




# toolkit on HYGIENE SANITATION & WATER in schools

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 The Toolkit aims to assist anyone involved or planning to work in school hygiene, sanitation, and water. If you wish to comment on or contribute to the Toolkit, please write to Lene Jensen at [Ljensen@worldbank.org](mailto:Ljensen@worldbank.org)

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# HYGIENE SANITATION & WATER in schools

Introduction to the Web-based Toolkit  
at  
[www.schoolsanitation.org](http://www.schoolsanitation.org)



## HYGIENE, SANITATION, AND WATER IN SCHOOLS

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### TABLE OF CONTENTS

Foreword

Why programming for school hygiene, sanitation, and water?

Basic principles for successful and sustainable school hygiene, sanitation, and water programming

Contents of the Toolkit

## Foreword

This toolkit has been developed following the FRESH (Focusing Resources on Effective School Health) framework, which has been created through a partnership of UNESCO, UNICEF, WHO, and the World Bank<sup>1</sup>. FRESH focuses on the development of child-friendly learning environments as an essential part of overall efforts by countries around the world to increase access to, and improve the quality of, their schools.

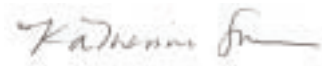
The FRESH framework calls for four interventions in all schools to establish a child-friendly learning environment: (1) Policy: health and nutrition related school policies that provide a non-discriminatory, safe, and secure learning environment; (2) School environment: access to safe water and sanitation, including provision of separate sanitation facilities for girls and boys; (3) Education: skills-based education that addresses health, nutrition, and hygiene issues and promotes positive behaviors; (4) Services: simple, safe, and familiar health and nutrition services that can be delivered cost effectively in schools (such as de-worming, micronutrient supplements, and snacks that alleviate hunger), and increased access to youth-friendly clinics. This toolkit deals with school hygiene, water and sanitation.

To date, sector professionals in the education, health, and water and sanitation sectors have learned important lessons about what works and what does not in their respective sectors. The Toolkit on Hygiene, Sanitation, and Water in Schools draws on those lessons and insights. It is designed to help sector professionals in the education, health, and water and sanitation sectors to tap into sector-specific knowledge of practices and approaches that are likely to yield positive results as they coordinate multi-sector efforts to improve sanitation and hygiene

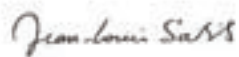
# Why programming for school hygiene, sanitation, and water?

in schools. Rather than ‘ready-made solutions,’ the Toolkit presents principles, tools, and experiences to help sector professionals develop the solutions that are most appropriate for their specific program settings.

School hygiene, sanitation, and water can make an enormous difference in the lives of school children, particularly girls. A clean, safe, secure, and enabling learning environment in which students can learn and perform to their full potential is a vital start in any child’s life and a basis for development. Let us make sure that every child is given this opportunity, as an investment for a sustainable future.



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Worldwide, more children are going to school than ever before in history. An estimated 83 percent of primary school-aged children now attend school, and of these 84 percent complete primary school.<sup>2</sup> This development shows that initiatives aiming for ‘Education for All’ have successfully achieved increased access to education.

At the same time, the challenge of providing education of good quality still lies ahead. The barriers to achieving quality education are many and



The condition of a school toilet in Central Asia

include, among others, overcrowded classrooms, poorly qualified and/or dispirited teachers, lack of appropriate educational materials, and poor conditions in the learning environment. Although adequate sanitary facilities and hygiene practices form essential components of an enabling learning environment and quality education, the reality is that many schools have no toilets at all; toilet facilities which are heavily used and filthy; or toilets, water supply, and hand washing facilities which are spotlessly clean but are not used or are locked and inaccessible to the students.

When a school lacks basic water supply and sanitation facilities and its students have poor hygiene habits, the incidence of major childhood

<sup>2</sup> As published over 2001-2002 by the UNESCO Institute for Statistics.

# Basic principles for successful and sustainable school hygiene, sanitation, and water programs

illnesses such as diarrhea and helminth infections among its students will increase. The global prevalence of intestinal helminth infection in school-aged children is high and is estimated at 35 percent for roundworm, 25 percent for whipworm, and 26 percent for hookworm (Partnership for Child Development, 1997). This, in turn, adversely affects school children's participation, lowering enrollment rates, increasing absenteeism, and contributing to poor classroom performance and early school dropout. It also decreases learning capacity as measured in educational performance, outcomes, and productivity.

The lack of appropriate facilities may discourage children from attending school; girls who are menstruating, in particular, would rather not go to school than have to deal with the lack of privacy.

