance of improved hygiene and safe excreta disposal as interventions to reduce diarrhoea (Esrey 1994). It indicates that about one out of three cases of diarrhoea could be avoided through improved hygiene and safe excreta disposal. More recent research has also indicated that improved water quality—that is, ensuring that drinking water is safe—may be more important than had been realized when Esrey's study was done (see Clasen and Cairncross 2004).

Results of research from 144 studies show the following

% Reduction in diarrhoea by intervention
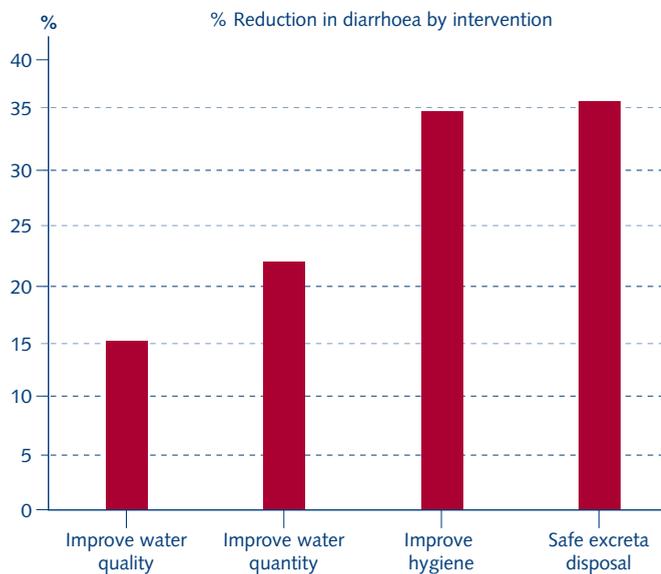
*Figure 1.1 Results of research on the reduction of diarrhoea* Adapted from Esrey (1994)

While we all know the dangers of continued diarrhoea, the burden of disease associated with worm infections is also enormous and less well recognized. At least 400 million school-age children are infected by roundworm, whipworm, hookworm, guinea worm, schistosomiasis and other flukes—often with infections by multiple species.

The infection of children aged 5 to14—ages when they should be undergoing intense physical and intellectual growth—has negative effects on growth, nutritional status (particularly levels of iron and vitamin A), physical activity, cognitive development, concentration, and school performance. Adolescent girls are particularly at risk of anaemia that is aggravated by parasitic infections and 'iron stress'. The impact on girls may also be worse in situations of poverty where girls may experience poorer nutritional status because boys are often favoured when food is scarce. Although
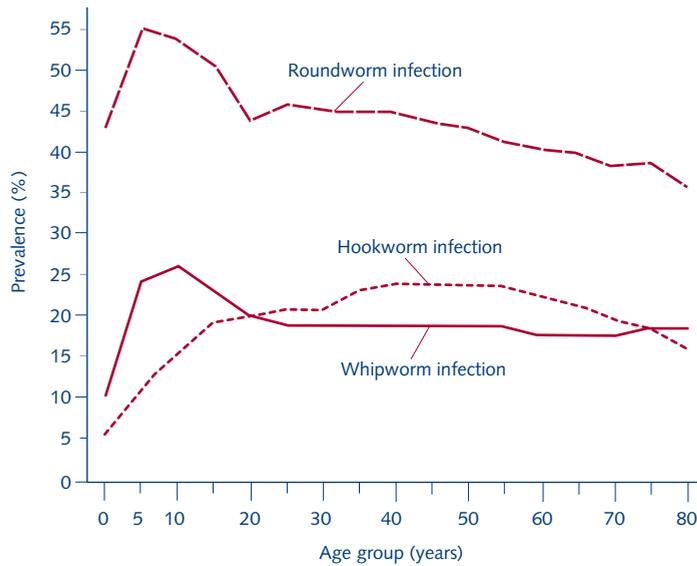
Figure 1.2
Worm infection
rates worldwide
Adapted from:
Bundy 1988

relatively few deaths are estimated to be directly attributable to worms, the significance of these infections for school children lies in their chronic effects on health and nutrition. They cause absenteeism from school and interfere with learning, and therefore limit the ability to overcome the cycle of poverty.

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**Box 1.2 The health impact of worm infections**

The highest rate of roundworm and whipworm infections are often found in the age groups 5-9 and 10-14 (see Figure 1.2). Children infected with worms are 3.7 times more likely to be underweight and are typically anaemic and less physically fit. In addition children infected with worms do not perform as well at school. Roundworms and whipworms alone are estimated to affect one quarter of the world's population.

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A study in Mali (Shordt 2004; De Clercq *et al.* 1988), West Africa, demonstrates that academic performance (p=0,01)[2] is related to the level of schistosomiasis infection (as measured by the number of eggs per 10 ml of urine). These findings suggest that in areas with a very high incidence of schistosomiasis, for example the Salima District in Malawi, where 90-100% of the children are estimated to be infected, learning achievements could be severely affected.

A study in Jamaica (Nokes and Bundy 1993) showed that children treated for whipworm performed better on a cognitive test than children who were not treated (see Figure 1.4). The study also showed that children who have a greater level of

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2   The study sample was 580 children in two primary schools. Although findings were based on a small sample, there is little
    reason to believe that the results would differ in other countries.

Intensity of infection by academic performance



*Figure 1.3 Impact of schistosomiasis in Mali*
Adapted from:
De Clercq et al. (1998)
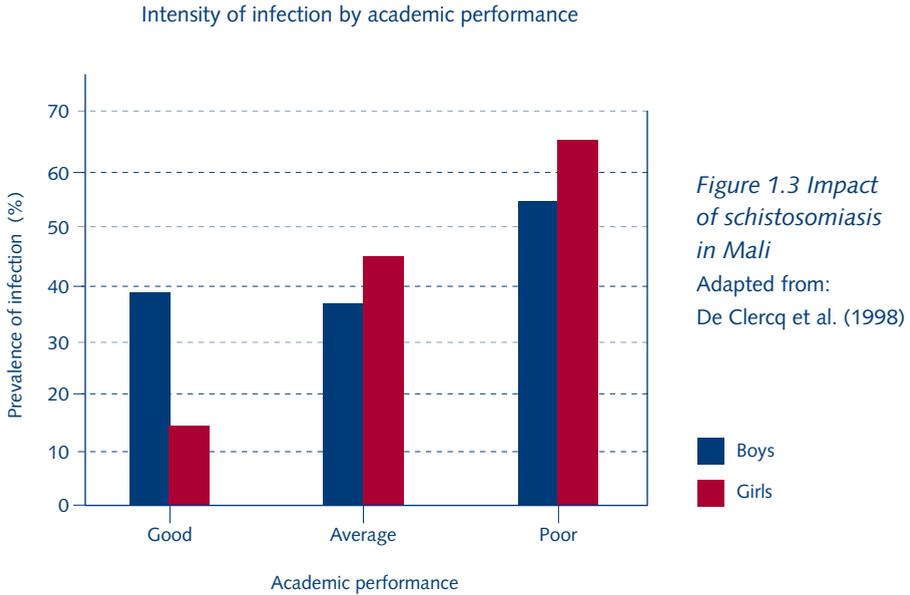
infection (in this case from whipworm), are absent from school three times as often as other children.

In Madagascar, 3.5 million school days are estimated to be lost each year due to ill-health related to poor sanitation.[3]
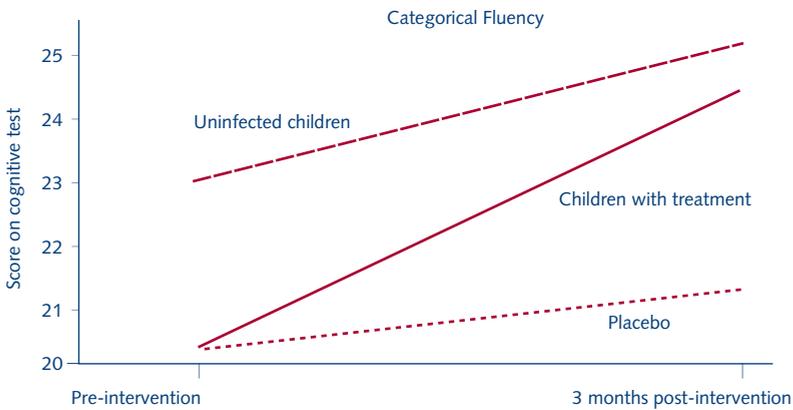


*Figure 1.4 Improvement in cognitive performance with treatment in school children in Jamaica* Adapted from: Nokes *et al.* (1992)

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3   Source: UNICEF-Government of Madagascar (2003). Press release

**Box 1.3 Inadequate sanitation, a serious issue**

How sanitary can conditions be when 90 young children in a school are sharing one toilet? Or when half the toilets are not functioning? Children face these problems in many of the primary schools in the poorest countries. While progress has been achieved in providing safe water in schools, inadequate sanitation in schools also threatens not only students' health but also their attendance. Girls in particular are likely to be kept out of school if there are no sanitation facilities.

Photo: Nicaragua, Annemarieke Mooijman

## 1.2    What schools can do

Diarrhoea is best prevented through hygienic behaviour, in particular handwashing, safe excreta management and the consumption of clean water. Schools can play their part in prevention through the construction and proper use of water and sanitation facilities as well as hygiene education.

De-worming in schools can have a significant impact on health and learning among school children. After de-worming, school children show remarkable spurts in their growth and educational development. Reduction of the burden of disease can be achieved through regular treatment with anti-helminthics targeted at high-risk groups such as school-age children.[4] However, permanent control can only be achieved when the source of the infections (in most cases poor excreta management) is addressed at the same time.

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4    UNICEF-WHO Joint Statement (2004). Prevention and Control of Schistosomiasis and Soil-Transmitted Helminthiasis.

> **Box 1.4 South Africa, de-worming campaigns in school reduce prevalence of worm infections**
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> In a rural settlement of Cape Town, South Africa, teachers and parents noticed that children were falling asleep in school and were also passing large numbers of worms either in their feces or by vomiting. A large survey in all twelve primary schools in the area found that over 95% of all children were infested with worms. As a result of these startling findings, a task team was established to raise resources from private companies to de-worm the children. Every six months, teachers and school health nurses de-wormed more than 11,000 children, resulting in less than 20% of the children being infected. Based on the success of the de-worming programme, the task team continued their work with the school communities. As a result, all schools have established action plans to improve the school environment, have integrated hygiene education in their school curriculum, and the local government has started to prioritize the area for sanitation resources.
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> *Based on: "From Deworming to Health Promoting Schools", SSHE Notes and News, January 2002. http://www.irc.nl/page/16695*

## Global context and Millennium Goals

The need to invest in water, sanitation and hygiene services in and around schools is reflected in several internationally-agreed goals and instruments, including the *Dakar Framework for Action, Education for All* (2000), *Vision 21* (2000), and the Millennium Development Goals.

In the Millennium Declaration (2000), prepared during the UN General Assembly, 150 heads of state and governments agreed upon a set of time-bound targets to reduce poverty throughout the world.[5] The targets call for efforts to *"achieve universal primary school education for every child on earth by 2015"* and to halve the proportion of people living without sustainable access to safe drinking water and basic sanitation by the year 2015. The World Summit on Sustainable Development (WSSD) held in 2002 called for action to improve sanitation in public institutions, especially schools, to promote safe hygiene practices among all children as agents of behavioural change.[6]

## The challenge ahead

School programmes have existed for decades, and their number and coverage is expanding rapidly. However, the struggle to balance quantity and quality continues. WASH in Schools is more than construction of facilities. In addition to sound construction with child-friendly designs, an effective WASH in Schools programme requires adequate planning, management, training and capacity-building, coordination among the institutions involved, and participatory education focusing on life skills. To succeed, WASH in Schools requires a strong focus on operation, use and maintenance of water and sanitation facilities in the school while also reaching out to

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5   The MDG's were agreed at the September 2000 UN General Assembly. Available at http://www.un.org/millenniumgoals/
6   United Nations (2003). Johannesburg Declaration on Sustainable Development and Plan of Implementation of the World Summit on Sustainable Development. Johannesburg, South Africa, 26 August – 4 September 2002.

the community and homes. What children and adults do—their behaviours—creates successful WASH in Schools.



Photo: Bolivia, José Barragan

# Chapter 2    In the school

This chapter focuses on the school level including participation, school selection, management and outreach into the community. Sometimes, particularly in large-scale programmes where contractors are used, a team arrives at the school and, barely talking even to the head teacher, constructs toilets or water points and then departs. This leads to situations where the toilets are not used by children, are not cleaned, and eventually fall into complete disuse. It also leaves a planning gap: how to undertake and pay for repairs of water points.



Photo: Peru,
Annemarieke Mooijman

The people who are expected to organise the use of facilities and provide support for repairing and maintaining them must be involved from the beginning. If the facilities are to be used as intended, then children, teachers and parents need to be consulted before construction to ensure that the design of the facilities is child-friendly.

## 2.1    Participation in district planning

In the school, "participation in planning" relates not only to planning construction, but also to maintenance, use and management. Those directly concerned are teachers, girl and boy students, school heads, parents, the school management committee and parent organisations. In many programmes, health workers, other local government

workers, and members of NGOs and community-based organisations are also involved. Participation is important because it can help ensure that facilities are used and maintained and new learning is acquired. Special emphasis should be placed on involving the teachers and the families of children (both men and women, rich and poor) in making decisions about the technology and construction of their water, sanitation and handwashing facilities.

**Tips and Hints 2.1 How to motivate teachers to start WASH in Schools**
In some countries, WASH in Schools programmes face problems with the skills and motivation of the teachers. The UNICEF study carried out in six countries in 2005 noted that common problems can include: limited training of teachers, rapid teacher transfer, the lack of interest/motivation among teachers and headmasters, very full teacher schedules, and competition for the attention of teachers from other educational reforms.

One option for dealing with the lack of teacher motivation for WASH in Schools programmes is to start with the schools where the head teacher and teachers are more interested. Another way to help motivate teachers is to begin by having NGO staff initially guide the programme and give sample lessons over a limited time period. The idea is that teachers will gradually take greater interest when they see results in the form of a neater school and cleaner children. In general, the support of the Education Department is crucial in motivating teachers.



Photo: Malawi, Petra Brussee, IRC

Making joint decisions with parents, teachers and students ensures that the knowledge of all is used. Such decisions relate to which facilities will be installed, how to keep costs within affordable bounds, and how the facilities will be maintained. What is locally the best design, location, materials, and quality control should also be discussed. Participation in decisions also makes children and adults more proud of and responsible for what they have created.

Setting up a participatory WASH in Schools programme begins with parents and community leaders. They should understand the value of the programme and be committed. The programme should be set up so that they can make decisions about design, construction and location of facilities. They can contribute at the beginning of the programme and help in monitoring, as well as taking part in special school events for WASH in Schools. They can also decide how to organise support for recurring expenditures such as soap, cleaning materials, repairs, and educational materials.

Community involvement may enable a WASH in Schools programme to have a broader impact. It is hoped that a WASH in Schools programme will initiate a process of passing on health information and behavioural changes from school to household to community, or, in other words, from students to siblings, friends and neighbours.

UNICEF strongly promotes children's right to express themselves and to participate in the projects that concern them. For this, adults need to open their ears and their minds. Furthermore they must ensure the participation of children is meaningful to the children themselves. School children, from their side, may be involved in activities at the community level, for instance collecting environmental data, surveying homes, counting latrines and distributing materials. Their involvement may also go one step further, to the promotion of community sanitation and hygiene. The WASH programme can provide good opportunities for boy and girl students to acquire new technical knowledge and skills; these can even include construction techniques such as the mixing and curing of concrete.

