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WASH in Schools
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Learnings from the Field 2012

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CONTENTS

Introduction

Water, sanitation and hygiene education in schools – WASH in Schools – provides safe drinking water, improves access to clean sanitation facilities and promotes lifelong health. The demand for WASH in Schools programmes is continuously increasing, and concurrently, so is the need for knowledge and skills.

To support UNICEF country office staff and partners in their efforts to promote WASH in Schools, the Center for Global Safe Water at Emory University and UNICEF collaborated to create a novel and cost-effective capacity-building programme: the WASH in Schools Distance-Learning Course.

The course was introduced in November 2010 and aims to equip development professionals with enhanced skills to design and manage WASH in Schools programmes. On-the-job distance learning can be an excellent way to achieve this goal, as participants learn and practise at the same time.

Across five regions, the country teams shared their experiences, learning from each other as they discussed how to improve health, education and equity for children. With the conclusion of the third roll-out, 143 professionals from UNICEF, government and NGO partners working in education, WASH and other sectors have completed the course and received certificates from Emory University and UNICEF. To complete the five-month distance-learning course, participants attended 13 WebEx sessions, contributed to an online discussion board and fulfilled their written assignments while handling their regular heavy workloads.

Studies by the WASH in Schools Distance-Learning Course graduates from 13 countries and one regional office were selected for this compendium:

1. Afghanistan
2. Angola
3. Bhutan
4. Georgia
5. India
6. Kyrgyzstan
7. Malawi
8. Myanmar
9. Nepal
10. Nigeria
11. Sierra Leone
12. Sri Lanka
13. Sudan
14. West and Central Africa

Documenting WASH in Schools learning and activities is an essential part of what we do. This publication offer hands-on research and analysis, conducted by the professionals who were working in each country. It is hoped that they will provide useful information for other countries and inspire them to conduct their own analysis in support of WASH in Schools.

1. AFGHANISTAN: Addressing the challenges of use and sustainability for school WASH facilities

Submitted by Adane Bekele, Masahiro Kato and Stanekzai Zahida, UNICEF Afghanistan

Abstract

This case study investigates the challenges of using and maintaining WASH facilities in Afghanistan's schools. It acknowledges the significant actions already being taken to assess existing facilities and improve school environments, and recommends further actions that are needed to advance health and learning throughout the country.

The authors observed use, operation and maintenance of WASH in Schools facilities, and conducted discussions with students and teachers, during fieldwork assisted by UNICEF. The case study team visited a total of 16 schools, located in Kabul City, Jalalabad (Nangarhar and Laghman Provinces) and Mazhaar-e-Sharif (Bulk Province). In addition, they reviewed previous school WASH assessments conducted in Afghanistan, as well as UNICEF officers' field trip reports available at the country office in Kabul.

Country context

With support from UNICEF, Afghanistan's Ministry of Education and the Ministry of Rural Rehabilitation and Development are promoting water, sanitation and hygiene (WASH) in schools across the country. These ministries have developed national-level guidelines for WASH in Schools programmes and are actively working towards improving facilities and sustaining healthy hygiene behaviours among children.

Water point at Ayesh-e-Durani School, Kabul.

© Case study team, UNICEF Afghanistan

According to Ministry of Education figures for 2011, provided by the Youth Welfare and Planning Department, there are 12,891 schools in Afghanistan, and only 45% have basic water and sanitation facilities. Most of these facilities were constructed by UNICEF during the past three to four years and are not sufficient for schools with large student populations attending classes in shifts. Effective hygiene promotion is lacking in most schools, particularly affecting girls' attendance and their education goals.

In a 2011 study based on data collected from of 7,769 schools in 24 provinces in 2009, 367% had safe drinking water, 22% had separate toilets for boys and girls, 98% had separate toilets for physically challenged students, and 13% had hand-washing facilities.

Through its National Policy of 2010 on Rural Water, Sanitation and Hygiene, the Ministry of Rural Rehabilitation and Development aims to rehabilitate 3,500 latrines and construct 23,000 new sanitation facilities in schools – increasing coverage to 80% by 2014. Similarly, the Ministry of Education's National Education Strategic Plan 2010–2013 set the objective of providing 5,200 schools with sanitation facilities by 2014.

Key findings of the case study on factors affecting use and sustainability, ongoing actions and recommendations for WASH in Schools facilities in Afghanistan are presented below.

Meeting and discussion on school WASH with students in Mazar (*left*) and an open dug well, in Fatima Auz ahar, drawing water that is used only for cleaning.

Factors affecting use of WASH facilities in Afghanistan

Studies have shown that lack of appropriate water and sanitation facilities in primary schools can lead to poor academic performance due to less attention in the classroom and increased absence, particularly for girls. This problem can be addressed properly only when school authorities have clear standards for operation and maintenance of WASH facilities – designed to keep the facilities functioning properly and in a condition that makes children and staff comfortable when using them.

As observed during field visits to different parts of the country, the following are limiting factors for use of existing WASH facilities in Afghanistan's schools:

Lack of appropriate design for WASH facilities. The observed latrines were traditional, single-vault latrines, built in masonry above the ground to facilitate waste removal. However, the latrines had been used continuously for urination and defecation since they were built, without being closed for composting.

In all cases, the latrines were open from the back and did not have doors. Fresh urine, excreta and leachate – which contains very high concentrations of nutrients and organics, as well as pathogens – were observed to be flowing out of the vaults, creating filthy conditions around the latrines. In some cases, urine was collected but left in open areas behind the latrines without any treatment.

Most latrines were extremely filthy and smelly, unclean inside as well as outside. In a few cases, latrines were used even when the vaults were full. In almost all schools where these latrines were observed, children were reluctant to use them due to unclean conditions, flies and odour. Because the latrines provided no treatment for urine or excreta, their usage was comparable to single-point open defecation.

At Rahman Meena School, Kabul City, vault latrines were observed to be open in the back and without doors; waste material was flowing out of the latrines.

Old, abandoned and unrepairable latrines. As observed by the case study team during a sanitation facilities assessment in 16 schools, most had more than one block of latrines, mixing old and new facilities. Some latrines were 30–40 years old; a few were constructed in soil and bricks. At Bibi Zainab High School, Jalalabad, the latrines were new, but they had been abandoned because girls did not feel secure when using them. There were no doors on the latrine at Harmul School in Laghman, so girls were using the area behind the latrine for urination and defecation.

It is important that these old, abandoned and unrepairable latrines be removed to create space for new facilities.

Latrines at Bibi Aiyesha Siddiqi School, Jalalabad City (*left*) and Chardi High School, Laghman Province.

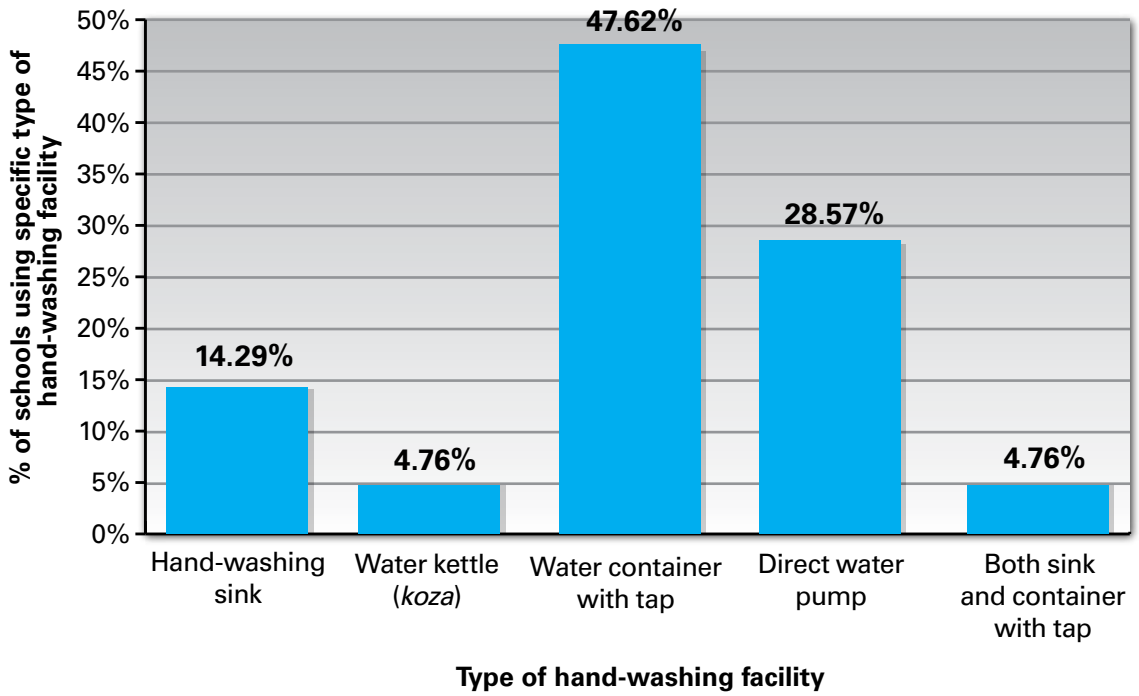
Availability and adequacy of WASH facilities. Regarding the student-to-latrine ratio, data collected for the case study from 16 schools in 2011 suggest that sanitation facilities are grossly inadequate, with a ratio of more than 100 children per latrine in half of the schools. Many latrines are unusable and old, built 10–40 years ago, and the number of toilets in proportion to student enrolment has not been increased.

Tearfund's October 2010 assessment of 120 schools in Kabul, Kapisa and Parwan Provinces showed 133,449 students in attendance, with 3,393 teachers. Eighteen of these schools did not have any type of water source, four had a piped water connection, and just one had a drilled well. Forty-eight schools got their water from a stream, river or canal.

Only 40% of these schools had access to water all the time, and 28% reported that water quality is checked regularly. In addition, 49% did not have clean water points. With respect to latrine coverage, only 3.3% had flush-to-septic tank and improved pit/vault latrines – 34% of the surveyed schools practised open defecation.

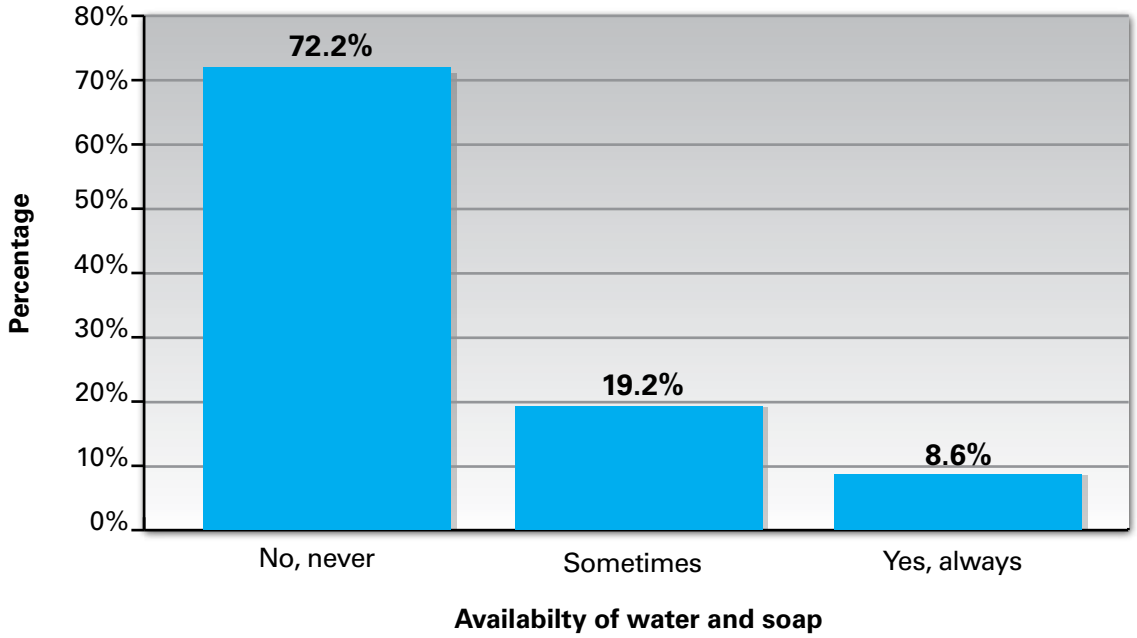
In Kabul, an assessment conducted by the Ministry of Education and UNICEF at 97 schools (55 high schools, 42 secondary) in August 2011, showed that only 19 had hand-washing facilities, usually a water container with a tap. Soap was available in only 4 schools. The facility was rated as 'very good' for only 6 schools and 13 others 'need improvement'. Additional information on WASH facilities is shown in the figures below.

FIGURE 1.1 Percentage of schools with hand-washing facilities, by type



Source: Organization for Development and Welfare, 'Report of the School Handwash and Toilet Survey: Afghanistan', 2011, p. 17.

FIGURE 1.2 Availability of water and soap at schools for hand washing after toilet use



Source: Organization for Development and Welfare, 'Report of the School Handwash and Toilet Survey: Afghanistan', 2011, p. 24.

Lack of facilities for menstrual hygiene management. In a study on menstrual hygiene and health in girls' schools in Kabul and Parwan Provinces, September 2010, participants included 160 girls from nine higher secondary schools, Grades 7–12, along with 25 teachers and 50 mothers. The assessment found that 61% of the girls used old cloths as sanitary pads, washing them after use and drying them for reuse. Only 9% used commercial sanitary pads.

Girls, and their mothers, had little information on good menstrual hygiene practices. Only 3% of girls in Grade 12 disposed the cloths/pads properly for solid waste collection. And 29% were absent during menstruation because schools did not have facilities for hand washing or changing and disposing used cloths/pads.

Uneven balance between hardware, knowledge and practice. In six schools visited in the city of Mazar, students received daily hygiene classes, per instruction from school principals. But the practice is not consistent for all schools in the country, especially in rural areas, where schools commonly operate in three shifts.

In the Tearfund assessment of 120 schools, 59% of teachers did not have any expertise on hygiene promotion and less than 7% of schools had information, education and communication materials. Only 8% of the schools had hand-washing facilities near toilets or anywhere in the compound. Although 60% of the schools had students' clubs, 70% had parent-teacher associations and 63% had a school management committee, the study noted that none of these groups discussed WASH issues.

Unclean toilets. Due to poor maintenance, latrines are often unclean. The Ministry of Education-UNICEF assessment of 97 schools in Kabul indicates that 34% of school toilets rarely smelled bad, but 43% smelled so bad users left the facility as quickly as possible. During discussions in classes with boys and girls in 16 schools visited by the case study team, students said that the smell stays on their clothes after using the latrines and expressed a strong preference for separate urinals, particularly in Jalalabad. It is not known whether similar preferences exist in other parts of Afghanistan, but the demand needs attention. Only one student respondent said the school toilets had water for hand washing and hand soap. Although 26% said the school toilets were clean, the majority of respondents were afraid to use them, sometimes avoid using them, or said they 'hate the school toilets'.

Factors affecting sustainability of WASH facilities

To achieve good hygiene at school, all water facilities and latrines must function well and be used by all students and teaching staff for both defecation and urination. Latrines require timely and correct maintenance, as well as daily cleaning. This usually needs small efforts and small investments to create big effects in terms of convenience, comfort, cleanliness for the school environment and reduction of disease risks.

As observed during the field visit at 10 schools in the city of Mazar, all schools had cleaning services for the classrooms and latrines. In schools throughout Afghanistan, however, the priority has been placed on construction of WASH facilities, without consideration for their maintenance and operation.

Most school toilets and water systems are poorly maintained due to the lack of an operation and maintenance framework that defines responsibilities, including clear guidelines on the role of stakeholders. Other factors include low capacity of the Ministry of Education and insufficient budget allocations from the Government and the community. In addition, students are sometimes using WASH facilities inappropriately because they are unfamiliar with the technology and are not provided with information on proper use.

Flush toilet connected to a septic tank at a school in Hashim barat (*left*) and a latrine at Tajrbawei.

Hand-washing facility in Fatima Auz ahar, with only one out of five faucets working (*left*) and the handpump at a school in Said Abad, with unclean area around the water point and a broken apron and drainage channel.

Ongoing action to improve use and sustainability of school WASH facilities

There is ample scientific evidence and experience globally showing that WASH in Schools significantly reduces hygiene-related diseases, increases student attendance, improves the learning environment, and contributes to dignity and gender equality. These benefits can be achieved if the existing and planned facilities are sustainable and used properly.

Fulfilling every child's right to water, sanitation and hygiene education remains a major challenge for policymakers, school administrators and communities in Afghanistan. But the national Government and related ministries recognize the value of WASH in Schools and are committed to making improvements. The following actions are ongoing to address the challenges of use and sustainability:

Setting standards and revising latrine design. In September 2010, Afghanistan's Ministry of Education declared a Joint Call to Action for WASH in Schools in cooperation with the Ministry of Rural Rehabilitation and Development, the Ministry of Public Health and UNICEF. Implementation guidelines have been set to ensure that every child has access to WASH in Afghanistan's schools by 2015. These guidelines suggest a standard of one toilet for 50 children for 8 hours of schooling and one toilet for 100 children if schooling is 3–4 hours a day.

UNICEF has supported the Ministry of Education and the Ministry of Rural Rehabilitation and Development in establishing designs for school latrines using ecological sanitation and flush-latrine technology. These designs were approved in November 2010 by the Water and Sanitation Group, chaired by the Ministry of Rural Rehabilitation and Development.

Eco-sanitation double-vault models have been developed for three-, four- and six-seat latrine blocks, with an additional seat in each block for children with disabilities. The latrine blocks include water tanks inside and provide a hand-washing facility.

Eco-sanitation latrine at Wahdat girls' school, Kabul (*left*) and hand-washing facility at Raies Abdullkhalq school in Mazar City.

Upgrading existing facilities. Due to space constraints in schools, it is imperative that existing latrines are repaired or converted whenever possible, rather than adding new latrines on school premises. Use of repaired/converted sanitation facilities will also reduce the need for investments in new facilities. Maintenance such as cleaning vaults and repairing doors, windows, ventilation pipes, walls and water connections to overhead tanks should be carried out effectively and on a regular basis.

Old single-vault latrine after conversion to pour flush, Raies Abdul Khaliq school, Mazar.

Collecting and gathering data. The new school WASH guidelines include facilities assessment using a monitoring checklist and grading for status. The findings will be used to prioritize schools that require upgrades. The gradation is based on established criteria, ranging from Grade 1 (green) for schools that have complete availability of facilities and hygiene promotion practices, to Grade 4 (red) for schools that lack all of the basic components and programmes. Assessment has been completed for 49 schools in Parwan Province, as shown in the table below.

TABLE 1.1 School WASH facilities grading, Parwan Province, Afghanistan

Grade	No. of schools	Remarks
1	0	None of the assessed schools has a complete WASH programme or the full complement of facilities
2	2	2 schools have good water and latrine facilities, but hygiene promotion and management committees are not in place
3	15	1 school needs improved latrine and water facilities; 5 need latrine improvements, but water facilities are OK; 5 have good latrines but need new water facilities; 2 need latrine improvements and water facility rehabilitation; 2 need new latrines and water facility improvements
4	32	All need new water facilities – 13 need new latrines; 19 need improved latrines

Source: Tearfund, 'WASH in Schools Assessment: Central Region (Kabul, Kapisa, Parwan)', October 2010, p. 7.

Conclusion and recommendations

Investing in school sanitation and hygiene education promotes many benefits, including more effective learning, increased girls' enrolment, environmental cleanliness, implementation of children's rights, and reduced incidences of disease and worm infections.

Although ongoing actions are encouraging, assessments in Afghanistan show the need to improve use and sustainability of existing and planned facilities. Necessary actions range from involving different partners in school WASH programmes to increasing funding from the Government and donors. The following actions are recommended by the case study team:

1. Finalize draft operation and maintenance guidelines for WASH in Schools facilities throughout Afghanistan.
2. Distribute guidelines on health and menstrual hygiene for adolescent girls.
3. Establish and implement mobilization strategies for WASH in Schools.
4. Encourage local and international non-governmental organizations to implement WASH in Schools.
5. Coordinate partners at different levels.
6. Assess water quality and provide training for schoolteachers and children on how to test for bacteria with the on-site H_2S Strip Test.
7. Involve the community in school WASH though parent-teacher associations and school management committees.
8. Integrate school and community water, sanitation and hygiene, and encourage children to become agents for change.

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2. Angola: Application of the bottleneck analysis for WASH in Schools

Submitted by Debora Bonucci, WASH Specialist, and Edson Monteiro, WASH Officer, UNICEF Angola
Mentor: Andrew Colin Parker, Senior WASH Advisor, UNICEF

Abstract

Angolan children do not enrol or remain in school for multidimensional reasons, predominantly inadequate infrastructure and lack of teaching and learning materials. This leads to overcrowded classrooms, poor water and sanitation facilities, and an inability to effectively teach and, therefore, for students to learn (Ministry of Education 2005).

This bottleneck analysis assesses the WASH in Schools sector and identifies the areas where the most significant changes are required to reach the goal of 100% primary school net enrolment in 2015. A review of existing data was complemented by interviews with key informants, school visits and discussions with UNICEF Education Section colleagues.

Tippy taps are set up for hand washing, as part of the UNICEF WASH in Schools programme in Benguela Province.

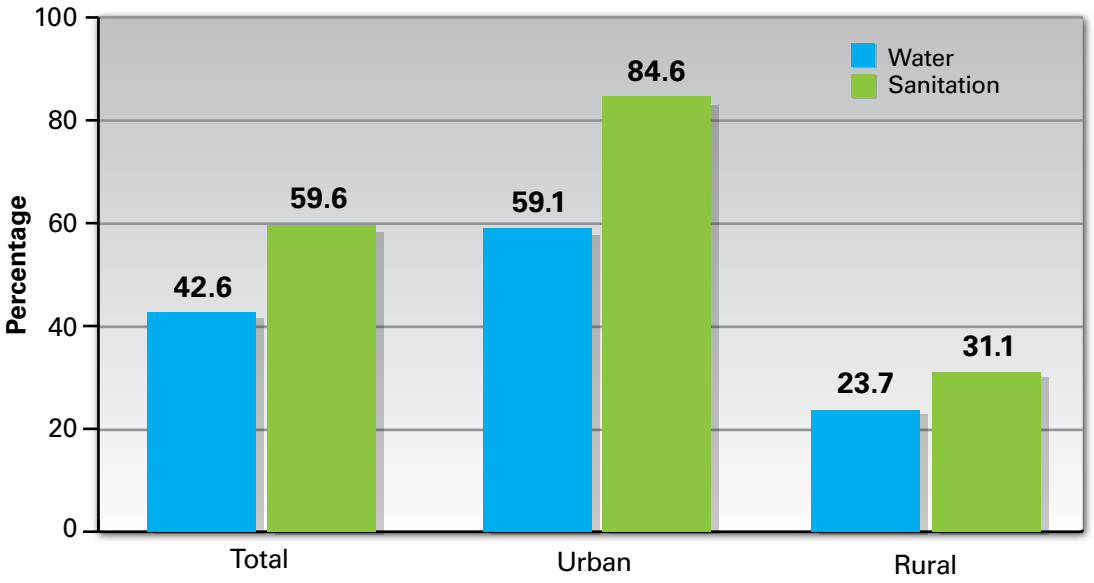
Country context

Nearly three decades of civil war have destroyed much of the basic infrastructure, leaving many Angolans in isolation and poverty. Because water and sanitation infrastructure is not functioning, sanitation and hygiene conditions are poor. Less than half of the population has access to an adequate drinking-water supply.

Although the war ended in 2002, social indicators are still among the worst in the world. In the United Nations Development Programme's Human Development Index, 2011, Angola ranks 148 out of 182 countries. Life expectancy is one of the world's lowest, the under-5 child mortality rate – 194/1,000 – is one of the highest in Africa, and an estimated 35% of children suffer chronic malnutrition (IBEP 2009).

Decades of war left Angolan schools with poor infrastructure and a lack of financial and human resources. But the Government and partners are working to provide schools with new facilities.

FIGURE 2.1 Access to water and sanitation in Angola (IBEP 2009)



Data from the 2009 Inquérito do Bem-Estar da População (National Population Welfare Survey; IBEP) show national water coverage at 42.6% and sanitation at 60%. In rural areas, only 23% of the population had access to a safe water source and 31% had access to sanitation. As observed during field visits, children and women are the most affected by poor water access because the task of fetching water falls mainly on them.

Toilet facilities at a school in Benguela Province were closed due to flooding.

© Edson Monteiro, UNICEF, 2010

The education sector has been heavily affected by the destruction of school infrastructure and the loss of financial and human resources. Already limited resources are further stretched by rapid growth in the school-age population. Teachers are often not qualified, so the quality of service delivery is poor and does not focus sufficiently on children's learning needs.

Only 66% of children attend primary school at the appropriate age, with great disparities by gender, socio-economic group and geographical area. Approximately 1.2 million children, most of them girls, are deprived of their right to a free, quality education. At the primary level, 65% of schoolchildren drop out before Grade 6. The path to achieving a 100% net enrolment ratio must traverse these obstacles while increasing the number of children enrolled in primary school from 3.1 million in 2008 to 5 million by 2015 (Ministry of Education 2008).

Lack of WASH in Schools leads to an unfavourable learning environment, with poor staff motivation, low enrolment, poor attendance and performance, and increased drop-out rates, especially among adolescent girls. Infectious diseases caused by poor hygiene and sanitation are an underlying factor in limiting children's educational progress.

Improving access to safe water supplies and adequate sanitation facilities is a critical component in providing safe, healthy and child-friendly school environments. As shown in a study of primary schools in China, for example, hand-washing programmes accompanied by water supplies and adequate facilities can have a favourable impact on children's health and their ability to attend and learn in school (Bowen, et. al, 2007).

Methodology

This analysis identifies potential bottlenecks to implementing, expanding and sustaining WASH in Schools programmes in Angola. The extended Tanahashi model was applied to four focus areas – enabling environment, supply, demand and quality – to define a strategy for addressing and reducing the identified bottlenecks.

Implementing WASH in Schools programmes with a holistic approach is a challenge, and one of the main constraints is inadequate data. There is no valid Education Management Information System (EMIS) and WASH in Schools data are not systematically collected. This information gap makes it difficult to compare data from different areas of the country and, therefore, makes it impossible to accurately determine the status of WASH in Schools coverage.

The data that are available include documents, sporadic surveys and studies that do not provide complete or reliable information for statistical analysis. In addition, the existing data sets use indicators that are not harmonized between the main actors.

Primary-school students wash their hands with soap over a bucket.

The initial assessment of two existing studies (COSEP 2007 and Ministry of Education 2005) resulted in the preliminary findings outlined below. In addition, interviews were conducted with key informants in the WASH in Schools sector, along with visits to some schools and discussions with UNICEF Education Section colleagues.

Bottleneck analysis

The bottleneck analysis investigates the status of WASH in Schools by focusing on availability and other factors that influence children's access to services. Table 2.1 presents the analysis of determinants and corresponding indicators for Angolan schools.

TABLE 2.1 WASH in Schools bottleneck analysis, Angola

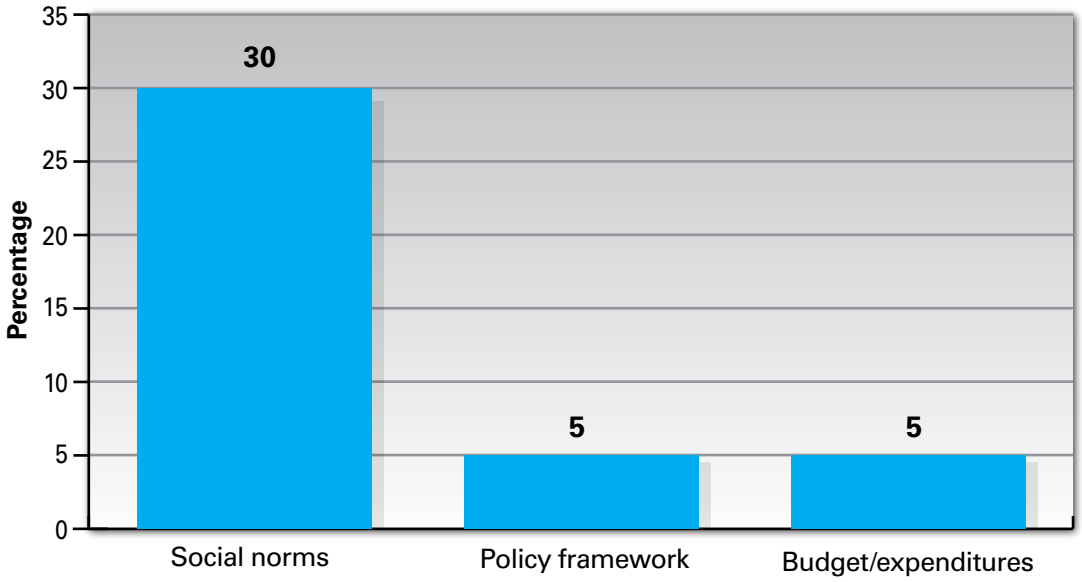
Category	Determinant	Tracer indicator	Existing situation (%)
Enabling environment	Social norms	% of schoolchildren who practise key hygiene behaviours	30%
	Legal and policy framework	Ministry of Education includes WASH in Schools standards and monitoring system in the child-friendly schools framework	5%
	Budget/expenditures	Available budget for WASH in Schools	5%
Supply	Availability of essential commodities	% of schools with sanitation facilities	53%
		% of schools with access to water	7%
		% of hand-washing facilities with soap available in schools	0%
	Availability of human resources	% of schoolteachers who received hygiene promotion training and staff trained on operation and maintenance	25%
	Adequate geographical coverage	Discrepancies in student-to-toilet ratios in schools across the country	5%
Demand	Financial barriers	% of schools with operation and maintenance budget	10%
	Sociocultural barriers	% of schools with separate toilets for boys and girls	20%
	Utilization	% of school with cleaned/maintained toilets	25%
Quality	Quality indicator	% of schools keeping operational the WASH facilities	10%

Key:

- Off track: 0–24%
- Progress with constraints: 25–49%
- Good progress: 50–74%
- On track: 75–100%

Enabling environment bottlenecks. Regarding social norms, the percentage of schoolchildren washing their hands can be inferred from the IBEP 2009 statistic that 30% of the total population practises hand washing at critical times. In the WASH in Schools context, however, it is likely that this percentage is even lower. In terms of the legal and policy framework, the Ministry of Education has recently begun to focus on the importance of legislation and policy for schools, including water, sanitation and hygiene.