Because children spend a significant amount of their time in and around schools, these are environments that need to be healthy, safe, and secure in order to be conducive to learning. Provision of gender-specific sanitary facilities can be one way to improve school attendance by girls.

However, schools also offer an opportunity to reach the majority of the world's children, who at one point or another are in the care of the school, with a "model" for sanitation. Because the unsanitary conditions typical of many school toilets send the wrong message to students about the importance of sanitation and hygiene, schools can become ideal places to establish good hygiene (and other) behaviors as well as to provide strong environmental models that can serve as examples. Children who learn good hygiene practices in school can also become important health promoters at home.

The **basic principles** that underlie successful hygiene, sanitation, and water in schools projects are to a great extent similar to those that guide sustainable community water and sanitation projects. The



main differences are that children are the primary target group (rather than adults) and that schools are the institutional and organizational setting (instead of communities).

This chapter describes six basic principles associated with key components of hygiene, sanitation, and water in schools programs:

- **Financing options**
- **Stakeholder participation**
- **Capacity building**
- **Policy environment**
- **Life skills-based hygiene education**
- **Technology choice**

The basic principles outlined in the chapter should inform projects to help ensure their sustainability. The principles are adapted from those that apply in community water supply and sanitation, health, and education projects and are supplemented with lessons learned that address the particular characteristics of hygiene, sanitation, and water in schools. The electronic version of the Toolkit, which can be found on the accompanying CD-ROM, contains a more detailed discussion of these basic principles.





## Policy Environment

The existence of a positive policy environment is a central principle for the success of hygiene, sanitation, and water in schools programs.

To establish a favorable policy environment that supports sustainable investments in hygiene, sanitation, and water in schools, **political commitment** is needed. To that effect, school sanitation needs to have its place on the political agenda.

A second issue to address in the creation of a favorable policy environment is the promotion of a **demand-responsive approach** to the delivery of hygiene, sanitation, and water services. Under such an approach, schools make informed choices regarding their level of participation, service level, and service delivery mechanisms. This type of approach allows schools to decide whether to undertake investments in hygiene, sanitation, and water, and enables them to identify the preferred technology and level of service based on willingness to contribute. A demand-responsive approach will ensure that school staff, children, school hygiene committees, and other important stakeholders participate in the planning, implementation, operation, and maintenance of hygiene, sanitation, and water services.

Third, if the existing structure is not conducive to making sustainable investments in hygiene, sanitation, and water, **institutional reform** may be needed to ensure that the roles and responsibilities of key stakeholders are defined in such a way that schools (teachers, staff, parents, and children) manage their own facilities, community-based organizations, NGOs, or private sector entities provide goods and services, and the government facilitates service provision. Finally, projects must be promoted and implemented in a broader context that includes the **home and the community**.

## Life Skills-based Hygiene Education



School children in Guyana (picture by René van Dongen, UNICEF)

Experience shows that constructing water supply and sanitation facilities is not enough to improve health. Changing hygiene behavior is complex and labor intensive, but effective hygiene education can reinforce positive attitudes and behaviors and reduce or prevent risks. Therefore, life skills-based hygiene education must accompany infrastructure investments if these are to ensure a long-lasting public health intervention.

The basic understanding guiding the life skills-based hygiene education methodology is that new knowledge does not by definition translate into new practices. Hence, life skills-based education seeks to center hygiene practices in children's daily reality, while helping



them acquire both the knowledge of appropriate hygiene behaviors and the skills to use them. The methodology takes into consideration that children's learning differs at various stages of their development. A hygiene education program that aims to enable children to translate knowledge into practice must make these developmental differences a key consideration in the program design.

In schools, a life skills-based hygiene education program should become the centerpiece of each school-based hygiene, sanitation, and water program. To ensure the effectiveness of the program, it is important to:

- Establish clear objectives, performance indicators, and monitoring and evaluation processes.
- Focus on changing a small set of key risk practices.
- Build on existing beliefs and community practices, and seek effective and sustained use of water supply, sanitation, and hand washing facilities and hygiene practices.

- Adopt a gender-sensitive, child-centered approach that takes into account how boys and girls learn, their everyday reality, and the fact that classes in many schools in developing countries include children of different ages and therefore require flexibility in the use of hygiene education methods.
- Focus on developing skills and attitudes, because knowledge does not automatically translate into practice.
- Plan on implementing hygiene education over the long term, rather than as a one-off program, to ensure that knowledge is translated into the use of (new) hygiene practices.