Construction workers are often not used to working and communicating with parents, teachers or children. However, many technicians appreciate and enjoy the extra dimension once the team approach has taken root.

### Equity in participation
In all environments, some children, families and schools are worse off than others. It can make a great difference whether a child is born into a better-off or socially more respected class or in a poor or minority household; is a boy or a girl; and is the first, middle or last-born child.

Schools and governments often prefer not to mention inequalities. However, keeping silent about social and economic differences perpetuates inequalities. The only way governments, districts, schools, teachers and children can deal with inequalities is by recognizing them and seeking solutions that are fair for everyone. Approaches that are sensitive to issues of gender, class, ethnic group and income-level can help school water

and sanitation projects succeed in achieving their objectives for all—girls and boys, men and women, richer and poorer members of the community.

> **Box 2.1 How cultural factors have an impact on girls' enrolment**
> Burkina Faso has one of the lowest primary enrolment rates in West Africa, and within the country there are great gender and regional disparities. The primary enrolment rate for girls is 36% and for boys 49%. Poverty and cultural issues lead to girls being withheld from school. UNICEF, through the Girls' Education Initiative, is working with the government to address the gender gap by supporting the construction and equipment of 229 Satellite schools. The schools aim to keep girls and boys closer to their village environment. They place emphasis on local languages and traditions and address topics such as health, hygiene, nutrition, family education and civic rights.
> *Source: Bouda (2004)*

## 2.2    Selecting the schools

Guidelines are also needed in the selection of the schools. Issues which can have a strong impact on school selection are:
- Readiness of the community.
- Existing school infrastructure.
- Political interference.
- The tendency to establish model schools in better-off and easy-to-reach areas.

*Readiness of the community*
As a principle, it is useful to start with communities that are prepared and want to participate. This means that there should be adequate cooperation between school and community. In projects that operate on a demand basis, it is helpful if both the school and the community are ready for the programme. For example, the local government or Parent-Teacher Association (PTA) are asked to submit simple plans and provide contributions or advanced payments. If this is not done, they cannot enter the programme. Tips and hints 2.1 provides ideas to motivate teachers.

*Existing school infrastructure*
In many schools, the basic infrastructure is very poor. For example: roofs are not intact, walls are cracked or falling apart, and the classrooms lack furniture (chalkboards, chairs, desks). In such situations, it is highly advisable to create water and sanitation facilities *at the same time* that basic improvements are made to the school, as the example provided in Box 2.2 demonstrates.

> **Box 2.2 How to get WASH in Schools on the agenda: Example from Colombia**
> It was difficult to get WASH in Schools high on the agenda of policy makers in Colombia because of skepticism about its importance relative to other problems such as poor enrolment and the bad condition of classrooms. Combining WASH in Schools with the improvement of ventilation and light and the rehabilitation of the classrooms increased the interest of the policy makers.

*Political interference*
In some cases, elected officials have a good overview of their constituencies and the demands and needs of different communities. In other cases, political involvement is not in the best interest of the programme and will not improve the programme's credibility.

*The tendency to establish model schools in better-off and easy-to-reach areas*
In Vietnam, the UNICEF-supported WASH in Schools programme helped to promote a paradigm shift away from establishing model schools in better-off and easily accessible areas to pioneering efforts in remote, poor areas. This shift in approach is necessary in order to improve equality among schools and ensure the programme reaches all primary schools.

## 2.3    Planning, coordination and management in the school

WASH in Schools involves planning at both school and community levels as well as at the general programme level. An example of a plan at school level is a micro-plan. The purpose of preparing a micro-plan at an early stage is to use this as a basis for the preparation of the district work plan as this will give a rough idea of how human and financial resources should be allocated for each school. Thus, beginning with the results of a baseline survey and an analysis of the actors, the preparation of a draft micro-plan leads to the formulation of a district plan that is based on the real situation in the communities.

The micro-plan should address questions such as:
- What is the current situation in the school? See the baseline survey.
- Who is informed and understands the need for facilities?
- Who decides what is going to be done to improve the school situation?
- Who should/could be involved in improving WASH in Schools at the school?
- What and whose capacities should be developed?

When several groups and institutions are active in school water, sanitation and hygiene, it becomes very important that they collaborate and coordinate their activities. Experience shows that lack of coordination leads to disorganisation with, for example, different groups building toilets in the same school or forgetting to provide water and handwashing facilities or not training teachers.

Often school committees are established in schools to coordinate, plan and implement WASH in Schools programmes. Recent experience has shown that it can be more efficient to incorporate WASH in Schools into the work of existing groups. Thus, for example, in the state of Rajasthan, India, the school management committee is responsible for WASH in Schools as well as for the current educational reform programme in the schools.

The tasks of the management committee can include planning, managing and evaluating school water activities. Many committees set up bank accounts and help manage construction, rehabilitation and repairs. In successful WASH in Schools programmes, the committees are responsible for activities such as: raising funds, controlling the funds, working with community groups, helping to plan the location and design of facilities, liaising with and monitoring the engineering department or contractor doing the construction, organising maintenance and repair of facilities and monitoring the WASH in Schools programme in the school overall.

Often, these school committees rotate members. This means that after a one-year period, new members such as the chairman are elected. This helps the committee remain creative in solving any problems found in the school. However, the key to school management committees is that they have trained members. To ensure continuity, refresher training should be organised, and each committee should have at least one teacher trained as a member.

## HIV-AIDS
HIV and AIDS are heavily affecting the education systems in the developing world. In sub-Saharan Africa alone nearly 1 million children have lost a teacher. Examples of direct and indirect impacts of HIV/AIDS on (school) children cited by the Uganda AIDS Commission (2000; 2002) include:
- increased student absenteeism, because students, especially girls, are withdrawn to assist in caring for sick parents and siblings or because they themselves are sick;
- absenteeism, low productivity and poor work efficiency among the professional

and support staff due to intermittent sickness, fear, stigmatization, worries, distress and apathy;

- increase in the number of children with one or both parents dead due to AIDS (about 70% of the orphans in school in Uganda are orphans due to AIDS) which has resulted in inadequate guidance, socialization, financial and material support;
- inadequate socialization of orphaned children leading to low self-esteem and poor performance.

The alarming number of deaths due to AIDS, especially in sub-Saharan Africa, decimates the workforce and leaves children as orphans. Schools and health facilities are overwhelmed by the increased burden. In these circumstances, developing new initiatives is very difficult, since maintaining existing levels of service (e.g. in health education) is already a struggle.

## 2.4    Connecting with the community

The challenge is to make best use of the interrelationship between the school and the community for improved sanitation and hygiene. Links with the community are important for many reasons:
- Improving school sanitation and hygiene makes no sense if most children cannot practice hygiene at home.
- Children are in general highly motivated to improve conditions and practices at home and in their communities and thus can be excellent catalysts for positive change.
- School events (e.g. parents' days) and students' assignments (e.g. simple surveys in their homes, neighbourhoods and community) are excellent opportunities to raise awareness and initiate community projects on subjects such as environmental protection and improved water supply and sanitation.
- Schools need the assistance of parents and local administrations and organisations to establish and sustain good facilities.

Other people in the community, such as the staff of water supply and sanitation programmes or health staff, might be involved in organising special activities and campaigns. Services which they could deliver are:
- yearly treatment against parasitic infections,
- immunization of children in pre-school, and
- promotion of iodised salt and foods rich in iron and carotene (vitamin A).

## Children's clubs

In the UNICEF six-country pilot programme (1999-2003), each country had some form of active club in the school, under a variety of names. The impact of the schools' health/hygiene clubs in the pilot programme was very positive. The children in these clubs helped organise activities in the schools such as ensuring that children wash their hands before eating and guiding groups of children responsible for cleaning around water points. The personnel involved in each country pilot programme were enthusiastic about the children's groups, which also helped to reach into the home and community.
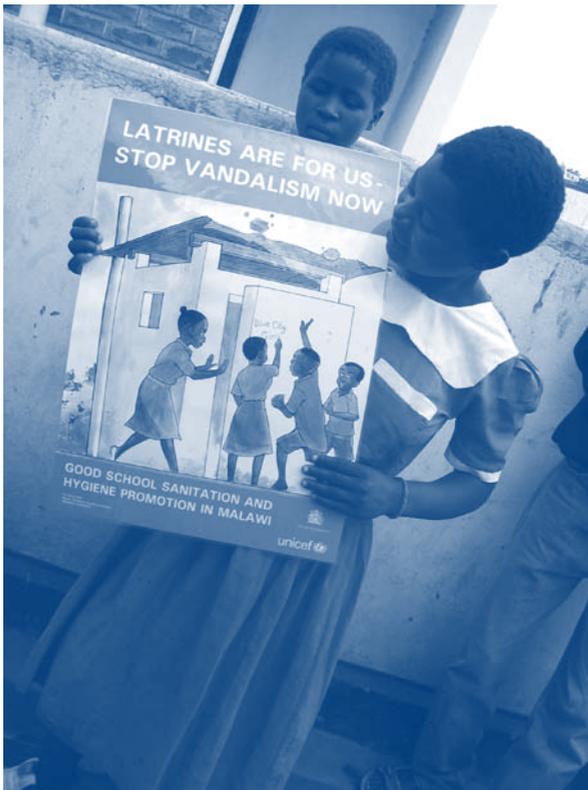


Photo: Malawi, Petra Brussee, IRC

Outreach into the communities can take place through several types of activities such as:

- The school health club counts the number of houses with toilets and gives messages on better hygiene practices.
- Child-to-child activities, whereby older school children work with younger sisters and brothers to improve personal hygiene practices such as bathing and regularly washing hands and face.
- Boys and girls help parents in keeping the home clean.
- Children ask parents for construction of toilets at home and for soap for handwashing.
- Children participate in hygiene promotion activities such as rallies, parades and exhibitions.

**Tips and Hints 2.3 School health club**
The club may regularly supervise sanitation and hygiene in the school through groups of students organised in a roster. Also the club can organise games and competitions (such as drawing competitions) on sanitation-related issues. The senior members of the club may be responsible for teaching and demonstrating hygiene behaviour to the junior members. The club may establish some linkage with the local clinic so that the doctor or health worker comes for routine check-ups and gives advice to children. The school health club may extend its activities as required.

The school health club should only be set up when supported by the teachers and when students are willing to join the club. The formation of an extra club with no responsibilities or enthusiastic members will not be effective and can demotivate the teachers and the students in the implementation of the improvements.
*Source: Snel et al. (2002)*

There are different models for organising these school health clubs:

- **In-school clubs:** Run alongside other clubs in school as regularly scheduled, teacher-led groups.
- **After-school health clubs:** Run in the school after class with input from outside the school, such as through community health workers.
- **Community health clubs:** Available for schoolchildren but run as a separate structure in the same way as scout groups.
- **Committees in children's school councils or parliaments:** Set up and organised by teachers but run by peer educators who lead group activities.

The clubs can offer opportunities for children and teachers. They allow teachers to experiment outside the constraints of the classroom and its fixed curriculum. For example, in the context of out-of-school activities, it is easier to undertake community walks, observation, small experiments, discussion groups as well as to develop songs, dances, and plays on health and hygiene themes with the children, which they can perform for peers, parents and community.

*Children on the way from school* Photo: Vietnam, Christine Sijbesma, IRC

Experience in some settings has shown, however, that the health clubs for children can be misused. It should not be forgotten that the clubs are often managed in badly-equipped, sometimes overcrowded schools. The health clubs may be led by teachers who have received very little training and have limited experience or interest in using participatory methods to provide a platform for children to exchange ideas on an equal basis. Thus, children's clubs can become a way to exploit poorer children, poor girls in particular, as a cheap labour force to clean the school and its toilets (Mooijman 2006). This is a problem to guard against. Another problem that has occurred is that the club's members are given so much power that they can force peers to engage in cleaning activities or to join the club. Such problems must be avoided; bad clubs may be worse than no clubs at all.

## Support for operation and maintenance

Lack of effective operation and maintenance (O&M) is a major obstacle to achieving sustainable WASH in Schools programmes. It is often assumed that national and local governments take responsibility for a healthy school environment. However, it is often necessary to rely on students, teachers, parents and community groups for the improvement of the environmental situation at schools, including the operation and maintenance of school facilities.

In planning for WASH in Schools, it is necessary to distinguish between capital costs and O&M costs. Schools and communities may get some governmental or donor support to cover the capital costs, although it is best when they also contribute to cover these costs. However, to ensure school sanitation programmes are sustainable, all O&M costs

should be covered by schools and communities. To avoid any misunderstanding it is best to make this clear in advance.

Contributions can be in the form of materials, labour, cash or all three. Schools can join hands with families and communities to raise money for the construction and to organise the operation and maintenance of the facilities. Some possible funding options include:
*   contributions from parents,
*   donations,
*   using the general school maintenance budget, and
*   organisation of income-generating activities.

## 2.5    Monitoring for implementation

Monitoring is not the same as reporting. Monitoring information should be used at the school, community or intermediate (e.g. the district) level to improve the current situation. For monitoring, good WASH in Schools programmes have:
*   A list of things to check that has been developed with children and teachers. These checklist items are called 'school-based indicators'.
*   Reports on these, which are posted or written on walls and are easy for children to understand.
*   Action taken to improve a situation, if needed, by the children, the school health club and/or the teachers.
*   Checking of school facilities and their use and checking of children by, for example, the School Management Committee.
*   Monitoring reports that are shared with or prepared by School Management Committees and that are discussed at regular meetings with a view towards taking any necessary actions and planning improvements.

Table 2.1 provides an example of a monitoring sheet for the school level that can also be used by: an education supervisor, people who are mapping the programme, and district leaders. The '10-star' form was developed in the southern Indian state of Tamil Nadu. In this one-page monitoring sheet the school would get a star showing its score. The 'gold star' stood for a perfect score of ten. This type of information can also be put on a map and used for management of the programme.

**Table 2.1 The 10-star form, one-page monitoring sheet, India**

| Yes = ★ | | Score | If not, why not? |
|---|---|---|---|
| 1 | All children and teachers <u>can</u> use the toilets and urinals when needed | | |
| 2 | All toilets and urinals function well, with water for flushing and water seals and soakpits working | | |
| 3 | All children and teachers <u>do</u> use the toilets and urinals | | |
| 4 | All toilets and urinals are seen to be free from excreta in floor, pan, walls | | |
| 5 | Water for personal cleaning and handwashing is always present, along with soap or ashes | | |
| 6 | Children reportedly wash hands after using the toilet and urinals and before meals | | |
| 7 | School source gives enough water during all days | | |
| 8 | Boys, girls and teachers share equitably in keeping the school clean and the water tank filled | | |
| 9 | A system of regular cleaning and maintenance of toilets is in place | | |
| 10 | Drainage of waste water from handwashing and water supply is in place and working (no puddles) | | |
| **TOTAL NUMBER OF STARS** | | | |

*Source: Sumita Ganguly, UNICEF-Delhi and Christine van Wijk, IRC (2004)*

For more information and examples of monitoring, see section 6.3, Monitoring for success and sustainability.

# Chapter 3    Developing district programmes

This chapter begins with the principles and vision for successful WASH in Schools programmes and discusses how to create interest in WASH in Schools. The remaining part of the chapter deals with creating a WASH in Schools environment, with attention to management and human resource development.

One of the challenges faced when starting a WASH in Schools programme is the level of interest and commitment from key decision-makers. Government has an important role to play in ensuring success. Experience shows that the programme can be popular among politicians because it provides concrete results in communities and is often popular with the voters. Some of the ways in which policy makers can support success and sustainability of WASH in Schools programmes are:

- Supporting and advocating the idea that WASH in Schools is more than construction and water supply and sanitation coverage.
- Planning for the resources required: investment costs for facilities, staffing, recurrent costs.
- Organising a continuing coordination mechanism for the different line departments.
- Clearing blockages in implementation.