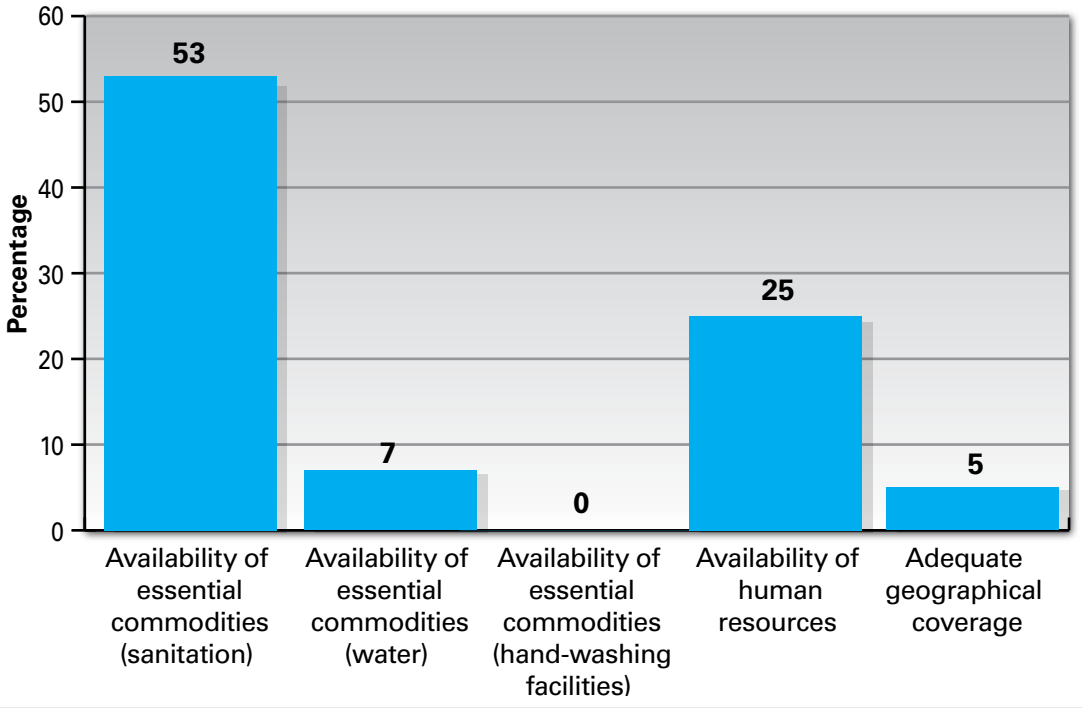
FIGURE 2.2 Enabling environment bottlenecks



Although the first drafts of school construction standards and guidelines for child-friendly schools include WASH as one component, the establishment of consolidated national legislation will involve a lengthy process. Considering the current lack of financing for WASH in Schools supplies and resources, the Government does not allocate an appropriate budget.

Supply bottlenecks. In 2005, the Ministry of Education, in collaboration with UNICEF, assessed the availability of essential commodities and learning spaces across the country. Among primary schools, 53% were found to have toilets. Only 7% had access to a continuous safe water supply, with great disparities between urban and rural areas.

FIGURE 2.3 Supply bottlenecks



In 2007, the knowledge, attitudes and practices (KAP) study found that 75% of schools had a water tank as an alternative water supply. But only 40% of schools had a water tank located inside the school grounds, and 63.3% of the tanks were not operational (COSEP 2007).

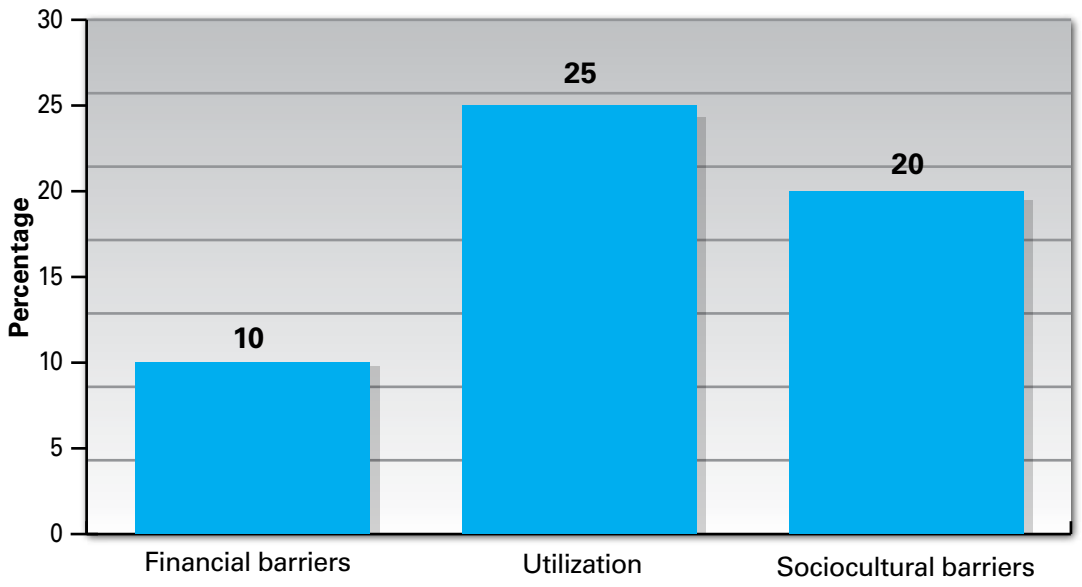
The virtual absence of water supplies and sanitation facilities, as well as the lack of soap, prevents students from adopting safe hygiene practices in school. The percentage of teachers who received training on hygiene promotion is estimated at 25% (COSEP 2007). This creates a significant challenge to the development of WASH in Schools programmes, particularly in rural areas where the least services are provided.

Regarding adequate geographical coverage, it was observed that the student-to-toilet ratio is 150:1 in rural settings and can rise up to 500:1 in crowded peri-urban areas.

The conditions described above, along with lack of hand-washing facilities with soap and absence of appropriate operation and maintenance, leaves students, especially adolescent girls, exposed to health risks and early dropout.

Demand bottlenecks. The Ministry of Energy and Water estimates that just 10% of schools have a maintenance budget (COSEP 2007). Many schools cannot purchase cleaning supplies or maintain their facilities. Because schools do not have cleaning staff, the task is generally assigned to students, most often girls.

FIGURE 2.4 Demand bottlenecks

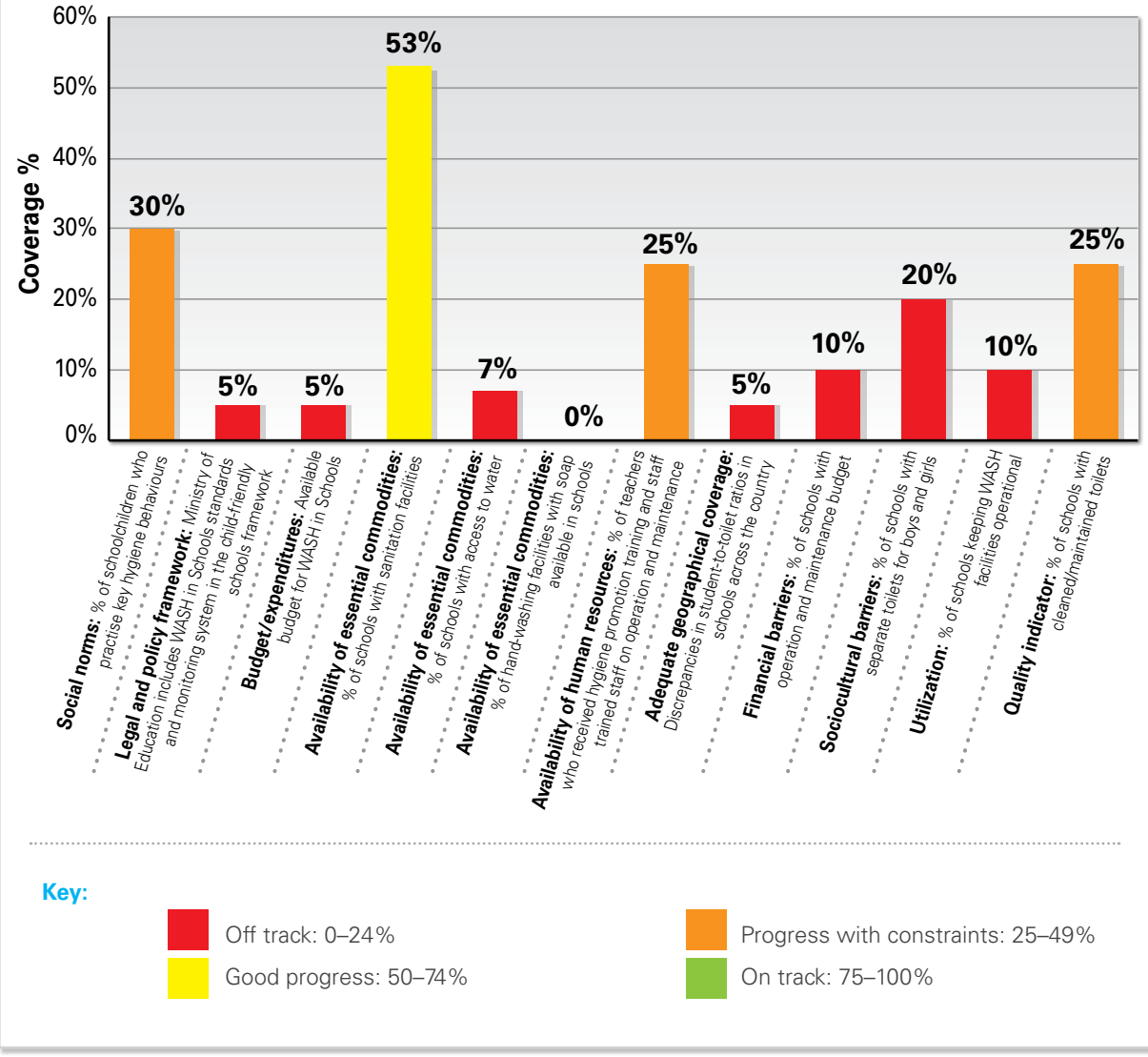


'Cleaning campaigns' are a strategy adopted by most schools to address this issue. This activity is irregular, however, and keeping schools clean is still a challenge to overcome throughout the country. Observations show schools without garbage bins, so dirt accumulates in the classrooms and outdoor areas. Waste is typically disposed of by burning on school premises, demonstrating little appreciation for health or environmental considerations.

An estimated 20% of schools have gender-separated toilets, which constitutes a significant sociocultural barrier for the majority of girls and boys who share the same facilities. An estimated 30% of toilets are cleaned/maintained. Students are in charge of cleaning sanitation facilities in 37.2% of schools, caretakers clean the facilities in 35.3%, and 65% of schools have health clubs that are responsible for inspecting cleanliness of facilities (COSEP 2007).

Quality bottleneck. Just 10% of schools are estimated to have operational water, latrine and hand-washing facilities. In addition, there are no places with water and soap for children to wash their hands. In most cases, school toilets are exclusively for teachers, but even these toilets are in poor condition and some do not have water (COSEP 2007).

FIGURE 2.5 Overall bottleneck analysis results for Angola



Conclusion and recommendations

The analysis identified six major bottlenecks: access to water supply and availability of hand-washing facilities with soap; lack of standards for WASH in Schools; not enough teachers properly trained in hygiene promotion; inadequate student-to-toilet ratios; lack of schools with an operations and maintenance budget; and lack of funding for WASH in Schools. In addition, the lack of effective legal and policy frameworks and school construction standards, combined with weak stakeholder engagement, dictates that most decisions are made at the central level rather than the local level where the problems are located.

Flushing a toilet with a bucket of water at a primary school in Luanda.
© UNICEF/NYHQ2007-1727/Christine Nesbitt

Improved WASH in Schools delivery is imperative to achieving the Ministry of Education's goal of 100% net enrolment, reaching 5 million children, by 2015. Although guidelines and policies for child-friendly schools exist, policies and standards for WASH in Schools are still not defined. At the national level, there is no systematic approach towards addressing WASH issues in schools, and WASH in Schools does not seem to be a political priority. It is therefore recommended that minimum WASH in Schools standards be approved by year-end 2012.

Poor planning and implementation hamper the ability of the government agency responsible for child-friendly schools and WASH in Schools to allocate funds where they are really needed. Planning, financing and implementation need to be improved, while ensuring stakeholders' involvement at all levels. To accomplish this objective, it is recommended that allocations for WASH in Schools are increased to 10% of the Ministry of Education's budget by the end of 2013.

The bottleneck analysis indicates that 53% of schools have sanitation facilities, but only 20% have separate toilets for girls and boys and only 10% have operational WASH facilities. It is crucial to invest in planning that incorporates essential commodities such as water supply and hand-washing facilities, as well as human resources and proper coverage. In addition, the Ministry of Education's life-skills curriculum should include the hygiene promotion component developed for the teachers' manual.

It is important to start mobilizing more human and financial resources for WASH in Schools programmes, support implementation at the school level, and ensure sustainability by advocating to the Government of Angola for long-term political commitment and concrete action. Moreover, a national working group should be established to monitor the formation of a stable, national WASH in Schools agenda.

The child-friendly schools approach provides the Ministry of Education, the Ministry of Water and school communities with the most effective means of undertaking these actions within a policy-led framework that is structured, integrated and holistic. The WASH in Schools approach supports improved sector planning, financing, implementation and monitoring.

A sound water-sector monitoring mechanism for WASH in Schools should be established and incorporated in the Ministry of Education's EMIS by the end of 2013. This system should regularly collect information and monitor the identified bottlenecks to engender accountability and sustainability. At the same, UNICEF should continue to strive in engaging funds to support implementation and expansion of WASH in Schools in Angola. WASH in Schools can support the goal of 100% net enrolment by 2015. To help achieve these goals, it is recommended that a proposal for donors, in the amount of USD 1 million, be developed by the end of the year.

The country team hopes that this analysis will be of interest for the global WASH in Schools network, as well as help find the way forward for WASH in Schools in Angola.

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3. Bhutan: School-level bottleneck analysis of sanitation facilities

Submitted by Kencho Namgyal, UNICEF Bhutan, and Emily Bamford, UNICEF New York

Abstract

Fulfilling every child's right to water, sanitation and hygiene education (WASH) remains a major challenge in Bhutan. While most schools have WASH facilities, their quality and functionality vary greatly. In addition, key behaviours such as hand washing with soap and latrine maintenance are not being practised by teachers and children.

This analysis uses the Tanahashi model and Bhutan's 2010 baseline assessment of WASH in Schools facilities to identify specific bottlenecks relating to the enabling environment, supply, demand and quality. It then recommends strategies to help overcome these bottlenecks so that all children in Bhutan have access to the services required for their health, dignity and education. It is hoped that this bottleneck analysis will provide inspiration to other countries wishing to improve the delivery of their WASH in Schools services.

Country context

Bhutan, like many other developing countries, faces significant challenges in securing children's right to WASH in Schools. Although reported coverage rates are 94% and 97% for water and sanitation, respectively, functional coverage rates are 73% and 65%.

The majority of water in schools comes from natural springs, particularly in rural areas, with only 39% of sources being classified as protected.[1] Only 15% of schools have a budget for water supply maintenance.

Budgeting for maintenance is rarely considered, and government monitoring is inadequate. Around 85% of schools have WASH caretakers, but just 25% of the

Equity and access to WASH in Schools

UNICEF is working with the Government of Bhutan to help ensure that all schoolchildren have access to quality WASH facilities. According to the baseline assessment in 2010:

- Around 70% of school toilets for girls were functional compared to 60% of boys' toilets. The impact of non-functional facilities is likely to be much more significant for girls, taking menstrual hygiene, attendance, dignity and privacy into account.
- Many schools fail to meet the recommended student-to-toilet ratio of 1:25 for girls and 1:40 for boys. This means that children may not get a chance to use the toilets during recess and are forced to practise open defecation.
- There is significant variation in facilities between school levels. Around 95% of high schools and middle secondary schools have flush toilets, compared to 23% of primary schools.
- There is no substantial difference in coverage, adequacy and functionality between urban and rural schools.
- There is no significant difference in WASH in Schools coverage between districts.

1 *All figures are derived from*: Department of Youth and Sports, Ministry of Education, Bhutan, and UNICEF Bhutan, 'Baseline Assessment of Water and Sanitation Facilities in Schools', Thimpu, September 2010.

caretakers have received training. Facilities easily fall into disrepair, particularly when the initial construction quality is poor, due to lack of guidelines at the national level.

Toilets are often the most neglected part of the school compound. Some are uninviting and dirty, offering little privacy, especially for girls.

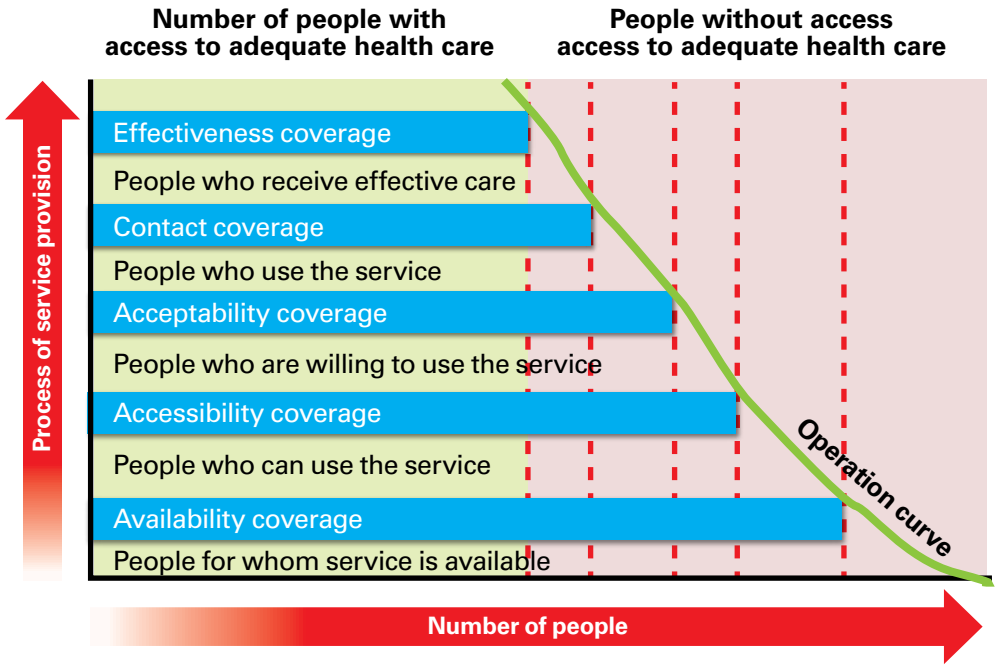
A poor enabling environment, illustrated by the lack of a national policy for WASH in Schools, or even a general WASH policy, means that rights and responsibilities at all levels remain poorly defined. This is affecting the sustainable use of facilities, making it crucial that the Government and school management establish effective policies, resource allocations and monitoring mechanisms for WASH in Schools.

WASH in Schools bottlenecks and root causes

To collect the evidence for this analysis, UNICEF Bhutan interviewed school principals, teachers, students and government officials, including the Director of School Education (Ministry of Education) and the Head of the Public Health Engineering Division (Ministry of Health). Government officials and school management team members were asked to comment on bottlenecks at the national, district and community levels. The results of these interviews were then combined with the baseline assessment and UNICEF Bhutan's field experience to form the basis of the bottleneck analysis.

The Tanahashi model for health-services evaluation is used by UNICEF around the world.

FIGURE 3.1 The Tanahashi model*



* *Adapted by UNICEF Regional Office for South Asia from:* Tanahashi, T., 'Health Service Coverage and Its Evaluation', *Bulletin of the World Health Organization,* vol. 56, no. 2, 1978, pp. 295–303.

This model has been modified and used to identify four WASH in Schools bottlenecks – enabling environment, supply, demand and quality – which undermine coverage in Bhutan. Interview results and the baseline assessment show that the enabling environment and poor-quality facilities are the principal bottlenecks, with the supply and demand for facilities also being a challenge. Table 3.1 outlines the bottlenecks in the four categories; tracer indicators have been combined to provide an average for each category.

Table 3.1 Bottleneck analysis for WASH in Schools coverage in Bhutan

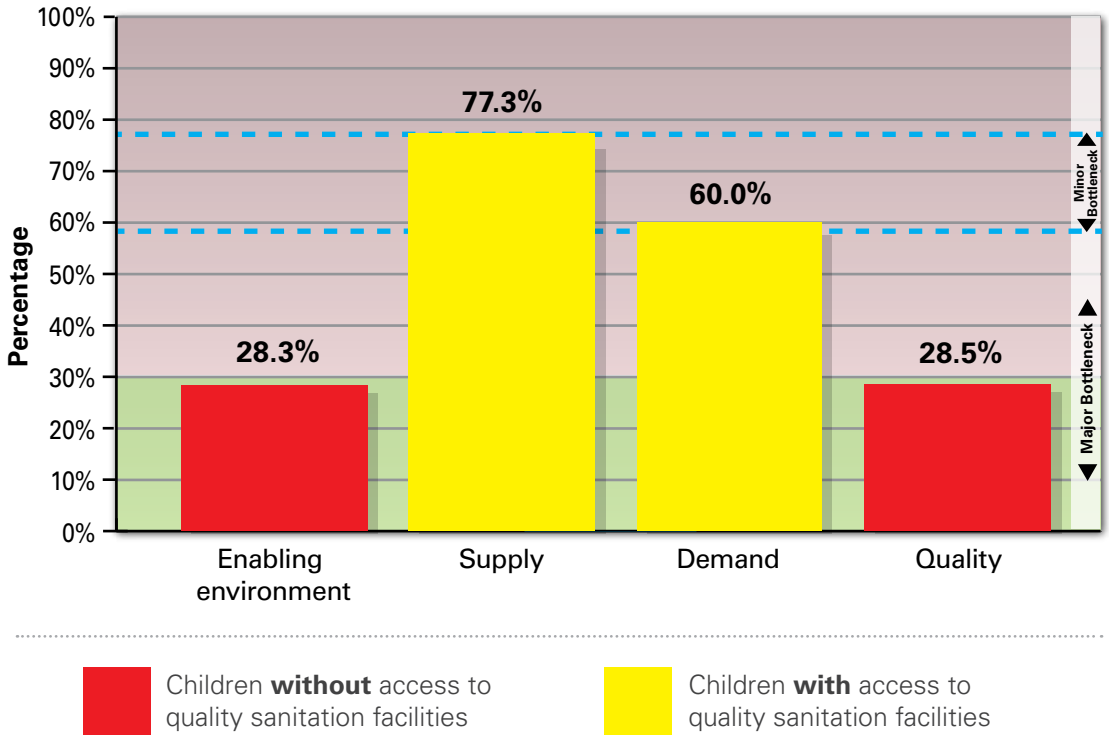
Category	Determinants	Tracer indicator	Existing situation (percentage)*
Enabling environment	Social norms	Students who said they practise key hygiene behaviours on a daily basis	**83%**
	Legal and policy framework	National school WASH policy, WASH standards and norms (standards, guidelines, Education Management Information System in place)	**0%**
	Budget/expenditure	School sanitation budget allocation at the district level (proportion of districts that maintain a separate school sanitation budget head)	**0%**
Quality	Quality Indicator 1	Proportion of schools with flush toilets	**43%**
	Quality Indicator 2	Proportion of schools with wet sweepers/caretakers	**15%**
Demand	Financial barriers	Proportion of schools with an operation and maintenance budget	**25%**
	Sociocultural barriers	Proportion of schools with separate toilets for boys and girls	**90%**
	Utilization	Proportion of schools with flush toilets	**43%**
Supply	Availability of commodities	Proportion of schools with WASH facilities	**97%**
	Availability of human resources	Proportion of schools with trained health coordinators	**50%**
	Adequate/ geographical coverage	Proportion of schools with adequate coverage ratio (1:25 for girls and 1:40 for boys)	**50%**

Key:

- Off track: 0–24%
- Progress with constraints: 25–49%
- Good progress: 50–74%
- On track: 75–100%

* Percentages are derived from 'Baseline Assessment of Water and Sanitation Facilities in Schools', UNICEF Bhutan, September 2010.

FIGURE 3.2 Bottlenecks impacting WASH in Schools coverage in Bhutan



1. Enabling environment

In 2010, the Government of Bhutan carried out the 'Baseline Assessment of Water and Sanitation Facilities in Schools' in a joint initiative of the Department of Youth and Sports (Ministry of Education) and UNICEF Bhutan. The assessment provides a wealth of detail on WASH in Schools, including statistics disaggregated by gender, and by rural and urban location.

Despite the high availability of school toilets, according to the Government they are not properly used or maintained, due to inappropriate design, poor construction quality and insufficient user education. Since the 1960s, the need for quality WASH in Schools facilities has often been overshadowed by the great demand for classrooms, materials and a good national curriculum. As a result, most community schools were built without any water and sanitation facilities.

Toilets built with local materials.

One of the major bottlenecks is lack of national data and limited awareness of research linking WASH facilities to better health and increased school attendance. The Government has not established a specific policy framework for WASH in Schools, although it may become a component of school health standards and guidelines. Beginning in 2012, WASH in Schools indicators will be included in the Education Management Information System.

No single agency has the authority to allocate funds for sanitation in schools. The Ministry of Health's School Planning and Building Division provides the standard design for WASH facilities in secondary schools. For community and primary schools, district administrators, the Comprehensive School Health Division (Ministry of Education), the Public Health Engineering Division (Ministry of Health) and UNICEF are the chief stakeholders in providing water supplies and sanitation facilities.

2. Supply

The main bottleneck in supply is the lack of leadership and ownership at the school and government levels. District administrators, for example, need to establish improved monitoring and supervision of WASH in Schools facilities. The availability of essential commodities is high, with 97% of schools having access to basic sanitation facilities.

A girl collects water from the school tap.
© UNICEF Bhutan, 2011

Many schools have built their own toilets using local materials, without government support. The quality of such latrines remains low, however, and many schools do not have adequate supplies for cleaning and maintenance.

In terms of human resources support, about 300 school health coordinators received training, from 2008–2011, on the promotion of key hygiene behaviours for schoolchildren – including proper use of toilets, safe drinking water, hand washing with soap, personal hygiene, menstrual hygiene management, waste management and food hygiene. Around 50% of schools now have a trained health coordinator to undertake hygiene promotion activities.

Many teachers who have received training are now promoting healthy hygiene behaviours for schoolchildren, but could use additional guidance and supervision from the head teachers.
Regarding adequate coverage, most schools ensure that boys and girls have separate toilets. A ratio of one toilet for every 25 girls and one toilet for every 40 boys is encouraged by the Ministry of Education, the Ministry of Health and UNICEF. But these guidelines are not always followed, and schools typically provide an equal number of toilets for boys and girls, without including menstrual hygiene facilities in girls' toilets – something that has an impact on their privacy, dignity and school attendance.

Another hurdle is the location of toilets within school grounds. Due to lack of space, there is a tendency to build boys' and girls' facilities close to each other, causing privacy and dignity issues. Due to the noise and smell, most school administrators choose to locate student toilet facilities as far as possible from the classrooms and staff rooms. This reduces convenience and may discourage use.

3. Demand

Financial barriers in Bhutan include one of the biggest challenges for any successful WASH in Schools programme: poor maintenance of facilities. Community schools and primary schools rarely have a budget for sanitation facilities maintenance.

Poorly maintained school pit latrines.
© UNICEF Bhutan, 2011

Only 65% of school toilets are functional. Facilities requiring minor repairs have become useless, and supplies such as toilet paper, brushes, brooms and buckets are not readily available. In many rural communities, parents have little disposable income to contribute to WASH facility maintenance, leaving schools with limited capacities to raise funds. The poor supply chain for hardware also makes repair and maintenance difficult, especially for toilets that have factory-manufactured items such as a toilet pot or tap heads.

Most schools do not have health coordinators, and even if coordinators are present, they frequently do not have sufficient training and empowerment to provide leadership, make decisions and allocate resources for WASH in Schools. Monitoring and supervision are also very weak. In one school visited by the country team, the principal said that a well-structured operation and maintenance plan, coupled with regular monitoring and supervision of toilets, would greatly improve motivation to maintain the facilities.

4. Quality

Only 43% of school toilets are pour flush, a type that is easier to maintain and encourages better hygiene behaviour. The main bottlenecks to building more pour flush toilets are the higher construction cost and scepticism among some service providers regarding improper use and maintenance, particularly when no funding is provided to purchase cleaning supplies and toilet paper. According to the Government, it may not be necessary for all schools to have flush toilets, especially in water-scarce areas. The priority at present is to upgrade existing pit toilets to ventilated improved toilets with a deeper pit and a more sanitary, cleanable slab.

Children of Drugyel Lower Secondary School.
© UNICEF Bhutan, 2011

A caretaker or wet sweeper (a person employed by the school to clean toilets, school buildings and the school compound) is crucial to the cleanliness of WASH in Schools facilities. Only 15% of schools have a wet sweeper, due to the lack government funding and to low desirability because the job is seen as an "undignified" position with a poor salary. The Government does not require all schools to have a janitor, maintaining that toilets will stay clean if strong and

effective user education is carried out. At present, around 85% of schools have caretakers whose primary responsibility is to look after the security of school property. There is high potential to provide training for these caretakers to become WASH in Schools maintenance staff.

The way forward

According to the Tanahashi model, focusing efforts and resources on the most critical bottlenecks – the enabling environment and quality of facilities – will lead to significant increases in coverage across the country, reaching even the most marginalized groups of children. The following strategies provide practical examples of ways to overcome the major bottlenecks:

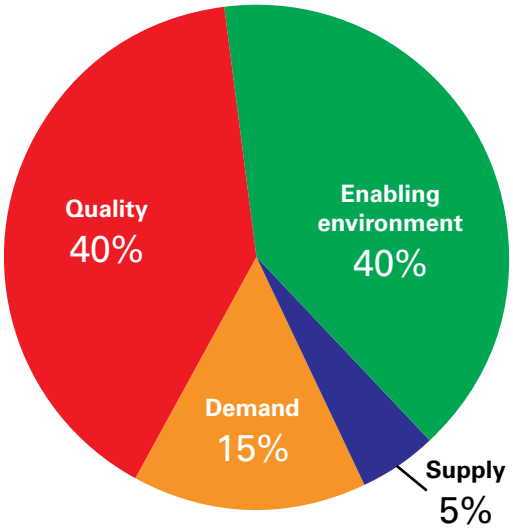
Enabling environment – policy/legal framework and budget/expenditure. As mentioned by government officials interviewed during this research, it is imperative that national standards and guidelines are developed specifically for WASH in Schools and included in the existing school health standards and guidelines. It is also important that WASH in Schools indicators are included in the Education Management Information System.