It is also important to involve the child's home and community to make sure that the knowledge the children gain in school can be transferred into practice in the child's home. Worldwide experience shows that **children can act as potential agents of change** within their homes and communities. They can be enthusiastic promoters of the new hygiene skills they have learned, which can – depending on the cultural environment – promote better hygiene practices in their homes and communities.





## Technology Choice

Four aspects of the physical environment are key: the school's sanitation facilities; its water supply; its methods for disposing of human waste (feces and urine); and the availability of hand washing facilities. However, the lack of hand washing, water, and sanitation facilities is the day-to-day reality of many poor schools in developing countries. Alternatively, where such facilities do exist, they often are of poor quality: smelly, dark spaces with just a hole in the floor, hand washing basins without soap, and water that is not safe to drink. A number of special concerns should be taken into consideration in the design, construction, and maintenance of hand washing, water, and sanitation facilities in schools. Most importantly, facility design should be child-friendly, gender-sensitive, and mindful of environmental sustainability.

The **child-friendly approach**<sup>3</sup> to hand washing, sanitation, and water supply facilities aims to design facilities that are part of the learning environment. The guiding principle of this approach is that facilities should enable, stimulate, and promote appropriate hygiene practices among children. Therefore, facility design should:

- 🔥 **Encourage hygienic behavior by stimulating children's learning and development.**
- 🔥 **Use appropriate dimensions and make adjustments so that facilities accommodate children (both boys and girls).**



- 🔥 **Provide sufficient capacity to ensure minimal waiting time.**
- 🔥 **Use appropriate locations for water supply and sanitation facilities.**
- 🔥 **Involve all stakeholders, particularly the children themselves, in the design process.**
- 🔥 **Use low-cost solutions without compromising quality.**

It is particularly important, when designing facilities, to incorporate the specific **needs of adolescent school girls and female teachers**. Toilets that do not accommodate menstrual management, and that are unsafe to use, increase absenteeism among adolescent school girls (a first step toward dropping out of school), offer less protection against harassment at school, and reduce girls' overall enjoyment of attending school. Taking gender-based needs into account from the outset is easy and can make a big difference.

**Environmental sustainability** should be an integral part of the design, implementation, operation, and maintenance of school facilities, as well as of the accompanying hygiene education activities.

The challenge is to promote awareness of environmental issues surrounding school facilities while providing incentives and tools to address them. Schools are perfect settings for teaching children about the environment, and what they themselves can do to protect it.

<sup>3</sup> For more details see J. Zomerplaa & A. Mooijman, (2005), *Child-friendly hygiene and sanitation facilities in schools*, IRC, International Water and Sanitation Centre, in cooperation with UNICEF, Delft, the Netherlands.



The choice of school toilet technology should be guided by the suitability of toilet options to local environmental conditions as well as the costs and operation and maintenance requirements. Another important factor to consider is the method (wet or dry) and materials used for anal cleansing by children attending the school. In areas where stones or corn cobs are used for anal cleansing, for example, one should be aware that these materials will quickly clog the drains of a pour-flush latrine.

In most circumstances, the water supply technology used in the surrounding community and the local hydro-geological conditions will determine which water supply technology or technologies are most appropriate. Cost considerations and the availability of financing options must also be taken into account. If water testing shows that the water supplied through the selected water system is contaminated, some form of treatment will be necessary before students can drink the water.

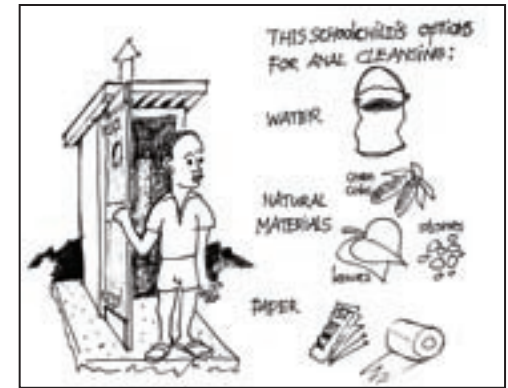
Human feces are the primary source of disease transmission among school children, particularly for diarrhea and helminth infections. The degree to which children are exposed to human feces depends on the type of toilet construction and the cleansing method and materials being used.

Irrespective of the degree of exposure, children should always be taught to wash their hands with soap after defecation. Hand washing is important for good health because it can prevent diarrhea and respiratory infections, the two main causes of school-age children's morbidity. Hand washing with soap is the critical component of this behavior.

Lack of effective operation and maintenance (O&M) is a major obstacle to achieving sustainable school hygiene, sanitation, and water programs. To address this problem, an operation and

maintenance system should be set up in coordination with the school, parents, and community and consolidated during the implementation phase.