A key to success is to create ownership by multiple stakeholders at the national level and to build on existing experiences. WASH in Schools programmes can effectively create interest by organising national consultations and workshops and reaching agreement before and during implementation.

## 3.1    Creating a WASH in Schools environment

### Building commitment

To expand and scale up the programme, demand has to be strong among a wide range of actors—headmasters, teachers, and staff of local authorities and various government departments. They must be convinced and brought together to plan WASH in Schools interventions. From the beginning of the programme, partnership-building and the adoption of team approaches are needed.

*Collaboration:* Implementing WASH in Schools in a comprehensive way requires the active involvement of a large number of groups and institutions. The parties involved could include the Ministry of Education, Ministry of Health, Public Works Department, international organisations, NGOs and the Teachers Organisation. At community and school levels, it should involve the headmasters, teachers, students and their parents and community organisations.

There are many examples of collaboration at national level. In these examples, national committees, with representatives from various ministries and international institutions, such as the World Health Organization, UNICEF, and the School Network, have been

established. In Colombia the aim of the committee has been to better coordinate activities; to support each stakeholder; and to establish norms, policies and a common frame of reference. In Nicaragua a dialogue between institutions was established and formalized by a Memorandum of Understanding in 2001. The aim of this coordinated effort was to design a public hygiene and sanitation policy that brings together actions and resources at the national and local level under a single common framework.

*Leading agency:* Which agency should lead school water, sanitation and hygiene education? WASH in Schools is not normally central to the work of any single ministry or department. The Ministry of Education may be more concerned with education reform. The Public Health Engineering Department may be more focused on constructing community water supply. The Health Ministry may be more involved in curative medicine than in preventive health education programmes for children. Given this reality, one approach is to combine available resources under one agency and to demonstrate that WASH in Schools can be important for the ministry or department to achieve other objectives. For example, in Rajasthan, a large Indian state, the Education Department became the lead agency, which enabled it to deploy national sanitation funds for school facilities, indicate where water facilities should be built by the Public Health Engineering Department and so on. The Education Department provided the overall coordination and also made the programme part of its total education reform.

The nature of the lead institutions will, in part, determine the strategies for deploying WASH in Schools, and will bring certain advantages and potential problems. Examples of how the lead institution can influence the strategies of WASH in Schools can be found in Table 3.1.

**Table 3.1 Examples of lead institutions and how these influence WASH in Schools strategies**

| If the lead institution is | Examples | Advantages can be | Problems to watch out for |
|---|---|---|---|
| Community | Village development committee | Good community involvement. | Limited reach; difficult to scale up |
| School | School health committee, Parent Teacher Association | Programmes are sustained. Focus on behavioural change. Programme design is relevant to the local situation. | Limited reach; difficult to scale up |
| Education | Education Department | Focus on behaviours and suitable school curriculum. Hygiene can appear as examination subject. Easier access to teachers and trainers. WASH in Schools can be a vehicle for education reform. | Quality of construction. Maintenance and use of facilities. Community involvement must also be addressed. |
| Health | Health Department | Focus on worm infestation, diarrhoea, eye and skin infections. HIV/AIDS education can be integrated into WASH in Schools. | Educational inputs in classroom may be weaker. Quality of construction. Community involvement. Maintenance and use of facilities. |
| NGO | NGO working in sanitation or social sector programmes | Flexibility in planning and implementation. | Weak links with Education Ministry or local government. Maintenance and use of facilities after NGO leaves. |
| Mass organisation (CBO) | Red Cross, Women's Organisations | Volunteers can be mobilized. Community involvement. | Weak links with Education, Health, Water and Environmental Sanitation (WES) authorities. |
| Water and sanitation | UNICEF - WES, Public Health or Water Department | Rapid construction. WASH in Schools can be entry point for increasing latrine coverage and use in the community. | Links with Education Ministry. Community involvement. Maintenance and use of facilities. Little emphasis on behaviours. |
| Project | Externally-supported project | Funding assured in the project area. | Links with Education, Health authorities. Maintenance and use of facilities. |

**Importance of the intermediate (district) level**

Experiences have shown that only a small number of headmasters will have the time and the capacity to develop the WASH in Schools programme without the support from the intermediate level. Especially in need of support are those headmasters and teachers working in remote areas. At district/regional level it is important to dedicate a large proportion of available resources to the support of teachers and to the continuous capacity-building of regional/district staff, teachers and headmasters. There is a need for regular follow-up through a supervisory system and periodic visits to schools. This enables support and supervision of the teachers in their implementation of life skills-based hygiene education, the effective operation and maintenance of the facilities, and the involvement of and outreach to communities. The provision of logistical support is therefore essential, as well as the distribution of sufficient teaching materials.

## 3.2    Managing district programmes

Good management is the key to the success of the programme. Management principles within the district or municipality to support high-quality WASH in Schools programmes include:

- *Coordinate and use local resources.* Integrate WASH in Schools into the programmes of line departments and share resources.
- *Focus on use, maintenance and behaviours* in the school and at home.
- *Construction is not enough.* The focus must be on the combination of construction and behavioural change as well as use and maintenance of facilities.
- Put in place a *programme management unit with some full-time staff and inputs from NGOs.* Many WASH in Schools programmes fail because they are 'added on' to the already over-burdened workloads of department staff. WASH in Schools needs a management unit and preferably full-time staff to work intensively during the years of implementation in order to organise inputs at the right time and support the involved community groups.
- Adopt a *flexible management style*. Programmes that are not flexible or are planned exclusively by central authorities are not successful. This means having a *minimum* number of fixed rules that are well-known and beyond which there is flexibility.
- Plan for *high-coverage programmes* from the beginning. High coverage means, for example, reaching more than half the schools in a district or region.
- *Plan in phases and develop detailed short-term plans and general long-term plans*. Some programmes start with "pilots" or model schools. Then, in the next phases, they plan to cover more than one half of the schools in that area or cluster. Phasing makes the project manageable.
- *Mainstream WASH in Schools activities* into the activities of those ministries that have clear roles and responsibilities towards WASH in Schools.
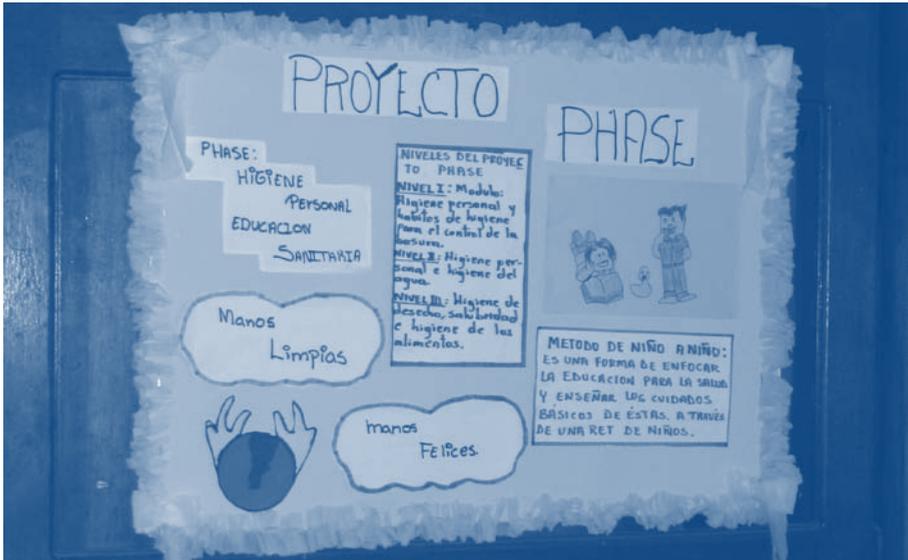
Photo: Nicaragua, Annemarieke Mooijman

## Steps in a WASH in Schools programme

The steps—some of which happen at the same time—for implementing WASH in Schools are usually a combination of:

- Assessment of current conditions (baseline survey).
- Preparation of plans with the involvement of different stakeholders.
- Development of
  – policies for hygiene education and water and sanitation in schools;
  – technical guidelines for the design and construction of WASH in Schools facilities; and
  – training courses and materials, including materials for teacher training colleges.
- Capacity-building of all stakeholders involved.
- Development and testing of life skills-based hygiene education guides and materials and distribution of these materials.
- Construction of facilities and supervision of these construction activities.
- Proper use, operation and maintenance of the facilities.
- Training, re-training, supervision and support of the teachers
- Monitoring and evaluation.

Many of these steps are managed at the intermediate or district level, which is the focus of the remainder of this chapter.

## Initial planning at the intermediate or district level

To start a WASH in Schools programme in a district, county or sub-region, planning needs to be coordinated. At the start, workshops or meetings are usually needed with the various stakeholders who can begin to form a coordination team. Once formed, the coordination team or group should begin by preparing a general plan of action. After funds have been allocated, the plan of action usually needs to be transformed into a detailed district work plan. This detailed work plan can be developed in other

joint workshops. It should show exactly how the programme will be carried out, who is responsible at each point, budgets and the timing of activities.

**Tips and Hints 3.1  Successful planning of WASH in Schools during a workshop**
Many workshops or planning meetings do not develop good and workable plans.
To get a useful plan that is supported by the different institutions:
• Invite participants who have experience in WASH in Schools and success in project management.
• Provide orientation and agree on key points at the beginning. Some training inputs during the first day or two will result in a much better plan.
• Get a good facilitator who is familiar with WASH in Schools.
• Plan field trips to schools with water and sanitation facilities.
• Do not over-plan; leave room for local planning and decisions.

## Goals and objectives

The joint planning might begin by answering some key questions such as:
• Will the programme include the construction of facilities?
• What kind of facilities exist or will be constructed?
• Will the programme include the development of educational materials?

**Tips and Hints 3.2  The development of goals and objectives**
Planners tend to formulate too many goals or objectives for WASH in Schools programmes at the beginning. Remember that the institutions (schools, health clinics, water agencies, NGOs, community organisations, local government) already have other programmes and do not always have enough skilled personnel to carry out WASH in Schools. It is better to start with a few simple goals or objectives and then to increase gradually.  In planning the objectives, do not forget that the consistent use and sustainability of the facilities is one of the biggest challenges to address. Too many school facilities fall into disrepair and, as a result, become centers of infection.

*Plan of Action*

Once goals and objectives have been decided upon, an overall plan of action can be produced. Elements in this document can be:

- **Identification of the lead institutions—the 'motors' of the programme**
- **Size of the programme and number of schools**
  This section should give a rough idea of the number of schools or communities in the programme.
- **Human resources**
  Include an overview of the key actors, their roles and responsibilities, and the amount of time they will need to spend on the project.
- **Main activities**
  This section should include all activities that will be undertaken in the programme, such as mobilization, capacity-building, construction, development or adaptation of hygiene education materials, supervision, support and follow up, and repairs.
  It is important to plan activities at the right time of the year, including the training, materials development, collection of baseline information, tendering, purchase and transport of materials. Many programmes suffer because activities do not take place in the correct order. Thus, for example, training should be timed so that it takes place before or during construction.
- **Technology choices and their construction cost**
  Indicative estimates are needed of the average costs or range of costs for different technologies.
- **Coordination mechanism**
  WASH in Schools programmes need a coordination group at the district level or at the level where supervision of schools is coordinated. This could be, for example, a committee of department leaders, a standing committee of implementing staff, or a sub-committee in the municipal council.
- **Indicative timeline**
  Timelines in proposals generally tend to be too optimistic, starting too fast and planning construction too early, before communities and schools can be carefully mobilized. It is best to start more slowly and carefully. At the school level, some projects plan to start construction 6 to 12 months after beginning to work with a community.
- **Resources required**
  Budget proposals need to mention the required community contributions and contributions from other groups and departments. It is crucial to include enough funding for 'software': training, orientation, management, monitoring, and participation.
- **Monitoring of the progress**
  To monitor progress, a minimum set of indicators needs to be defined and agreed upon. For monitoring, see section 2.5 on monitoring for implementation and also section 4.3 on implementation of life skills-based hygiene education.

It is best to keep the Plan of Action somewhat general so that it can change as experience grows.

Photo: Bolivia, José Barragan

## Finance and budgeting

Sufficient finances need to be secured for the implementation as well as the follow up of WASH in Schools programmes. When developing budgets for WASH in Schools a number of issues have to be included such as:

- development, production and distribution of life-skills hygiene education materials;
- capacity-building (training, orientation, study visits, etc.) of all stakeholders involved;
- personnel management costs at all levels;
- transportation cost for supervision and support from district level to communities and schools;
- the construction of sufficient water and sanitation facilities; and
- promotional activities, such as out-of-school sanitation campaigns.

Above all, budgeting requires planning. For example, a country that did not make any sample calculations when developing its WASH in Schools budget found that it had not allocated sufficient funds to train even one teacher per each of its approximately 50,000 schools.

**Tips and Hints 3.3 Some rough 'rules of thumb' for budgeting**
Experience in several countries has shown that:
- At least 20% to 50% of the total budget is needed for software (training, management, development, production and distribution of educational materials, NGOs, staff salaries).
- Large schools need more facilities than small schools. If there are too few facilities, then the children often won't use them because of long waiting times or the facilities' poor condition. Think of at least one toilet for 40 children—one urinal for 40 boys and one for 40 girls.
- Don't over-plan—allow for flexibility in the budget to build on new opportunities and deal with unforeseen problems.
- Allow for changes in budget allocations among line items.

In UNICEF's six-country pilot study (1999-2003), the costs of the WASH programme per school ranged from $1,400 up to $16,000, with annual per child costs ranging from $2.4 to $16 when calculated over a five-year period.

In budgeting, it is also useful to mention the desired schedule for release of funds from the donor or funding government agency. Often school programmes run into trouble when funds are released late and in the wrong amounts.

The support for WASH in Schools can come from many sources, such as through central government, donor agencies, the UNICEF–Water and Environmental Sanitation (WES) programme, international and national NGOs, and CBOs. It is also worthwhile to investigate how costs can be shared, making use of the resources for existing programmes of as many institutions as possible. This would mean integrating the WASH in Schools programme(s) into the on-going work of line departments. Mobilising resources takes time, so the staff of institutions need time allocated for this activity.

*Operational Plan*
A work plan is needed that details exactly how the programme will be carried out and who is responsible at each point. Thus, the general proposal needs to be transformed into an interdisciplinary district work plan that shows activities, responsibilities, inputs, outputs and dates.

Experience shows that it is useful to prepare the detailed work plan in consultation with the groups that will be involved in the programme. This ensures ownership. The work plan should be completed and distributed for the approval of key departments and involved groups soon after funding is secured so as not to lose momentum.

Some information is needed before preparing the work plan, such as an assessment of current conditions, a baseline survey and an understanding of the preliminary plans for each school.

## Baseline survey

To learn the situation in a region, state or district, one should begin with a baseline study of schools that already have facilities for water and sanitation. This information can be used to plan and to advocate with district leaders for a good WASH in Schools programme that includes behaviour change and maintenance, not only construction. Experience shows that baselines must be kept simple so that they can be quickly analysed for rapid use.

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**Box 3.1 Example of topics for a baseline study of schools**

Environment
- Are school yard, compound and classrooms clean?
- Are funds available for recurrent expenditures such as soap, repairs, and educational materials?

Water
- Are water points within the school area (or within 150 steps) functional?
- Do the water points function during whole school year? How is the water quality at the water point?
- Is water stored safely?
- Are there ladles or cups with handles used to take the water for drinking?
- Is there a clean, well-drained area for handwashing? Is there soap available that children can use?
- Do children and teachers wash their hands with soap after using the toilet? Before eating?