Monks of Chimilhakhang proceeding to use the toilet in the morning (*left*).
Boys washing their hands at the school toilet, Drugyel Lower Secondary School, Paro.

Preparation for the 11th Five Year Plan and the United Nations Development Assistance Framework (UNDAF) cycle will begin in 2012. Therefore, it is proposed that an outcome statement for WASH in Schools be framed under the Education Theme in the Ministry of Education's Five Year Plan. A results matrix with targets, funding sources and clearly defined coordination, monitoring and supervisory roles needs to be developed. Having more effective and coherent targets, coupled with the designation of a single agency to oversee WASH in Schools, is also vital.

Quality of facilities – pour flush toilets and wet sweepers. It is important to undertake a national-level mapping exercise to identify the types of toilet prevalent in schools. A road map can then be developed to plan the upgrading of basic pit latrines to more sanitary pour flush toilets or ventilated improved pit toilets with a deeper pit and a cleanable slab. Once WASH in Schools is included in the Education Management Information System, the data can be used to identify schools with basic and insufficient toilets. These schools can then be targeted in the Five Year Plan.

FIGURE 3.3 Suggested funding allocation for WinS in Bhutan



The Human Resource Information System (Ministry of Education and respective district administration offices) can be used to identify existing caretakers and provide local/regional multi-skills training sessions to enable them to undertake minor repair and maintenance of WASH in Schools facilities.

Demand – financial barriers and utilization. A funding mechanism needs to be developed to support recurrent expenditures for facilities. Each school should have access to its own maintenance budget, and schools should be reimbursed on the actual expenses they incur. A thorough analysis is required in order to set a realistic maintenance and recurrent budget ceiling for each different type of school. The use of public-private partnerships could be explored as one method of supporting schools needs.

A minor repair undertaken at the right time is highly cost-effective, preventing the toilet from falling into further disrepair and avoiding the cost of rebuilding the whole facility. To ensure the proper use of facilities, it is important to provide good education on hygiene behaviours. All schools should also have a realistic operation and maintenance plan, and it should be followed up with monitoring and supervision by the district administrations.

Supply – adequate coverage (toilet ratio/geographical access). When planning the construction or upgrade of facilities it is vital that student population and future population growth are taken into account to prevent the overuse of latrines. This should be stipulated in the proposed WASH in Schools standards and guidelines.

New facilities should include hand-washing facilities, urinals and a private room for adolescent girls' menstrual hygiene management. Toilets should be located as close as possible to classrooms to facilitate supervision by school management, and male and female toilets should be separated as much as possible to improve privacy. Facilities should also be made available for children with disabilities.

Conclusion

The enabling environment and quality of facilities have been identified as the most prominent bottlenecks undermining universal access to WinS facilities in Bhutan. The supply and demand for improved facilities can also be considered a challenge. Overcoming the specific bottlenecks discussed in this analysis should be made a priority in the next country programme, with funds allocated accordingly (*Figure 3.3*).

Proposed strategies for reducing these bottlenecks include: improving the legal and policy framework by creating a national policy, guidelines and standards for WASH in Schools; advocating for increased budgets and expenditures at the national level; increasing operation and maintenance budgets at the school level; and focusing on improving the quality of existing toilets, upgrading them from basic pit latrines to ventilated improved pit or pour flush latrines.

Reducing these bottlenecks will allow the Government of Bhutan and UNICEF to ensure that all children have access to the quality facilities required for their dignity, health and development. The Tanahashi model was easily adapted as a tool for assessing WASH in Schools coverage in Bhutan. It is hoped that this example will help inspire other countries to carry out their own analyses and strategically focus their efforts.

4. Georgia: Effective engagement of stakeholders is key to WASH in Schools programme success

Submitted by Nana Pruidze, Health Education Officer, UNICEF Georgia; Vilma Tyler, Nutrition Specialist, UNICEF Geneva; and Nia Giuashvili, National Center for Disease Control and Public Health, Georgia

Abstract

In 2011, UNICEF initiated the first WASH in Schools programme in Georgia as a response to the deteriorating quantity and quality of facilities and hygiene promotion. A primary obstacle in moving implementation forward was the failure to engage a key stakeholder: the Ministry of Education and Science. This case study examines the problems that emerged during the process of engaging stakeholders and their impact on WASH in Schools success. Our analysis shows that the programme will fail without proper planning and engagement of relevant stakeholders, and conversely, that involvement of the key actors and effective dialogue between them will lead to more sustainable programmes.

Children raise their clean hands at a public school in the Qvemo Qartli region.

Country context

During UNICEF's field visits to public schools and preschools, it was apparent that WASH in Schools conditions in Georgia are not acceptable, particularly in rural areas. Schools often lack enough drinking-water, sanitation and hand-washing facilities – and where such facilities exist, they are frequently inadequate. The majority of school sanitation facilities are located outside the school premises; the management and maintenance of WASH facilities is very poor. Limited financial resources and lack of commitment have resulted in the deterioration of preschool infrastructure. According to the National Department of Statistics survey conducted in 2005, among WASH facilities in 1,215 public preschools, 923 needed capital repair and 217 were not functional at all.

Rundown latrine at a public school in the village of Lasuriashi, Tsageri District.
© UNICEF Georgia

There is no entity that monitors school WASH facilities systematically. This has resulted in a failure to remedy the detrimental effects of poor water, sanitation and hygiene on schoolchildren's health. Although the education system has established a new package for 'branding' schools – awarding up to 10 'stars' for such factors as participation in programmes, teachers' qualifications, accreditation and institutional infrastructure – WASH indicators are not included. Additionally, the school register maintained by the Ministry of Education and Science does not contain comprehensive information on school infrastructure, especially as related to WASH.

Dysfunctional toilet at Mestia District Public School.
© UNICEF Georgia

Children's hygiene behaviour and such environmental conditions as infrastructure for schools and preschools have a significant influence on the incidence of water- and sanitation-related disease. The few small-scale behavioural assessments and observations available show that schoolchildren have low knowledge of WASH issues and poor hygiene practices. The incidence of enterobiasis (pinworm infection) among children 0–14 years old increased from 1,438 cases in 2008 to 3,675 cases in 2009. In 2010, the incidence of diarrhoea among children age 0–14 increased by 49% compared to 2009[2] and diarrhoeal diseases accounted for 15–17% of hospitalizations among children under age 5.[3]

2 Department of Statistics, *Statistical Yearbook of Georgia: 2009*, Ministry of Economic Development, Tbilisi, 2009, and National Statistics Office, *Statistical Yearbook of Georgia: 2010*, Geostat, Tbilisi, 2011; available at www.geostat.ge/index.php?action=wnews_archive1&qy=1&qy1=16&lang=eng, accessed 21 February 2012.

3 Unpublished data from the National Center for Disease Control and Public Health, 2010.

Safe lifestyle issues, including personal hygiene, are integrated in the curriculum for nine grades as part of civic education; the textbooks, however, do not contain comprehensive information on safe water and hygiene, or a special guide for teachers.

To address the WASH-related gaps in schools and improve children's health and academic achievement, the UNICEF country office initiated the WASH in Schools programme. Conducting a national WASH in Schools survey was identified as a critical starting point to provide a baseline assessment of the situation and help inform government policymaking.

Analysis of stakeholders

Engaging the relevant stakeholders – and identifying their roles and responsibilities – is an important step for implementing a successful WASH in Schools programme. The case study results for Georgia are outlined in Table 4.1.

TABLE 4.1 WASH in Schools stakeholders in Georgia

Stakeholder	Role in WASH in Schools	Challenges
Schoolchildren	• Comply with procedures for using water, sanitation and hygiene facilities and observe appropriate hygiene behaviours. • Provide inputs into the design of school facilities and support proper maintenance. • Educate peers in healthy hygiene practices and act as role models in the community.	• Lack of knowledge on proper maintenance of WASH facilities and on hygiene issues. • No initiatives provided by school administration for students to improve knowledge and skills through formal or informal education.
Families of schoolchildren	• Encourage children to comply with procedures for use of WASH facilities at school. • Participate in parent-teacher associations. • Act as role models for their children.	• Lack of knowledge on the importance of proper hygiene practices and their impact on children's health and well-being. • No motivation to actively participate in parent-teacher associations or other WASH activities.
Teachers	• Act as role models for children and promote hygiene education. • Organize the care and maintenance of WASH facilities and monitor their use.	• No proper training on how to promote hygiene among students. • Unavailability of textbooks that address hygiene practices.

Stakeholder	Role in WASH in Schools	Challenges
School administration	• Serve as a liaison with education authorities on WASH issues. • Create conditions to motivate staff to promote and achieve WASH targets. • Develop and enforce rules. • Encourage parent-teacher liaison. • Rehabilitate or construct WASH facilities in compliance with national standards and ensure availability of supplies such as soap and towels.	• Insufficient funds to rehabilitate existing WASH facilities or purchase consumables. • No dedicated budget to address WASH in Schools. • Lack of maintenance for WASH facilities and no observation of teachers' and students' hygiene and sanitation practices.
Ministry of Education and Science	• Allocate sufficient budget for rehabilitation or maintenance of WASH facilities in schools. • Coordinate WASH in Schools initiatives with other line ministries and multiple stakeholders. • Conduct periodic monitoring and evaluation of the WASH situation in schools nationwide. • Establish the Education Management Information System that will include indicators on WASH facilities and students' hygiene practices. • Undertake accreditation and branding of schools, taking into consideration the conditions of WASH facilities.	• Lack of funding and lack of coordination with other sectors. • No national data on WASH in Schools. • No mechanisms and limited expertise to conduct monitoring and evaluation. • No WASH indicators in the accreditation or branding package.
Ministry of Labour, Health and Social Affairs	• Develop national hygiene and sanitation standards for WASH and food facilities in schools. • Conduct periodic surveillance on water- and sanitation-related infectious diseases among schoolchildren. • Provide a timely and effective response during epidemics.	• Outdated standards for WASH in Schools require revision. • No disaggregated data for diarrhoea or other WASH-related diseases for school-age students (6–17 years old).

Stakeholder	Role in WASH in Schools	Challenges
Ministry of Regional Development and Infrastructure	• Responsible for school water supply and sanitation infrastructure. • Coordinate activities related to construction and rehabilitation of WASH in Schools facilities with the Ministry of Education and Science.	• Lack of coordination and collaboration with the Ministry of Education and Science.
Private sector (Procter & Gamble)	• Allocate money for supplies. • Support construction of WASH facilities for schools.	• Private sector not well developed. • WASH in Schools not a priority area for the private sector.
Non-governmental organizations	• WASH in Schools can become a priority in their agendas. • Work closely with communities to improve their knowledge and skills on WASH issues. • Involve students in WASH-related initiatives and encourage them to become agents of change in their communities. • Raise funds for WASH initiatives and • coordinate activities with each other, as well as with government stakeholders.	• WASH in Schools not a priority for non-governmental organizations. • Lack of expertise to undertake WASH-related interventions and be a community-level leader. • Lack of funding (donor-driven programmes).
Local governments	• Allocate funds for WASH in Schools interventions. • Conduct periodic monitoring of WASH in Schools infrastructure in their respective geographical areas.	• Lack of funds to improve education facilities.
Media	• Build a favourable environment for WASH in Schools programmes through writing and broadcasting success stories. • Raise awareness among communities, parents, students and teachers by using evidence to promote WASH in Schools. • Conduct interviews with children, parents, teachers and community leaders, and share experiences and lessons learned.	• Lack of knowledge on proper reporting of issues related to WASH in Schools. • WASH issues are not a priority for the media or a pressing issue to report on.

Successes and challenges

Our first intention was to involve the various stakeholders and WASH experts in implementing a national WASH in Schools survey. We started the process by forming a task force that would be responsible for guiding programme implementation. An initial role of the task force was to advocate to the Government to make WASH in Schools a priority.

The task force is composed of key stakeholders and experts. Careful attention was paid to their identification and to ensuring that they understood their roles and responsibilities. Those who would be responsible for the WASH in Schools survey were:

- **Ministry of Education and Science** – responsible for ensuring efficient and innovative learning environments, in close cooperation with civil society. The ministry develops the school curriculum and is accountable for schoolchildren's learning achievements. It is also responsible for funding, constructing and maintaining the WASH infrastructure in public schools.
- **Ministry of Labour, Health and Social Affairs** – responsible for promoting healthy working and living environments, regulating medical activities, and developing hygiene and sanitation standards for education institutions. Through its affiliated entity, the National Center for Disease Control and Public Health, the ministry is responsible for hygiene promotion among the population and creating awareness of safe hygiene and sanitation.
- **Ministry of Agriculture** – responsible for monitoring drinking-water quality.
- **Ministry of Finance** – responsible for budget allocations and the endorsement of grants issued by donors.

Inadequate pit at a public school in the village of Atskuri, Akhaltsikhe District.

An all-stakeholder meeting was held to inform participants of the project's goals. Key activities and expected results were identified. Because poor water, sanitation and hygiene cause diseases among children, including diarrhoea and intestinal worms, it was agreed that the Ministry of Labour, Health and Social Affairs would be the key stakeholder to lead the entire WASH programme.

UNICEF identified the National Center for Disease Control and Public Health as an implementing partner for the WASH in Schools survey, in close coordination with the Ministry of Education and Science. This would be the foundation for involving various sectors in planning and implementing activities aimed at improving the WASH situation in schools. We anticipated that the Ministry of Education and Science would take the lead in developing the teachers' guide on hygiene, as well as introducing simple solutions for WASH facilities in some model schools.

The National Center for Disease Control and Public Health requested UNICEF's support in implementing the Georgia School-Based Health Survey on behavioural risk factors among youth, including hygiene behaviour. Therefore, it

was decided to combine the health survey with the WASH in Schools survey. To initiate dialogue between the Ministry of Labour, Health and Social Affairs and the Ministry of Education and Science over this cross-cutting issue, and thus increase collaboration between them, it was suggested that the National Center for Disease Control and Public Health would discuss survey details and plan activities jointly with the Ministry of Education and Science.

The National Center for Disease Control and Public Health's proposal to UNICEF coincided with the introduction of Georgia's new procedures for donor grant endorsements issued to state institutions. The procedures require preliminary approval by various line ministries and ratification of a grant by the ministers' cabinet during a special session.

The WASH in Schools survey proposal was shared with four line ministries (Education and Science; Agriculture; Finance; and the Ministry of Economy and Sustainable Development) for their review. All but the Ministry of Education and Science endorsed the proposal. In response, UNICEF's team met with the Deputy Minister of Education, who confirmed the reluctance of the ministry to conduct this survey. He mentioned they would prefer that UNICEF fund improvements in public school infrastructure rather than doing the survey. Subsequently, all discussions with the Ministry of Education and Science related to this matter stopped.

A running faucet in Kareli District, Breta Village Public School.

Our team met with UNICEF's country representative and education sector team to analyse the situation and find a way out of this unexpected development. Options for the WASH in Schools programme were discussed, and it was agreed to reach out to the preschool institutions and to mainstream WASH issues in the preschool sector in a sustainable manner. This is also a priority area in UNICEF Georgia's country programme for the upcoming five-year cycle.

A supporting factor is that preschools are now under the direction of municipalities as a result of recent sector reform, and they provide good support to UNICEF's preschool education programme. The case study team had preliminary meetings with district-level authorities for preschools and they promised to assist researchers during field activities.

Identifying the gaps

Among the major gaps identified by the case study team, the stakeholder engagement plan was not established before initiating the WASH in Schools project. As a result, the initiative missed important steps and failed to ensure an essential stakeholder's buy-in. The Ministry of Education and Science was not engaged from the inception; we relied on the Ministry of Labour, Health and Social Affairs to establish a working relationship, which failed to develop.

In addition to a lack of inter-sectoral cooperation and dialogue between line ministries, there is an apparent lack of ownership by the Ministry of Education and Science regarding school WASH-related issues. This hampered the start-up of the survey, because the Ministry of Education and Science was not ready to engage in the programme. In addition, important actors such as community groups, parent-teacher associations and youth clubs were not engaged from the very beginning of project planning. Also, the team did not keep in mind that the situation is dynamic and that stakeholders and their interests change over time.

One of the most important lessons is the need to integrate and coordinate inputs and outputs of the different stakeholders in programme implementation. Among other key lessons:

- It is essential to develop the stakeholder engagement plan prior to initiating a WASH in Schools survey and programme. Engaging with stakeholders from the beginning helps cultivate relationships that can serve as 'capital' during challenging situations.
- Community involvement is essential and would influence the Ministry of Education and Science to be more proactive in project implementation.
- Risk analysis needs to be done prior to planning. Consultation with major stakeholders and getting their feedback is crucial to managing their engagement effectively.

Next steps

Conducting a WASH in Schools survey is the foundation for implementing a programme that will significantly benefit Georgia's schoolchildren. Based on this case study analysis, we have identified five key steps towards achieving this goal:

1. Organize an orientation meeting with the municipalities that are key stakeholders for preschool programmes. Share project goals and build awareness of the importance of water, sanitation and hygiene education for children's health and academic achievement.
2. Develop the memorandum of understanding between key stakeholders that will delineate their roles and responsibilities in conducting the WASH in Schools survey to prevent further misunderstandings and surprises.
3. Establish the task force that will be responsible for each step of the survey project, including planning, adaptation of survey instruments and data analysis.
4. Involve the National Center for Disease Control in survey data analysis and in preparing recommendations for WASH in preschools.
5. Consider lessons learned during the previous phase. Make every effort to re-establish a working relationship with the Ministry of Education and Science, towards the goal of including WASH indicators in the Education Management Information System and developing the teachers' guide for hygiene.

5. India: Methodologies and challenges for monitoring WASH in Schools

Submitted by Mamita Bora Thakkar, Pankaj Mathur, S. Nalli and Amit Mehrotra, UNICEF India

Abstract

The Government of India's efforts during recent years have resulted in significant progress for WASH in Schools. Providing access to safe water supplies, appropriate sanitation facilities and hygiene education in all schools, however, is an ongoing challenge. The lack of coverage is compounded by weak monitoring and reporting systems, which do not provide comprehensive data on access to WASH facilities, use, functionality, operation and maintenance. Information on hygiene education and hand-washing practices is even rarer. Yet this type of data is of critical importance for the design, management and ultimate success of the WASH in Schools programme. The lack of effective use of data for planning and monitoring is also a barrier to universal coverage.

This case study examines the methods used to collect data and compares the strengths and weaknesses of three major data sources: the District Information System for Education (DISE), the Management Information System (MIS) and the Annual Status of Education Report (ASER). This study will contribute towards better harmonization of data at the national and sub-national levels, with clear definitions and improved methods of data collection to monitor progress.

Towards this end, the study team unpacks and analyses data from the three sources and identifies the discrepancies between these monitoring systems, the challenges in finding accurate WASH in Schools data and gaps in information. Each of the data systems has its own strengths and uses its own definitions. Results, therefore, are in variance with each other. Even within the same data system, definitions are used differently by different data collectors. It has also been noticed that data are often collected for the purpose of reporting and not for monitoring, tracking real progress or decision making.

The study concludes that DISE, the nationwide Education Management Information System (EMIS), emerges as the critical institutional mechanism with the potential to be the nodal monitoring agency, as envisaged in the Sarva Shiksha Abhiyan (SSA)

A student washes her hands at Kasturba Gandhi Balika Vidyalaya (KGBV) school in Koraput District, Orissa.

monitoring framework.[4] The focus on WASH indicators within DISE, however, needs to be strengthened. Therefore, a separate format for inclusion of WASH indicators has been prepared and will be integrated into DISE. The case study also recommends nine actions to support an improved national database for WASH in Schools.

Country context

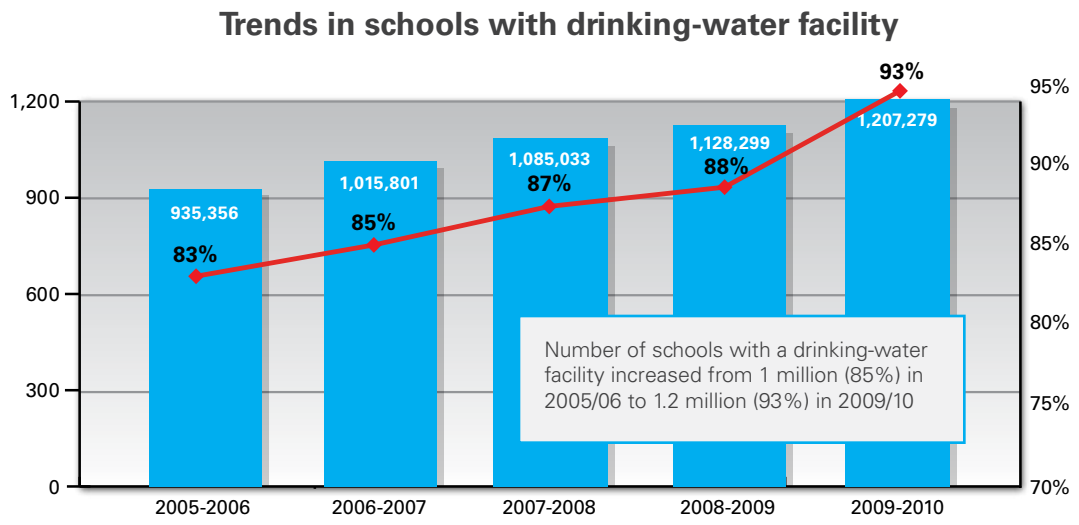
The Government of India has supported water, sanitation and hygiene education in schools for more than a decade, and there is a growing appreciation among policymakers for the positive impact of WASH on child health and education outcomes. Significant developments in policy and practices include:

- The Supreme Court ruled in June 2011 that: "It is imperative that all schools must provide toilet facilities; empirical researches have indicated that wherever toilet facilities are not provided in the schools, parents do not send their children (particularly girls) to schools." The bench stated that denial of the basic right to water and toilet facilities "clearly violates the right to free and compulsory education of children guaranteed under Article 21-A."
- The Right of Children to Free and Compulsory Education Act, which came into force in 2010, defined the minimum requirements for school infrastructure for the first time. These requirements include separate toilets for girls and boys, safe and adequate drinking-water facilities for all schoolchildren, and barrier-free access to WASH facilities for children with special needs.
- The Approach Paper for the 11th Five Year Plan (2007–2012) commits to full coverage of schools with drinking-water and sanitation facilities, and coverage of 133,114 Anganwadi Centers with sanitation facilities, by the end of 2012.
- India's 86th constitutional amendment, in 2002, established elementary education as the fundamental right of every child. State governments subsequently launched SSA with the aim of providing quality elementary education nationwide by 2010.
- The Government initiated the School Sanitation and Hygiene Education (SSHE) programme in 1999 and has integrated it with the national flagship programme, the Total Sanitation Campaign. The priority areas of SSHE are to provide water, sanitation and hand-washing facilities in schools and promote behavioural change through hygiene education, while linking the same to home and community.

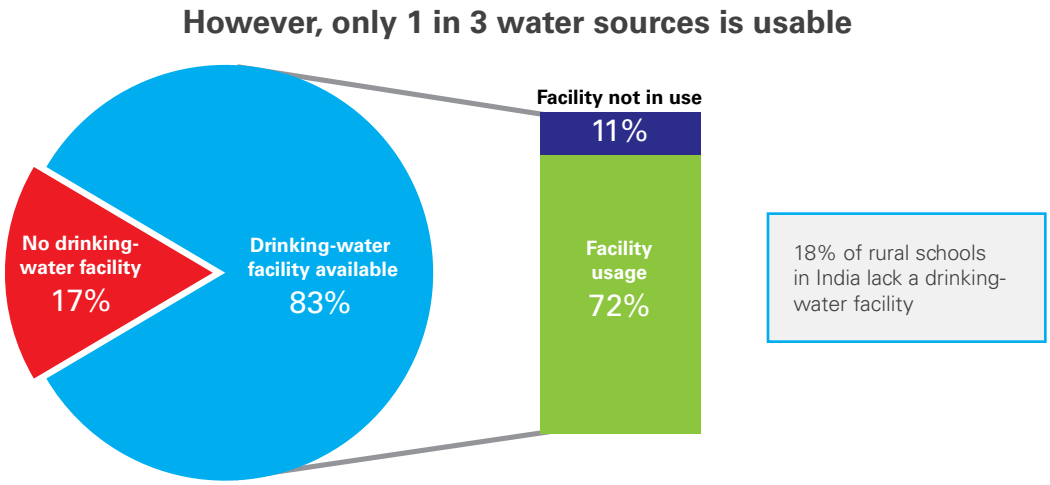
Providing universal access to WASH in Schools nonetheless remains a challenge, and the lack of a comprehensive monitoring and reporting system is a major barrier to fulfilling this goal. India has more than 1.3 million schools, and the national monitoring systems do not capture an accurate picture of coverage and access. Comprehensive data are needed on the use and functionality of facilities, operation and maintenance, and child- and gender-friendliness, as well as hygiene education and hand-washing practices. Although sample surveys can provide a broad understanding of the trends, there is a need for better alignment and harmonization of data at the national and sub-national levels. Developing clear definitions and improved methods of data collection and analysis is also essential.

4 SSA is an initiative to promote universal elementary education through community ownership of the school system. It is implemented by the national Ministry of Human Resource Development, in partnership with state governments. (See www.ssa.nic.in for further information and resources.) Elementary education is defined as Grades 1–8; primary schools cover Grades 1–5.

FIGURE 5.1 Drinking-water facilities, nationwide

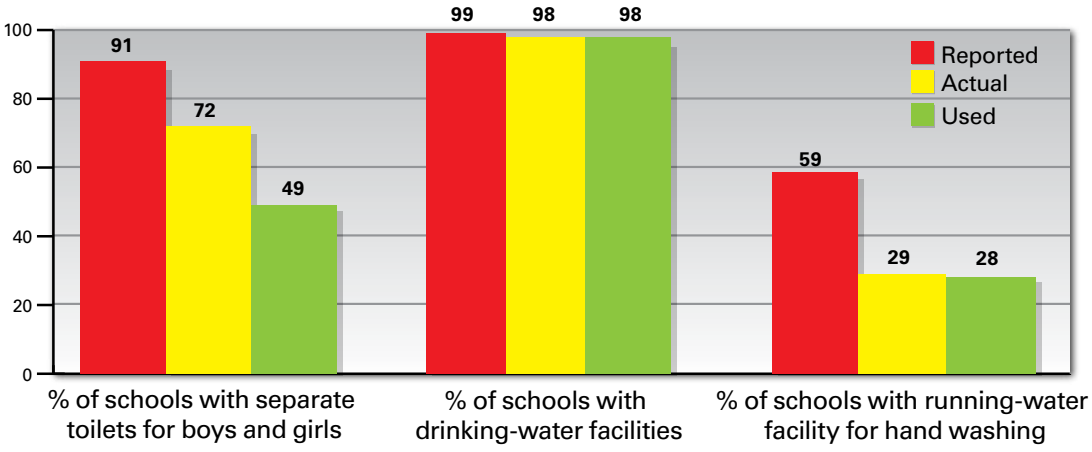


Source: DISE 2009/10, National University of Educational Planning and Administration, New Delhi, India.



Source: ASER 2010.

FIGURE 5.2 Toilets, drinking-water and hand-washing facilities, Uttar Pradesh



Source: Reported coverage, Department of Drinking Water and Sanitation, March 2010, online data; and actual coverage and usage, according to concurrent UNICEF monitoring.

Recognizing the need to strengthen monitoring and reporting systems

National-level data indicate there has been considerable progress in coverage of school drinking-water facilities. But an independent survey found that only 1 in 3 drinking-water sources were functional (*Figure 5.1, ASER 2010*). Among rural schools, 1 in 10 do not have toilet facilities, and where toilets exist, only 1 in 2 are usable.

In response to the need for improved monitoring, UNICEF piloted a system to analyse WASH facilities in schools, as well as households, in Uttar Pradesh (*Figure 5.2*). This initiative analysed information from 609 schools in 47 districts. A significant gap was found between the number of school toilets reported and the actual number of schools that have toilets. Although the data on drinking-water facilities were comparable, there were also large differences in the figures for hand-washing facilities with running water.

Comparing data sources

There are three major data sources for WASH in Schools, and each has its own system for capturing information and reporting on progress.

The major source of data is the District Information System for Education (DISE), managed by the National University of Educational Planning and Administration. DISE covers an annual database of more than 1.3 million primary and upper primary schools, reported under 'School Report Cards'. The report cards provide quantitative and qualitative information, along with descriptive reports about individual schools (*see www.schoolreportcards.in*).

Another source is the Management Information System (MIS) administered by the Ministry of Drinking Water and Sanitation. MIS tracks progress in the SSHE component of the nationwide Total Sanitation Campaign. Data are gathered according to two major categories – physical components, e.g., school toilets; and financial progress, including release vs. expenditure. Data on the construction of school toilets are compiled from utilization certificates at the *gram panchayat* (local administration) level. A monthly progress report is compiled and entered into the online repository at the district level, and finally aggregated at the national level.

Inconsistency in definitions for monitoring

In Rajasthan State, it is agreed that if a school has only one toilet, monitoring will report it as a "girls' toilet." This is the reason we find a remarkably low number of "common toilets" in the state and a very high number of girls' toilets, as reported in the District Information System for Education.

In Uttar Pradesh, two toilets were constructed under the Total Sanitation Campaign – one for boys and one for girls – at Ekauni Gram Panchayat Primary School, on the Suriawan Block of Bhadohi District.

This construction was recorded as separate boy' and girls' toilets in the Management Information System for SSHE. In DISE data, this school is reported as having one girls' toilet and one common toilet.

Clearly, the definitions interpreted by different agencies make it difficult for analysis at the national level.

The Annual Status of Education Report (ASER) also covers WASH information and was developed by the ASER Centre, which is a civil society initiative. ASER conducts an annual survey of selected villages to assess enrolment, reading and arithmetic levels among children in the elementary education system. Every two years, it also reports on facilities in schools – including drinking water and sanitation – according to norms established by the Right of Children to Free and Compulsory Education Act. The ASER exercise is the largest independent household survey undertaken in India. In 2010, it reached 522 districts, more than 14,000 villages, 3 million households, 13,000 rural government schools and almost 7 million children.

The characteristics of the three data sources are outlined in Tables 5.1 and 5.2 below. It is important to note that there are inconsistencies in data emerging from the three sources, and these are discussed in the section that follows.