Operation and maintenance must be taken into consideration as an integral part of the technology choice:



A schoolchild's options for anal cleansing

- Consider management and O&M issues as an integral part of the community planning and implementation process.
- Support formation of *School Hygiene Committees* for planning, implementation, and management of hygiene, sanitation and water facilities, involving the parents, teachers, and wider community.
- Ensure long-term support and technical assistance for the management of hygiene, sanitation, and water facilities.
- Recognize the importance of O&M and the need to have a management structure that corresponds to the local context.
- Where necessary, provide training for O&M.



## Financing Options

Service expansion in the past has been constrained by insufficient resource allocation and inefficient investments in hygiene education programs. Similarly, O&M of existing facilities is hampered by lack of capacity to mobilize resources from users, lack of O&M plans, and insufficient O&M training. To ensure long-term financial sustainability, school hygiene, sanitation, and water projects should adhere to three basic principles:

- Ensure that the **government takes responsibility for the delivery of hygiene promotion, capacity building, and training.**
- Ensure that **operation, maintenance, and replacement** can be carried out in a sustainable manner. This implies O&M plans that clearly define responsibilities and monitoring procedures should be prepared and that those plans should focus on preventive maintenance, with lists of tasks as well as detailed task schedules.
- Establish financial policies that are sustainable, preferably ones in which O&M and investment costs are **covered by the education budget** or a budget provided through the local authorities. If this is not possible, it is important to obtain parent and school consensus for paying part or all of the investment costs associated with the different design choices. In this connection, information on the costs of the different types of facilities available under a school hygiene, sanitation, and water project will enable and empower parents and schools to make informed choices. However, any fee structure (either in-kind or in cash) should be set up in such a way that it does not hamper the ability of the poor to send their children to school.

## Stakeholder Participation

A school hygiene, sanitation, and water project is most likely to be sustainable if all stakeholders participate. To foster representative and informed participation by all stakeholders, such projects should:

- Ensure the participation of stakeholders – including children – at all stages of the project cycle, from promotion, application, and implementation through management and monitoring, by establishing appropriate project rules, incentives, and social intermediation.
- Ensure representative and informed participation by all stakeholders, including teachers, children, and parents. Specific attention should be given to girls and women to ensure that their specific needs are taken into account.
- Set rules to ensure that schools located in poorer, more isolated communities and informal schools in urban poor areas are targeted.
- Set rules to ensure that vulnerable groups such as children with disabilities and children from minority ethnic and social groups will benefit from hygiene, sanitation, and water in schools project interventions.



Coming to a common consensus and agreement



## Capacity Building

Appropriately targeted capacity building is essential to the planning and implementation of sustainable and demand-responsive school hygiene, sanitation, and water projects. In this connection, projects should pay special attention to the following:

- Building capacity at **all levels** and understanding that capacity building requires **long-term support**.
- Targeting training to schools (teachers, students, and parents), communities, the private sector and NGOs, and different levels of government.
- Defining capacity-building requirements clearly in order to enable all stakeholders to assume their responsibilities.
- Setting **realistic objectives** that build on locally available capacity and knowledge.
- Recognizing that, in most cases, a learning-by-doing approach works best, where training is undertaken in all phases of project intervention throughout the project cycle.



Developing a complete package benefiting all

## Contents of the Toolkit

The Toolkit on Hygiene, Sanitation, and Water in Schools can be found on the CD-ROM that accompanies this booklet. It can also be found online at [www.schoolsanitation.org](http://www.schoolsanitation.org). The Toolkit consists of the following five main sections:

### Why this toolkit?

The first section of the Toolkit provides background information on school hygiene, sanitation, and water and their impact on the Millennium Development Goals.

### Basic principles

This part of the Toolkit describes the basic guidelines for school hygiene, sanitation, and water projects in six key areas: policy environment, life skills-based hygiene education, technology choice, financing options, stakeholder participation, and capacity building.

### Sector assessment

This section presents an overview of the major opportunities for and constraints on school hygiene, sanitation, and water, and outlines a strategy that deals with the key issues that need to be addressed to ensure successful implementation of school hygiene, sanitation, and water interventions.

### Project cycle

This part contains a step-by-step presentation of the project cycle for school hygiene, sanitation, and water projects, emphasizing interactive processes and full stakeholder involvement from promotion through evaluation.

### Resources

The final section of the Toolkit provides the user with tools, readings, useful links, and a glossary for school hygiene, sanitation, and water projects.