Latrines and toilets
- Are latrines available within the school compound?
- How many girls per one toilet? How many boys per one toilet or urinal?
- Are the toilets and urinals clean?
- Is anal cleansing material available and disposed of safely? Or is water for anal cleansing within or beside the toilets?
- Do teachers have separate latrines from children?
- Are latrines/urinals being used by all the girls? By all the boys?
- Do children help clean the school, including the latrines?
- Do the children take turns (rotate) in cleaning the latrines?

Teachers
- Are teachers trained in School Sanitation and Hygiene Education?
- Have teachers taught the children anything about hygiene?
- Does the school have any teaching materials, books or learning materials in the school about WASH in Schools?
- Can teachers correctly explain what sanitation and hygiene means to the children?

*Adapted from: Snel (2003)*

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> **Tips and Hints 3.4 Baseline surveys**
> - Schools in a certain area will have similar problems. Thus, if it is difficult to survey all schools, a small survey will usually give enough information for planning. A sample of 10 to 40 schools in different parts of a district is usually enough.
> - Follow-up visits each year are helpful for monitoring the schools in the survey. The lessons learnt from this can be used to improve the overall programme.

## 3.3 Capacity development and training

Capacity development must be budgeted for sufficiently in programme planning—for example, by allocating from 10% to 30% of the total programme costs. If 'capacity development' means only a single training for one teacher per school, then the WASH in Schools programme will probably fail because of teacher transfers and because of the need to involve the whole education establishment.

Capacity development aims to develop three things (Rajiv Gandhi Drinking Water Mission India and IRC 2002):
1. *Skills*: It should help people perform effectively.
2. *Motivation*: It can help motivate people to carry out their work better.
3. *Enabling environment:* The people involved need a supportive enabling environment so that they can use their skills.

While training is very important in the WASH in Schools programme, there is a need to go beyond the training and to include other activities. For example, senior personnel will probably benefit more from a study visit to another district or county that has been active in WASH in Schools, than from a training course. Experimenting with new ideas or the implementation of pilot projects can be very useful to help people gain new skills and experience that can later be applied on a large scale. Thus, capacity development can be accomplished not only through training courses, but also through study visits, group planning, carrying out research and studies, and implementation of experiments and pilot programmes.

**Cascade training:** In recent years, there has been some disappointment with large-scale training programmes in the water, sanitation and education sectors. Often this is because the training is not of good quality or skills learnt have not been used. Much teacher training follows the so-called 'cascade' approach. A small set of people, who often have other jobs, are trained. They then become the 'master trainers' who in turn train others, who in turn train the teachers. The quality of the training decreases at each step, reducing the quality of the whole programme.

Alternatives are being sought to cascade training. Another approach being developed in some countries is to train a group of mobile professional trainers who then travel to give direct training to the teachers. Another strategy is to divide schools into groups or clusters. Then one (or more) teacher in the cluster becomes a permanent

trainer. Another approach, tried out in the Indian state of Tamil Nadu, has been to train teachers over a two-day period together with representatives of the school management committee and two children from the school health club. Thus children and adults are trained together to fill leadership positions in the programme.

The quality of training must be good or the WASH in Schools programme will suffer. Effective training methods which could be used are: participatory methods, field insights, presentation and analysis of practical methods and examples, and group planning activities which are of use after the workshop.

**Box 3.2 Examples of training course content and activities for teachers**
Training should help WASH in Schools teachers do things such as:
- Explain the purpose of the WASH in Schools programme.
- Train other teachers in the school.
- Plan and carry out the steps in setting up the programme and organising community participation.
- Communicate with parents.
- Organise the use and maintenance of facilities.
- Give life skills-based hygiene education.
- Link WASH in Schools with the current curriculum and time schedules.
- Plan for children's health clubs.

Teacher training can be organised in different ways. For example:
- One-day orientation each month.
- Training workshops (2 to 5 days).
- Visits to a nearby school with a successful WASH in Schools programme.
- Joint planning involving small clusters of schools. Teachers can make (and share with other teachers) their own plans for the class or for the children's clubs and for maintenance.
- Observations. Teachers can observe how someone else, such as an NGO field worker or a master teacher, carries out some lessons with their class.
- Try out printed lesson plans and visual materials to use with the children.

*Teacher training: life skills-based education*
Life skills-based hygiene education seeks to combine the teaching of hygiene principles with children's developing experience of life at home, at school and in the community. It aims, through participatory learning, to help children acquire knowledge, develop positive attitudes, and, critically, gain skills that enable them to improve their own lives and those of their families and communities. The emphasis on life-skills hygiene education is meant to go beyond traditional styles of teaching that emphasize memorization, so that children develop and practice new behaviours.

Schoolteachers need to be trained before they can implement life skills-based hygiene education. This training should enable teachers to:

1.  *Implement* life skills-based education so that children develop new knowledge and healthy practice.
2.  *Use/maintain facilities:* Manage activities and children in the school so that all children use and maintain the water and sanitation facilities.
3.  *Organise outreach into the community* by working directly with adults, such as the school management committee, and by helping children to motivate their families and community.

Teachers need support to learn to use methods that engage students and parents in the education process and that require active participation. It takes time for most teachers and children to get used to this new education method.



Photo: Malawi, Petra Brussee, IRC

# Chapter 4    Life skills-based hygiene education

This chapter has been adapted from the booklet produced by IRC and UNICEF: *Life skills-based hygiene education*. The document can be downloaded free of charge.[7] This chapter starts with principles of skills-based education and looks at how skills-based education works in WASH in Schools.

## 4.1    Principles of life skills-based hygiene education

For WASH in Schools to succeed, all students and school staff must practise proper hygiene and sanitation behaviours. Therefore, wherever possible, hygienic and sanitation practices must be built into the school curriculum as a permanent feature. Education is the key.



*Somalia: puppets and health learning* Photo: Caritas-Switzerland

Life skills-based education gives room for children to develop knowledge, attitudes and skills *together,* which they can use in daily life. It also gives children the opportunity to clarify uncertainties, to try out new knowledge and skills, to be creative and to learn from each other. In life skills-based education, the role of the teacher is different than in traditional education. Table 4.1 summarizes the didactic differences between traditional education and life skills-based education. Life skills-based hygiene education promotes

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7   URL: http://www.irc.nl/page/10453 [provides the abstract and link to the full text document: Life skills-based hygiene education]

safe hygiene behaviours that help prevent diseases, particularly those related to water and sanitation (see also box 4.1). It is the combination of child-friendly learning experiences that aim to develop knowledge and, especially, attitudes and skills.

**Table 4.1 Didactic differences between traditional education and the life-skills approach**

| Traditional education | Life skills-based education |
|---|---|
| Teacher-centred. | Child-centered. |
| Emphasis on academic knowledge and memorizing and reproducing received information. | Emphasis on learning new skills, attitudes and applying them. |
| The teacher uses one-way teaching, during which the teacher speaks and the students listen. | Students learn from both the teacher and from each other. |
| Children remain seated in rows and the teacher sits facing the class. | Seating arrangements are flexible and the teachers move around the class, sometimes working with an individual or group or the whole class, depending on the activity. |
| Learning is mostly through written text (textbooks and taking notes). | Besides written text, teachers make use of participatory and interactive activities. |
| The lesson content might not be adjusted to local conditions. | The content of the lesson is adapted to real life situations. |

The **teaching and learning methods** in life skills-based hygiene education are meant to be child-friendly, interactive and participatory. The methods should give children the opportunity to explore and acquire hygiene-promoting knowledge, attitudes and values and to practise skills that help them to avoid risky, unhealthy situations and to adopt healthier life styles. Teaching and learning methods are determined by the learning objectives and the desired behavioural outcomes. They are chosen in such a way that they are appropriate for influencing specific behaviours and knowledge.

The **content** of life skills-based hygiene education consists of a balance of knowledge, attitudes and skills. This should enable a person to make positive decisions and take actions to promote and protect both their own health and that of others (Greene & Simons-Morton 1984; UNICEF *et al.* 2003).

While this life skills-based education focuses on hygiene, water and sanitation, the life skills developed may also be applied to other issues in life. Examples relevant for WASH in Schools include the development of attitudes of respect for the opposite sex, pride in own culture and skills for cooperating constructively with others.



*Somalia: Boys learning by playing memory, a card game* Photo: Caritas-Switzerland

## Themes

One way to organise a curriculum for life skills-based hygiene education is to use themes. The content of the themes should vary according to the location and should be based on assessment of the diseases, attitudes, and behaviours that are prevalent in that area. Possible content can be divided into four basic themes:

1. **Water, sanitation and waste** in school, homes and community—including the different types of water sources; the transport, handling and storage of drinking water; and different types of waste existing within a community (such as human excreta and rubbish) and how these differ in terms of cleanliness and risks to health.
2. **Personal and food hygiene** in school, homes and community (including food vendors)—covering conditions and practices that are either positive or negative and the reasons, ways and means to change the latter.
3. **Diseases related to water supply and sanitation** that have an impact on someone's health—including information on the incidence and transmission, as well as the prevention, of diseases in the local environment.
4. **Facilities for water, sanitation and hygiene** within schools, households and the community. This category may cover topics such as the planning, construction, maintenance, management, monitoring and use of water supply, excreta disposal and other existing facilities.

Other important concepts such as gender, equity, and helping other children in the family are cross-cutting and can appear in many of the topics. Examples of how this can be done are presented in Box 4.2.



*Girls washing hands with soap*
Photo: Alwar, India, IRC

When developing life skills-based materials and lesson plans, one should consider a balance of the three elements of knowledge, attitudes and skills. Therefore, it is necessary to determine what aspects of each element should be addressed for each theme. At the end of this chapter, two examples are shown of programme content for life skills-based hygiene education.

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**Box 4.2 Examples of how gender and poverty can be incorporated in the themes**
Part of life skills-based hygiene education is that children become aware of gender and social differences and the inequalities and discrimination that are often associated with them. Imaginative and creative teachers can bring up social and gender differences and problem-solving actions in many ways as part of lessons. For example:

**Hygiene work and responsibilities**
How is the work on sanitation and hygiene divided in the class/school? How is hygiene and sanitation work divided at home, between mother and father, older sisters and brothers, you and your brother/sister? Who sets good examples (a) in school and (b) at home? What do you do when you see that a classmate/younger child does not leave the toilet clean/does not wash hands/ throws away rubbish? What do you do when your younger brother/sister does something unhygienic?

**Latrines in the community**
Does everyone at home have latrines? How many families in our neighbourhood/ community have no latrine? What does it mean for our community/neighbourhood when one third/half/three quarters... of the families do not have a latrine? What keeps some families from having latrines? Who may find it the most difficult to dig a latrine pit, buy/install a slab, build an outhouse? What can be done by/for families who have little or no money or no labour to build a latrine?

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## 4.2    Child-friendly learning and teaching methods

For effective child-centered life-skills hygiene education, the methods that are used should be activity based and joyful for children. The methods used should not only give the children the opportunity to learn by doing and experiencing but also the opportunity to learn at their own pace and in their own style. The use of these methods will also give the children the chance to experience, discover, create and construct their own knowledge. They will be given the opportunity to personalize the information and develop positive attitudes and values as well as to practise the new skills. Life skills-based education can be carried out even in large classes with 50 and more children. For example, a lecture is an effective way to increase knowledge, but it is less effective in influencing beliefs and building skills. Discussion, debates and carefully prepared written materials can be more effective than lectures in dispelling any false beliefs in the community regarding water, sanitation and hygiene.

*Children playing a hygiene game* Photo: Somalia, CHAST project, Caritas-Switzerland

The design and selection of educational methods should be in-line with the age of the children. The development and characteristic patterns that are common for most children within specific age ranges can be divided into three categories: physical, cognitive and social-emotional (National Council of Educational Research and Training 1998). Below are examples of how the child's age and characteristics influence the choice of learning and teaching methods.

**Physical**
Children in the age range of 4 to 7 find it difficult to sit for a long time and will need a variety of activities involving frequent changes of body position. The child needs opportunities to run, jump, balance, etc. During life skills-based hygiene education, the child can, for example, be asked to go outside and make drawings of different water sources and indicate which ones are suitable and safe for drinking.
Children in the age range of 8 to 11 can perform movements involving better body control. In hygiene class children can be asked to play pantomime games, for example, to depict different hygiene behaviours.

**Cognitive**
Children in the range of 4 to 7 years have short attention spans and can only concentrate on single elements at a time. They also need a lot of opportunities to speak with others and listen to good language. In hygiene class the teacher can tell a story, for example, on the effects of eating raw food. The story has to be simple, short and fun, and the teacher should allow children to comment and interpret at some point.
Children in the age range of 8 to 11 years develop the capacity to see other points of view. This development helps the child analyse, understand and see logical relationships.

For example, in hygiene class, the children can be asked to organise and have a discussion that critically analyses a hygiene-related problem in the community and develops a number of solutions.

**Social-emotional**

Children in the age range of 4 to 7 years need physical reassurance through appropriate patting and touching to give them a sense of security and confidence. In hygiene class children can, for example, sing songs about how to clean themselves in the morning, during which they can act out the different behaviours. After this they can be complimented on their performance.

Children in the age range 8 to 11 get embarrassed by physical displays of feelings and are sensitive to gender differences. In hygiene education, the teacher has to take these feelings into account, for example, when working in groups, being careful not to reinforce unhelpful or antisocial gender differences and stereotypes, but instead promoting cooperation.

Table 4.2 gives an overview of different methods that could be used in life skills-based hygiene education for different age groups. A detailed description of the different methods can be found in the booklet on life skills-based hygiene education produced by IRC and UNICEF.

**Table 4.2 Examples of child-friendly methods suitable for life skills-based hygiene education**

| Methods most suitable for age group 4-7 | Methods most suitable for age group 8-12 |
|---|---|
| Storytelling<br>Drama<br>Reciting poems and singing songs<br>Puppet plays<br>Language games<br>Reading stories<br>Walks<br>Conversations and discussions<br>Drawing, painting, colouring | Storytelling<br>Reading stories<br>Carrying out projects or surveys<br>Quizzes<br>Conversations and discussions<br>Singing and dancing<br>Drawing, painting, clay modelling, etc.<br>Writing compositions and creative writing<br>Brainstorming<br>Excursions<br>Drama, role playing, pantomime<br>Language and math games such as crosswords<br>Development of maps, e.g. of the community<br>Developing surveys and asking questions |

Although the lesson might be joyful and activity based, the method used can sometimes fail to lead to the planned learning. It is therefore important to ensure that the chosen method will effectively address the planned content (knowledge, attitudes and skills) and enable the child to learn in a joyful and interesting way.

## 4.3    Implementation of life skills-based hygiene education

### Making lesson plans
Information that can be included in a typical lesson plan is shown in table 4.3. Examples of lesson plans can be found in the *Joy of Learning* booklet on life skills-based hygiene education produced by IRC and UNICEF.[8]

### Educational materials for life skills-based hygiene
Educational materials are anything that help people to learn and facilitate teaching. Life skills-based hygiene education materials may be sets of questions, which students are asked to reflect on, discuss and answer; they may be textbooks; or they may be games, activities and practical exercises through which the students learn.

When developing educational materials, teachers don't necessarily have to make use of expensive materials, but can also use practical, locally-available, low-cost materials. For example, in Colombia, the children were asked to take water and sanitation materials that are not harmful, such as empty plastic bottles, toilet roles, etc., to school. These were then used for making a colourful display of a safe and clean school environment.

Experiences in various countries such as Vietnam, Zambia, Nicaragua and Colombia have shown that the participation of teachers, parents, district education officers and community representatives in developing hygiene education materials during a training course has various positive results: Their involvement not only leads to the increased skills needed for the implementation of hygiene education, but it also helps develop positive attitudes towards its introduction.