TABLE 5.1 WASH in Schools items monitored by the three systems

District Information System for Education (DISE)	Management Information System (MIS) for SSHE	Annual Status of Education Report (ASER)
• Number of schools with common/girls' toilets • Number of schools with functional toilets • Number of schools with major source of drinking water • Number of schools with functional drinking-water facility	• Construction of physical components (school toilets) • Objective and targets for physical components • Expenditures incurred against sanctioned or approved budget	• Schools with no water provision • Schools with water provision but water is not available • Schools with water provision and water is available • Schools with no toilet/girls' toilet provision of any kind • Schools with toilet/girls' toilet provision of any kind, but it is unusable/locked. • Schools with toilet/girls' toilet provision of any kind, and it is usable

TABLE 5.2 Comparison of system strengths and challenges

District Information System for Education (DISE)	Management Information System (MIS) for SSHE	Annual Status of Education Report (ASER)
Covers all urban and rural schools	Covers only rural schools across the country	Rural schools
Annual survey	Updated monthly, with expenditure inputs from states	Biannual survey for infrastructure
School census and report cards cover all schools in India – data can be drilled down to the school level	Comprehensive data on number of school toilet units constructed at any period – data can be drilled down to the habitation level	Data collected from select schools through purposive sampling and a participatory process
States have flexibility of adding variables	No such flexibility	Uniformity – the same questionnaire is used in all states
Collected by headmasters of respective schools	Collected by department staff – self-reporting	Collected by an impartial third party, with support of trained volunteers
No qualitative data, e.g., potability of drinking water, use and functionality of toilets, or hand-washing facilities and practices	No qualitative data, e.g., potability of drinking water, use and functionality of toilets, or hand-washing facilities and practices – no disaggregation available on the number of girls' toilets constructed	Good qualitative data, and schools are selected on purposive sampling basis – no data on hand-washing practices, availability of hand-washing facilities, or operation and maintenance of facilities
Widely accepted by the national Government	Accepted by the national Government	Partially accepted by the national Government
Data on coverage of schools are available	Data available only on number of school toilet units constructed and not linked to the percentage of schools covered	Data on coverage available, along with other quality parameters
Varied interpretation of the questionnaire or the definition of indicators	Data are directly derived from financial objectives and expenditures	Data are collected with better accuracy because a field survey is conducted
Data are used for planning new units	Data are used to show progress against numbers	Data are used to supplement information on quality
Random sample verification by independent agencies	Verification through the Nirmal Gram Puraskar award system, which determines total sanitation status (toilets in every home) at the local level	No sample verification
Extensive data covering all possible parameters on education	Limited data related only to infrastructure – no disaggregated data on number of girls' toilets	Limited data focusing primarily on qualitative indicators

Lacking coherency in data collected

The three sources of information on water, sanitation and hygiene education – DISE, MIS and ASER – presently capture coverage and functionality, but the data sets hardly match. None of the data systems captures information on hygiene education, hand-washing practices and hand-washing facilities. For other WASH data, there are differences in the terms used to define indicators. All three sources have their own set of statistics on various aspects. Data from two or more sources seldom match, and the differences are unacceptably high. This lack of coherence has resulted in significant gaps in the analysis of WASH in Schools information.

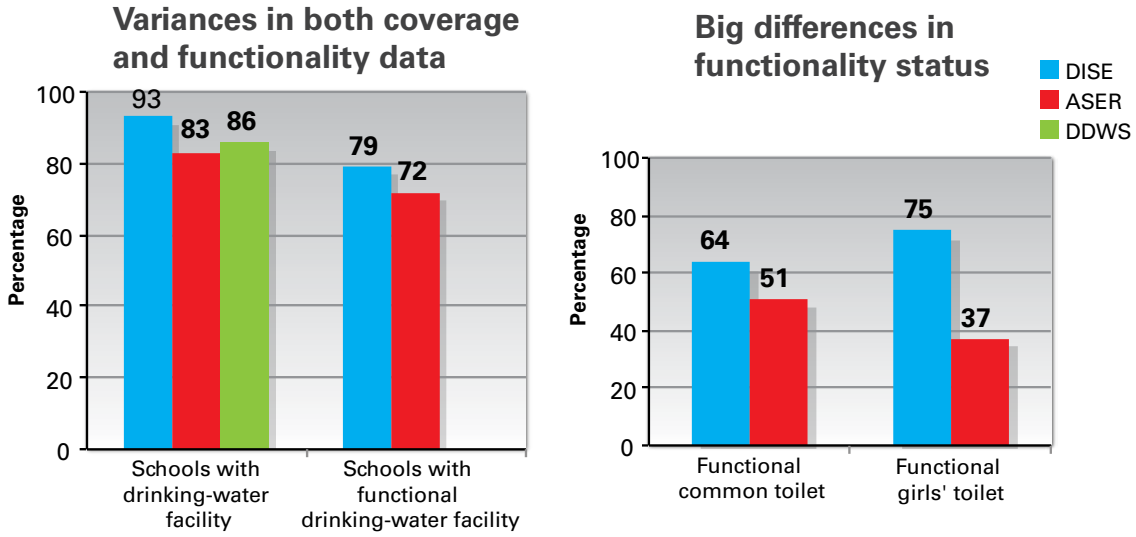
According to DISE, for example, the number of schools that had drinking-water facilities increased from 1 million (85% coverage) in 2005–2006 to 1.2 million (93% coverage) in 2009–2010. But the ASER report for the same period indicates that 18% of rural schools did not have drinking-water facilities.

Very large gaps are also found between how many toilets are "available" and how many are actually functioning. According to ASER 2010 statistics, 90% of schools reported having toilets available, but the toilets were functional in only 51% of schools.

Similar differences can be noted in the functionality of "common toilets" and "girls' toilets" in the reports of ASER and DISE (*Figure 5.3*). DISE reported that 64% of schools had functional common toilets and 75% of schools had functional girls' toilets. ASER reported that functional common toilets were present in 51% of schools, but functional girls' toilets were available in only 37%.

Statistics for the Total Sanitation Campaign do not present disaggregated data for girls' toilets but only show the number of toilets constructed. Similar discrepancies appear in reports on the availability and functionality of school drinking-water facilities. This type of variance extends even to calculating the number of schools nationwide. The MIS indicates that there are 836,165 rural schools in the country, whereas DISE shows the total number of schools as 972,744 – a gap of more than 1.3 lakh (130,000). Another important aspect is that data, even if these are collected, their use for planning and monitoring purpose is limited. They are seldom analysed along critical indicators such student-toilet ratio, access to 'improved' drinking-water sources and status of facilities.

FIGURE 5.3 Comparison of statistics on toilets and drinking-water facilities



Wise water management chart painted on school wall of Kamala Nehru Adivasi Kanya Ashram (tribal girls' hostel), Block Ghodadungri, District-Betul (Madhya Pradesh).

Conclusion

It is very difficult to determine the specific number of schools, at any level, that have sustainable water and sanitation facilities. Crucial indicators for use of facilities and hygiene practices among schoolchildren are not collected at all.

Multiple, disparate data systems compound the difficulties in obtaining reliable indicators. Working without common definitions, institutions and agencies are collecting information with their own definition for the same facility.

In this context, the District Information System for Education (DISE) emerges as the critical institutional mechanism with the potential to be the nodal monitoring agency. This role could also be fulfilled under the SSA monitoring framework.

To provide a complete picture of the situation for WASH in Schools, the monitoring framework for the SSHE component of the Total Sanitation Campaign – under the Ministry of Drinking Water and Sanitation – also needs to be expedited. At the national level, current data compile only the number of toilet units constructed against set targets. This limited information makes it difficult to assess the number of schools that have separate toilet for girls and boys and also the status on their functionality and use.

In addition, monitoring the qualitative aspects of water and sanitation facilities needs to be strengthened in DISE. At the state or district levels, the available information is seldom analysed for planning, management, monitoring, evaluation and decision making.

The current WASH in Schools monitoring systems in India do not answer these questions:

- How do we monitor with an equity lens – further unpacking data at the district level and including the poorest districts in the states?
- What are the statistics for hygiene education, hand-washing practices and hand-washing facilities? How many schools have a sustained hygiene education programme?
- Where are the schools without access to sustainable WASH facilities located?
- How do we use this data to monitor compliance with the Right to Education act and the Supreme Court notification on ensuring availability of water and sanitation facilities in schools?
- When and how do we start monitoring child-friendly standards?
- How do we include monitoring and reporting on quality and sustainability of services?

Recommendations

To promote the health and education of India's schoolchildren, the national database for WASH in Schools must be expanded and improved. To support this goal, the case study team recommends the following actions:

At the national level

1. Support the development of standardized concepts and definitions for WASH in Schools facilities, and develop standard indicators for data collection.
2. Include standardized indicators in the District Information System for Education and the uniform data collection formats.
3. Strengthen the monitoring system and advocate for periodic analysis of collected information to identify gaps in WASH in Schools coverage.
4. Conduct time-bound studies to monitor compliance with the Right to Education act and the Supreme Court notification that ensures availability of water and sanitation facilities in schools.

At the state level

5. Provide critical inputs in unpacking/disaggregating the data to further identify the poorest areas and districts in terms of WASH in Schools coverage.
6. Support states in the cross-verification of data.
7. Share data between the Total Sanitation Campaign and DISE so that one set of information is available for all.

At the district and sub-district levels

8. Provide capacity-building support for officials engaged in data management and collection.
9. Support the preparation and maintenance of a district-level institutional database to help generate district plans.

Strengthening DISE with improved WASH indicators

The study concludes that a few key questions need to be incorporated in the DISE Data Capture Format, which may be finally integrated into the DISE-EMIS system. Integration of the proposed water, sanitation and hygiene (WASH) indicators will significantly improve the availability of disaggregated data that can be analysed for the purpose of monitoring and measuring WASH in Schools progress. Following the inclusion of the WASH indicators in the national EMIS, data collectors need to receive training on the use of definitions and application of the questionnaire.

The suggested WASH questions for the DISE survey are presented below.

I. Toilet facilities

	Common*	Girls only	Boys only	Teachers only	Total
Number of toilets for each type					
How many of the toilets for each type are functional? **					
How many of the toilets for each type have water near the toilet for flushing and cleaning?					
Is the hand-washing facility near the toilet?	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	
Does the hand-washing facility have soap?	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	☐ YES ☐ NO	

* Common toilet: a toilet that is used by both girls and boys.

** Functional toilet: minimal odour, unbroken seat, regularly cleaned, accessible to users.

1. Do children also defecate/urinate in the open in the school compound?

☐ YES ☐ NO

2. Is there any toilet that is friendly to children with special needs?

☐ YES ☐ NO

3. Who cleans the toilets in the school?

a. Sweeper arranged by school management committee, *panchayats*, municipality or non-governmental organizations

b. Outside agency

c. Teachers and students

d. Students

e. Teachers

f. Other (specify)

g. None

II. Drinking water

1. What is the source of drinking-water supply in the school?

a. Handpump
b. Protected/covered well or tank
c. Tap water
d. Other (specify)
e. None

2. Where is the drinking-water source located?

☐ Dedicated/within school ☐ Outside

3. Is the drinking-water facility functional?

☐ YES ☐ NO

4. Is the drinking-water source functional throughout the year?

☐ YES ☐ NO

III. Hand washing before meals

1. Does the school have facilities for hand washing before meals?

☐ YES ☐ NO

2. If hand-washing facilities are available, are these facilities functional?

☐ YES ☐ NO

3. Is there a sufficient number of hand-washing facilities, i.e., there are no long queues to wash hands before the midday meal?

☐ YES ☐ NO

4. Is soap available at all hand-washing facilities?

☐ YES ☐ NO

Session on menstrual hygiene management for adolescent girls in Government Girls High School in M. C. Palli, District-Krishnagiri (Tamil Nadu).

6. Kyrgyzstan: WASH in Schools stakeholders – observations and interviews

Submitted by Galina Solodunova, Nurjamal Tashbolotova and Dzhamilia Abdynasyrova, UNICEF Kyrgyzstan
Mentor: Mr. Ramesh Bhusal

Mountains appear in the distance beyond a village in Kyrgyzstan.
Left: © UNICEF/NYHQ2011-1594/Gonzalo Bell

UNICEF is working with multiple stakeholders to ensure that children throughout the country benefit from quality WASH in Schools.
© Andrew Mills, UNICEF Kyrgyzstan, 2011

Abstract

This case study aims to investigate interactions between WASH in Schools stakeholders in Kyrgyzstan. Our intention is not only to provide useful research material, but also to directly involve stakeholders – including school inspectors and local authorities, as well as principals, teachers, students and parents. We hope the findings may be used as a discussion paper that encourages new solutions to the situation and have provided an initial list of eight recommendations that can be discussed and extended by the stakeholders.

Country context

Kyrgyzstan is a mountainous Central Asian country with a population of just over 5 million. Formerly part of the Soviet Union, it became independent in 1991. School water and sanitation infrastructure was constructed during the soviet period, in accordance with the 'Sanitary and Epidemiological Norms for Schools' of that time.

Despite the dramatic changes in Kyrgyzstan's situation and the development of new international minimum standards for WASH in Schools, the norms have not been changed since the 1990s. It is still obligatory, for example, that all schools have an indoor flush toilet system, but most rural areas do not have a piped water system. Furthermore, norms such as child-friendly facilities and adequate conditions for menstrual hygiene management are completely unknown. ('Baseline Assessment of Access to Water, Sanitation and Hygiene in Schools and Hospitals', UNICEF, 2011) Thus, the existing legislative and normative documents set unrealistic and outdated requirements.

Another major drawback of the present legislation is lack of a link between education processes and the health status of children. This impacts the distribution of roles and responsibilities among stakeholders. It is believed, for example, that the health sector is the only stakeholder responsible for WASH in Schools, thus hygiene promotion is excluded from district-level education processes determined by the Ministry of Education and Science.

The fact that water, sanitation and hygiene issues are low priorities within society and within schools worsens the situation. As a consequence, local authorities responsible for financing schools do not pay enough attention to WASH-related issues. Furthermore, parents and children do not demand that schools meet proper standards, and school administrations do not prioritize them. Most problems are silenced or ignored.

Results of observations and in-depth interviews regarding a school inspection report are presented below and are intended to allow readers to understand the situation in Kyrgyzstan and make their own conclusions. Children's names have been changed and special care was taken to ensure confidentiality during all research conducted by the case study team.

Issuing an inspection report

As a man and a woman, both about 45 years old, approached the school, word echoed among school staff that SES – Sanitary and Epidemiological Surveillance – was coming. The school principal hurried from his office, giving instructions to the master teacher and the logistics manager running after him. Despite a cordial invitation to drink tea, the inspectors declined and proceeded with their checklist of questions on water supply and quality, student cleanliness and garbage container conditions:

First inspector: "Have you got water running in the canteen?"

Principal: "Well, I have talked to the Water Canal Unit, they promised to fix it. They say that it is due to the water being taken to the fields at the moment. But we will do everything that is required."

First inspector: "There is nothing to inspect there then."

Second inspector: "Where do you store the garbage?"

Principal: "It is over there, behind the stadium, close to the toilets. I was just about to go to the *ayil okmotu* [local authorities] to discuss it. In our budget, garbage disposal is foreseen only once a year. If the *ayil okmotu* will not help, I have to find 2,000 soms … but we will do everything required, do not worry".

Second inspector: "We will have to mention that in our inspection report. You can go to the *ayil okmotu* with this report. It may help you to get necessary funds."

The inspection report was issued the next day.

Filing the inspection report

A copy of the inspection report was sent to the local authorities. According to Kyrgyzstan's law on local self-governance (article 10, point 7, 2011), local authorities are responsible for providing schools with the financing needed to meet state education standards. Despite the inspectors' advice, the school principal did not go to the local authority. "It is just a waste of time," he explained, "the answer is usual – no funds."

As described by the local authorities' accountant: "They [the principals] bring their budget estimates at the beginning of each year. But we also know what each school needs. The deputies of the local councils discuss the estimates together with the principal. Principals have to explain each and every budget item. Then, each school has its own individual budget in accordance with their needs and the available funds of the local budget ... They inform us and we pay, for instance, to store construction materials. They come and take them from the store."

A local council deputy specified: "Water, hygiene and sanitation related budget items are of … let's say … medium priority. If asked, we always try to satisfy these school needs, but now that it is almost the end of the year, there are no funds. This school has only just been rebuilt and other schools have much bigger problems. Roofs are leaking or windows get broken. In this case, the principal should be ashamed of this inspection report. It is his responsibility to keep the school clean."

The inspection report was soon forgotten without ever being read.

Ignoring the inspection report

On the following day, when the case study team arrived at the school to conduct in-depth interviews, the principal was meeting with teachers, and they discussed the inspection report. It was agreed to burn the garbage, so pungent smoke disturbed the whole school.

Soon after the meeting with the teachers, the principal was called to the District Education Department. "I hope it is not because of this inspection report," he conjectured. Then he reassured himself, "No, they usually have much bigger issues to think about."

The District Education Department did not know about the inspection report. One specialist said: "We cannot be responsible for health issues. It is the issue of the Ministry of Health. We are only responsible for the education process … Hygiene issues are discussed in extra-curricular classes and are the responsibility of schools."

Water, sanitation and hygiene, and the inspection report itself, were not considered to be part of the education process.

Going beyond the inspection report

While the principal was away, we visited the school. Our guides were Dzhamilia and Nurjamal, two 13-year-old female students. "Here is our so-called canteen. We sometimes buy buns and lemonade here," shared Nurjamal. In the room that was supposed to be for cooking hot meals for young schoolchildren, a saleswoman arranged boxes of biscuits on the tables and drinks on the floor. The sinks were filled with boxes of chewing gum.

After visiting the canteen, Nurjamal and Dzhamilia started hurrying. Their break was almost over and they had to change clothes for a physical education lesson. Next door to the large gym, there were two changing rooms. In between, a door was secured with a large padlock. We approached the logistics manager about this room, and he explained: "There is a shower room there, but there is no water anyway. Children, you know, cannot understand it, they keep trying the taps, turning them on all the time. They can easily break them."

After the lesson, Nurjamal and Dzhamilia brought us to the school's only water source: a standpipe located 5 metres away from the school entrance. The girls were almost running there. "We are unlucky," one said. "Our physical education lesson finishes during the big break. We are thirsty, but the on-duty pupils start washing the floors at this time. If we are not quick, then we have to wait until they fill their buckets with water."

We very much wanted to continue our conversation with these girls, but they decided to go home instead. "We go home to pick up things we need and to use the toilet", Nurjamal said. "I live not far from here. It takes me the same amount of time to visit the school toilet and to visit the toilet at home. Our school latrine is off the stadium. Besides, the waste is being incinerated in the container today, which is quite scary. Also, the toilets for girls are close to those of boys and it means that boys can walk past. There are six pits in the latrine and all of them are open, with no doors."

On one side of the latrines there were six pits for girls and on the other side, six pits for boys. In the middle of the building there were two doors – these were the toilets for the teachers. Although the toilets were new, the walls were clean and the pit almost empty, the building had a very unpleasant odour. We tried to find a hand-washing point but could not.

The bell rang. As Dzhamilia ran towards the school gates, she said: "Our school is now equipped with computers. Please visit our lesson, it will be interesting." The computer room looked almost the same as in urban schools. The computer class teacher, a young woman, was eager to tell us about the equipment: "This is all thanks to our principal. He has good relations with donors, and UNICEF has provided us with computers. The Japanese embassy has also promised to equip our school laboratory."

In the far corner of the room, there was a poster on the importance of hygiene, but the lettering was so tiny, we could not manage to read the text. The lesson started. Students were trying hard to concentrate on the assignment, but they were sweating after their physical education lesson and visiting their homes during the break. The smell in the class was that typically found in the sports grounds.

None of what we saw and heard from children was reflected in the inspection report.

Limitations of the inspection report

International guidelines for toilets, such as those established by UNICEF and the Sphere Project, include consulting with users on location and design; constructing toilets that provide privacy, in line with standards and users' needs; and locating hand-washing facilities near the toilets. At this school, however, children must walk 7–10 minutes before reaching the toilet. After using it, they need to pass by the stadium and the school building, then wait in a queue at the standpipe to wash their hands. With this in mind, we conducted the following interview:

Case study team: "As far as we know, in accordance with UNICEF norms there should be a separate cubicle with a lockable door for girls. It is challenging for the menstruating girls to use open pit latrines."

Principal: "This is not a big deal. It has always been like this and no one has ever complained about this issue."

Case study team: "And why is the toilet located so far away?"

Principal: "And what do you suggest – should we locate the toilet at the entrance to the school? Look, the waste is burning and it is hard to breathe here. While the toilet is new, it is all right. And what will it be later? It is better for it to be there."

Case study team: "How do you clean the toilet?"

Principal: "But it is new! Why should we clean it? When the time comes for it to be cleaned, we shall find a way."

Case study team: "But there are no toilet paper rolls in the latrines?"

Principal: "What paper? If someone needs it, they should bring it themselves from home."

Case study team: "Where do children wash their hands after using the toilets?"

Principal: "We have a standpipe at the school entrance."

Master teacher: "Our children are aware of the need to wash their hands. We hold regular discussions on this topic. Despite a shortage of visual aids, our teachers hold extra-curricular lessons on this matter. Recently, we arranged a Global Handwashing Day with UNICEF. Children know everything."

Case study team: "Do children use soap?

Principal: "We do not have money to buy soap. We shall try to establish a parents-teachers association, which might help us with this issue."

Logistics manager: "Why?! We do have soap in the school, which was provided by UNICEF. I will bring it out now, it is in the warehouse."

The logistics manager rushed off to bring the soap. The principal assured us that the soap would be provided to the children, repeating, "We will do everything required." The logistics manager re-entered the room with a smile on his face, holding a box of fragrant Italian soap: "Here it is! But the children might steal it. We have already faced such cases." The principal added: "Yes, it is true, we had such cases. How can we teach children not to steal and not to scatter rubbish? It is such a shame for me when SES comes to inspect us. Yesterday the SES indicated in their spot-check document [the inspection report]

that we have rubbish everywhere. The waste is being scattered all over the premises. Sanitation and hygiene mean ... that ... cleanliness is the basis for good health."

Perplexed by the inspection report, the principal could not see the whole picture for water, sanitation and hygiene issues or the vision to resolve them.

Conclusion and recommendations

To ensure minimum WASH in Schools standards are upheld in Kyrgyzstan's schools, stakeholders' involvement and interaction is needed, including children's participation in decision making. During the school inspection described in this case study, no one stakeholder fulfilled his or her obligations. Children were left alone to find solutions to WASH-related problems.

To address this situation and enhance WASH in all schools, we recommend that:

1. Sanitary and Epidemiological Surveillance (SES, Ministry of Health) inspects school facilities, monitors WASH-related issues thoroughly and helps principals solve problems, as well as provides advice for teachers, schoolchildren and parents.
2. District Education Units include WASH-related issues in the education process, oversee the educational aspect of hygiene and contribute to the improvement of children's health in coordination with SES.
3. Principals realize the importance of WASH and determine its priority during budgeting; arrange daily work on WASH, including adherence to sanitary and hygiene norms; and act as a liaison to link the education and health sectors with local authorities for providing WASH in Schools.
4. Local authorities make the budgeting process transparent, enhance reporting and ensure adequate resources for strengthening water, sanitation and hygiene education in schools.
5. Teachers help students learn hygiene skills and act as role models on a daily basis, making hygiene and sanitation norms a routine practice among students, colleagues and parents.
6. Parents help enhance relevant skills and knowledge in the school community by initiating parent-teacher associations to raise issues and to search for possible solutions, as well as monitor drinking-water quality, sanitation and hygiene-enabling facilities.
7. Donor organizations oversee adherence to norms during toilet construction, including plans for maintenance and overseeing the use of provided goods.
8. Adult stakeholders, without delegating their obligations, involve children in discussions on WASH issues, including the design and construction of latrines and raising awareness of the importance of clean hands and hand washing with soap.

7. Malawi: Improving school water, sanitation and hygiene data through the Education Management Information System

Submitted by Blessius Tauzie, UNICEF Malawi

These students are among the 4.3 million school-aged children who live in Malawi.

Abstract

All too often, the absence of relevant data on WASH facilities in primary schools remains one of the biggest barriers to attaining universal coverage for WASH in Schools. Although information on the primary education system is often systematically collected, good data on WASH in Schools are usually not included.

This report presents the challenges and successes around incorporating WASH questions into existing national education surveys in Malawi. Adding WASH indicators to the Education Information Management System (EMIS) requires a participatory process in which multiple stakeholders remain realistic and try to find common ground. The experience in Malawi illustrates the possibilities for collaboration between WASH and education stakeholders, with great progress made on the integration of sectors.

Background and country context

TABLE 7.1 School-aged population, Malawi

School level	Age group	Total school-aged population	Male	Female	% male	% female
Primary	6–13	3,150,722	1,544,972	1,605,750	49.03%	50.96%
Secondary	14–17	1,193,326	563,465	629,861	47.22%	52.78%

Source: National Statistics Office, Mid-year projection estimates, February 2009.

Every year, Malawi's Ministry of Education, Science and Technology publishes a report, known as the 'education statistics booklet'. The booklet contains information on various aspects of the formal education system for primary and secondary schools, technical and vocational colleges, and higher education for each academic year. The data are collected, compiled, analysed, published and disseminated by the Education Management Information System (EMIS) Section of the Department of Education Planning.

Primary schools in Malawi contribute significantly to the national water, sanitation and hygiene status. Primary schools have a huge captive audience for facilitating, raising awareness and catalysing behaviour change on hygiene practices both in school and in their respective surrounding communities. More than 75% of formal learning institutions are primary schools, with a total of 3,600,771 students enrolled – therefore, the availability of safe water supply in 81% of primary schools represents 3.5% of Malawi's population with access to a safe water supply.

Basic data for Malawi

- **Population**[a]
  - Estimated population: 13,630,164
  - Estimated population growth rate: 3.32% – urban: 90.5, rural: 58.7
  - Average population density: 105 per sq. km
  - Adult literacy rate: 60.9%
- **Household water supply and sanitation**[b]
  - Access to safe water supply: 75%
  - Access to improved sanitation: 47%
  - Access to basic sanitation: 93%
- **Primary school water supply and sanitation**[c]
  - Protected water supply: 81%
  - Acceptable sanitation with latrine-to-pupil ratio of 1:60: 23%
  - Basic (unimproved) sanitation: 33%
  - Hand-washing facilities with soap: 4%
  - Hand-washing facilities without soap: 14%

a. Annual Census 2008.
b. MICS 2006.
c. Ministry of Education, Science and Technology, 'Malawi School WASH 2008: A status report on water, sanitation and hygiene in primary schools', Government of Malawi, May 2009.

Poor sanitation in 87% of primary schools, however, increases the likelihood of pupils residing in households with access to improved sanitation but attending schools without improved sanitation facilities. Because this defeats the purpose of inculcating good hygiene practices among students, the need to improve sanitation and increase access to safe water and hygiene education in schools cannot be overemphasized.

This can only be better achieved when the EMIS collects data that are relevant, adequate and timely – and accurately inform policymakers and stakeholders on the status of water, sanitation and hygiene (WASH) for effective planning. The annual collection and publication of the education statistics is generally considered timely, but the relevance and adequacy of WASH data collected in 2007 was limited in scope and provided scanty information for effective programmatic planning. The EMIS Section was engaged to consider reviewing the data on WASH and include it in the annual publication for partners to use.

This case study explores how WASH indicators were improved, leading to the incorporation of key indicators in the Education Management Information System and the education statistics booklet.

Process and approach

Before 2007, EMIS collected water and sanitation variables as follows: Main water sources were classified as piped, borehole, well/spring, rainwater tank or lake for each school. Under sanitation, latrine and water closet facilities were categorized as either complete or incomplete, and whether permanent or temporary.

A water tap at a primary school in Blantyre,where UNICEF advocates for girls' education and seeks to improve access to clean water and sanitation.
© UNICEF/NYHQ2005-1402/Christine Nesbitt

Data were not collected for urinals or for determining hygiene practices in schools such as availability of hand-washing facilities and soap. It was difficult to determine the ratio of pupils to drop hole, which helps measure the availability of school latrines. Analysis of existing variables could not provide an accurate and complete picture of WASH in Schools status, creating a large gap for effective planning to improve WASH in Schools.

For this reason, UNICEF Malawi took the lead to engage the Ministry of Education Science and Technology to review the existing variables on WASH in its annual publication. UNICEF played a coordination role and provided technical and financial support for reviewing the WASH in Schools variables. The Ministry of Health and the Ministry of Irrigation and Water Development were key partners that collaborated with the EMIS Section to mainstream relevant policy indicators in the review process.

The Ministry of Health provided expertise in hygiene and sanitation issues and works in partnership with the school health and nutrition programme. The Ministry of Irrigation and Water Development is the policyholder for both National Water Policy and the National Sanitation Policy. It also regulates and maintains the budget for providing safe water supply in Malawi and therefore provides guidance in that regard.

Challenges and solutions

An immediate issue that presented challenges during the initial discussions was that EMIS was not ready to accept adding to the already congested data collection questionnaire within a fixed budget and timeline. By the time UNICEF engaged EMIS for the review, the organization for collection of data was at an advanced stage and the 2008 questionnaires for the routine education statistics survey were already in print.

Due to this scenario, it was resolved that a separate national school WASH assessment be undertaken to act as a baseline for the newly introduced WASH in Schools variables and as an advocacy tool for funding-raising for WASH in Schools. A task team was put together to work out and propose key variables that would be relevant and provide adequate information for WASH in schools.

The identification and inclusion of the set of relevant data was guided by the National Water Policy 2007, National Sanitation Policy 2008, National Gender Policy 2004 and the Malawi Growth and Development Strategy, as well as the Millennium Development Goals.

Primary-school students in Malawi represent a huge resource for facilitating, raising awareness and catalysing hygiene behaviour change both in school and in their surrounding communities. The children above helped lead the movement for an open-defecation free village through the Community-Led Total Sanitation initiative.

After several meetings and consultations with key ministries of health, irrigation and water development, children and community development, education and UNICEF, a list of key WASH in Schools variables was generated. The list included the following:

- **Sanitation –** improved and basic latrines, water closets, urinals, hand-washing facilities and availability of soap, disaggregated by gender.
- **Water supply –** protected and unprotected sources, and testing for bacteriological contamination of protected sources and water storage in classrooms.
- **General –** total number of boys and girls, teachers and number of classrooms.

Organization of data collection and dissemination

EMIS designed a one-page data form and data entry tools, and determined the software for analysis and generating reports.

Considering the complexity of undertaking a nationwide assessment, a pilot WASH in Schools assessment was organized and undertaken in July 2008 to verify the suitability of the proposed variables and to pretest the assessment tools, data collection procedures, data processing and the overall feasibility of conducting a nationwide assessment. The pilot study

was undertaken in 227 public schools within one district. Adjustments were made to the data instruments to ensure that accurate, consistent and reliable data would be collected.

EMIS organized the data collection methodology based on the lessons from the pilot assessment and its previous years' experience. Primary education advisers in 411 zones clustered in 34 educational districts were trained to be supervisors and verification officers and equipped with instructional notes. In their respective zones, the primary education advisers distributed data collection forms and hydrogen sulphide strips for water-quality testing to school headmasters.

The data collection approach was more like self-reporting, and the data collection exercise was undertaken for a period of three days. During this period, the advisers collected and verified the data from the headmasters. Once all the forms had been collected at the zonal level, the advisers delivered the completed forms to their respective divisions. The divisions gathered all the forms and submitted them to the national education headquarters of the EMIS Section for data entry.

This process ensured that all the filled forms were collected, and documented any missing data. A total of 5,379 schools were assessed out of 5,460 – with an outstanding response rate of 98.5%.

Data entry cleaning and collating took about two weeks, employing three data entry clerks on three computers. Because all questions were closed in nature, Microsoft Excel software was used for data entry. The key indicators expected to provide WASH information included:

- % of pupils with access to safe water
- % of schools with protected water source
- % of classes with water storage containers
- % of schools with hand-washing facilities and soap
- % of schools with urinals for girls and boys and the latrine-to-pupil stance ration, by gender and urban-rural
- % of schools with latrines under construction
- % of protected water sources with bacteriological contamination.

Once the data analysis had been completed, preliminary results were disseminated to the key stakeholders: policymakers in education and other ministries, especially Irrigation and Water Development, and the Ministry of Health; local government; and non-governmental organizations. A briefing of the WASH sector group was conducted, including such donors as the African Development Bank, the European Union, the United Kingdom Department for International Development and the World Bank.

The WASH sector team requested additional analysis on data by district and that raw data for each school be presented as annexes to the main report. Tables and charts were produced based on the key indicators by district and education divisions.

A consultant was hired to write the main school WASH assessment report. Since the consultant was hired at the end of the process, it proved a difficult task for the consultant to adequately contextualize the interpretation of the data. A task team comprising six members who participated in the data collection took over the initial report writing, which was later reviewed by a consultant with expertise in producing technical reports.

The report was proofread and sent for printing of 10,000 copies for the National School WASH Assessment 2008 and 10,000 copies of the Divisional WASH Assessment reports in 2010. These two reports present the baseline of the situation of WASH in Schools in Malawi by district and nationwide.

The support to undertake improving WASH in Schools data under the Education Management Information System and its subsequent inclusion in the annual publication of education statistics cost about US$59,900. About 55% of the budget covered printing and distribution of 20,000 copies of the main report and its annexes; the remainder was used for the nationwide data collection exercise and the consultancy on detailed data analysis and report writing.

In 2009, the Education Statistics report incorporated 50 out of 60 variables from the National WASH Schools Assessment 2008. The data are currently published in the education statistics report.

Girls share a book during an outdoor class at Ndirande LEA Primary School, one of approximately 20% of primary schools nationwide that receive UNICEF support.

Lessons learned and conclusions

Use of existing systems and building on them ensures sustainability of the improvements. In this case, UNICEF and partners did not aim to introduce a parallel annual assessment but rather to incorporate WASH in Schools into the EMIS. Compromises are usually not easy when multi-sector needs have competing priorities. The WASH sector simply modified data variables by reviewing the existing indicators and replacing them with relevant ones. This approach avoided the need to remove data from other sectors of the EMIS, which may have resulted in a lengthy bargaining discussion.

Whenever undertaking such a process, it is important to ensure that the type of variables considered should contribute to existing policy (or policies) rather than arbitrarily selecting variables. The inclusion and participation of key partners helps consolidate views quickly.

The National School WASH Assessment has been widely distributed for use and advocacy for fund-raising both internationally and locally. The incorporation of the new set of data in the 2009 Malawi educational statistics booklet is a testimony of a successful process for improving WASH in Schools data.

8. Myanmar: Sustaining supplies of soap at primary-school latrines and hand-washing points

Submitted by Aye Aye Than, Kyaw Lwin Latt, Khin Aung Thein and Mya Than Tun, UNICEF Myanmar

Abstract

This case study explores the challenges to providing sustainable soap supplies at primary schools in Myanmar. The case study team selected Pyapon Township – where less than 10% of schools have functional hand-washing facilities and soap (or ash) available – as a representative district for detailed analysis. Key findings from field visits to 10 child-friendly schools in the district are presented, along with recommendations for supporting WASH in Schools and maintaining the soap supplies that are necessary for healthy hygiene practices.

Hand-washing facility at a primary school in Pyapon District, Myanmar.

Country context and case study background

The South-East Asian country of Myanmar has a population of 48 million and was ruled by a military regime for more than 40 years. Since a new Government was elected in 2011, administration has been decentralized through 340 townships. Under military rule, national investments in education and health were never disclosed, but it is estimated that expenditure for both sectors combined was less than 5% of the gross domestic product. In the Government of Myanmar's allocations for 2011–2012, 5% of the total budget is allocated to education and 1.5% of the total is allocated to health, according to figures from the Ministry of Planning.

There are 39,195 primary schools nationwide, serving 651,033 students, according to Ministry of Education data from 2009. Pyapon Township, where this study research was conducted, has 220 primary schools with 41,311 students and 1,061 teachers.[5] UNICEF plans to implement WASH in Schools programmes in 25 townships during 2011–2015, including support for the School Sanitation and Hygiene Education Project.

Myanmar has historically been weak in documentation and very cautious regarding data collection and dissemination. In collaboration with the Department of Education Planning and Training (Ministry of Education), UNICEF was nonetheless able to conduct an extensive WASH in Schools survey in 2010.[6] The survey applied both quantitative and qualitative methods. The principal or acting principal (headmistress or headmaster) of each school was interviewed using a structured questionnaire. A 10-point checklist – based on UNICEF's WASH in Schools Monitoring Package – was used to evaluate: the water supply system; availability of water and its quality (by physical appearance); and the quantity and quality (functionality and cleanliness) of school sanitation facilities.

The survey covered 1,421 primary schools in 10 randomly selected townships with UNICEF-supported child-friendly school projects. The townships include hilly, coastal and plain areas; the ratio of rural to urban schools surveyed in each township was 3 to 1. Random numbers were generated to decide which village tracts and urban areas were to be covered in each township; a similar process was used to decide which schools to survey. In Pyapon Township, data from the 62 sample schools show the following results:

- 77.4% of main water sources are functional.
- 85.5% of schools have enough water.
- 82.3% of schools have a functional water point at or near the school that provides enough safe drinking water for the whole year.
- 40.3% of schools have a sufficient number of functional toilets and urinals.
- 58.1% of schools have adequate functional toilets for girls, boys and teachers that meet national standards (1 for 50 students).
- 45.2% of the schools have adequate functional toilets for students only that meet national standards (1 for 50 students).
- 59.0% of schools have functional toilets accessible to children with disabilities.
- **9.7% of schools have functional hand-washing facilities and soap (or ash) available for girls and boys.**
- All of the schools taught hygiene promotion.
- Solid waste and sludge are disposed properly at 75.8% of the schools.[7]

5 Department of Education Planning and Training, Ministry of Education, 'Educational Statistics of Government Basic Education Schools, Affiliate Schools and Educational Colleges', Government of Myanmar, Nay Pyi Taw, 31 March 2009.

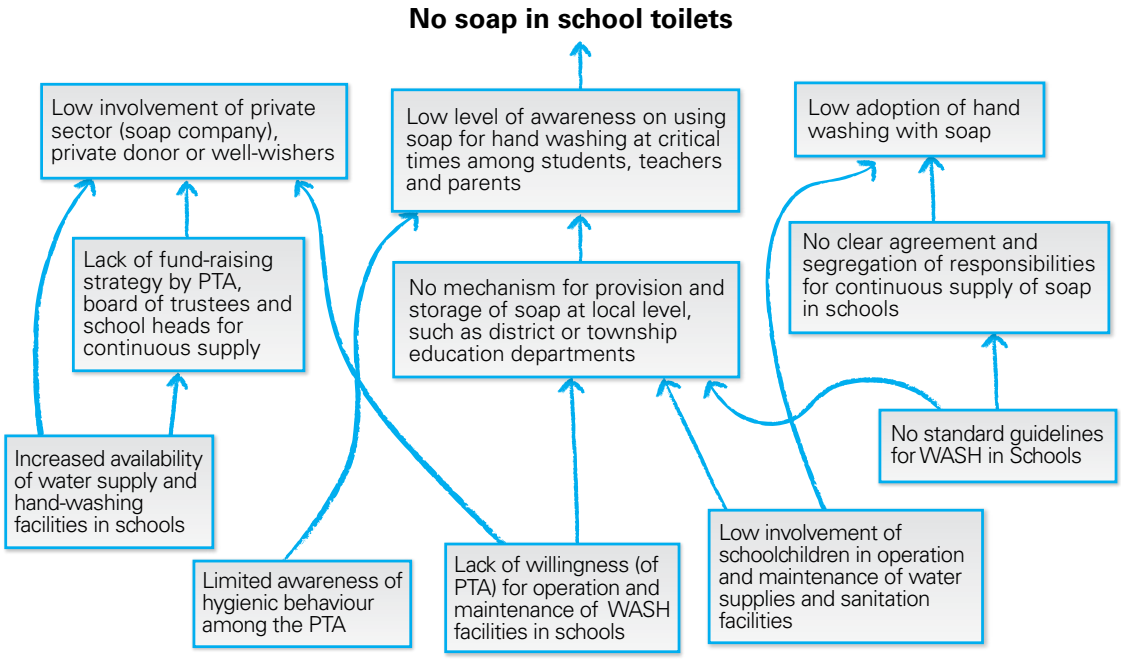
6 United Nations Children's Fund, 'Report on WASH in Schools Survey in Myanmar', prepared by Myanmar Survey Research for UNICEF, October 2010.

7 Myanmar Survey Research, 'Tabulation Data, Map, and School List of UNICEF WASH in School Survey in Pyapon Township', United Nations Children's Fund, 2010.

These indicators show that schools in Pyapon Township have an adequate quantity of drinking water that appears to be relatively safe. The number of toilets, and the ratio for boys and girls, are also acceptable. The issue is that only 9.7% of schools have functional hand-washing facilities and soap (or ash) available.

The case study team visited 10 child-friendly schools in Pyapon and interviewed township education authorities, school headmasters, teachers, schoolchildren and members of parent-teacher associations (PTAs). The goals were to find out why soap is not available, what government and local strategies are in place for addressing this issue and how the private sector can be involved. Basic issues identified by the study team are presented in the problem tree graphic below, followed by details of the findings on four significant challenges.

FIGURE 8.1 Problem tree based on school situations in Myanmar's Pyapon Township



1. Limited support for WASH in Schools facilities and supplies

At the national level, WASH in Schools guidelines are still at the draft stage. The government-allotted budget for education is minimal and earmarked mainly for teaching staff salaries. Although the government funds cover a portion of the cost for constructing school infrastructure, there is no budget for water and sanitation facilities, or for hygiene education. This places the burden of securing funds for WASH in Schools on local education authorities and school principals.

In addition to the lack of funds for construction, there is no mechanism – at any level – for providing and storing essential supplies such as soap. Township authorities and school headmasters worked hard to find support from parents and well-wishers for building school toilets and are extremely reluctant to request more funds for supplying soap.

Township education departments have not established plans for providing regular supplies of soap in schools and generally have shown no concern for finding ways to sustain supplies.

The PTAs mainly focus on hardware development and school-building expansion, school furniture and fencing. The majority of parents think it is the school's duty to provide WASH supplies, and they did not consider contributing to the cost of soap, even for the own children's use. Students can cite the critical times for hand washing and showed willingness to wash their hands with soap if it is available. They are also willing to pay for or share the costs of soap if it is supplied routinely at hand-washing points. Education authorities, however, prohibited collecting contributions from students because it would burden parents who are trying to make ends meet and have limited will to spend more money.

2. Lack of coordination between stakeholders

Education- and health-related departments, local authorities, United Nations agencies, non-governmental and community-based organizations, and the private sector are all involved with WASH in Schools initiatives to some extent. In Myanmar, however, it is not common practice to organize government-led meetings between departments and implementing agencies. The previous Government's policy was weak in coordination, making it difficult to establish long-term hygiene promotion programmes in schools.

Without coordination between institutions, there is little motivation for investing in WASH facilities and supplies. In addition, private sector support has mostly been limited to assisting with infrastructure and providing classroom supplies such as paper. Soap companies typically focus on employing popular actors and actresses in television and magazine advertising for soap. Some companies provide soap to schools on a one-time basis, but none of them promote their products through students, teachers and schools. The issue was never discussed with local soap suppliers, and manufacturers did not realize that there is an ongoing need to support school supplies.

3. Low awareness of hand washing with soap at critical times

Parents' limited awareness of good hygiene practices is a major challenge for promotion of proper hand washing at schools, especially in rural areas. Most of the people living in Pyapon are farmers who traditionally work and stay in the paddies and have limited hygiene knowledge. Sanitation coverage is less than 50% and open defecation is common. Among farmers' families, soap is used for bathing and for washing clothes, not for washing their hands after using the toilet.

Although some teachers pay attention to maintenance of WASH facilities, such as replacing the cleanliness of toilets or replacing broken taps, most of them are normally busy with children's learning activities and do not pay much attention to developing good hygiene behaviour. Hygiene is taught as part of life skills, but teachers do not realize that poor personal and environmental hygiene can diminish children's learning abilities and reduce school attendance. Although students' basic knowledge on the importance of hand washing is adequate, good practices are not supported by an enabling environment or the ability of teachers to serve as role models.

4. Limited awareness of options for providing soap at school hand-washing points

When WASH facilities were first constructed, schoolchildren used a lot of soap because they enjoy trying new things. Some headmasters and teachers tried to keep soap at the hand-washing points, but it got soaked with water and was rapidly consumed. Because schoolchildren play with the soap or take it with them, waste and loss of soap is a concern for school heads and teachers. Another barrier to maintaining soap supplies is the widespread opinion that fragrant soap must be used for hand washing. The cost of this type of soap is at least double compared to ordinary soap. Options for using and storing soap were not considered by school staff or education authorities.

Recommended strategies for sustaining soap supplies

A sustainable WASH in Schools programme requires participation at various levels, under the close guidance of national education authorities. Parents, teachers and schoolchildren should all be involved, as well as local authorities, the health sector and the private sector.

Advocacy for greater investment in WASH in Schools activities should reach out to both local- and central-level governments. Community-based organizations, non-governmental organizations and United Nations agencies – in coordination with government departments – should facilitate and organize hand-washing events at schools in their project areas. Global Handwashing Day, for example, could be observed jointly with the private sector to raise awareness and develop a strategy for supplying soap to schools.

Together with township education authorities, the study team met with headmasters, teachers, students and PTAs to discuss other ways to support WASH in Schools and provide continuous supplies of soap.

At the township level, education offices need to organize advocacy campaigns on the importance of WASH in Schools. Teachers and community members can be involved in these campaigns during enrolment days and other occasions.

A checklist for WASH indicators, including hand washing at critical times, should be part of routine monitoring and supervision by assistant township education officers and cluster heads. Township education officers (the responsible government authority) should also check on the presence of soap at school hand-washing points as part of routine monitoring.

At the local level, all schools need to establish a sustainable mechanism for providing soap by linking with the private sector and local government. School principals should have greater authority to raise funds for soap supplies, for example, by occasionally collecting contributions from students. Linking schools with suppliers or resellers to support continuous supplies of soap, with help from the local government, is an option in both urban and rural areas. The new decentralized government policy encourages local authorities to make such decisions.

To create awareness, schoolteachers need to raise WASH issues during PTA meetings, encourage contributions from the PTA members and lead the development of plans for continuous supplies of soap. To promote good hand-washing practices, teachers and students should wash their hands with soap together before eating lunch at school.

Practical solutions

Discussions conducted by the case study team focused on two practical ways to maintain soap supplies:

1. Put the soap in a net that hangs from the ceiling. This makes it possible to utilize supplies without any waste because children cannot play with the soap and it dries quickly.
2. Reduce costs by using ordinary soap. The fragrant soap that is currently used for hand washing costs 0.25 USD for 70 grams. which is significantly more expensive than ordinary soap. During our discussions, the headmasters calculated that one bar of soap can be used for one day at two hand-washing points with 200 students. The case study team explained that ordinary soap costs 0.30 USD for 150 grams. By using ordinary soap at hand-washing points, the monthly cost for a continuous supply will be around 7 USD for 200 students. This is a more manageable expense, making it possible for headmasters to raise funds from sources such as school canteens in urban areas.

Reducing costs by using ordinary soap, placed in hanging nets, is one way to keep supplies available at school hand-washing points. Raising awareness of this approach among school headmasters encouraged them to consider the option. Additionally, our discussions with township education authorities motivated them to advocate for the option with school headmasters.

Finding new ways to keep soap available in schools leads to a sense of self-reliance. This problem-solving approach will support the sustainability of WASH facilities and healthy practices, including the availability of soap for hand washing at all times.

Myanmar WASH in Schools team attending webinar session. From left: Aye Aye Than, Communication for Development Specialist; Kyaw Lwin Latt, Education Officer; Mya Than Tun, WASH Officer; and Khin Aung Thein, WASH Officer, UNICEF Myanmar.

9. Nepal: Linking WASH in Schools investment to reality

Submitted by Nirmala Mainali, Department of Education; Anna Uí Dhalaigh, UNICEF Nepal; Ilmari Saarilehto, UNICEF Nepal; Mukti Pokharel, Nepal Red Cross Society; Kusum Bista, Japan International Cooperation Agency; Narayan Shrestha, Japan International Cooperation Agency; and Sita Bishwakarma, UNICEF – with special thanks to Timothy Grieve, mentor, UNICEF Philippines

Abstract

This case study explores the results of the Government of Nepal's increased investment in school water, sanitation and hygiene facilities during 2010–2011.

The study team interviewed engineers, school supervisors and resource personnel in two districts, as well as teachers, parents and students. Highlights from the findings are presented, along with recommended steps for ensuring that WASH in Schools facilities and practices incorporate quality and sustainability.

Country context

There are 33,160 basic and secondary schools in the Federal Democratic Republic of Nepal. Many schools lack adequate facilities for water supply, sanitation and waste disposal, despite efforts to expand coverage.[8] Although 79% of schools report having a toilet, only 36% have a separate toilet for girls.[9]

Children during school assembly, Kathmandu.
© UNICEF Nepal/Ilmari Saarilehto

The WASH in Schools approach is an integral part of the National Strategy on School Health and Nutrition established in 2006. The Government of Nepal solidified its commitment to child- and gender-friendly learning environments by endorsing a framework for child-friendly schools in 2010.

Approximately 10% of the indicators for child-friendly schools are directly related to water, sanitation and hygiene. Moreover, the National Sanitation and Hygiene Master Plan of 2011 promotes WASH in Schools as a key step towards open defecation free communities and districts.

8 Ministry of Education, 'Nepal Education in Figures 2011 at a Glance', June 2011.

9 Department of Education, Consolidated Report, 2011.

The Ministry of Education substantially increased its budget for building school toilets during 2010 and 2011, with a strong focus on increasing girls' attendance by enhancing their health and comfort in school. The Department of Education's Annual Strategic Implementation Plans 2010/11 included building 8,500 girls' toilets and 7,500 combined units, with 1.1 billion rupees (US$15 million) allocated by the Government for girl-friendly toilets in schools.[10]

To assess the results of this increased investment, the case study team engaged with District Education Offices in Kathmandu and Bhaktapur Districts. We also visited schools where there has been positive progress, as well as schools that illustrate challenging issues. Three questionnaires, covering a full range of WASH indicators, were developed and customized for: (1) District Education Office personnel; (2) teachers and parents; and (3) students. The study results include 20 respondents from two district offices and 90 respondents from schools.

The substantial investment made by the Government of Nepal is a great step, demonstrating its commitment to sanitation and water for all children in schools. But the district-level findings indicate there is still a long way to go to achieve scaling up quality WASH in Schools programmes. Along with investments in hardware, ensuring that facilities are functional and students have an opportunity to learn hygiene life skills needs to be prioritized.

An unfinished school toilet in Bhaktapur. It was very difficult to access these toilets. Most of the budgeted funds were used for the structure, with not enough left for plastering and roofing.

District-level findings

The case study team met with engineers, school supervisors and resource personnel in the District Education Offices. Our discussions revealed that both districts had similar issues, opportunities and challenges to share. Generally, schools that have not considered WASH as a priority are increasingly doing so, although community contributions were still found to be low in cash, labour or kind.

10 NGO Forum for Urban Water & Sanitation, 'Govt. to Construct Toilets in 5500 Schools', 1 February 2011, www.ngoforum.net/index.php?option=com_content&task=view&id=10724&Itemid=6, accessed 7 January 2012.

In Kathmandu, the District Education Office plans to build 220 latrines, with just more than half for girls only. As of 2011, 110 latrines were completed, according to District Education Office data. In Bhaktapur, 51 out of 120 latrines had been constructed. The budget for each latrine block, including water and hygiene facilities, is approximately US$2,600, as noted in the Annual Strategic Implementation Plans 2010/11. This limited budget has been a major obstacle to ensuring well-constructed, inclusive facilities.

The quotas for latrine construction were considered to be too ambitious, given the limited human resource capacities for programme implementation, monitoring and evaluation. Engineers in the district offices receive very little logistical support, such as vehicles and office equipment. Each district has one engineer and two sub-engineers to oversee the entire school construction programme, including District Education Office buildings, as well as classrooms and WASH facilities.

District education personnel interviewed by the study team recommended that, rather than building new facilities, non-functioning toilets should be rehabilitated as part of the existing classroom rehabilitation programme.

Regarding the designs for WASH facilities, engineers said that very little attention is given to such issues as access for children with disabilities. District personnel in Bhaktapur reported that there is a quality checklist for school supervisors, but it is limited to hardware only. They suggested that the checklist should include qualitative indicators on child-, gender- and disabled-friendliness, and whether soap is provided at hand-washing stations.

The available WASH facilities designs also lack flexibility to adapt construction to on-site conditions. At many schools in urban areas, there is not enough space to ensure adequate latrines. Education officers in both districts said that water scarcity is a significant challenge to ensuring that students and staff can wash their hands properly, and that facilities are clean and well maintained.

> "Sometimes my daughter does not even come to school during her menstruation as it is too uncomfortable and dirty to manage it there."
>
> – Parent, Nepal Yubak Secondary School, Kathmandu

There is no standard mechanism for hygiene promotion in either district. District personnel reported very little coordination and integration between partners. Some programmes have been implemented by the District Water Supply and Sanitation Offices and non-governmental organizations without informing the District Education Offices, which creates confusion and duplication of services and facilities.

Lack of coordination between other government line departments, such as the District Health Offices, was also mentioned. In Kathmandu, it was suggested that a memorandum of understanding should be drawn up between the Department of Water Supply and Sewerage and the Department of Education because they both give nationwide support to WASH in Schools.

During its most recent annual training sessions, the national Department of Education provided three days of WASH in Schools training for all engineers. Training topics included policy process, retrofitting and construction. District personnel recommended that this training should be provided every year.


Transparent sheets for roofing bring light into this school toilet in Kathmandu District, and help to keep the urinals odour-free and more user friendly.

School-level findings

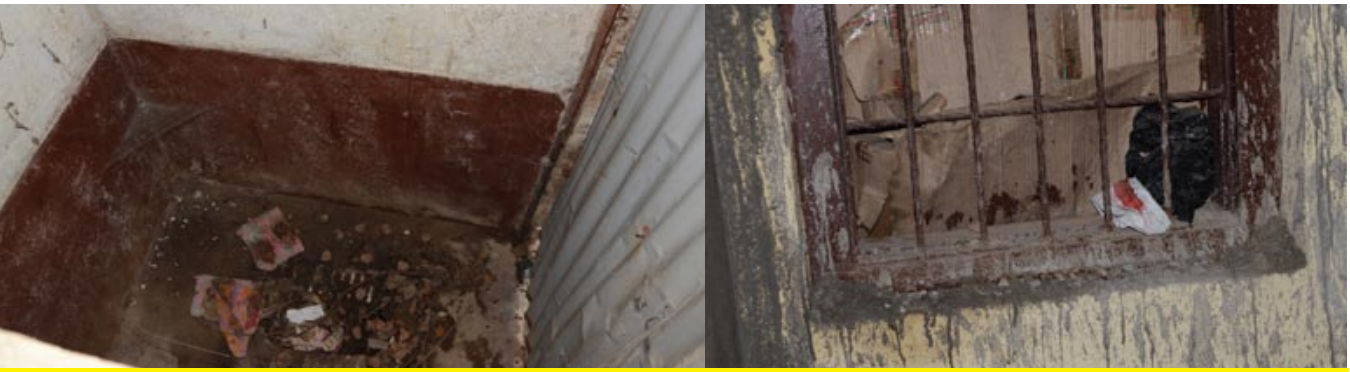
There are many good examples of WASH in Schools activities in both Kathmandu and Bhaktapur. In some schools, child and youth clubs promote proper sanitation and help keep the facilities clean. A few of the school WASH clubs collect money for supplies to maintain the facilities, and in one school, each class has its own health club that keeps soap for hand washing available at all times.

Active school management committees and headmasters in some schools have managed to get outside support to greatly improve the facilities. In two schools, drinking-water filtration is supported by an international non-governmental organization. One school in Bhaktapur was building a new block of latrines onto the existing toilet. At another school, the toilets have transparent roofing to ensure more light inside. Where there are separate boys' and girls' toilets, they are appreciated by the students, especially by the girls.

Recurring challenges include insufficient funding for toilets, which has affected many schools in both districts. Construction of a new girls' toilet in Bhaktapur, for example, had to be stopped before roofing, plastering and fixtures were finished – and the school was finding it difficult to raise funds for completion from the surrounding community.

In most of the schools, the toilets were not accessible to people with disabilities. In a few, dirty pools of water surrounded the toilet blocks due to poor drainage. Water for cleaning toilets and washing hands was noticeably scarce, and there is no systematic mechanism to provide soap for hand washing.

The emphasis on hand washing appeared to be very limited in most schools. Many students reported that there are no practical WASH-related lessons. One schoolteacher suggested there was no need for students to wash their hands every time they use the toilet because most of the children only urinate during the day.



Dirty, unused toilet in a Kathmandu School (*left*) and no disposal system for used sanitary pads.

Toilets are not clean: Many girls reported not using the school toilets at all, and some parents also reported that their children do not use the facilities for the entire school day due to the unsanitary conditions. Although schools paid to have the toilets cleaned, this work was done infrequently and poorly in many cases. Student involvement in managing and cleaning WASH facilities was low in many schools. At some schools, teachers reported that parents are against student participation in cleaning the toilets.

Facilities for menstrual hygiene management, such as water and incinerators or bins in the toilets, were also lacking. Female students in one school felt they would be more comfortable if communal hand-washing facilities were separated between boys and girls, and if there were privacy screens in the female urinals.

Changes resulting from the investment

At the national level, the increased investment in facilities motivated the Government of Nepal to establish a WASH Working Group in 2010. Led by the Ministry of Education/Department of Education, the working group involves a variety of stakeholders to improve implementation and quality of school facilities. As a result, technical standards have been revised and capacity building for all engineers has been increased. In addition, WASH has become a higher priority in the education sector, creating a golden opportunity for further improvements.

At the district level, expectations for WASH in Schools have increased, and future sustainability is indicated by the development of public-private partnerships to generate resources. The District Education Offices are working to develop model schools, creating an enabling environment that seeks to recognize and reward good examples.

For District Education Offices and engineers, however, the higher volume

> "School enrolment has increased unexpectedly due to the newly constructed school building with modern school toilets and water supply. Children who were not enrolled before were admitted and attending the classes regularly. We try to create funding by mobilizing different stakeholders … We are proud and thankful to our stakeholders who supported us."
>
> – Headmaster, Jorpati Secondary School, Bhaktapur

of work has created immense pressure. District personnel reported that they do not always have the capacity to monitor and regulate quality. In addition, they said that much greater attention should be given to operation and maintenance, recurrent costs, and basic hygiene and sanitation education.

Local governments and individual schools have begun to make WASH in Schools a priority, and a demand has been created for child-, gender- and disability-friendly facilities. Local ownership of WASH in Schools initiatives has been building gradually, and non-project schools are trying to do their best through their own efforts. Some schools have constructed improved WASH facilities in schools to demonstrate to others, thus creating ownership and pride.

Hand washing during break time at a school in Kathmandu.

Recommendations

The national investment in constructing school toilets shows increased commitment to WASH in Schools and indicates an enhanced focus on the needs of adolescent girls. It is vital, however, that new facilities uphold standards for quality, accessibility and maintenance. Six actions are necessary to meet this goal:

1. **Increase quality**.
   The district quotas for constructing facilities are unrealistic due to inadequate funding for each facility, lack of human resources, and limited logistical support for monitoring and evaluation. To ensure that facilities are adequate and inclusive, there should be a substantial decrease in the number of toilets planned and an increase in the funds allocated per toilet block, particularly in rural areas.

Students participating in basic practical hygiene education in Sunsari.

The monitoring, evaluation and supervision budget of the District Education Offices needs to be increased. School checklists and the national monitoring system should assess WASH in Schools elements such as water treatment and quality; child-, gender- and disabled-friendliness; and equipment and supplies for hand washing with soap.

2. **Improve local standards, ownership and innovation.**
   The standards for design and materials need to be flexible, taking the local context and the whole school environment into account. Where water is scarce, options such as rainwater harvesting and dry toilets should be considered. The school/community contribution to WASH construction should be raised from 25% to 50% to promote greater ownership and sustainability.

3. **Increase attention to operation, maintenance and sustainability**.
   Before WASH facilities in a school are agreed with the District Education Office, essential elements must be in place. These include establishing child clubs, ensuring a safe water source, and developing a school operation and maintenance plan to cover costs for supplies and maintenance. Cleanliness of the toilets and other facilities should be included in the annual school improvement plan. This also needs to be monitored by school supervisors and engineers.

4. **Increase the focus on basic hygiene and sanitation practices in school.**
   Hand washing with soap, proper toilet usage and menstrual hygiene management are fundamental to ensuring healthier behaviours in schools. Child club WASH activities and child-to-child education, as well as parent-teach involvement, need to be strengthened. A budget for these activities should be provided by the Ministry of Education/Department of Education in each annual school improvement plan.

5. **Promote rewards, recognition and capacity building**.
   To boost motivation and prioritize WASH in Schools, improvements and best practices in each district should be recognized and rewarded. Continuous annual training is crucial for all District Education Offices, engineers and school staff, as well as national-level stakeholders.