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8    Link to the full document as well as to separate chapters can be found at http://www.irc.nl/page/26444

**Box 4.3 Information to be included in a typical lesson plan**

**Topic/title of lesson**
To prepare lessons, it is helpful to begin by considering what the children already know about the topic.

**Objectives of the lesson**
This part of the lesson plan should describe what the children will have learned (knowledge, attitude and skills) at the end of this lesson. The teacher should also make sure that each lesson correctly deals with cross-cutting issues such as gender, equity, human and children's rights, and poverty.

**Time**
The amount of time needed for the lesson.

**Resources and tools needed**
The teacher should determine the information and tools needed to carry out the lesson plan.

**Introduction**
In the introduction, the teacher has to activate the existing knowledge of the children, slowly moving to the new information about the topic.

**Main activity**
This section should describe the activity through which the children will learn about the topic and what method is being used.

**Closure**
In addition to monitoring student progress throughout the lesson, the teacher can check understanding at the completion of the lesson and confirm key points by summarising conclusions.

**Reflection for the teacher**
After the lesson, the teacher can reflect on what went well and what could have gone better. Based on this knowledge, he/she can adjust the lesson plan if necessary and can also apply the knowledge to the development of future lessons.

## Institutional aspects

The implementation of hygiene education in schools requires support at national/regional level. The lack of support for implementation of new programmes is one of the most important factors causing failure. For most teachers both the content and methods of life skills-based hygiene education are new. They need sufficient support, training and practice in pre- and in-service training sessions and workshops to enable them to reflect on and adjust their own attitudes. This support should motivate teachers to apply their new knowledge and skills, rather than continue with the more didactic, traditional teaching methods, which are often focused on information alone (Gachuhi 1999; Gatawa 1995). See also Tips and Hints 4.1.

**Tips and Hints 4.1 Successful introduction of life skills-based hygiene education**
When introducing and implementing life skills-based hygiene education within the context of a WASH in Schools programme one should consider whether it is possible to link up with the following initiatives or institutions:
• national curriculum reform, which takes place once every 5 or 10 years in many countries;
• teacher training centres (such centres can also participate in the development of materials);
• refresher courses, which might be organised for the teachers during summer holidays; and
• teacher conferences.

One should also consider taking advantage of materials that have been developed by other institutions such as UNICEF, Plan International and NGOs.

An important issue that also will need to be addressed within the educational institutions and institutional arena is the often high turnover of teachers. Frequent teacher transfers can have a huge impact on the sustainability of the WASH in Schools initiatives. One way of addressing the issue is to ensure regular refresher training courses.
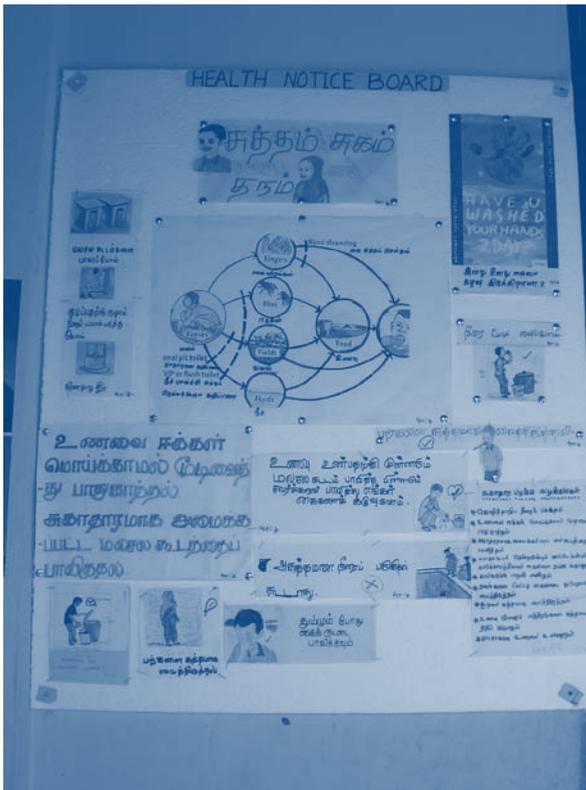


Photo: Sri Lanka,
Annemarieke Mooijman

Furthermore for consistent and quality teaching of life skills-based hygiene education, the district education officers should be trained and motivated to support the teachers through regular visits to the schools.

### Outreach to the community through extra-curricular activities
Outreach activities will increase the chance that students practise new hygiene behaviours at home and that the hygiene practices brought home by them will be adopted by family members. These activities can also reach children who may have dropped out of school at an early age, especially girls. Good WASH in Schools programmes therefore include child-friendly outreach strategies (Hooff 1998).

To make the link with the home, teachers can encourage the children to share information and skills with their families or to spread their ideas and messages within their communities. This can be done through:
a)     activities that are developed specifically for outreach to communities, such as school open days to inform the community about the WASH in Schools initiatives and sanitation or cleaning campaigns organised by school health clubs;
b)     surveys by students and other school-related activities within the community; and
c)     community displays of the materials (posters and models) or of the students' skills (through theatre for example) that were developed during life skills-based hygiene education.
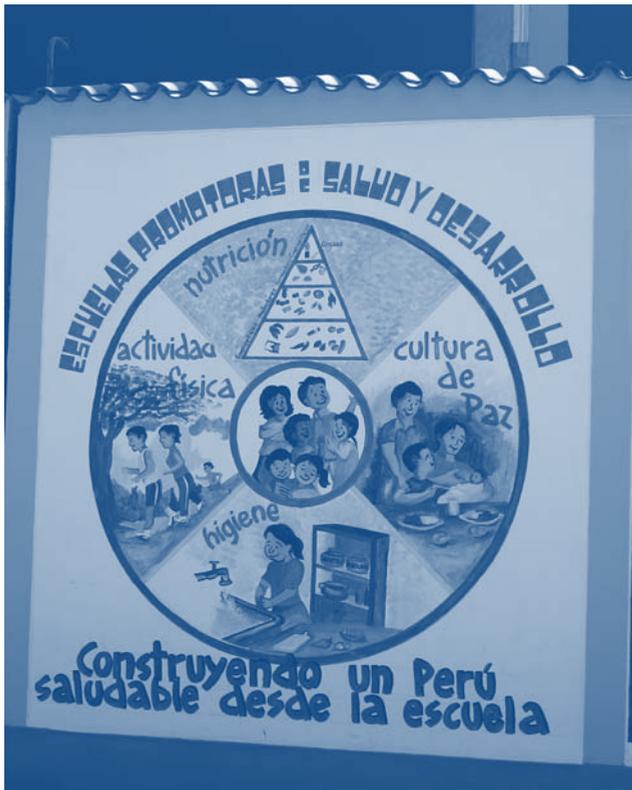


Photo: Peru,
Annemarieke Mooijman

## Monitoring the quality of life skills-based hygiene education

Here are several questions that could be used by education officers or managers to check the quality of life skills-based education in the school:

*Capacity:*
- Have the teachers been trained in how to teach life skills-based hygiene education? Do teachers have and use educational guides and materials?
- In teacher training, which teachers are trained on hygiene: female teachers, male teachers or both? (Both is usually best for reaching both girls and boys).
- Are school supervisors and district staff trained/oriented in WASH in Schools?

*Curriculum and teaching:*
- Is there sufficient time in the primary school curriculum for life skills-based hygiene education?
- Does the content *reflect* the age and the interests of the students?
- Are a range of *appropriate* methods and materials being used?
- Are students involved in *active* learning and thinking?
- Do students *enjoy* learning about and practising hygiene in their school?
- Do they try to spread *lessons* to others?

*In the school:*
- Is life skills-based hygiene education part of the school programme?
- Who is in charge of life skills-based hygiene education: female teachers, male teachers or, as is preferred, both?
- Are there activities such as school health clubs and child-to-child learning?

*For the extension from school to home and community:*
- Are children involved in activities that reach into the community and home? Are children involved in *planning* these activities rather than merely carrying out a programme entirely designed by adults?



Photos: Annemarieke Mooijman

## 4.4 Example of content for life skills-based hygiene education

Theme: Water, sanitation and waste (Postma *et al.* 2004).

| Water transport, storage, and handling at home and in school | | | |
|---|---|---|---|
| **Required knowledge** | **Required attitude** | **Required skills** | **Methods** |
| **Children of 6 – 9 years:**<br>• Know how water is transported in the community in various ways<br>• Know two ways for safe water transport<br>• Know that it is important to safely store and handle drinking water<br>• Know how to safely store and handle water in their house and school<br>• Know which vendors around the school do handle water safely | **Children of 6 – 9 years:**<br>• Are aware that there are different ways to transport water<br>• Find it important when transporting water to do it in a safe way<br>• Are concerned when seeing others transporting water in an unsafe way<br>• Appreciate the importance of storing and handling drinking water safely<br>• Are willing to store and handle water safely<br>• Are keen to drink safely-handled water | **Children of 6 – 9 years:**<br>• Are able to explain two different ways to transport water<br>• Are able to mention two different ways for safe water transport and can explain why these ways are safe<br>• Understand that gender roles in the context of water transport are interchangeable and that both girls and boys have a responsibility<br>• Are able to store and handle the water in their house and school in a safe way<br>• Are able to explain how drinking water can be stored safely<br>• Are able to refuse to buy drinks and food from vendors who do not handle water and food safely | **Children of 6 – 9 years:**<br>• Learning a song about two different ways to transport water in a safe way<br>• Role-playing: Different safe ways to transport water<br>• Telling a story about water transport which includes gender aspects<br>• Demonstration: How to store and handle drinking water in a safe way<br>• Song about safe ways to store and handle water<br>• Daily practice and supervision in the class |

Theme: Personal and food hygiene (Postma *et al.* 2004).

| Nutrition - Food hygiene, eating patterns, water available | | | |
|---|---|---|---|
| **Required knowledge** | **Required attitude** | **Required skills** | **Methods** |
| **Children of 6 – 9 years:**<br>• Know that diseases may be introduced or passed on by eating raw (uncooked) food, such as fruit, milk, meat and vegetables<br>• Know that food prepared and/or eaten with dirty (un- or incorrectly washed) hands, can lead to or pass on diseases<br>• Know how to safely handle food<br>• Know some of the most risky practices when handling food | **Children of 6 – 9 years:**<br>• Are willing to avoid eating raw (uncooked) food<br>• Are willing to prevent introduction or passing on of diseases<br>• Are willing to wash their hands correctly before eating<br>• Are willing to handle food safely<br>• Are aware of the most risky practices in food handling<br>• Appreciate that some family members are more involved in food preparation than others<br>• Appreciate that some family members may find it difficult to always wash their hands when needed because of multiple tasks, e.g. mothers taking care of small babies while cooking food | **Children of 6 – 9 years:**<br>• Are able to explain how diseases may be introduced or passed on by eating raw (uncooked) food<br>• Are able to list types of food that should be cooked<br>• Are able to prepare and eat food with clean hands to prevent diseases<br>• Are able to explain how to handle food safely<br>• Are able to avoid the most risky practices in food handling | **Children of 6 – 9 years:**<br>• Play: children perform a play in which they explain how raw/ uncooked food can introduce diseases and how to prevent this. The parents are invited to this play<br>• Drawing of food handling followed by a discussion of which drawings represent good food handling and which drawings represent bad food handling |

Theme: Facilities for water, sanitation and hygiene (Postma *et al.* 2004).

| Technical and managerial aspects of facilities at home and at school | | | |
|---|---|---|---|
| **Required knowledge** | **Required attitude** | **Required skills** | **Methods** |
| **Children of 10 – 12 years:**<br>• Know the basic construction aspects of latrines and handwashing and water facilities<br>• Know how the school water source should be protected from contamination (e.g. located at least 15 metres from sources of contamination; need for fencing, drainage and covering of the well)<br>• Know different technical options for water and sanitation facilities and have a rough idea of the costs involved | **Children of 10 – 12 years:**<br>• Are aware of the basic construction aspects of latrines and handwashing and water facilities<br>• Are aware of the means to protect the school water sources from contamination<br>• Are aware of the different technical options for water and sanitation facilities<br>• Are aware of the (estimated) costs for water and sanitation facilities | **Children of 10 – 12 years:**<br>• Are able to recognize the basic construction aspects of latrines and handwashing and water facilities<br>• Are able to protect the school water source from contamination<br>• Are able to mention different technical options for water and sanitation facilities<br>• Are able to roughly calculate the price of different facilities | **Children of 10 – 12 years:**<br>• Excursion to latrines and handwashing facilities. The teacher invites people who build these facilities to explain how the facilities were built and what tools are needed. The children have to make a report about this<br>• Sanitation ladder: use a set of pictures depicting different types of latrines. Ask the class to rank the pictures from worst to best sanitation conditions. Ask the children to indicate where their homes or school fall on the ladder and ask where they would like them to be. Take one example and work out with the class what steps are needed to arrive at the chosen situation |
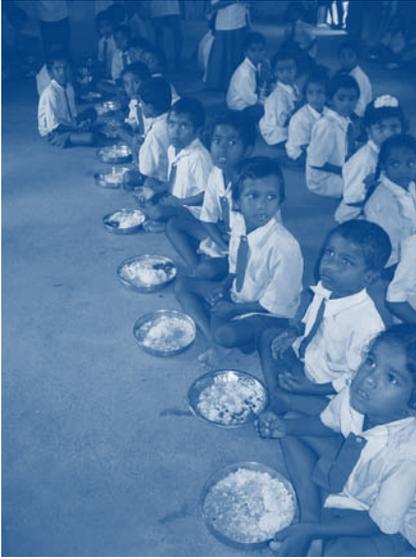
*School children about to eat lunch*
Photo: Tamil Nadu, India, IRC



*Key hygiene messages*
Photo: Uttaranchal, India, IRC







Photos: Annemarieke Mooijman

# Chapter 5    Child-friendly facilities

This chapter is about planning, constructing and maintaining school facilities. It stresses the importance of involving children, teachers, parents and communities in these activities. More information on child-friendly design of facilities can be found in the UNICEF and IRC supported publication: *Child-friendly hygiene and sanitation facilities*[9] and the World-Bank-supported *Toolkit on water, sanitation and hygiene in schools*[10].

All children should be able to use the toilet/urinals, wash hands with soap and drink safe water in school. There must be sufficient water in the school, and toilet technologies must allow safe disposal of excreta without polluting the environment. These facilities should be simple, cost effective, and easy for children to use and maintain. Many of the decisions about the technology selection and design for the facilities are related to:
*   environmental issues such as the type of soil and availability of water sources,
*   number of facilities needed,
*   the location of the facilities, and
*   the fact that the facilities are for children.

## 5.1    Deciding on technologies and design of facilities

There are many different types of facilities for: water supply and storage, improving and preserving water quality, drainage, disposing of human faeces, solid waste management, recycling and handwashing. In view of the desired use and sustainability of the facilities, careful selection is required.



### Child-friendliness, the number-one decision criterion
Child-friendly facilities are easy and pleasant for children to use. Some things to take into account are:
Water and soap should be available for children to use in or near the toilets. Toilets and urinals need to be well-ventilated. For all facilities, access must be open and clear, while ensuring enough privacy, particularly for girls.

Photo: Nicaragua, Annemarieke Mooijman

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9   Abstract and link to the full text document, http://www.irc.nl/page/9587
10  http://www.schoolsanitation.org/index.html

The facilities should be suitable for children, taking into account the following[11]:
*For water*
- Strength needed to use the pump or to open taps.
- Height of handwashing facilities and taps, as well as where ladles and soap are placed.
- Availability of water and other cleaning material.