6. **Increase cooperation and coordination at the district level.**
   District and village WASH committees can be good platforms for cooperation at the district level, as outlined in the Sanitation and Hygiene Master Plan. To better harmonize efforts in the districts and schools – as well as at the national level – coordination should include Water Supply and Sanitation Divisional Offices, District Health Offices, non-governmental organizations and other partners.

   In areas where water is scarce, WASH committees can be especially helpful in supporting school water supplies. District Education Offices need to be active members of these committees for increased efficiency, quality and transparency as they become part of the national movement for improved hygiene and sanitation.

The Government and partners are increasingly recognizing WASH in Schools as a significant aspect of quality education, and an effective way to promote healthy schools and communities. WASH in Schools must continue to be supported, monitored and recognized as part of the movement for improved hygiene and sanitation throughout Nepal.

Key recommendations should be adopted by the WASH Working Group, with capacity building, technical standards and advocacy supported by the various stakeholders. To inform better policy, processes and programmes – and to ensure better quality and learning at the school level – a joint monitoring and follow-up mechanism needs to be developed for implementing and supporting agencies.

As part of the 'Total Sanitation Movement' at the national, district and Village Development Committee levels, education sector involvement is imperative for the success of WASH in Schools. In collaboration with education counterparts, preparation of more child-friendly, interactive and joyful information, education and communication materials needs to be encouraged. Repetition and reinforcement of messages over time and in a variety of ways creates the strongest impression. This can be accomplished in school WASH programmes through routine school-level activities such as sanitation and hand washing; local communication methods; and innovative and creative activities such as prayer sessions.

Refresher training should be provided to concerned teachers, child groups and District Education Office personnel, including engineers. The sanitation training package should include planning, technical issues, and promoting sanitation and hygiene activities in schools, as well as components for local schools and increased attention to gender aspects such as menstrual hygiene management.

10. Nigeria: Research on the status of accountability, policy and resources for WASH in Schools

Submitted by Zakariyah Olabisi Agberemi, Monday Johnson and Lonis Abdu Salihu, UNICEF Nigeria

WASH in Schools initiatives in Nigeria are aiming to increase coverage of sanitation facilities in primary schools. The ventilated improved pit latrine shown above includes a hand-washing station.

Nearly all of Nigeria's schools report providing separate toilets for girls and boys, but the functionality and quality are not always fully monitored.

Abstract

An estimated 41% of primary schools in Nigeria have access to improved sanitation facilities, while 51% have access to improved water sources. Government ministries, departments and agencies, as well as development partners, donors, non-governmental organizations and host communities, are all involved in implementing WASH in Schools.

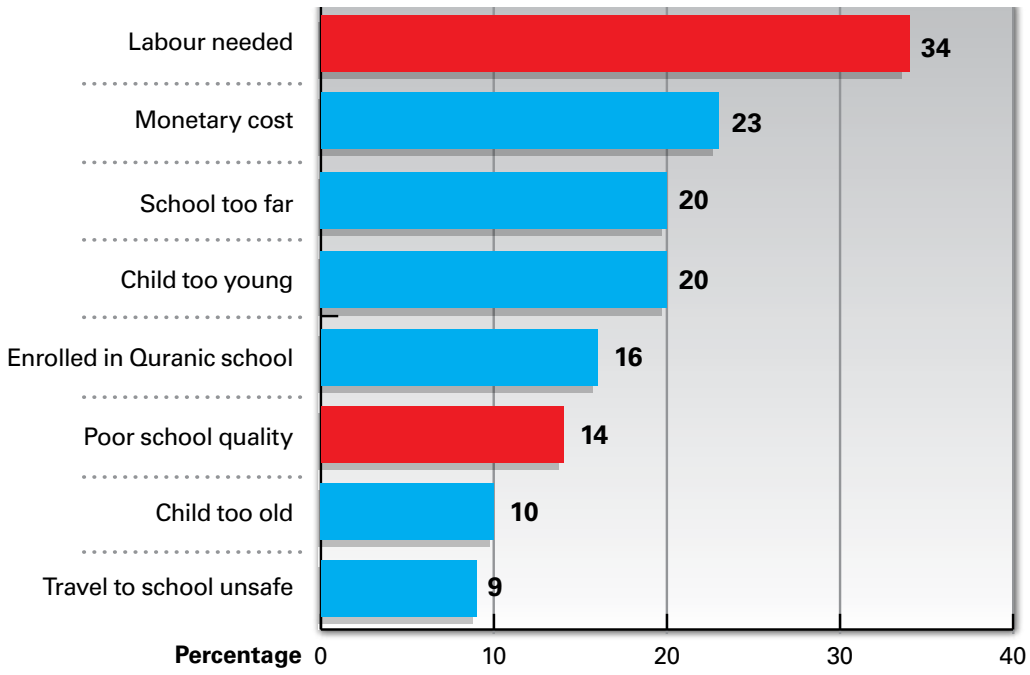
The Tanahashi model was adopted in analysing the bottlenecks to effective scaling up of WASH in Schools programmes. A poor enabling environment was identified as the major bottleneck, followed by inadequate supply of WASH facilities and soap for hand washing. An analysis of stakeholders was conducted to better understand the roles of ministries, parastatal organizations and development partners.

Country context

Access to improved water supplies and sanitation facilities is generally low, at 58% and 31%, respectively (JMP 2012). An estimated 51% of primary schools have access to an improved water source, while 41% have access to improved sanitation facilities.

Where available, school WASH facilities, particularly toilets, do not meet recommended standards. In a study conducted by UNICEF in 2003, the pupil-to-toilet ratio was estimated at 600:1 for primary schools and 172:1 for secondary schools, against the recommended ratio of 40:1.

FIGURE 10.1 Factors affecting school attendance in Nigeria



An estimated 60% of children age 6–11 (64% of males and 57% of females) attend primary school, with wide regional and gender disparities in attendance levels. In urban areas, about 70% of children attend school, compared with 56% in rural areas. School attendance varies from 42% in the north-west to 83% in the south-west. More girls than boys do not attend school, with the worst gender disparity in the north-west.

This low level of school attendance is due to several factors, as shown in Figure 10.1. Lack of access to improved water supplies and adequate sanitation in schools and communities leads to increased household labour requirements, which are often carried out by school-aged children. Monetary costs include the required expenses for schooling and a household's need for the child's labour. School quality is characterized by inadequate classroom blocks, poorly motivated teachers, and lack of access to WASH facilities.

The initiatives being implemented in Nigeria acknowledge WASH in Schools' contribution to children's improved health status, as well as school attendance. With the goal of ensuring that all primary schools have effective WASH services, these initiatives aim to:

- Increase access and use of WASH facilities among schoolchildren and teachers.
- Reduce the incidence and prevalence of water- and sanitation-related diseases among schoolchildren.
- Promote good hygiene practices and ensure an child-friendly school environment for effective learning.
- Increase awareness of hygiene practices among schoolchildren, which can be passed on to other members of households and the community.

Methodology, results and analysis

This report identifies the bottlenecks to sustainability and scaling up of WASH in Schools programmes, analyses stakeholders' roles and offers recommendations for the way forward. Based on a desk review of available documents, a modified Tanahashi model was used in carrying out a bottleneck analysis of four categories – enabling environment, supply, demand and quality – as shown in Table 10.1.

TABLE 10.1 Bottleneck analysis of WASH in Schools sustainability and scaling up in Nigeria

Category	Determinants	Indicators	Existing situation (%)*
Enabling environment	Social norms	% of pupils who practise hand washing in schools	69.1%
	Legal framework	Existence of national legislation and enforcement of WASH in Schools standards, including appropriate mechanism for monitoring and reporting	0.0%
	Policy framework	Existence and compliance with dedicated WASH in Schools policy	0.0%
	Budget	Sector ministries, states and/or local governments have a dedicated budget for WASH in Schools activities	0.0%
Supply	Availability of commodities	% of schools with access to improved water supply	51.0%
		% of schools with improved sanitation facilities	41.0%
	Availability of human resources	% of schools with trained health teachers	75.0%
	Availability of soap for hand washing	% of schools with soap for hand washing	28.6%

Category	Determinants	Indicators	Existing situation (%)*
Demand	Availability of parent-teacher associations (PTAs)	% of schools with functional PTAs	95.0%
	Gender-segregated sanitation facilities	% of schools with separate toilets for boys and girls	96.8%
	Functional sanitation facilities	% of schools with functional toilets	87.0%
Quality	Hygiene practices	% of pupils who practise hand washing in schools	69.1%

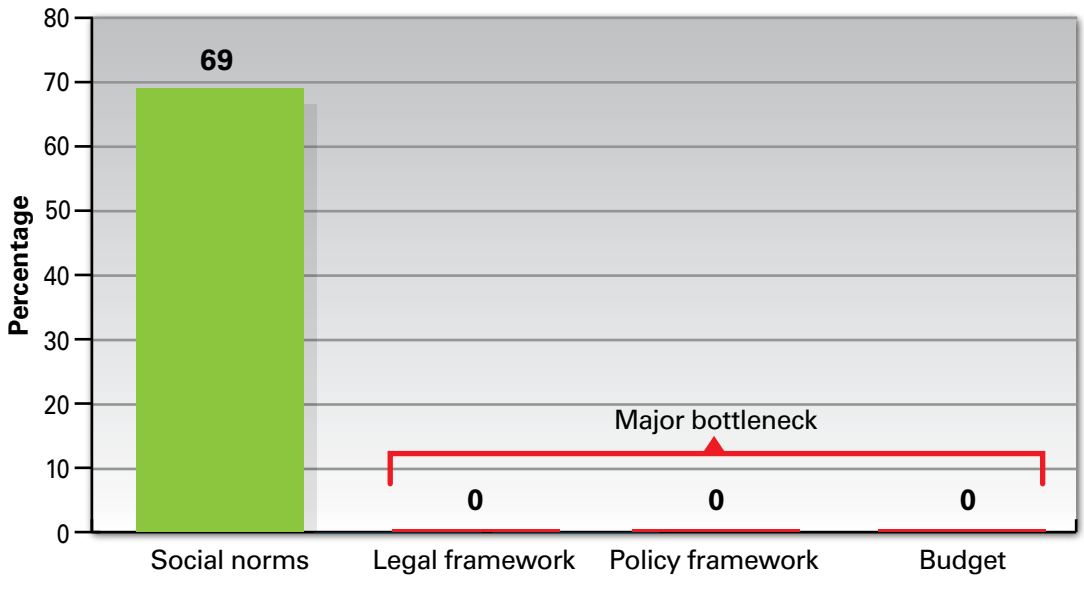
Key:
Major bottleneck: 0–50% | Minor bottleneck: 51–75% | Not a significant bottleneck:76–100%

* Percentages for schools with access to WASH facilities are derived from Federal Ministry of Education, 'Basic and Senior Secondary School Education Statistics in Nigeria, 2004 and 2005'; the remaining percentages are from a report on the evaluation of WASH projects in 222 primary schools in all the states in Nigeria, conducted by UNICEF in 2009.

Enabling environment bottlenecks

The inadequate enabling environment was identified as the primary bottleneck to full WASH in Schools coverage in Nigeria. Four determinants were used to examine the enabling environment – social norms, legal framework, policy framework and budget.

FIGURE 10.2 Enabling environment



Social norms. As represented by hand-washing coverage, social norms that support the effectiveness of WASH in Schools programmes are fairly well established. Based on the 2009 evaluation of school WASH projects in focus primary schools, 69.1% of the students are washing their hands in schools.

Legal framework. Although there is no well-defined legal framework governing WASH in Schools interventions, in 2011, the Federal Ministry of Education developed the 'Technical Guide for Construction of School Sanitation Facilities' with support from UNICEF. Due to the lack of an enforcement mechanism, however, this technical guide is not being fully utilized by implementing agencies and organizations. In addition, there is no national instrument for monitoring and reporting on WASH in Schools activities, although development partners have attempted to establish one.

As part of Nigeria's efforts to improve access to education, latrines and hand-washing stations at Bungudu Primary School were built to accommodate disabled children.

Policy framework. Data on WASH in Schools interventions are captured in different ways through the National School Health Policy and National Environmental Sanitation Policy. But there are no clear-cut directives or agreement among relevant stakeholders on policies and methods for effective WASH in Schools implementation. This is compounded by poor compliance with existing policies and lack of an enforcement mechanism for established standards and guidelines. National data on WASH in Schools collected by the Education Information Management System (EMIS) are sparse and not regularly updated. This could be attributed to lack of effective monitoring and reporting systems at the national and sub-national levels, and has a direct bearing on the ability to generate evidence for advocacy and resource mobilization, as well as planning for scaling up.

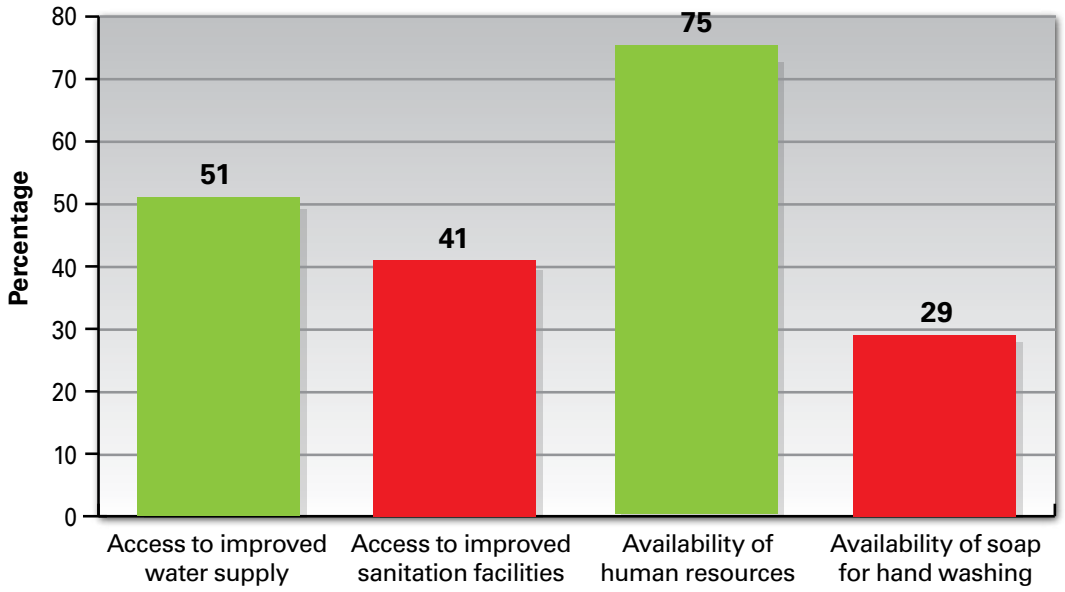
Budget. There is no clear-cut budget line for WASH in Schools projects in most of the government ministries, departments and agencies at the national and sub-national levels. Although the Ministry of Education is the lead agency for WASH in Schools, it is not technically and financially empowered to perform this role. This results in poor coordination of interventions and disbursement of insufficient resources among several government ministries, departments and agencies. Lack of a WASH in Schools budget line has hindered the ongoing efforts to scale up successful models from donor-assisted projects and made it difficult to maintain the existing facilities.

Supply bottlenecks

Three major determinants were used for the analysis of supply bottlenecks:

Availability of essential commodities. Only 51% of Nigeria's primary schools have access to an improved water supply and 41% have access to improved sanitation facilities. Where available, sanitation facilities are often inadequate.

FIGURE 10.3 Supply bottlenecks



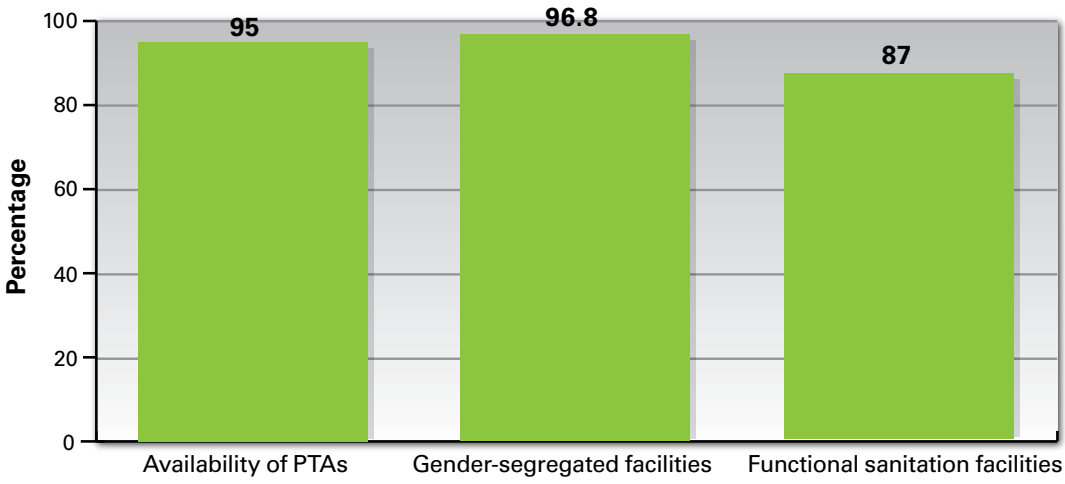
Availability of human resources. About 79% of primary schools have functional environmental health clubs for hygiene promotion activities and 75% have trained health education teachers. Data are not available, however, on the quality and frequency of teaching health education. Considering the desired impact on behavioural change among students, it is likely that these need to be improved.

Availability of soap for hand washing. Only 29% of primary schools have a regular supply of soap for hand washing, which could be attributed to inadequate funds.

Demand bottlenecks

Three determinants were selected for the analysis of demand bottlenecks:

FIGURE 10.4 Demand bottlenecks



Parent-teacher association (PTA). Available information shows that 95% of primary schools have PTAs that are contributing significantly to management of school facilities, including WASH facilities. The major challenge is lack of regular funding for PTA activities.

Gender-segregated sanitation facilities. The 2009 evaluation report of WASH projects in 222 focus schools estimated that 97% of primary schools have separate toilets for boys and girls. The main challenge is the inadequacy of these toilets.

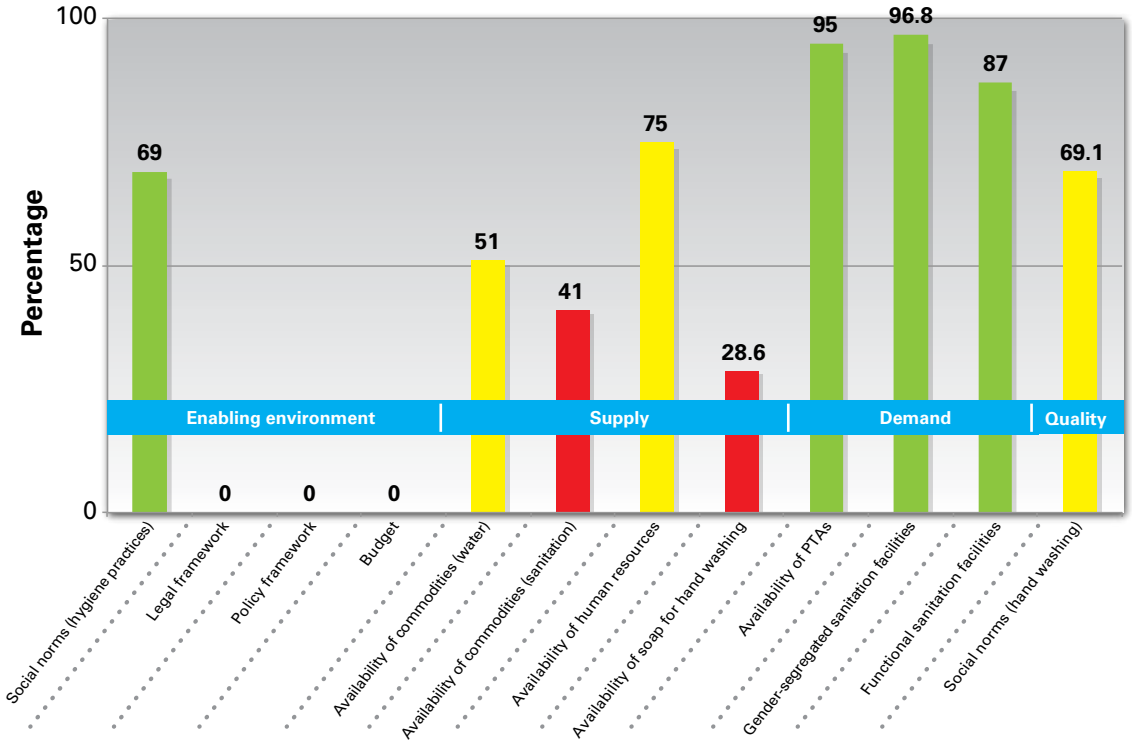
Functionality of sanitation facilities. About 87% of schools are reported to have functional toilets with mechanisms for regular cleaning. Because the data are based on selected schools that were already a focus for WASH facilities provision, this might not be a true reflection of the situation in throughout the country.

The demand bottlenecks are not of major significance in sustaining and scaling up WASH in Schools. The issues that need to be addressed are providing adequate toilets, separated for girls and boys, and strengthening the mechanism for increased functionality.

Quality bottleneck

The determinant for analysing quality is the availability of soap for hand washing in schools. Based on the 2009 evaluation, 69.1% of students are practising hand washing in schools.

FIGURE 10.5 Overall bottleneck results for Nigeria



WASH in Schools stakeholders analysis

Stakeholders involved with WASH in Schools range from government ministries, departments and agencies to donors, NGOs, private companies, United Nations agencies, PTAs and school-based management committees. The results of a critical look at relevant stakeholders at the government and development partner levels are shown in Table 10.2.

TABLE 10.2 WASH in Schools stakeholders analysis, Nigeria

Major stakeholder	Roles	Challenges	Policy opportunity
Government ministries and parastatal organizations: • Federal Ministry of Education • Education Trust Fund • Universal Basic Education Commission • State Ministry of Education • State Universal Basic Education Board	• Policy formulation • Funding • Setting standards • Monitoring and evaluation • Resource mobilization • Advocacy and sensitization • Capacity development • Sector coordination • Provision of WASH facilities in schools	• Inadequate funding • Low technical capacity • Poor dissemination and awareness of policy • Inadequate personnel for WASH in Schools • Weak monitoring and reporting mechanism • Poor database • Weak coordination mechanism • Focus mainly on hardware components	• School health policy that includes a WASH in Schools component • Technical guidelines on construction of school sanitation facilities, with standards and guidelines for implementation • Harmonization of policies from the federal Ministry of Education, Ministry of Environment and Ministry of Water Resources to align WASH in Schools information, standards and guidelines
Government ministries and parastatal organizations: • Federal Ministry of Water Resources • State Ministry of Water Resources • State Rural Water Supply and Sanitation Agency	• Policy formulation • Funding of standards • Monitoring and evaluation • Resource mobilization • Advocacy and sensitization • Capacity development • Provision of WASH in Schools facilities • Hygiene promotion	• Inadequate funding • Low technical capacity • Poor dissemination and awareness of policy • Inadequate personnel for WASH in Schools • Weak monitoring and reporting mechanism • Poor database	• Supervision and enforcement of standards and equity
Federal and State Ministry of Environment	• Policy formulation • Funding • Monitoring and evaluation • Resource mobilization • Advocacy and sensitization • Capacity development • Enforcement of environmental laws	• Inadequate funding • Low technical capacity • Poor dissemination and awareness of policy • Inadequate personnel for WASH in Schools • Weak monitoring and reporting mechanism • Poor database	• The Federal Ministry of Environment's national environmental policy has a school sanitation component, which can be harmonized with other existing policies
Local government: • Education authority • WASH unit or department	• Funding • Advocacy and sensitization • Monitoring and evaluation • Hygiene promotion • Capacity development • Provision of WASH facilities evaluation	• Inadequate funding • Low technical capacity • Focus is greater on hardware and needs to be expanded for the software components	–
Development partners and international NGOs: • Donors (European Union, Japan International Cooperation Agency, UK Department for International Development, World Bank) • UNICEF • International NGOs	• Funding • Resource mobilization • Advocacy and sensitization • Capacity development • Monitoring and evaluation • Provision of WASH facilities	• Low political will • Low level of funding • Weak monitoring and reporting mechanism • Poor database • Weak coordination mechanism • Poor compliance with policy provision	• Technical support for harmonization of policies and for capacity building

Recommendations

Based on the bottleneck and stakeholders analyses, the following recommendations are imperative for sustaining and scaling up WASH in Schools programmes in Nigeria:

1. Harmonize all existing relevant policies, with specific sections for school water, sanitation and hygiene.
2. Improve accountability by having clear roles and responsibilities for all stakeholders.
3. Ensure the Federal Ministry of Education has a dedicated budget line for WASH in Schools.
4. Develop a mechanism for increased and sustainable availability of soap for hand washing in primary schools.

Students use a Mark II-type handpump at a primary school in Araromi Oke Village, south-western Nigeria.

The Federal Ministry of Education should facilitate a national baseline survey on WASH in Schools to determine the true status of access and functionality. This survey should be used to develop a national plan of action for implementing a WASH in Schools programme, with clear roles and responsibilities assigned to all stakeholders based on areas of comparative advantage. The baseline report should also be used to strengthen the WASH in Schools EMIS component and to establish a dedicated reporting mechanism.

Institutional arrangements for WASH in Schools delivery need to be restructured. The Federal Ministry of Education should institute an annual forum of all partners implementing WASH in Schools programmes for cross-learning and experience sharing. The forum will also enhance the coordination mechanism required for effective service delivery.

In collaboration with stakeholders, the Federal Ministry of Education should develop a communication plan for WASH in Schools. Based on this plan, sustained advocacy should be conducted for allocation of adequate WASH in Schools budgets. At least 10% of government education budgets at the federal, state and local levels should be allocated to WASH in Schools activities. All levels of government should promote public-private partnerships to attract greater investment in WASH in Schools interventions, with an emphasis on achieving the recommended toilet-to-pupil ratio of 1:40.

The 'Technical Guide for Construction of School Sanitation Facilities in Nigeria' should be more widely distributed and a mechanism established by the Federal Ministry of Education for enforcement of these standards. In addition, regular training for teachers on WASH in Schools should be institutionalized by the National Teachers' Institute, and school-based management committees should be empowered to ensure regular provision of soap for hand washing in all schools.

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11. Sierra Leone: WASH in Schools programme status in rural target districts

Submitted by James Katta, WASH in Schools Project Manager, Ministry of Health and Sanitation; Gibril Bangura, WASH Officer, UNICEF Sierra Leone; John Paul Conteh, Education Office, UNICEF Sierra Leone; and Kazumi Inden, WASH Specialist, UNICEF Sierra Leone

A schoolgirl in Moyamba enjoyed learning about hand washing.

Abstract

For the WASH in Schools programme in Sierra Leone, demand and quality are the two biggest bottlenecks. Water, sanitation and hygiene coverage in primary schools remains low, and the degree of operation and maintenance by schools or the community is almost nil. In primary schools, 58% of WASH facilities are not functional. Only 2.6% and 1.5% of schoolchildren wash their hands with soap at school after defecation and before eating, respectively.

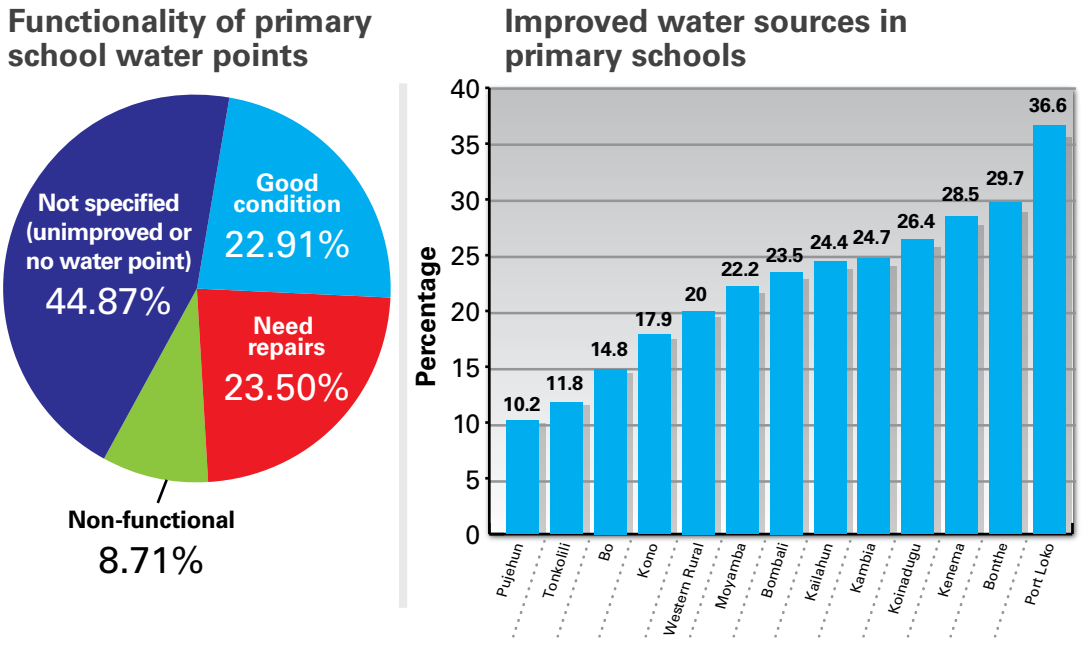
The lack of child-friendly WASH facilities is the biggest constraint on schoolchildren practising hand washing with soap. Thus, the WASH in Schools programme requires a more strategic focus on operation and maintenance, as well as behaviour change that includes schoolchildren in both promotion and monitoring.

Country context

The decade-long civil war ended in 2001, leaving behind a shattered country. Sierra Leone is one of nine countries in Africa whose income per capita has fallen since the 1960s. About 70% of the population was living below the poverty line in 2007. Just 55% of households have access to and use of improved drinking-water sources, and a mere 13% have access to improved sanitation facilities. Moreover, these averages conceal large disparities between urban and rural populations, and between the rich and the poor (JMP 2012).

Primary school participation (net attendance ratio) is 64% for girls and 62% for boys (UNICEF 2003). According to StatWASH 2010 survey data for 4,212 primary schools in 13 districts, only 22.9% of primary schools have access to and use of safe drinking water and 25% have access to functional sanitation facilities. A water source is available in 32.2% of primary schools, but many need repairs or are non-functional.

FIGURE 11.1 Supply bottlenecks



In many cases, school toilets are heavily used and filthy. In other cases, the water supply, toilets and hand-washing facilities are spotlessly clean but are not used because water is unavailable or because children are not trusted to use the facilities properly. Field monitoring often observes open defecation by children around or even in the school compound. The shame associated with poor sanitation facilities is a key factor affecting school attendance, particularly for girls.

The 2011 knowledge, attitudes and practices (KAP) survey on 'Hygiene Promotion and the Public-Private Partnership on Handwashing with Soap' (PPPHWS; NestBuilders International) shows that 2.6% of students wash their hands with soap after using the toilet in schools. Only 1.5% of students wash their hands with soap before eating. Although students are aware of the importance of hand washing at critical times, very few practise the habit on a regular basis. The major barrier to hand washing with soap is lack of facilities, water and soap.

An improved school handpump in Port Loko eases the task of collecting water.

The Government of Sierra Leone, with support from UNICEF, has been working extensively with schools to improve access to and use of child-friendly water supply and sanitation facilities, and to increase knowledge and practise of good hygiene behaviours through School Sanitation and Hygiene Education (SSHE) and School-Led Total Sanitation (SLTS) in catchment communities.

Given the high vulnerability of children to diarrhoeal disease, their greater receptivity to behaviour change and their propensity for development of lifelong habits, reaching primary-school children as recipients and leaders of hygiene promotion would be the most effective and efficient way to disseminate messages and transform behaviour.

Methodology and analysis

To obtain evidence on the WASH in Schools programme in Sierra Leone, a desk review of data and studies was conducted. This information was triangulated by brief interviews with partners at the Ministry of Health and Sanitation and with Kenema District officials. Problem tree and stakeholder analysis was also conducted, and the Tanahashi model was used as a tool for the bottleneck analysis. This research was limited by the lack of available data to date. UNICEF is currently supporting a baseline study of the WASH in Schools programme being implemented in six rural districts.

The bottleneck analysis provides a visual representation of the challenges and barriers prohibiting full coverage and equitable access to the WASH in Schools programme. Overall, there are more bottlenecks in demand and quality than enabling environment and supply, as shown in Table 11.1.

TABLE 11.1 Bottleneck analysis on WASH in Schools in Sierra Leone

Category	Determinant	Indicators	Means of verification	Score
Enabling environment	Legal framework	Existence of the national legislation on WASH in Schools standards	Ministry of Education, Science and Technology (MEST) document review; EMIS 2010	80%
	Policy framework	Existence of the national policies and strategies that reflect the WASH in Schools programme	MEST document review	75%
	Budget/expenditure	Amount of budget allocated for WASH in Schools at the national and district levels	MEST document review; Ministry of Finance and Economic Development document	5%

Category	Determinant	Indicators	Means of verification	Score
Supply	Availability of essential commodities	% of primary schools with some sorts of improved water supply source	StatWASH 2010	55%
	Availability of human resources	% of qualified teachers in primary education	EMIS 2010	48%
	Geographical access	Disparities in % of functional improved water supply source coverage in primary schools between districts	StatWASH 2010	26%
Demand	Financial barriers	Availability of funds at the school level	MEST document review	10%
	Socialcultural barriers	% of primary schools with functional improved water supply source	StatWASH 2010	23%
Quality	Hygiene practices	% of schoolchildren who wash their hands with soap before eating and after defecation in school and at home	PPPHWS Study 2011	2%

Key:

- Off track: 0–24%
- Progress with constraints: 25–49%
- Good progress: 50–74%
- On track: 75–100%

Enabling environment

Legal framework. The Ministry of Education, Science and Technology has set national minimum standards for child-friendly WASH facilities in schools. Every school should provide at least 1.5 litres of drinking water per pupil per day. Latrine blocks should be separated for boys and girls, serve no more than 45 pupils per latrine, and be located at least 100 feet away from a water well.

The Education Management Information System (EMIS) incorporates basic questions on the existence and status of school WASH facilities, although there is room for improvement in the next school census. It is promising that the Ministry

Celebrating Global Handwashing Day in Kailahun.
© UNICEF Sierra Leone, 2012

of Education, Science and Technology plans to endorse the indicators for child-friendly schooling, including for WASH in Schools, and that guidelines for design and construction of WASH in Schools facilities are being developed.

Policy framework. The Education Sector Plan established in 2007 set increased access to safe water, latrines, hand-washing facilities and hygiene education in schools as one of the strategies to achieve educational goals. Although the Ministry of Education, Science and Technology requires all schools to have girl-friendly and disabled-friendly WASH facilities, it lacks implementation strategies to pursue this standard.

The Education Sector Plan will be revised in 2012–2013 and is expected to articulate the WASH in Schools programme as a significant component of child-friendly schooling – which is the first priority of UNICEF to support the Government of Sierra Leone in the education sector. The 2011 National Water and Sanitation Policy does not mention the WASH in Schools programme.

Budget/expenditure. Despite the sound policy and legal frameworks, the Ministry of Education, Science and Technology has no budget allocated for WASH in Schools. Local governments have very limited funds for construction of school WASH facilities, many of which do not fulfil national minimum standards. The education sector relies heavily on external resources for the WASH in Schools programme, including funds for monitoring. Therefore, implementation of the policies and strategies noted above remains extremely low, with little sense of ownership at the national or local levels.

Supply

Availability of essential commodities. According to StatWASH 2010, 55% of primary schools have some type of water supply. This figure includes non-functional water supply facilities and those that do not meet national standards. UNICEF aims to support the Government to achieve 100% WASH coverage in primary schools in six rural target districts by 2015.

The Government and partners are working to increase knowledge and practise of good hygiene behaviours.

Availability of human resources. The teacher-to-student ratio is 1:65, and 48% of teachers in primary education are qualified, with required certificates of education and teacher training. Only 25% of primary-school teachers are women. Better gender balance among teachers and improved training could help in implementation of gender-sensitive WASH in Schools interventions.

Geographical access. As shown in Figure 11.1 *(page 87)*, water supply coverage in primary schools is very low overall and shows significant disparities among districts, ranging from 10.2% in Pujehun to 36.6% in Port Loko.

Demand

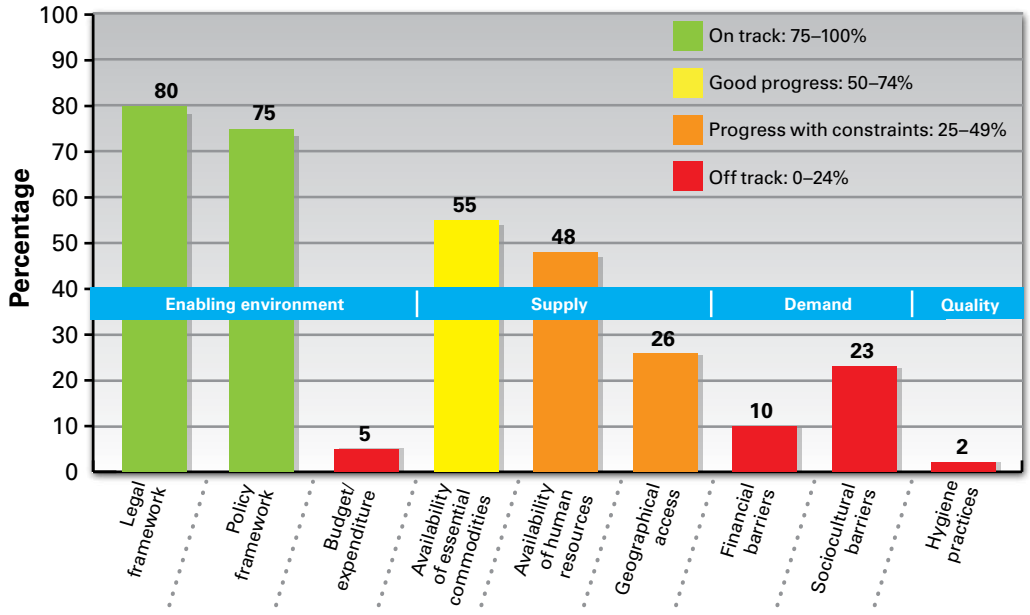
Financial barriers. Although official data are missing, it is apparent that most schools do not receive subsidies on schedule. Moreover, the Ministry of Education, Science and Technology is currently pending certification of teachers who have completed training to become 'qualified teachers'. Therefore, they remain as 'community teachers' who are not on the Government's payroll. This places the responsibility to fund teachers' salaries on individual schools, with local community support. Thus, the current funding priority at the school level is not on operation and maintenance of WASH facilities or effective implementation of SSHE/SLTS. Most schools are not able to provide soap or make a minor repair, for example, replacing water taps although they are available in local markets at affordable prices.

Sociocultural barriers. More than half of all water supply facilities in primary schools are not functional or need repair. Some WASH facilities were poorly constructed and collapsed within a few years. Field monitoring observes poor operation and maintenance of WASH facilities by school authorities, school management committees or community-teacher associations. At most schools, committee and association members attend semester meetings but are not otherwise involved. Poor engagement of the general population in voluntary work, especially after the 2002 peace agreement resulted in an influx of external aid, hinders effective operation and maintenance, regular monitoring and minor repairs.

Quality

Hygiene practices. The proportion of children washing their hands with soap at school after defecating and before eating is extremely low, at 2.6% and 1.5%, respectively. The major barrier is reported to be the lack of appropriate WASH facilities and the absence of habits to carry out good hygiene and sanitation behaviours. Because the influence of caregivers can provide strong motivation for behaviour change, the WASH in Schools programme needs to reach schoolchildren, teachers and other staff when promoting healthy sanitation and hygiene.

FIGURE 11.2 Overall bottleneck analysis results for Sierra Leone



Conclusion

In light of this analysis, it is clear that Sierra Leone's WASH in Schools programme needs to improve in three areas:

1. Advocacy for increased budget allocations for WASH in Schools at the central and district government levels.
2. Effective operation and maintenance, with higher demand to maintain the existing WASH facilities.
3. Sustainable behaviour change, with improved quality of interventions in both hardware and software components of the WASH in Schools programme.

Under the current and the next programme cycle, the Government of Sierra Leone, with support from UNICEF, should ensure the following actions to improve interventions:

- Intensify field monitoring by government officials, both at the central and district levels, through the realization of district WASH steering committees in target districts.
- Construct quality WASH facilities to meet the national standards.
- Provide intensified sensitization and hands-on training for school management committees and community-teacher associations, including training for handpump caretakers, in collaboration with district officials.
- Simplify key intervention areas to scale up a sustainable WASH in Schools programme and implement hand washing with soap and toilet use by adopting successful strategies from other countries, e.g., Fit for School in the Philippines.
- Formulate a strategy for involving children in behaviour change both in school and at home.

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12. Sri Lanka: The impact of student brigades on sustainable hygiene promotion in Ampara District schools

Submitted by Gabriel Rozario, Anthonypillai Nimaladas, Amanullah Mohideen Hassan and Shakeela Jabbar, UNICEF Sri Lanka

Abstract

This case study examines implementation of the student brigade programme in the Ampara District of Sri Lanka, analyses its successes and challenges, catalogues the lessons learned and offers recommendations for the next steps.

The focus is on sustainable hygiene promotion and the impact of student brigade activities on operation and maintenance of the WASH facilities at schools.

Country context

According to the Ministry of Education in Eastern Province, less than 30% of the province's 1,024 schools have water and sanitation facilities, with significant variations. Out of all these schools around 23% do not have any sanitation facilities, but 28% have more than required.

The sanitary facilities that do exist are often dilapidated, are not separated according to sex and age, and do not ensure privacy. The deficient school environment damages schoolchildren's health and nutritional status. And poor health and malnutrition are underlying factors for low school enrolment, absenteeism, poor classroom performance and drop out. Although government, school departments, United Nations agencies and non-governmental organizations are involved in providing and improving school water and sanitation facilities, the coverage rate is poor or progress is very slow.

Gender-segregated sanitation facilities in Pannalgama Vidyalaya (*top*) and children washing their hands prior to the mid-day meal in Henanigala South Vidyalaya, Dehiyakandiya.

Methodology

We have carried out the case study in two schools – one in the village of Tharangava Vidyalaya and the other in Pannalgama Vidyalaya. The methodology included interviews with 60 students in each school; 12 students were members of the student brigades and 48 were selected randomly.

Data were collected and analysed from focus group discussions, with 15 students in each. In addition, meetings were held with the provincial director of education and the zonal director, as well as a school-level meeting with the principal and teachers. Focus group discussions were also held with teachers, parents and community members.

Students assessing sanitation facilities, with plantings by the path, in Pannalgama Vidyalaya.
© Gabriel Rozario, UNICEF

Background on student brigades

Most interventions reaching out to schoolchildren have pursued a top-down approach, without considering the views of the rights holders themselves. Toilets and other WASH facilities are always implemented as standard designs, which create detachment of the rights holders from the facilities provided and affect correct use and maintenance. Moreover, this can be considered a lost opportunity to drive effective behaviour change towards healthier hygiene and sanitation.

In 2007, as part of its programme in Ampara District, UNICEF introduced an initiative for involving student brigades in strengthening operation and maintenance of WASH facilities and sustainable hygiene promotion in 35 child-friendly schools. To ensure better hygiene practices among the students, teachers and surrounding communities, the student brigades also disseminated hygiene messages through the student-to-student and student-to-community approach.

Key findings from our in-depth examination of student brigade impact in two schools in Ampara District are presented below.

Children cleaning the sanitation facilities in Bandaradoowa Vidyalaya.
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Planning and organizing the brigades

The implementation of student brigade initiatives involves multiple stakeholders in every step. Planning meetings include principals, WASH focal point teachers and zonal departments of education – and ensure understanding of participatory techniques, communicate WASH messages and issues, and outline the responsibilities of students, teachers and principals. One teacher from each of the selected schools attended training provided by the Ministry of Health and other resource experts. This teacher took classes for one hour weekly and led all WASH-related activities at the school.

Student brigades were formed with 12 students, in equal numbers of girls and boys. The student brigade took primary roles in maintaining the cleanliness of classrooms, toilets and school surroundings. They became role models for WASH activities and sharing messages with the community. Most importantly, they have involved their peers in these responsibilities.

In addition, the various student brigades mobilize the enrolment of children who have dropped out of school, encourage home gardening and conduct other activities on a rotating basis. To encourage other students to join the brigades, the best groups are awarded with certificates.

Selected children and focal point teachers from each school attended a workshop on water quality, safe sanitation, garbage management and sharing WASH messages. In all of the schools, the student brigade, along with the focal teacher, facilitated participation of the school community to organize a plan for maintenance and cleanliness of classrooms and the school compound, as well as the operation and maintenance of water, sanitation and hand-washing facilities. Focal point teachers and principals develop the plan for sustainability and generate some funding for maintenance and minor repairs of the WASH facilities.

Students making house-to-house visits to conduct a 'WASH inventory' in Pannalgama Vidyalaya (*top*) and Karangawa Vidyalaya.

Student brigade activities

Specific activities of the student brigades include the following:

Keeping classrooms, WASH facilities and the school environment clean. Student brigades and the focal point teacher prepare a roster for cleaning and maintenance of child-friendly toilets and water supplies in their respective schools and organize a one-day campaign to clean school premises with support from parents. Although there is a cultural barrier and parent restrictions on schoolchildren cleaning toilets in many parts of Sri Lanka, the student brigade members are highly motivated. They demonstrate through actions so that their peers want to participate, based on the routine prepared by the focal teachers.

School gardening has also been part of cleanliness campaigns. Under guidance of the WASH focal point teachers, the student brigades inspired all of the children to convert empty land into very good gardens, with fruit, vegetables and flowers. Local community people also contributed, and plantings were even made beside the road to the school toilets – creating a very good healthy environment at both of the schools.

A participatory assessment by students, teachers and parents in As-Suhara Vidyalaya Kalmunai.

Organizing Global Handwashing Day activities. The student brigades took responsibility in preparation of selected activities for Global Handwashing Day. They briefed all other students on the importance of hand washing and demonstrated all the steps on how to WASH hands properly. The student brigades also mobilized and organized a rally, and made presentations on hand washing through drama, songs and speeches.

Sharing the WASH message through art, writing and theatre. An art competition conducted among students in junior- and senior-level schools inspired creative thoughts on how best to present proper WASH practices. In each zone, artwork and posters were selected for an exhibition at one venue so that all surrounding schools could view the programme. During water and sanitation days, the artwork was displayed for all children and education officers to view. Selected students received an award for best artwork from the zonal director. Art competition winners were provided with paint brushes and a brief training with a professional artist – and permanent messages on good sanitation and hygiene practices were painted on school walls. Based on the activities carried out by student brigades, competitions for essays and

Clockwise from top left: Ceremony for joining student brigades in Iddapola Maha Vidyalaya, Ampara District; hand-washing demonstration in Dharus Salam Vidyalaya, Sammanthurai; wall painting by the principal, teachers and students, Pannalgama Vidyalaya; and students involved in cleaning the school compound, Karangawa Vidyalaya.

speeches on WASH issues were organized. Students who wrote the best essay received an award from the zonal director and were given the opportunity to deliver their speech in front of all distinguish guests, parents and teachers during water sanitation day.

Street and stage dramas to promote hygiene awareness have been a highlight of student brigade activities. The design and presentation of these performances were carried out entirely by the students and teachers, generating great enthusiasm among the students, teachers and parents. By including audio-visual effects, they were a very effective media for illustrating the themes of water, sanitation and good hygiene practices and for delivering the message on the adverse effects of neglecting good practices.

House-to-house visits in the community. To create a draft mapping of their villages, the student brigade members conducted a WASH inventory of the situation, including cleanliness of the home yards and whether households have toilets and a safe drinking-water source.

They also visit their own community and meet with parents and children, including the children who have dropped out of school, to gain an understanding of their behaviour patterns and encourage dialogue on improvements. Students carried information, education and communication materials to show household members about personal hygiene, food hygiene, and safe water treatment and storage.

Clockwise, from top left: Water and sanitation day speech in Vivehananda Vidyalaya and an assembly at the Boys School of Akkaraipattu Vidyalaya; student brigade rally in Santhiveli Vidyalaya; and street drama, Palamunai Vidyalaya.

Organizing rallies with all students, teachers and community leaders. Along with observations of school water and sanitation days that included performances, art and essay competitions, rallies, stage and street dramas were organized. Students, teachers, parents, local leaders, members of the community, zonal education officers and representatives from the Ministry of Health all participated.

During the rallies, street drama was amplified with microphones. Children travelled through the school catchment area and came through the village – carrying decorated banners with slogans on healthy water sanitation and hygiene practices.

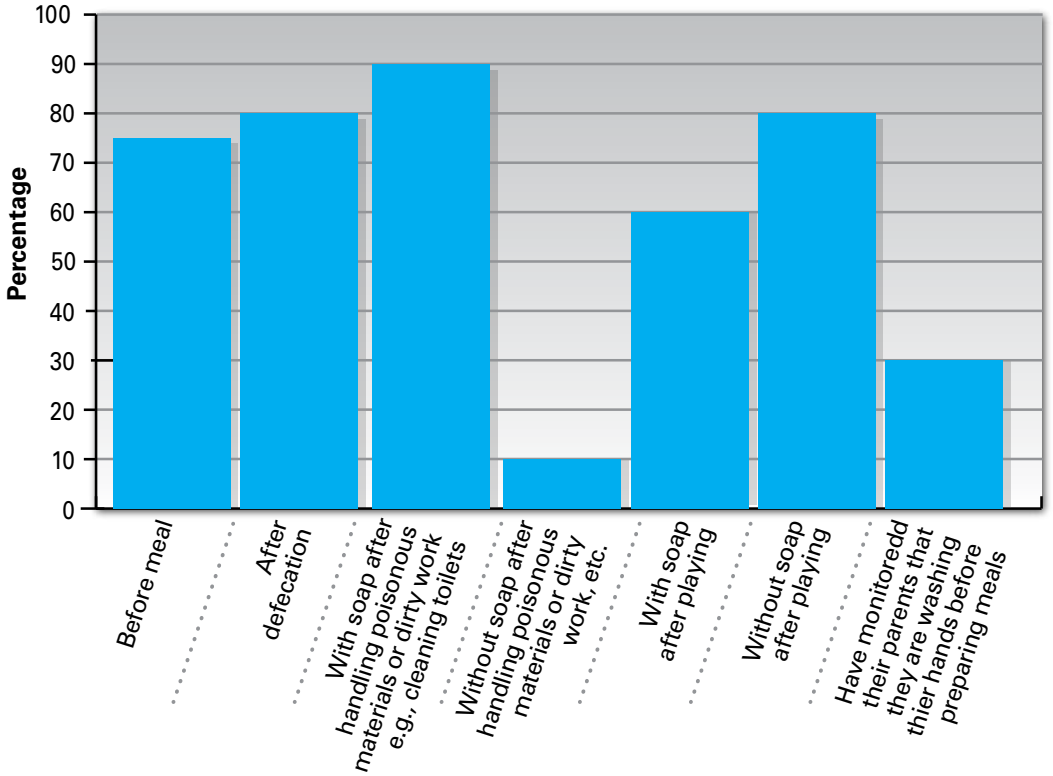
Along with community leaders and guests, children and teachers enthusiastically participated and helped make the programme meaningful to the community. In fact, rallies were found to be the most attractive and effective student brigade events and they created a lot of visibility for WASH issues.

Analysis of the findings

In other highlights from students' responses, 50% said that before formation of the student brigade, there was no one to take care of and monitor cleanliness of the school compound: 40% of them said the school environment was full of solid waste, 40% said classrooms were not clean and 70% said there was no support from parents.

After formation of the school brigade, 80% of the students reported that students have taken responsibility for school compound cleanliness, with the guidance of principals and teachers, and the environment is now very clean – and the same percentage is now growing flowers, vegetables and fruit at school. In addition, 50% said that parents were supportive.

FIGURE 12.1 Hand-washing practices among students after student brigades were established, by %



Regarding hand-washing practices, details of student responses are shown in Figure 12.1 above. In addition, 98% of students said they understand that washing hands before eating will prevent diarrhoea.

Before student brigade activities, 50% of students reported they did not like to go near the toilets, 80% said there was not enough cleaning equipment and 60% said they always tried to escape from involvement with cleaning. At present, 80% of students reported that the toilets are cleaned daily, there are enough cleaning tools and materials, and they are happily involved in cleaning the toilets. In addition, 50% of students reported that toilets were being monitored daily by the student brigade, teachers and the principal.

Conclusions and recommendations

Participation yields benefits. The key challenge for WASH in Schools programming is stakeholders' engagement. As observed by the case study team, even when facilities are provided, they became damaged or abandoned very quickly due to poor maintenance, lack of knowledge on proper use, cultural barriers, and the low priority given to hygiene knowledge and practices among students, teachers and surrounding communities.

During programme implementation, the participatory approach was well established. The rights holders (schoolchildren) who ultimately benefit from water and sanitation facilities are consulted on the type of facility, location and colour; their role in operation and maintenance; and their involvement in behaviour change. This approach has positively influenced the feeling of ownership of the facilities by the right holders, and they have been strongly motivated to actively maintain the facilities.

The student brigade programme has been carried out through involvement of the school authorities and students, with minimum costs due to non-governmental partners that helped organize activities. Effective school health programmes as part of community partnerships with the student

From top: Students work on planning in Karangawa Vidyalaya; awareness programme for zonal directors and school principals, Kalkuda Zonal Division; participatory assessment by students, teachers and parents in Vivehananda Vidyalaya, Kalmunai; and teachers join in group work, Batticaloa Zonal Education Division.

brigades have provided one of the most cost-effective ways to reach adolescents and the broader community, and are a sustainable way to promote healthy practices.

The programme was considered to be very effective by school authorities, teachers, students and parents. And there is clear evidence that hygiene promotion, proper use of WASH facilities, and the effectiveness of operation and maintenance have increased.

Teachers observed that members of the student brigades became curious and inquisitive, watched the hygienic activities of their peers and gave suggestions on how they could improve on their behaviours. The more they engaged in such pursuits, the more they became interested in their duties. It is indeed true that innovative ideas catch on more quickly with the young ones than with the grown-ups. The student brigades helped change the attitudes of principals and teachers, as well as other students.

As students are involved in maintaining toilets, wells and water supply systems in the schools, many student brigade members mentioned that they felt pride in keeping their WASH facilities and school environment clean. Along with helping create a healthy atmosphere at school, the student brigades acted as a catalyst in disseminating hygienic messages in the community.

Challenges remain in a difficult context. As a consequence of the recent tsunami and more than two decades of civil war, many students in Ampara District were displaced from their homes and their families were dependent on rations. In a situation where survival is the first challenge, it is understandable that considerations of sanitation and hygiene could be neglected. But uncongenial and unsanitary living conditions in temporary shelters, along with a lack of nutritious food, have been detrimental to the health and education of displaced children. Many of them had little motivation to develop their talents.

Because the WASH programme in child-friendly schools was a new initiative, decision makers lacked an understanding of how to provide appropriate facilities. The work involved needed constant follow-up and monitoring.

Initially, it was hard to engage students in sharing WASH messages with the school community, and limited funds made it difficult to carry out the activities effectively. Because these activities were not part of the school curriculum, many policymakers in the Ministry of Education who have not seen the brigades in action did not show interest – or recognize that water and sanitation should be a higher priority.

Overall, the time allotted for the project was too short to allow for follow-up activities, and as a pilot initiative, it required stronger advocacy from higher-level authorities.

Recommendations for the next steps. The findings of this case study reveal that hygiene promotion activities carried out by the student brigades had a positive impact. Behaviour changed among schoolchildren, teachers and the community. However, there is no evidence that the programme has lowered incidences of gastrointestinal or respiratory infections. The full impact of the student brigades on WASH behaviours will not be measured until the programme is evaluated more thoroughly.

The following recommendations are offered to encourage the next actions needed for sustainable hygiene in Sri Lanka's schools:

1. The student brigade programme could become a part of convergence activities including education, WASH and health. Visits from the World Food Programme and other United Nations agencies, senior-level government and non-governmental organizations to observe schoolchildren's and teachers' work with student brigades and to provide positive feedback are a good example of multi-sector involvement.
2. Based on the request of principals, zonal departments of education and the provincial director, the WASH, education and health sectors of Batticaloa have suggested that student brigade activities be continued in all schools in Eastern Province. Discussions with all stakeholders on adapting and expanding the student brigade programme should be continued. Further dialogue is also needed to motivate partner agencies and policymakers to incorporate this initiative when constructing any school WASH facilities.
3. The ideas and evidence presented in this case study could be discussed with other education colleagues on how we can sustain this programme with the impact achieved so far in Ampara District. To replicate the student brigade programme in other parts of Sri Lanka for a national and sustainable WASH in Schools programme, we would need to strategize on conducting an impact assessment and evaluation with more and better data to guide the process of scaling up.

13. Sudan: Scaling up WASH in Schools

Submitted by Awatif Khalil, David Bikaba, Eisa Mustafa, Kedir Yasin Hassen, Mohammed Abdallah Idriss, Rashid Mudall, Said Ahmed Mohamed, Suliman Arabi and Widad Suliman, UNICEF Sudan

Abstract

Scaling up WASH in Schools interventions in Sudan is critical, because access to water, sanitation and hygiene is very low. Implementing an effective and sustainable programme involves numerous factors. Identifying the challenges and analysing their impact will contribute to the scaling-up process.

This case report identifies and analyses the bottlenecks that can negatively affect implementation of the WASH Sector Strategic Plan and recommends ways to reach 100% school WASH service coverage, in 14 states, by 2016.

Students celebrate Global Handwashing Day at Elbulik Primary School, Central Darfur.

Country context

Sudan is a vast country with significant disparities in access to water, sanitation and hygiene education among states and among urban, rural and nomadic communities. This is reflected in WASH in Schools service delivery: Excluding Khartoum State, only 37% of schools have access to WASH facilities (*see Table 13.1*).

The 'Water Supply and Environmental Sanitation Policy', and the 'Technical Guidelines for the Construction and Management of School Latrines' specify separate toilets for girls and boys, with not more than 30 girls or 50 boys per drop hole.[11] A health programme review and KAP survey in five states, however, recorded up to 300 students using one drop hole.[12] There are no standards set in the policy, strategy and technical documents regarding water supply, hygiene promotion and hand washing.

According to the Sudan Interim Poverty Reduction Strategic Paper 2011 (Ministry of Finance, Government of Sudan), the gross enrolment rate is 77%. Out of the country's 6 million children age 10–17, it is estimated that 1 in 6 have never attended school; 62% of

11 Republic of Sudan, 'Water Supply and Environmental Sanitation Policy', September 2011; and Ministry of Irrigation and Water Resources (Government of National Unity), Ministry of Water Resources and Irrigation (Government of Southern Sudan) and United Nations Children's Fund, 'Technical Guidelines for the Construction and Management of School Latrines: A manual for field staff and practitioners', Public Water Corporation and UNICEF, April 2009.

12 United Nations Children's Fund, 'Comprehensive and Coherent Review of the Northern Sudan School Health Programme for Five North Sudan Representative States (Khartoum, Northern, Gedarif, South Kordofan and Sennar)', UNICEF Education Section, Sudan, 2009.

these children are girls, 84% are from rural areas. Barriers that may more heavily obstruct girls' school attendance in rural areas include the longer distances to schools, child marriage and the lower value assigned to girls' education by parents.

TABLE 13.1 Access to WASH facilities in schools, by %

No.	State	% of schools with access
1	Sennar	17%
2	South Darfur	23%
3	White Nile	23%
4	West Darfur	27%
5	North Darfur	27%
6	North Kordofan	32%
7	Northern	41%
8	Gezira	41%
9	South Kordofan	45%
10	Red Sea	49%
11	Blue Nile	54%
12	Gadarif	54%
13	River Nile	59%
14	Kassala	59%
15	Khartoum	–
	Average	**37%**

TABLE 13.2 Latrine coverage in schools, by %

No.	State	No. of schools	Schools with latrines	Coverage gap
1	Sennar	643	107	536
2	South Darfur	1,546	362	1,184
3	White Nile	924	216	708
4	West Darfur	803	213	590
5	North Darfur	1,036	280	756
6	North Kordofan	1,963	630	1,333
7	Northern	479	195	284
8	Gezira	2,377	964	1,413
9	South Kordofan	1,414	636	778
10	Red Sea	476	235	241
11	Blue Nile	417	224	193
12	Gadarif	765	413	352
13	River Nile	729	430	299
14	Kassala	695	413	282
15	Khartoum	–	–	–
	Total	**14,267**	**5,318**	**8,949**
	Percentage	**100%**	**37%**	**63%**

The Government of Sudan plans to increase the enrolment rate by expanding access to primary education in disadvantaged areas. This includes construction of new schools, as well as expansion and improvement of the existing ones. As enrolment increases, so does the need for WASH in Schools. The draft policy on water supply and environmental sanitation, and the WASH Sector Strategic Plan for 2011–2016, indicate that WASH facilities will be included in the initial design for all new school construction.

In rural areas, schools and other services may be located far from homes. These children are on their way to collect water in Kassala State.