*For latrines*
- Height of doorknobs and locks.
- Height of seats (if seats are being used).
- Height of urinals.
- Weight of doors.
- Diameter of squatting hole.

## Water-related technologies

Some of the water technologies commonly used in schools are shown in table 5.1.

**Table 5.1 Overview of the possible water supply and drainage technologies**

| Possible water supply and drainage technologies |
|---|
| • Shallow covered wells with rope and bucket<br>• Handpumps of different types<br>• Water standposts as extensions of piped water schemes from municipal supply<br>• Gravity-flow water system from a natural spring<br>• Rainwater harvesting<br>• Connections to municipal water systems<br>• Soak away<br>• Drainage field and evaporation mound<br>• Water drainage to plants or trees |

The entire water facility should be designed in such a way that the water source cannot be contaminated by dirty hands. If there is no tap, a vessel should be provided to scoop water from a container.

Sometimes the school water facilities are connected to a municipal or other piped system which supplies water irregularly or intermittently, has low pressures at peak hours of use or provides water of low quality. In these cases, the school might want to consider the construction of storage tanks or alternative systems such as rainwater harvesting.

When no safe drinking water source is available nearby, there is a chance that water intended for handwashing and anal cleansing will also be used for drinking. As this water is not always clean and safe, children should be told about the risk of drinking from these sources and should have access to a safe drinking water source. Treating

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11  Sources: Mrs. P. Amudha, UNICEF-Delhi and World Bank Toolkit on hygiene, sanitation and water in schools.

water at the point of its use has received much more attention in recent years.

It is estimated that the school should provide a minimum of two litres of water per child each day for twice daily handwashing and for drinking. More should be provided if the school serves lunch. This means that a school with 200 children would need a minimum of at least 8,800 litres per month. In dry areas where rainwater harvesting is used, there is a tendency to build tanks of uniform size. However, tanks should be based on the number of months and the number of children using them. For example, if a school relies on rainwater for three months of the year, then the tank should have a capacity of at least 26 to 30 cubic metres for 200 children.

The World Food Programme recommends providing more than twice this amount, that is, at least five litres of water per child per day.

## Handwashing

Handwashing facilities come in a variety of shapes. If possible, handwashing facilities should be strong, easy to clean, not break easily or be easy to steal. The supply of water for handwashing is crucial. When there is no direct supply by (stand) pipe or pump, water should be stored close to the facility.

**Handwashing is crucial for safe hygiene.** Studies have shown that washing hands is only effective when the hands are vigorously rubbed with soap, ashes or clean mud. The UNICEF-supported six-country pilot study on the effectiveness of school programmes showed that handwashing with soap was far less prevalent than expected in the pilot schools. Less than one-third of the children across the study used soap to wash hands before eating and after defecating, either because it was absent or not easily accessible in the school. This is a very significant challenge for schools and for scaling up WASH in Schools in general.

Source: Zomerplaag and Mooijman, 2005

A World of Handwashing

dipper with a hole

cistern with valve

hollowed fruit

recycled container

a 'conventional' tab

with a bowl
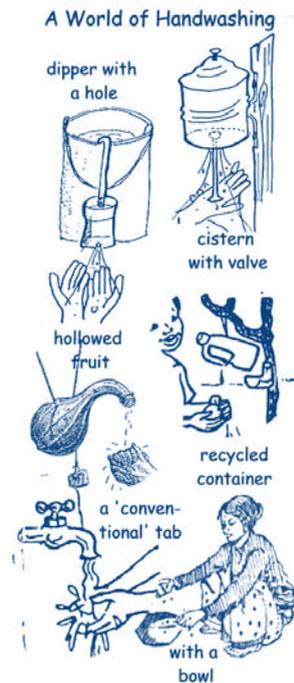
*Somalia: Handwashing at school* Photo: CHAST project, Caritas-Switzerland

*Handwashing with soap (or ash or clean mud) before eating and after using sanitary facilities should be a priority in schools.* Soap—or its equivalent—must be provided and located where children can easily reach it and where it cannot be lost. Organising soap and its use by children can be difficult. This is a subject that deserves much more attention.

Many schools also focus on avoiding water wastage, especially in areas where clean water is scarce. For example, schools can use a device that measures out a fixed quantity of water.

To avoid the spreading of pathogens, water should be properly drained after each handwashing. Without proper drainage, surroundings become muddy, discouraging children from washing their hands and attracting mosquitoes. Channelling wastewater to flush urinals can help conserve water and preserve hygiene.

### Providing toilets

There are many types of toilets or latrines being used in schools. Some of the common low-cost technologies: **VIP (ventilated improved pit)** latrines and **twin VIP latrines** (two alternating pits). Both are particularly suitable for areas of water scarcity. Building the twin pit latrine is more practical in areas where the latrines can not be rebuilt in another location when they fill up or where it is not planned to empty the filled latrine pits.

The **pour-flush latrine (single- or double-pit)** is common in South Asia where children use water for anal cleansing. It is most suitable for areas where there is sufficient water. The leach pits are usually less deep than for VIP latrines and therefore this model is also more suitable where digging is difficult. For this model, teachers need to ensure that

*Drain at handwashing facility* Photo: Alwar, India, IRC

children do not block the trap, for example, by putting sticks in it. For the double-pit model, the teachers need to know how to change from one pit to another when the first pit fills up, say about once a year or once in two years.

**Table 5.2 Advantages and disadvantages of leach pits and septic tanks**

| Leach pits or septic tanks for toilets? | |
|---|---|
| Leach Pits<br>• Low cost<br>• Less space<br>• Needs little water<br>• Sludge handling easy<br>• No recurring cost<br>• Pit emptying easy<br>• No mosquitoes | Septic Tank<br>• High in cost<br>• More space<br>• Needs more water for flushing<br>• Sludge handling difficult<br>• Recurrent costs for emptying<br>• Safe disposal of effluents<br>• Mosquito menace |

**Ecological sanitation**: Composting and dehydration is a somewhat newer technology. The model is designed so that the excreta and urine are separated and can be safely used as fertilizer. The model is more difficult to maintain than some others but is ecologically sound.

**Septic tank:** The septic tank is a more expensive technology and requires pumping to empty periodically. It is also more difficult to build correctly. Nonetheless it is found in many schools, particularly in and around towns.

Photo: Vietnam, Christine Sijbesma, IRC



*Urinal with urine diversion chamber*
Photo: Uganda, Jabu Masondo, IRC

**Urinals:** These are less expensive than latrines and are built in many schools. Many schools have urinals for boys as well as young girls. The social acceptability of the urinal for older girls needs to be checked locally before construction.

Note: In many countries the schools dispose separately of anal cleaning materials; for example, children put used paper in a box. These used anal cleansing materials are a source of disease in themselves and must either be put in the pit or be disposed of in a way that prevents them from becoming a health risk. It is very important that the materials do not become a health risk and that the person who disposes of them, or the subsequent user of the toilet, is not exposed to excreta.

**Table 5.3 Selection criteria for latrine type**

| Latrine type | Suitable for high groundwater table | Suitable for loose soils | Suitable for soils of low permeability | Water require-ment | Ease of mainte-nance | Remarks |
|---|---|---|---|---|---|---|
| Direct single pit latrine without pour-flush/VIP | Yes, if raised | Yes, if fully lined | No | No | Easy | Sludge unsafe |
| Offset single pit latrine with pour-flush | Yes, if raised and with soak-away | Yes, if fully lined | Yes, with soak-way | Yes | Easy | Sludge unsafe |
| Offset double pit latrine with pour-flush | Yes, if raised and with soak-away | Yes, if fully lined | Yes, with soak-way | Yes | Easy | Safe sludge |
| Double-vault ecological la-trine with urine separation | Yes | Yes | Yes | No | Difficult | Safe de-hydrated material |
| Pour-flush latrine with 2-chamber septic tank with soak-away | Yes, if raised | Yes | Yes | Yes | Not easy | Sludge unsafe |
| Urinal | Yes | Yes | Yes | Yes, a bit | Easy | |

*Adapted from: Snel et al. 2002*

## Norms: number of toilets/urinals

The number of children per toilet/urinal varies greatly within and among countries.
The number of toilets and urinals should be based on factors such as:
1. The number of girls and boys in the school.
2. The rules regarding the use of the facilities—whether students can use them any time. If they can only use toilets during breaks or recess periods, then more facilities are needed.
3. The number of 'shifts'. Less water per child and fewer toilets are needed if children are in school say 4 hours or less each day.
4. The number of teachers—female and male—who will use the facilities. When teachers do not have their own toilets, they sometimes take over one from the children. Is it possible to have separate toilets for teachers and children?

Example of calculation of
necessary capacity

Total school population 420 students

How many
girls and boys?

230 ♀          190 ♂

Is it allowed to go to
toilet during classes?

230/20=     No      190/20=
12 units              10 units

Are there different breaks
for different classes?

6 units     Yes 50%     5 units

What is the expected growth
of school population?

20%
                        6 units

7 units in total
for girls

                Will there
                be urinals?
3 units         Yes
for boys

                3 urinals
                for boys

This diagram from the *Toolkit on hygiene, sanitation and water in schools*[12] shows an example of a calculation for the number of toilets and urinals in a school. There are 230 girls and 290 boys. The norm is one toilet for 20 children. Girls do not use urinals in this example.

## Location of facilities

Apart from the geographic conditions, there are some issues that can be useful to discuss with children and teachers when selecting the location for toilets and urinals:

**Security**: Children must feel safe and comfortable when visiting the toilets or water points. They must not feel that they will be teased by other children or molested.

**Accessibility:** Children must be able to go to the toilets/urinals and taps even after heavy rains.

**Privacy**: Older girls in particular need privacy when entering and using facilities.

**Convenience:** Handwashing facilities should be located near toilets so that children will be more likely to wash hands after defecating.

**Pollution:** Toilets must be located away from and downhill from drinking water facilities. Some countries suggest a minimum of 30 metres distance.

**Vandalism:** Facilities may be used after school hours. To deal with this, one option is to lock the facilities. Another option is to involve the nearby households, who presumably use the facilities, at the start in the planning of the water points and toilets.

## Participation of different stakeholders

As indicated before, WASH in Schools will only work with participation by stakeholders. Designs and technologies should not be determined only by contractors or administrators in central offices. It is very important to involve and consult a representative group from the school community during the planning, design and construction of the water and sanitation facilities at the school. The active involvement of children and parents can also be seen as a learning experience. Examples of how this has been done are shown in boxes 5.1 and 5.2.

**Box 5.1 Participatory design process in Nicaragua**
A participatory design process has been carried out in the WASH in Schools pilot project in Nicaragua. Boys and girls and male and female teachers were consulted and provided inputs into the design of the facilities to be built. They expressed a desire for toilets, sinks with faucets, mirrors, comfortable and private installations separated by sex, and separate facilities for pre-schoolers and teachers.
*Used from: Garcia 2002*

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12  See: http://www.schoolsanitation.org/BasicPrinciples/Facility.html

Photo: Annemarieke Mooijman

**Box 5.2 Design criteria as identified by school communities in Colombia**
The sanitation facilities designs for schools participating in the UNICEF pilot project in Colombia were made with the participation of the school communities, including directors, teachers, boys, girls, fathers and mothers.

With support from the NGO CINARA, the school communities participated in life-skills workshops where they expressed their demands, needs and wishes with respect to water, sanitation and hygiene behavior in their schools. Based on these needs and wishes, general criteria for the design of the infrastructure were determined. These included: size and comfort, privacy, continuity, gender, hygiene, quality, costs, monitoring and control of the school sanitation, environmental protection and durability.
The criteria were used to determine the number of installations required for the school community. The participants also proposed that installations respect the different needs of children and that they facilitate use by boys and girls of all ages. As a result, the design of the handwashing facilities was changed so the youngest children could use them more easily. The participants also changed the proposal to build the facilities for the youngest ones within their classroom and instead suggested including them in the school's general sanitary block.

Similarly, solutions were defined for the water supply systems that would guarantee continuity according to the water availability in the school. Sanitation solutions were also formulated, in harmony with the local context and needs. For example, it was proposed to change the material for the floors of the sanitary block to material that was not white to make cleaning easier.
*Adapted from: Aponte Reyes (2004)*

Consultation and participation with children, teachers and parents helps set realistic goals and targets to sustain the school programme. An example of a school action plan developed through consultation for WASH in Schools is shown in Table 5.4.

**Table 5.4 Goals and targets for the improvement of the facilities**

| Infrastructure | Specific Problems | Needs for Improvement | Specific Tasks for Improvement |
|---|---|---|---|
| Sanitation Facility | There is no separate latrine for girl students. | New latrines need to be constructed for girl students. | Proposal should be written for constructing new latrines for girl students. |
| | The doors cannot be locked from inside. | Catchhooks need to be replaced. | Catchhooks of existing latrines should be replaced. Funds can be taken from fund of the school. |
| Water Supply Facility | The handle of the existing handpump is broken. | Replacement of the handle of the existing handpump. | Raising funds; and purchase and replacement of the handle. |
| | The water from the pump is not safe for drinking purposes because of the presence of arsenic, but the pump has not been painted red to signal this. | The pump will have to be painted red. | Red paint should be bought; and the pump should be painted red. |

*Source: Smet et al. (2001)*

Box 5.3 provides an example of the use of the 'ladder' approach to help communities choose technologies and designs for facilities.

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**Box 5.3 Climbing the ladder for the best local choice**

Since we are primarily invited to work in areas with little or no water and very few amenities, we have developed an approach that works by helping people…apply the principle of least to most desirable. We use posters depicting the subject being discussed (handwashing, sanitation facilities, etc...) and have the group sort them from least to most desirable. Once the group has determined the order, we then facilitate a discussion of where they (as individuals or as a community) are currently at on this 'ladder.' Since they have already defined what they see as their ultimate goal (most desirable choice), they are able to then talk about what they need to do to proceed up the ladder. They may choose to take several steps at a time or only one step at a time. Once they have chosen the next step, we facilitate a breakdown of the planning process to help them in their project planning.

*Source: Trudy Harper, in her contribution to the WASH in Schools E-conference "Every child clean through school hygiene", 29 April to 14 June 2002.*

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## 5.2    Construction of facilities, supervision and quality control

It is very important that construction is carried out properly with good quality materials. If facilities are badly constructed, they will fall apart and maintenance will be difficult. There is a need for control and competition in the construction activities. Construction monopolies (such as by government departments or large contractors) are not always the most efficient nor the least costly or honest. Experience in Malawi showed how construction was transferred from large contractors to school committees and local builders (see Box 5.4).

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**Box 5.4 Participation in construction of school facilities in Malawi**

In 2005, the UNICEF office helped to simplify the technical catalogue of designs for construction of school sanitation facilities using Fiber Glass Plastic (FRP) moulds and participatory methods. Seventy-two extension workers, 900 local builders and 2,700 womens'-group members were trained in the construction of sanitation facilities, and about 4,500 Project Management Committees (PMC) members supervised and monitored local builders. Training programmes and a set of tools for each school were provided. The cost of the school sanitation package was reduced from USD 9,500 in 2004 to USD 3,100, which represents a saving of about one million US Dollars for the construction in 150 schools. The construction of school sanitation facilities in 150 schools had generated employment income for local builders worth USD 82,000. Experience showed that using local builders and school committees to construct facilities instead of large contractors increased coverage and reduced cost. By using this participatory approach in construction, an effective partnership emerged between the communities, schools and other implementers.

*Adapted from: UNICEF-Malawi (2005) Annual Report.*

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Supervision and quality control can help ensure proper construction. A list of quality criteria can be drawn up in collaboration with the construction company, but make sure that you either have knowledge about construction yourself or that you have an expert (not the company that is doing the constructing!) assist you. Box 5.5 gives an example of quality criteria for construction.

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**Box 5.5 Criteria for quality check on construction of double-pit pour-flush latrines**
- Work is done as per standard drawing/design
- Drain pipes laid in proper slope (1:12)
- Size of leaching pit is as per standard design with cover slabs
- Smooth latrine floor and proper slope towards pan
- Pit lining has gaps/holes for leaching as specified
- Pan, trap and footrest have been fixed correctly
- No blockage in trap, water-seal functions
- All cement droppings are cleared from the pan
- Junction chamber is constructed with 'Y' drain and one has been blocked, so that discharge goes to one pit only
- Door fittings are functional
- Approach path is cleared

*Source: Mrs. P. Amudha, UNICEF-India*

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## 5.3    Operation and maintenance of the facilities

Far too often the construction of the facilities seems to be the main point of WASH in Schools programmes when in fact it is only one aspect of the whole system which must work. Experience shows clearly that mere provision of services, be it within schools or at household level, will not be sustainable. Facilities need to be maintained, and, for this to happen, there must be a recognized need and demand for water and sanitation at schools. Many problems related to incorrect use and poor operation and maintenance (O&M) occur because it is not clear who is responsible for the O&M. Each school needs a plan showing how to use facilities and who will clean them, when and how (Mooijman & Zomerplaag 2004). WHO (1997) pointed out that such issues need to be discussed with teachers, children and parents. For example: Will the school ask the parents or the students to pay a small fee for upkeep of the facilities? If not, how will the O&M costs be covered?

### The role of children in using and maintaining the facilities
Children do not automatically know how to wash hands correctly or store water safely. All boys and girls and all teachers should use the water and sanitation facilities during school time. All of them should wash hands before and after eating and after using the toilet/urinals. To help children use the toilets as intended, allow sufficient time during breaks.

Children need to be trained how to use drinking water facilities and latrines. This needs to be planned and supervised by the teacher. Often older children help monitor and remind the younger children in schools. Box 5.6 provides an example from India of rules for using facilities correctly.



Photo: Nicaragua, Annemarieke Mooijman

**Box 5.6 Example of school rules to help children use water facilities correctly**

Handwashing
- Pour some water on to both hands.
- Put soap on hands.
- Rub hands well, at least 3 times all over.
- Rinse well. Rinse off all the soap. This will need more than 1 cup of water.

Drinking safe water if drinking water is stored in a pot
- Take cover off pot and use dipper to draw the water.
- Pour the dipper water into a cup or glass and then hang the dipper back up.
- Cover the pot of water.
- Drink the water from the cup without putting your mouth on the cup. Put the cup back in the right place.

To fetch water from a handpump
- Check if your bucket or container is clean. Has it been washed out with soap and/ or sand today?
- At the handpump, pump slowly. Do not jiggle or slam the handle.
- Do not put your hands or fingers in the water you are fetching for drinking, as other people will use it.
- Check that the drain is clean so that spilled water will not collect in puddles.

*Source: Shordt (2004)*

In many schools, the health clubs, children's parliaments or similar groups take the lead in organising children to keep facilities clean and to ensure proper use. For example, the health clubs sometimes look after the handwashing facilities by cleaning the site, making sure there is sufficient water and soap (or ashes), and making sure the drainage works properly. The cleaning of the toilets should also be the responsibility of the users themselves, not only left for janitors or paid cleaners. For instance, students from higher classes can be responsible for organising children in shifts for cleaning the latrines. Within the class, the tasks can be divided over the week among teams of boys and girls. The students can also be responsible for locking and unlocking the latrines each day if that is necessary. Leaving the doors unlocked during the night may invite outsiders to soil or incorrectly use the latrines.



Photo: Peru, Annemarieke Mooijman

All children (boys and girls from all groups) except the youngest, can be involved in keeping the toilet, water points, and handwashing facilities clean, free from flies and safe for all users. This includes:

- Sweeping the toilet floor every day and washing it with water (if the floor is cemented).
- Bringing water for tanks or containers in the school.
- Cleaning drinking vessels and dippers or dipping cups.
- Cleaning the drainage channels and soak pits.

Teachers also have a role to play; they need to:

- Be able to make small repairs.
- Know how and who to contact for larger repairs.
- Ensure funds are available and accounted for purchase of soap, buckets, brooms and so on.

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**Box 5.7 Example of operational issues for urinals**

- **Use of urinal**
  Pour not more than half a litre of water in the urinal after each use. Do not throw cigarette butts, paper, plastic, fruit peelings, etc. in the urinal.
  After using the urinal, always wash hands with soap or ashes at the assigned place.
- **Daily cleaning**
  Because of the intensive use and the possible smell, the urinal needs to be cleaned twice a day. The first time is around noon. The urinal must then be cleaned with some water only using a soft brush with a long handle. In the evening, after classes, the urinal has again to be cleaned with water and a bit of detergent powder. Not more than 3 litres of water should be used per cleaning.
- **Weekly cleaning**
  At the end of the week, the urinal and its surroundings should be thoroughly cleaned. Spider webs and strain waste should be removed. Spread detergent or bleaching powder on the surfaces of the urinal (a bit more than the daily amount). All collected solid waste must be properly disposed of in the school waste pit.
- **De-choking of pipes**
  When the urinal does not drain properly anymore, then it is most likely that the drain has gotten choked. Remove the sieve over the drainpipe and insert a flexible, thin bamboo stick to push the blockage through. This can also be done from the soak-away end.

*Source: Smet et al. (2001)*

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It can be difficult to maintain the quality of water stored in schools. Good school discipline is required to clean storage vessels, keep them covered, use clean dippers, keep drinking cups/glasses clean. When the quality of the water from the source is bad, point-of-use treatment at the school may be required to make the water safe for drinking and using in food preparation.

The way toilets and water containers are used or cleaned should never pose a health risk. This requires careful planning. For example, in the UNICEF six-country study on the effectiveness of WASH in Schools, in five of the countries, the children use solid materials such as paper for anal cleansing. The results of the studies were not very clear on how easy it is for children to get the paper. In addition, the papers are not always thrown in the toilets, but are separately collected in boxes. This raises serious questions about the safe disposal of these materials. Results from two of the countries showed that paper material was not always available and that its disposal could form a health risk. Schools have to give thought on how to dispose of their solid waste. Tips and Hints 5.1 gives some ideas.

**Tips and Hints 5.1 Solid waste disposal when no organised system exists**
Schools generate waste in the form of paper, cardboard and plastic materials as well as organic waste, all of which has to be collected for disposal. For this, suitable containers must be provided in each classroom, latrine, and in various places in the courtyard. When there is no organised system for waste collection in the local community, the following actions could be taken:
• Paper waste can be buried in the ground or burned in an incinerator made from an oil drum.
• Organic materials can be composted, for instance in big cement rings, and used as fertilizers for trees and plants in the school compound.
• Plastic waste can be collected and buried or in some cases recycled.
*Adapted from: WHO (1997)*



Photo: Annemarieke Mooijman

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# Chapter 6   Sustaining and scaling up WASH in Schools

## 6.1      Sustainability of WASH in Schools

One of the greatest challenges in school programmes is sustainability. Sustainability means that the benefits of WASH in Schools continue a long time after programme implementation in each school. The benefits which should be sustained are:

- A healthy and safe school environment.
- Well-used and maintained facilities in all schools.
- Regular teaching of life skills-based hygiene education in all classes.
- Well-trained and committed teachers and personnel.
- The adoption of hygienic practices/behaviours by all, children, teachers and preferably parents and community members as well.
- Active involvement of the parents and other community representatives in continued WASH in Schools activities in all schools.
- Regular outreach to the families and communities with a special focus on school-aged children not going to schools.

A WASH in Schools programme does not end when the water and sanitation facilities have been constructed. In fact, construction marks a new beginning as children participate in water/sanitation-related educational activities and start to use the facilities. The period following construction usually receives too little attention from programme planners and implementers, and continuous inputs are needed to ensure use and maintenance of facilities and the implementation of life skills-based hygiene education (Snel *et al.* 2002). The problems that appear in many schools include: rapid run-down of facilities, irrelevant curriculum, poor organisation of the operation and maintenance of facilities so that maintenance does not take place, and lack of interest of school community.

Photo: Nicaragua, Annemarieke Mooijman

A major institutional challenge faced in sustaining and expanding the programme facilities is the lack of coordination between various sectoral departments. Often the lack of inter-sectoral cooperation results in a lack of understanding on who will supervise and monitor the schools. Educational staff, including supervisors, often lack interest and transport facilities needed to go for training or to monitor activities in schools scattered over a wide geographic area. Teachers are often underpaid, have a high workload, and within this context are supposed to teach, supervise and guide their students. These factors affect their interest in sustaining additional initiatives such as WASH in Schools. Another institutional problem specifically for the education department is the high turnover rate of teachers. However, as seen in Zambia, when teachers are transferred within a district, the new schools can also benefit from getting trained teachers.

## 6.2    Criteria for successful and sustainable WASH in Schools

To be successful and sustainable, water, sanitation and hygiene education in schools must address both hardware *and* software issues. WASH in Schools programmes should focus on the provision of both *effective facilities* and *effective education.* For better health, school children have two needs that must be met in combination; these are:
* availability of sustainable facilities; and
* the adoption of healthy practices.
Other criteria for a sustainable and successful WASH in Schools programme concern organisational issues at school, national/regional and district levels.[13]

**Criteria for addressing organisational issues at national and regional/district levels:**
* The various stakeholders at national, regional, district and community levels are *involved and are working together.*
* *Policies* for WASH in Schools have been developed and implemented.
* *Finances* for the implementation of the WASH in Schools programmes at different levels have been allocated and secured.
* Construction of the water and sanitation facilities and life skills-based hygiene education are *introduced at the same time*.
* Construction does not take place only *in parallel* and unconnected to education, but is used as learning and participation opportunity.
* A *monitoring system* to track the implementation of WASH in Schools programmes and to safeguard their sustainability has been set up at the national, regional, district and school level. This should include mechanisms which make it possible to *act on problems* that may arise.
* Health educators and/or educational officers (authorities) with the responsibility for the implementation of the WASH in Schools programmes *visit all the schools regularly*, e.g. every six months.

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13  Adapted from text developed for the Frequently Asked Questions for the Sanitation Connection web pages by Postma L, Snel, H and Wijk C, 2001, Delft, the Netherlands.

**Criteria for addressing organisational issues at school level**:
- WASH in Schools activities are *broadly supported* and are not relegated to a small group of women teachers, parents, etc.
- *Finances* for the operation and maintenance of the facilities have been allocated and secured.
- An *active Parent-Teacher Association* exists, which is *involved in all the stages* of the WASH in Schools programme.
- A *monitoring system* to track the implementation of WASH in Schools programmes and to safeguard their sustainability has been set up at the school level. This should include mechanisms which make it possible to *act on problems* that may arise.
- *Activities for outreach* to the community and to the school-aged children not attending school, *take place on a regular basis* via students and teachers.
- Different community members and groups are *informed and support* the WASH in Schools activities.

**Criteria for life skills-based hygiene education:**
- Life skills-based hygiene education is *part of the curriculum* of primary and secondary schools and teacher education.
- Life skills-based hygiene education *materials* for the different age groups of primary schools and lower secondary schools have been developed and distributed, are replaced as needed, and are used.
- Teachers and district education officers have been *trained* in the use of life skills-based hygiene education materials and the life skills-based hygiene education curriculum.
- Life skills-based hygiene education is taught at schools *on a regular basis*, at least once a week per class.
- *Positive changes in the hygiene behaviour* of the students and the teachers are achieved and sustained over time.

**Criteria for the facilities:**
- Sufficient water and sanitation *facilities* available in the school compound.
- Sufficient water available for drinking, handwashing, anal cleansing, and cleaning of the facilities.
- The constructed water and sanitation facilities follow *minimum specifications for design and quality of construction.*
- The facilities are *child- and gender-friendly*.
- The facilities are *(always) functional*.
- The facilities are *used by students and teachers*.
- The facilities are *properly operated and maintained*.
- The operation and maintenance of the facilities is *well organised* and, if carried out by teachers and students, *shared equally between genders, age groups, castes and classes*.
- The cost of water delivery is *affordable and is paid*.

Photo: Malawi,
Petra Brussee, IRC

## 6.3    Monitoring for success and sustainability

Monitoring is far more than collecting information to 'see how things are going'. It is meant to improve programmes and activities over the long term. Monitoring involves checking, understanding the results of checking and then acting to improve a situation. The action should, of course, be taken at the lowest possible level, with cross-checks to make sure that the situation has in fact improved.

Most programmes that are serious about monitoring, try to develop a small set of indicators that describe the minimum necessary conditions for programme success. It is very useful for those involved in projects or those working in a particular place to develop such mutually-agreed lists of basic indicators. An indicator shows a standard that you want to reach. Box 6.1 provides an example of a short checklist developed by educational leaders from many states in India.

**Box 6.1 Important indicators for monitoring WASH in Schools**

Facilities:
• Each school has safe drinking water, separate toilets for girls and boys, handwashing facilities with soap, drainage, and clean classrooms and compound.

Use and maintenance:
• Girls and boys use the toilets/urinals.
• Hands are washed at right times (before eating, after using toilet) with soap/ash/soil.
• Boys and girls (of all castes and classes) share tasks of collecting water and cleaning toilets equally.

Education and promotion:
• There is classroom/school hygiene education, which is participatory and life skills-based.
• Teacher, school or children have organised an activity to involve parents and the community.

Training:
• Teachers and parent groups are trained before or during construction.
• Officials at the intermediate level (district/block) are trained and have plans.
• Trainers are trained.
• Training is repeated for teachers, community, intermediate personnel.
*Used from a school programme in India, Shordt (2006)*

Four steps are suggested for organising the process of monitoring with participation of various stakeholder groups to improve the local situation (Shordt 2000):

Step 1:   Identify key issues, problems and concerns.

Step 2:   Identify who checks the key issues, problems and concerns. Perhaps more than one group of people should check or collect information. Orient those involved. Involve people who have a real interest in reporting accurately. For example, children and women's groups may have a real interest in checking the cleanliness and use of facilities, and teachers may be interested in the quality of training and availability of educational materials. Sometimes it is useful to employ extra checks by having more than one group monitoring the same thing. For example, the teachers, the school management committee and the water department could cross-check the quality of construction. Note that it is very important to provide training or orientation to groups involved in monitoring. Try out the monitoring activities on a small scale first.

Step 3:   Collecting, analyzing data, reporting
Use valid and cheap methods for checking and collection. These include: observing facilities, asking children about who uses toilets/urinals and if there are problems, and examining an accounts book that records O&M expenses.

Step 4:   Who acts? What action?
Plan at the beginning what action should be taken (and by whom) if the monitoring information shows that there is a problem. Normally, action should be taken to improve the situation at the lowest level possible OR the situation should be referred to other levels, as needed, to reach someone who can and will act.

Monitoring should be built into the WASH in Schools programme. There are many variations. In some countries the monitoring is mostly local—at the school and sub-district level. But there are other ways. For example, in Tamil Nadu in southern India, the results of monitoring are shown on a map which is used by sub-district, district and state officials to manage and scale up the WASH in Schools programme.

Here is an example of an extensive monitoring sheet for the district and its schools:

## Example: monitoring for district and school

**Taking action:** Monitoring can show where there are problems. It is important that action is taken to solve these problems.

## BLOCK + DISTRICT

|  | YES | NO |
|---|---|---|
| **1. Plans and policies**: There is a district SSHE plan for high coverage[14] of district and policies to support SSHE.[15] |  |  |
| **2. SSHE motor**: There are full-time staff members for SSHE in district and/or sub-district. |  |  |
| **3. Funds:** If the agreed work is done, then funds are released to district, community, schools or NGO at agreed times. |  |  |
| **4. Coordination:** There is a district co-ordination group[16] which meets at least once in 3 months. The group has agreed roles, a plan and a School Sanitation and Hygiene Education timeline. |  |  |
| **5. Capacity-building:** District, block leaders and NGOs are oriented. Headteachers/teachers are trained[17] and given materials before construction in their school. |  |  |
| **6. After construction:**<br>• Annual refresher training is given to district/block and school staff.<br>• District/block continues to visit and monitor school programmes and facilities. |  |  |

## SCHOOL + COMMUNITY

| Before construction | YES | NO |
|---|---|---|
| **1. Support:** District, block or NGO staff visit the school many times. | | |
| **2. Mobilize**:<br>• Social mobilization plan exists and is carried out.<br>• SSHE information (such as baseline data, maps, reports, accounts) is easily available in the community and is understood and used.<br>• Community contributes funds for construction of facilities, and it agrees to continue providing funds for repairs and maintenance. | | |
| **3. Community groups** are active in School Sanitation and Hygiene Education. (Examples are the VEC, SMC, PTA, CBOs.) They:<br>• Know about the programme and can explain its purpose.<br>• Meet at least 2 times a year, make decisions and carry these out.<br>• Are linked to panchayat[18] and other committees. | | |
| **4. Parents and teachers:**<br>• Teachers, fathers and mothers, rich and poor, can explain purpose of programme.<br>• They make local variations regarding technology, design and payments. | | |
| **5. Trained before construction:**<br>• Teachers and headteachers are trained/oriented.<br>• They have educational materials.<br>• SSHE teachers or NGO staff train the other teachers in their schools. | | |
| **6. Technology and design**<br>• Are agreed and understood by teachers and parents.<br>• Drinking water is available within 50 metres of the school.<br>• 1 toilet for every 25 to 40 students; 1 urinal for every 40 girls or 40 boys; a toilet for teachers.<br>• All facilities are designed for children (adequate light, appropriately sized hole and suitable for menstruating girls).<br>• Plans are made for maintenance—how to repair and empty pit using direct pits. | | |

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14 High coverage means more than one in three schools.

15 Policies and rules such as given released time to teachers for training.

16 Examples of the groups involved are: Departments of Education, Health, PHED, Children and Women's Affairs and the TSC, DPEP/SSA programmes and NGOs.

17 Training includes, for example, field visits, joint planning, workshops, and orientations.

18 Paynchat: Local government with an elected president and elected representatives from each ward. This also refers to the local government area and its population.

| Construction | YES | NO |
|---|---|---|
| **1. Funds are released** as planned. | | |
| **2. Construction** follows agreed plan and is checked by the Public Health Engineering Department (PHED), community groups and school.<br>• If there is something wrong with construction or financing, then action is taken to improve the situation. | | |

| After-construction | YES | NO |
|---|---|---|
| **1. Facilities work** as planned. Latrines and drinking and handwashing facilities function. | | |
| **2. Use**: All girls, boys and teachers use toilets/urinals during the school day. (To check: ask a few children, check that toilets are not locked). | | |
| **3. Handwashing:** All girls, boys and teachers wash hands with soap and enough water (one cup) after using the toilet/urinal and before eating. (To check: ask children and observe). | | |
| **4. Maintained:**<br>• All water and toilet facilities are clean and maintained.<br>• All children are involved in cleaning water and sanitation facilities during the school year.<br>• Repairs are made quickly and there are funds for soap, cleaning materials, repairs.<br>• Water is available for drinking, handwashing and cleaning. Drinking containers are clean and have ladles. | | |
| **5. Personal cleanliness**: Children are clean according to indicators set by the school. | | |
| **6. Environment:**<br>• School rooms and compound are clean. This means: free from faecal matter, puddles and visible waste.<br>• Each room has an easy-to-use chalkboard, basic furnishings and ventilation. | | |
| **7. Roles of children**:<br>• Each school has an organised group of children for SHHE (clubs, parliaments).<br>• These SSHE groups are active in school[19]. | | |

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19 These children groups carry out activities such as: helping younger children use facilities correctly; organising children for handwashing before eating; cleanliness and maintenance of facilities; and SSHE activities- outreach to home/community.

| | | |
|---|---|---|
| **8. Links to home**:<br>• Key health and hygiene information flows to the home. (To check: ask parents).<br>• Families and communities support maintenance and repair of school facilities. | | |
| **9. Education**:<br>• School has activity plan for hygiene promotion in each class (To check: ask children and teacher).<br>• Children do activities not just memorizing.<br>• Each classroom has SSHE materials that are used in learning experiences. | | |

## 6.4    Scaling up WASH in Schools

Scaling up means moving from small or medium-sized programmes to ones that have high coverage over large areas, and that involve millions of people. Scaling up is not unusual. However, what is unusual is 'scaling up with quality', i.e. scaling up while maintaining quality. Many large programmes, launched with considerable publicity, tend to gradually deteriorate or fail to get off the ground at all.

Some of the major challenges to large-scale expansion are:
• *Maintaining and improving quality*. This includes maintaining the quality of well-used facilities and good hygiene education in schools.
• *Applying a gender- and poverty-sensitive approach.* This implies reaching under-served groups including girls and marginalized communities.
• Addressing the *challenge of multiple stakeholders.* This requires major efforts for capacity development and joint planning followed by joint action at many levels.
• *Identifying or developing a motor*. This refers to the identification of a group or institution that can stimulate other institutions and professionals, and help them to manage their own programmes effectively.
• Ensuring *support beyond construction*. Refresher training and meaningful supervision are needed after the construction of facilities. This can include support from NGOs, district engineers and education officers to help teachers and to secure the funds for the operation and maintenance of the facilities.
• The *provision of consistent and motivating support to the vast number of teachers* involved in large-scale programmes. This implies that both teachers and community groups, such as school committees, must be engaged systematically over very large geographic areas.

Three approaches for scaling up are:
1. **Replication**: This is the repeated application of the same or similar programmes (potentially with the same institutions) moving geographically from one district or county to another.
2. **Infusion**: This refers to inserting WASH in Schools into existing education, water/sanitation and community development programmes. Currently many nations have

funded reforms for decentralization of government services or reforms for water and sanitation or for education. WASH in Schools can work rather easily within such reforms.

3. **New partnerships**: Another approach is to forge partnerships between institutions experienced in carrying out WASH in Schools programmes and those in nearby districts that are just entering into the programme. The more experienced institutions may take on new roles, such as building capacity and stimulating joint planning and action among the new institutions.

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**Box 6.2 From pilot to scaling up WASH in Schools**

The experiences of the countries involved in the WASH in Schools global project (Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam and Zambia) show that the limited scale of many projects, as well as the fragmentation in the planning and implementation of programmes such as water, sanitation and hygiene in schools, will make it difficult if not impossible to reach the MDG and WSSD goals, unless special steps are taken to accelerate, go to scale and coordinate progress on water, sanitation and hygiene in schools. Therefore, the biggest challenge for each of the project teams was to move away from a small-scale project approach towards robust and larger-scale programmes with significant and sustainable outcomes. The country summaries show that all the six countries have made this step. Not only have the programmes been expanded in collaboration with multiple partners, but also advocacy at the highest levels has increased interest and support from the government and line ministries at different levels, and as a result policies on water, sanitation and hygiene at school are being formulated or reviewed.

*Adapted from: UNICEF (2004). Hygiene, sanitation and water supply at schools: accelerated efforts towards girls' education. Final report for the government of the Netherlands. (http://www.irc.nl/page/28838)*

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In practice the three approaches are used together in many scaling-up efforts. However, beyond these general approaches, detailed strategies for scaling up with quality in WASH in Schools are not very obvious. A thorough understanding of the pre-conditions for successful area-based and high-coverage WASH in Schools programmes has not yet been developed. However, from experiences with scaling up in different countries (Bolt *et al.* 2006), eight actions have been identified that can help scale up with quality.

*Organise capacity development activities along with planning:* This is the heart of the WASH in Schools programme. A large number of groups who will be involved in WASH in Schools need orientation and capacity-building. It is strongly suggested that training include planning activities so that the trainees plan their own WASH in Schools activities and can immediately see how to incorporate their new learning into their work (see also box 6.3). Separate resources are needed in WASH in Schools budgets for training on a continuing basis.

*Create or identify motors and advocate:* The idea is to identify or make teams that can spearhead the programme at different levels such as national, district/county, and local education district. When such purpose-built teams are missing, the WASH in Schools programme sometimes becomes just an add-on to other programmes. When there is a lack of support for the leaders and no supportive policy, programmes run into trouble. The scaling up of the programme requires a positive enabling environment. Advocacy and supportive policy formulation are lubricants for the scaling up machinery. Advocacy activities can take place in briefing programmes, orientations, site visits and conferences.

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**Box 6.3 Joint planning: An effective strategy for scaling up**
Joint planning was one of the effective strategies for scaling up that was highlighted during the WASH in Schools e-conference. By bringing together the different actors, each within their own mandate, joint planning was a means to review/investigate situations, identify problems, share experiences and plan problem-solving actions. Examples ranged from a project in and around a town in Somalia to a district programme in Zimbabwe and a national programme in the Dominican Republic. In Somalia, the actors jointly solved the lack of water in schools by combining local means (drums, donkey carts) with outside resources for rainwater storage tanks. The Dominican Republic established a national school health programme which involved four ministries, a UN agency, an American University, the Peace Corps, PTAs, NGOs, Rotary Clubs and student groups. Showing impacts of actions also helps to raise interest. All these aspects need planning and time for practices to catch on.
*Source: van Wijk (2002). Every child clean through school hygiene: an e-conference on school sanitation and hygiene education (SSHE) programmes. Summary report. Available at: http://www.irc.nl/page/9597*

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*Aim for high-density programmes:* The quality of growing programmes may be easier to control when programmes are concentrated. Coverage ranging from one-half to all the schools in an area will help ensure that sufficient attention is given to WASH in Schools. With such high-density programmes, expansion is usually on a geographic basis, proceeding each year or two from one district or region to another.

*Adaptive management (develop a long-term plan and adjust each year):*
The implementation of high-density programmes requires the support of a long-term plan with a step-wise cycle for each batch. As experience and knowledge of outputs and impacts grows, the steps included in the long-term plans will need to be reviewed and adjusted. It can be very helpful to identify a minimum number of agreed indicators of success for school programmes. These can be used in programme planning, training, monitoring and in improving existing programmes. At a later stage, the indicators can be refined by local groups for planning and implementation. The indicators (including construction specifications) can be used in many ways, for example in third-party quality inspections as well as in day-to-day monitoring of the quality and use of the facilities.

A strong gender and poverty approach will seek to reach both poor and rich, women and men, officials and NGO staff, educators and engineers. This would include giving special thought to whether both women and men in each school could be trained in WASH in Schools. Experience shows, for example, that women teachers tend to pay more attention to hygiene and can better relate to girls about personal hygiene.

*Coordination and linkages:* A large number of institutions are involved in WASH in Schools. The limited and inconsistent coordination among the many agencies controlling human and financial resources for WASH in Schools poses a significant problem. The better WASH in Schools programmes seem to have periodic meetings among representatives of the different groups involved at all levels. These meetings are used for many purposes such as: making decisions, monitoring, checking progress and training. It is very useful to link to other groups and funding sources such as sanitation or education reforms and HIV/AIDS school programmes so that WASH in Schools can combine resources with them. For example, a children's clubs can deal with both HIV/AIDS and WASH in Schools. At the district or community level there may be other programmes and groups that can be drawn on to provide training, health screening for children, nutrition education and so on.

*Make a place in the curriculum and provide educational materials:* To ensure that enough attention is given to hygiene education in school, as well as during the teacher training, it is important to incorporate water, sanitation and hygiene into curricula and textbooks. This will mean that in most countries the teaching materials and programmes on water, sanitation and hygiene have to be adapted or developed. It is important to ensure adequate materials and a good information base to support the scaling-up effort. This may include, among others, training packages, curriculum guides, indicators and monitoring checklists, case materials, and a series of booklets on relevant topics (technical design, monitoring, the operation and maintenance of facilities, and studies on the impact of WASH in Schools at the household and community level). Special attention is needed for the speedy and accurate distribution and use of these materials.

*Plan for follow-up:* It is often easier to get funds and commitment for construction than to: gather support for hiring skilled personnel assigned only to WASH in Schools, getting good support from NGOs, having high-quality capacity development and supervision, and securing the funds for the operation and maintenance of the facilities. It is important to include plans for mobilizing support for these critical components. This support includes supervisory visits to each school (more than once) after construction. Education personnel, children and some members of the community need to be trained or oriented and then, after some time, they will need refresher training.

*Develop support materials and studies:* The active sharing of information contributes to the development and production of interesting guidelines and techniques, which can be put to direct use by practitioners in many different places as well as inspire further development. For those starting new programmes, it further prevents 'reinventing the wheel'. It is therefore important that at different levels—international, national and district level—those responsible for WASH in Schools consider setting up permanent

*Health education game for primary-school children in Ghana*
Photo: Ghana, Annemarieke Mooijman

forums for exchanging and documenting experiences and tools and for developing manuals and other relevant documents.

These steps—or similar activities—are meant to help the WASH in Schools programme expand, that is, to *scale up with quality.*

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# About IRC

IRC facilitates the sharing, promotion and use of knowledge so that governments, professionals and organisations can better support poor men, women and children in developing countries to obtain water and sanitation services they will use and maintain. It does this by improving the information and knowledge base of the sector and by strengthening sector resource centres in the South.

As a gateway to quality information, the IRC maintains a Documentation Unit and a web site with a weekly news service, and produces publications in English, French, Spanish and Portuguese both in print and electronically. It also offers training and experience-based learning activities, advisory and evaluation services, applied research and learning projects in Asia, Africa and Latin America; and conducts advocacy activities for the sector as a whole. Topics include community management, gender and equity, institutional development, integrated water resources management, school sanitation, and hygiene promotion.

IRC staff work as facilitators in helping people make their own decisions; are equal partners with sector professionals from the South; stimulate dialogue among all parties to create trust and promote change; and create a learning environment to develop better alternatives.

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# Towards Effective Programming for WASH in Schools

Children have a right to basic facilities such as school toilets, safe drinking water, clean surroundings and basic information on hygiene. If these conditions are created, children learn better and can bring concepts and practices on sanitation and hygiene back to their families.

So schools can play an important role in bringing about behavioural changes and promoting better health. Improved hygiene practices are essential if transmission routes of water- and sanitation-related diseases are to be cut. Diseases such as diarrhoea, parasitic worm infections, skin and eye diseases need to be tackled by making improvements to water and sanitation facilities. These improvements in facilities must go hand in hand with hygiene behaviour change and practice, if the transmission of disease is to be prevented.

But recent studies show that in many countries more than half the primary schools do not have safe drinking water on the school premises or any type of toilet or urinal. So rapid action is required. This manual deals with water, sanitation and hygiene education (WASH) in schools. It describes many of the elements needed for scaling up programmes for water, sanitation and hygiene in schools while ensuring quality and sustainability.

It is a completely revised version of the earlier, popular manual entitled ´Towards Better Programming: A manual on school sanitation and hygiene education´, published by UNICEF and the IRC International Water and Sanitation Centre in 1998. The manual contains many examples, most of which are drawn from a UNICEF-IRC pilot study for School Sanitation and Hygiene Education (SSHE) carried out in six countries (Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam, and Zambia). Other information and examples reflected in this updated manual are drawn from other UNICEF-supported programmes, notably in Malawi and India.

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