Considering the present gap in WASH service coverage coupled with the expansion plan of primary basic education and the plan to reach 100% WASH coverage in schools by 2016, the volume of work is huge and will require coordinated and innovative efforts.

Methodology, results and analysis

To conduct this analysis, we reviewed the available policies, strategies, surveys and other technical documents. The expanded Tanahashi model was then used to analyse the status of school WASH facilities and the bottlenecks affecting sustainability of the WASH in Schools programme. In addition, the main WASH in Schools stakeholders and their roles were identified.

Table 13.3 presents the full bottleneck analysis, followed by details on the four primary categories: enabling environment, supply, demand and quality.

TABLE 13.3 WASH in Schools bottleneck analysis for Sudan

Category	Determinant	Indicators	Source of information	Existing situation (%)
Enabling environment	Social norms	All children are using toilets	KAP survey 2009	50.0%
	Legal framework	National legislation on WASH in Schools standards (including regional targets, gradual improvements, inclusiveness, privacy and dignity for children) and monitoring systems are in place	Technical standards and guidelines; stakeholders analysis	25.0%
	Policy framework (existence/ application of critical policies)	Government/education sector policy incorporates WASH in Schools; budget allocated for increasing access, operation and maintenance of facilities and hygiene education	WASH and education policies	30.0%
	Budget/ expenditure	Availability of a multi-sectoral budget for WASH in Schools (capital and recurrent costs) as a percentage of the national allocation; budget allocation by community	State strategic plans and documents	0.0%
	Accountability	Presence of a lead government department at the federal level to plan, budget, draw strategies, coordinate and follow up WASH in Schools	Stakeholders analysis	20.0%

Category	Determinant	Indicators	Source of information	Existing situation (%)
Supply	Availability of essential commodities/ inputs	% of schools having access to functional WASH facilities, including hand-washing stands, toilets and drinking water (point-of-use water treatment) as per national standards and guidelines	Strategy documents	37.0%
	Availability of human resources	% of schools with trained teachers on hygiene promotion in schools and dedicated staff for operation and maintenance of WASH facilities	Questionnaire; KAP survey 2009	10.0%
	Geographical access	Disparities among states and within states among rural, urban and nomadic schools	KAP survey 2009	20.0%
Demand	Budget for operation and maintenance	% of schools with operation and maintenance budget	KAP survey 2009	0.0%
	Gender-segregated facilities	% of schools with separate latrines for boys and girls	KAP survey 2009	75.0%
Quality	Environmental sanitation	% of school environmental sanitation in good condition	KAP survey 2009	11.8%
	Hand-washing facilities	% of hand-washing facilities in good condition	KAP survey 2010	21.4%

Key:

- Off track: 0–24%
- Progress with constraints: 25–49%
- Good progress: 50–74%
- On track: 75–100%

Enabling environment. The status of social norms has been determined in relation to trends and possible usage of WASH facilities. The 2009 school health programme review, for example, shows a high level of latrine usage. Even when latrines were not available in schools, students and teachers chose to use latrines in nearby houses or their homes rather than practise open defecation.

The 2011 Water Supply and Environmental Sanitation Policy and the draft national standards are not formally ratified and endorsed by the legislative authority. Technical guidelines are only for latrine facilities and do not have clear standards for water supplies, hand-washing facilities and hygiene education. Moreover, they do not include designs for children with special needs.

Sudan has a federal system in which states are responsible for budget allocations. At the national level, there is no budget for WASH in Schools. Some state governments are observed to allocate funds for WASH in Schools projects, through donor support.

FIGURE 13.1 Enabling environment

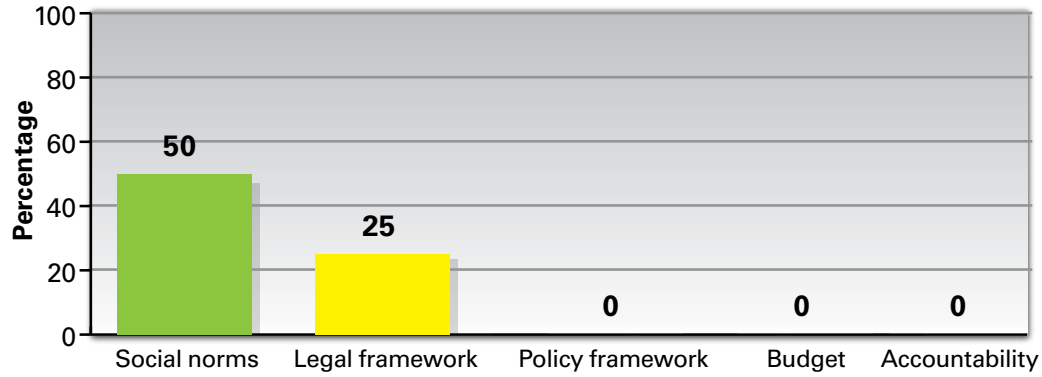


FIGURE 13.2 Supply bottlenecks

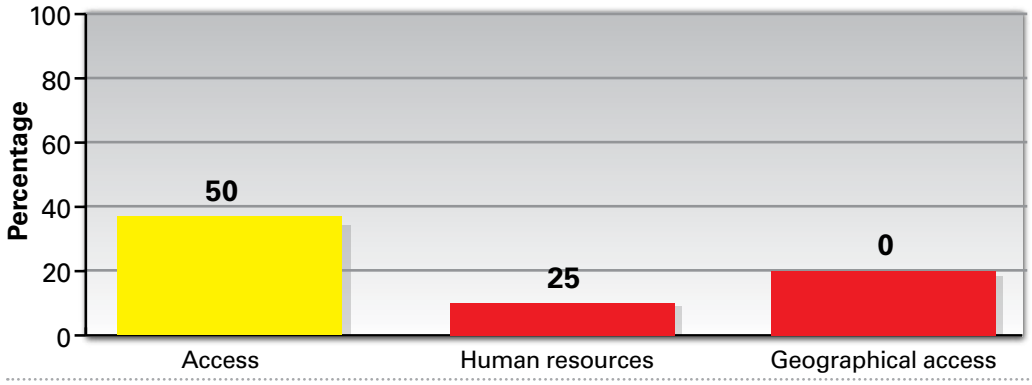


FIGURE 13.3 Demand bottlenecks

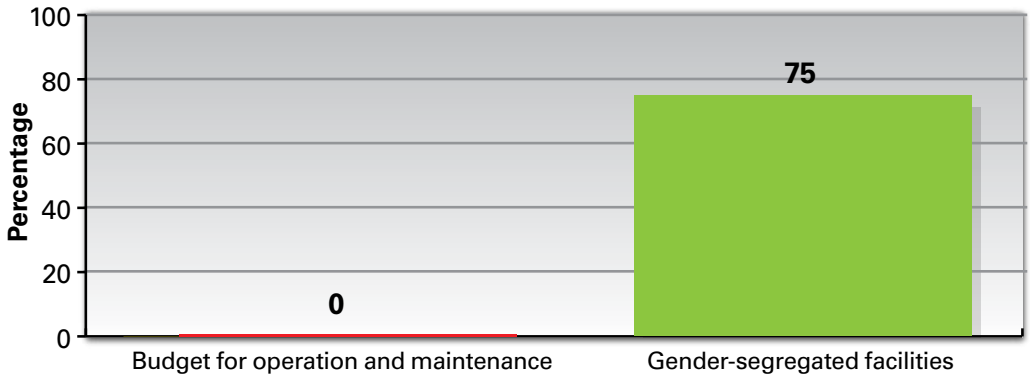
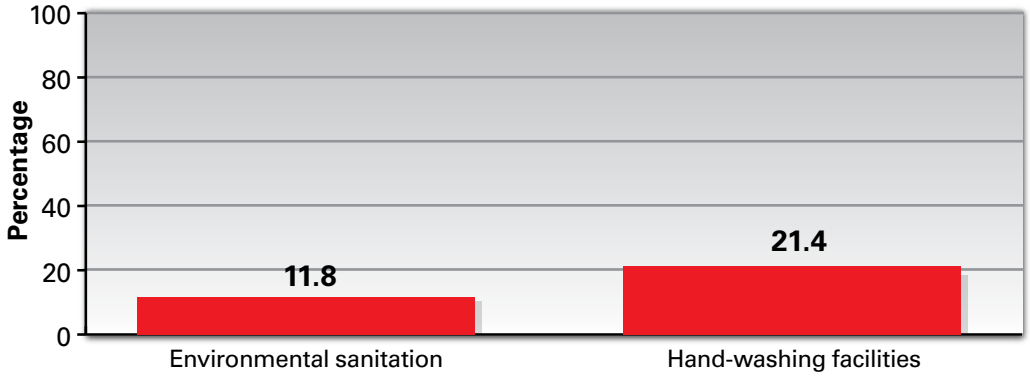


FIGURE 13.4 Quality bottlenecks



Key: Major bottleneck | Bottleneck | On track

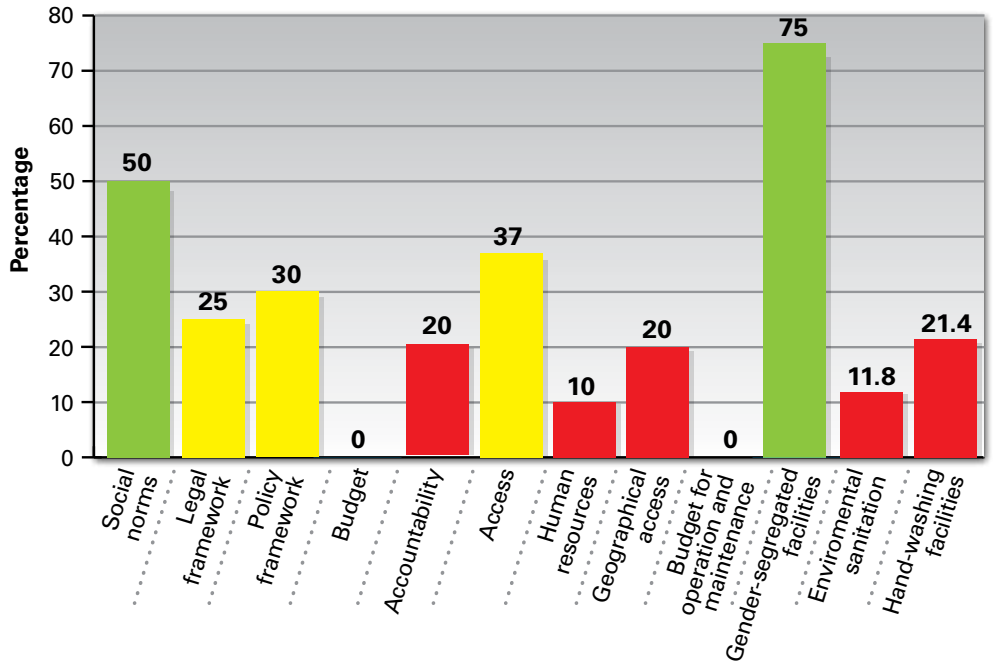
Supply. Access to WASH facilities in schools is currently very low, at an average of 37%, according to available documentation. This data assumes that the schools with WASH facilities apply the minimum government standard for water supply, latrines, hand-washing facilities and hygiene promotion – which is actually not the case. In addition, geographical and urban-rural disparities are very high. If bottleneck analyses are conducted at the state level, results may be very different for different states.

There is no official documentation on the availability of teachers with hygiene promotion training and dedicated staff for operation and maintenance. Country team observations, however, indicate that there is no systematic training for teachers, hygiene promotion is not part of the school curriculum, and there are no dedicated staff for operation and maintenance.

Demand. Two indicators were used to analyse the demand for WASH in Schools programmes: availability of separate latrines for boys and girls, and availability of a budget for operation and maintenance. In most mixed school settings, the latrines are separate for girls and boys. None of the schools, however, has any budget for operation and maintenance of WASH facilities.

Quality. To understand the condition of WASH services in schools, data were obtained from the 2010 survey on knowledge, attitudes and practices (KAP).[13] Of the 582 schools surveyed, 21.4% had hand-washing facilities. Environmental sanitation considered cleanliness of sanitation facilities and school compounds, as determined by the presence of faeces and solid waste. The 2009 review and KAP survey in 34 schools in five states indicated that only 11.8% of the schools have good environmental sanitation situation. Although this data does not cover all schools, it suggests that the quality of WASH facilities is one of the major bottlenecks.

FIGURE 13.5 Overall bottleneck results for Sudan



13 UNICEF Sudan WASH Section, 'KAP Survey in 15 States', United Nations Children's Fund, Sudan, 2010.

WASH in Schools stakeholders analysis

Identification of the main stakeholders and their roles in the WASH in Schools programme is shown in Table 13.4. In the ideal situation, accountability would be held by a government department at the federal level to provide leadership and a dedicated budget, establish strategies and follow up with the implementation of the WASH in Schools programme. In reality, it is not clear which of three authorities – the State Water Corporation, the Ministry of Education or the Ministry of Health – is responsible for the WASH in Schools programme in Sudan.

There are departments of school health in the Ministry of Health and the Ministry of Education, and there is a WASH in Schools focal person in the Public Water Corporation. But there is no lead agency to facilitate coordination among these different government bodies. This makes it easy for the programme to fall between the cracks. Without a clear lead agency, WASH in Schools and its monitoring mechanisms will definitely suffer.

TABLE 13.4 WASH in Schools stakeholders analysis, Sudan

Stakeholder	Role	Challenges	Policy opportunity
Ministry of Education	Policy and guidance; monitoring and evaluation	Inconsistent commitment due to political changes	Education cluster/sector meetings to initiate and draft WASH in Schools policy
Public Water Corporation	Provide policy framework, funding, and technical guidelines and standards	Inadequate funds allocated for WASH in Schools	WASH policy is an opportunity to allocate funding
State Water Corporation and the Water and Environmental Sanitation Project	Implementation strategies, coordination, capacity building, joint planning, resource allocation; support construction of school latrines, water supplies and hand-washing facilities; provide training for school hygiene clubs	Inadequate capacity of Government in school WASH	Build the capacity of the Government of Sudan and relevant partners in WASH in Schools
Ministry of Health	Policies for school clinics and WASH-related disease surveillance	No clear roles and difficult to be engaged with WASH in Schools	Invite them to a coordination meeting
International non-governmental organizations	Provision of WASH in Schools (funding), implementation and advocacy	Following national standards and specifications; few partners	Coordination with Ministry of Education
Schools (teachers and students)	Implementing and using WASH in Schools	Using of WASH in Schools services effectively; lack of motivation among teachers towards promoting school hygiene	Adapt and adopt behaviour change approaches in schools; life skills-based hygiene education for teachers

Stakeholder	Role	Challenges	Policy opportunity
Community members	Sustaining WASH in Schools services	Lack of participation	Involving them in earlier stages towards ownership of WASH in Schools initiatives
UNICEF	Technical support, funding and advocacy	Harmonized approach addressing WASH in Schools	Coordinate with the Ministries of Health and Education, national and international non-governmental organizations, and community-based organizations

Conclusion and recommendations

From our analysis of the existing situation of WASH services in schools, we can see that all the primary categories have a major bottleneck. This ranges from the absence of a clear/ratified policy to budget allocations and the quality and usage of the existing infrastructure.

Among the positive developments, national policy and strategy state that all new school construction must incorporate WASH in Schools in the initial design, and partners are moving towards considering WASH in Schools as entry point for community WASH interventions. The following recommendations are made as a strategic guideline for continued scaling up of WASH in Schools in Sudan.

Enabling environment:

- Advocate for the allocation of WASH in Schools programme funding by the Government and maximize community participation.
- Ratify the national Water Supply and Environmental Sanitation Policy.
- Develop clear guidelines, standards and manuals for school water supplies, hand-washing facilities and hygiene promotion.
- Include designs for children with special needs and for emergency contexts in the WASH standards.
- Identify the ministry or agency to lead, coordinate and monitor the WASH in Schools programme.

This UNICEF-supported school in Khartoum State encourages practices that promote gender equality.

***Supply*:**

- Advocate for the inclusion of hygiene promotion in the curriculum.
- Advocate for implementation of WASH facilities in expansion of schools and new construction as part of the initial design.
- Consider schools as entry points for community WASH interventions.

***Demand and quality*:**

- Allocate a budget for operation and maintenance of WASH facilities at the school level.
- Improve the supervision and monitoring of WASH in Schools facilities construction and usage.

Water and sanitation points have been renovated at Al Humaira Girls' School, in North Darfur State, where these girls are students.

***General recommendations*:**

- Work with the Government to scale up services, mainly sanitation and hand-washing stations, to cover 100% of schools by 2016, as stated in the WASH Sector Strategic Plan.
- Create new partnerships with agencies that have experience in implementing WASH in Schools programmes whenever possible.
- Establish permanent forums at the national and state levels for documenting and exchanging knowledge, and develop tools and manuals that contribute to the development of a strategic national plan.
- Develop a WASH in Schools monitoring framework to evaluate the status of bottlenecks regularly.

14. West and Central Africa Region: WASH in Schools analysis and proposed monitoring tool

Submitted by Maria Bardolet, Regional Communication for Development Officer, and Daniel Spalthoff, Water Sanitation and Hygiene Officer, UNICEF West and Central Africa Regional Office

Abstract

Almost 63 million primary-school-age children live in the West and Central Africa region. Less than 48 million are enrolled in school, however, and few of them have access to safe water, adequate sanitation and in-school programmes to encourage good hygiene. This paper presents an overview of the situation and identifies the main constraints to improved access through a bottleneck analysis based on available data for all 24 countries in the region.[14] To support the collection of new data, the regional team adapted the initial bottleneck analysis to create a regional monitoring tool for WASH in Schools.

Children join in the commitment to end open defecation through the Community-Led Total Sanitation initiative at their village school in Burkina Faso.

Regional context

Regional data for access to water and sanitation. According to the WHO/UNICEF Joint Monitoring Programme for Water and Sanitation (JMP), as of 2012, the world has reached the water-related target for the Millennium Development Goals: reducing by half the proportion of people without sustainable access to an improved water supply. The global sanitation target, however, is very likely not going to be realized.[15] In Africa, despite significant progress, neither target is expected to be reached. West and Central Africa are no exception to this trend:

- In West Africa, as of 2010, 35% of the population had no access to improved water sources and 10% relied on surface water; 74% had no access to improved sanitation, and 28% practised open defecation.
- In Central Africa, 56% of the population had no access to improved water sources, 15% relied on surface water, 72% had no access to sanitation, and 14% practised open defecation.[16]

14 The UNICEF region includes: Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone and Togo.

15 WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), 'Progress on Drinking Water and Sanitation: 2012 Update', United Nations Children's Fund and World Health Organization, New York and Geneva, 2012.

16 African Ministers' Council on Water, 'A Snapshot of Drinking Water and Sanitation in Africa – 2012 Update', Prepared in collaboration with JMP for the Fourth Africa Water Week, Cairo, 14–15 May 2012, AMCOW, 2012.

In addition, disparities within African countries overall are huge. Almost five times as many people live without an improved drinking-water source in rural areas compared to their urban counterparts.

In the West and Central Africa region, 15 million school-aged children are not attending school. The children above are in a camp in the Central African Republic, where more than one-third of the population is affected by armed conflict.

Regional data for education.[17] The average primary school net enrolment ratio is 76%, with only 6 out of 24 countries enrolling more than 90% of their children.[18] Retention is very poor, and less than half of the children complete primary education in Niger (44.7%), Burkina Faso (41.7%) and the Central African Republic (36.1%).

Disparities regarding completion remain significant. According to household survey data available for 21 countries (DHS/MICS), the probability of completing primary education is, on average, 52%, with disparities according to gender (48.5% for girls, 55.7% for boys), location (39.6% for rural children, 69% for those living in urban areas) and household wealth. Children living in the poorest households have a 38.5% probability of completing primary school against 69.1% for those in the richest households. Fifteen million school-aged children in the region are out of school, concentrated in highly populated countries such as Nigeria and the Democratic Republic of the Congo.

Reasons for exclusion are both supply and demand driven. On the supply side, distance to school may affect attendance, as is the case in Benin, Burkina Faso, Côte d'Ivoire and Mali. It was estimated that school attendance drops by at least half if the distance to school is longer than a 30-minute walk. The proportion of incomplete schools that do not offer a full six years of primary schooling varies from 6% in Togo to 74% in Mauritania. Even with multi-grade teaching in the same classroom or 'double flows', in which children attend school in morning or afternoon shifts, the proportion of children facing educational discontinuity ranges from 3.5% in Togo to 15% in the Central African Republic.

On the demand side, direct and opportunity costs, as well as parents' perceptions of the value of education, can lead communities to keep children at home rather than sending them to school. In Benin, for example, child labour had been identified by half of surveyed parents as a main cause for their children not attending school.[19]

17 UNICEF West and Central Africa 2011 regional analysis report.

18 Benin, Cameroon, Cape Verde, Congo, Sao Tome and Principe, and Togo.

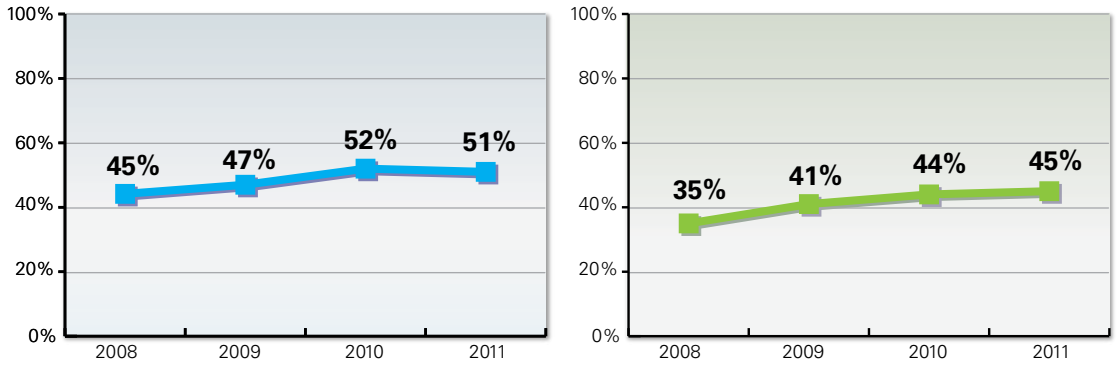
19 'Questionnaire des Indicateurs de Base de Bien-être' (Questionnaire on Basic Indicators of Well-Being; QUIBB).

In addition, recurrent emergencies caused by armed conflict, natural disaster and food shortages are a major disruption of children's schooling.

WASH in Schools in developing countries. At the global level, there is not much data about access to water, sanitation and hygiene education in schools. While it can be assumed that WASH in Schools coverage is almost universal in many rich countries, there are few estimates for poor countries. The 2011 UNICEF WASH annual report shows that 49% of surveyed schools do not have access to water and 55% do not have access to sanitation facilities.

FIGURE 14.1 WASH in Schools coverage

Of the surveyed low-income countries that have data available, almost half of all schools do not have access to WASH facilities



Source: UNICEF, 'Water, Sanitation and Hygiene Annual Report', 2011.

In West and Central Africa, the available data reveal a drastic situation. In Chad, the Congo, Guinea Bissau, Mauritania and Niger, less than 20% of primary schools have access to water. In Chad, Liberia, Mali, Mauritania and Niger, less than 20% of primary schools have access to sanitation facilities.

Methodology

From an early stage of the research, the team found a sizeable lack of WASH in Schools data in the region. To overcome this problem, two main sources were used:

1. The answers provided by UNICEF country offices to a questionnaire sent by the WASH regional advisers in 2011 (*Table 14.1*).
2. Other existing data on water, sanitation and education that might not be specific to WASH in Schools but could be used as estimates or proxy indicators.

The UNICEF Regional Office in Dakar sent the questionnaire to the country offices in 24 countries of West and Central Africa in November 2011. Sixteen countries replied to the questionnaire, and some of the answers have been used as tracer indicators for the bottleneck analysis.

The other sources were household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys, the UNESCO Education For All Global Monitoring Report[20] and the WHO/UNICEF Joint Monitoring Programme that tracks progress towards the water and sanitation-related Millennium Development Goals. With this data, the team put together a table to analyse the main bottlenecks.

Responses to the UNICEF WASH questionnaire. Of the responses, 12 out of 16 indicate that there is a government agency responsible for WASH in Schools data collection, and 13 say that WASH in Schools is integrated into national data collection systems such as EMIS. Half of the responses indicate that national standards are not defined, however, and one response says that standards are partially defined.

As for the reliability of the data, responses show a rather modest perception of the results, with 13% indicating that they perceive the data to be 'very reliable', 38% 'rather reliable', and 50% 'somewhat reliable'.

While conducting the bottleneck analysis with existing data (*Table 14.2*), we simultaneously aimed to identify alternative indicators. Our intention was to elaborate an easy monitoring tool that can permit better data gathering from now on, and should allow us to conduct a more complete bottleneck analysis in the West and Central Africa region.

Table 14.1 Questionnaire for UNICEF country offices, West and Central Africa, 2011

Medium-term strategic plan monitoring

1. What is the estimated proportion of primary schools with adequate water supply?

2. What is the estimated proportion of primary schools with adequate sanitation facilities for girls?

3. What is the estimated proportion of primary schools with adequate sanitation facilities for boys?

4. What is the estimated number of schools that received support through the child-friendly schools initiative during the year, associated with the work of UNICEF?

WASH in Schools monitoring and evaluation system

5. What are your estimates based upon?

6. How would you rate the reliability of these estimates?

- ☐ Very reliable
- ☐ Rather reliable
- ☐ Somewhat reliable
- ☐ Rather unreliable
- ☐ Not reliable
- ☐ No estimates available

7. Is there a government institution responsible for the collection of data on WASH in Schools?

☐ No ☐ Yes If yes, which one?

8. Is WASH in Schools integrated in national data collection systems, such as the Education Management Information System (Systèmes d'information pur la gestion de l'éducaiton)?

☐ No ☐ Yes If yes, in which one?

9. Are national standards for WASH in Schools defined in your country?

☐ No ☐ Yes If yes, in which documents?

10. Your comments and/or suggestions:

_____

_____

_____

_____

20 United Nations Educational, Scientific and Cultural Organization, *EFA Global Monitoring Report 2011: The hidden crisis – Armed conflict and education*, UNESCO, Paris, 2011.

Selection of determinants and tracer indicators for the bottleneck analysis

The team encountered serious difficulties in identifying indicators with available data that could be used for the main categories. It was decided to use some indicators for enabling environment, supply and demand. No data were found that could be used for the determinant of quality.

Since we found that some of the indicators could be used by different determinants under the same group – under 'enabling environment', for example, some indicators could be used for both for 'governance/ partnerships' and for 'legislation/policy' – we decided to keep only the main heading of enabling environment in the bottleneck analysis table.

Students help keep the newly built latrines clean at a school in north-eastern Liberia.

Enabling environment

Existence of a government institution responsible for collecting WASH in Schools data. We chose this indicator as a tracer for the existence of legislation/policy. The data for this and the next two indicators were obtained through the questionnaire (*Table 14.1*) sent to UNICEF country offices, which obtained the information through a desk review.

Integration of WASH in Schools in national data collection systems. We chose this indicator as a tracer for governance/partnership and legislation/policy.

National standards defined. We also chose this as a tracer for governance/partnership and legislation/policy.

Country adopted quality standards based on 'child friendly schools' or a similar framework. This indicator complements the previous one by identifying integrated initiatives that include not only the hardware of school infrastructure, but a more comprehensive inclusion of the 'software' components. This indicator has been extracted by the Education Section, UNICEF West and Central Africa Regional Office (WCARO), out of the 2009 UNICEF Country Office Annual Report (COAR).

Supply

School-age population. These data include absolute numbers to provide an overview of the scope to which WASH in Schools programmes should be reaching. They are derived from the UNESCO Institute for Statistics.

Net enrolment ratio in primary education. This indicates the percentage of children enrolled in primary education and, thus, the number of children who would be reached through the WASH in Schools programme can be extrapolated. The indicator has been extracted from the UNESCO Education For All Global Monitoring Report 2011.

Gender parity in primary education. This indicates of the level of girls' school enrolment in the region. The data have also been extracted from UNESCO Education For All Global Monitoring report 2011.

In the Democratic Republic of the Congo, a Government-implemented school programme, supported by UNICEF, teaches healthy hygiene practices, including the importance of washing hands with soap or ash after using the latrine.

% of primary schools with adequate water supply. We chose this indicator as a tracer for the availability of essential commodities. Data were obtained through the questionnaire sent by UNICEF to country offices, which obtained the information through national administrative data. This information was complemented with the UNICEF WCARO education analysis of the 2009 COAR.

% of primary schools with adequate sanitation facilities for girls. We chose this indicator as a tracer for the availability of essential commodities. Data were obtained through the questionnaire and country offices obtained their information through national administrative data. This information was also complemented with the UNICEF WCARO education analysis of the 2009 COAR.

% of primary schools with adequate sanitation facilities for boys. This indicator was included as a control indicator to compare with the availability of adequate sanitation facilities for girls. Data were obtained through the same sources.

Demand

Hand-washing materials in the household (water tap, soap or ashes, and a basin). We chose this as a proxy tracer indicator for sociocultural practices and beliefs, specifically for the adoption of hand washing in communities. Although this indicator is not specific to schools, it can give us a proxy overview of the situation in communities, which is going to have an impact on behaviour in schools. Data were obtained through the DHS.

Disposal of child's stools (child uses toilet or throws in toilet or latrine). We chose this as a proxy tracer indicator for sociocultural practices and beliefs, specifically for disposal of children's stools in communities, and assuming that if the child uses the toilet at home, or the mother throws the stools in the latrine, it is likely that the children from that household will use latrines in school (if they are available). Data were obtained through DHS by adding the percentage of disposal of child's stools by child using a toilet and the percentage of disposal of child's stools by throwing in a toilet or latrine.

% of population not practising open defecation. We chose this indicator as a proxy tracer indicator for sociocultural practices and beliefs, specifically for the use of sanitation facilities in the community, and assuming that there is a positive relationship with the adoption of behaviours in schools. Data were obtained through the JMP 2012 update.

Results and analysis

In West and Central Africa, the lack of data makes it extremely difficult to conduct an accurate regional bottleneck analysis. However, by using the information that is available – and by establishing proxy indicators for some of the determinants – we could establish an initial picture of the major bottlenecks that hinder children's access to quality WASH in Schools programmes.

Table 14.2, on pages 118–119, presents the WASH in Schools bottleneck analysis chart for West and Central Africa. Significant bottlenecks identified by the study team's research include:

- Coverage of water and sanitation facilities in primary schools. Out of 16 countries with data, 10 report coverage rates between 7% and 41%, 5 report coverage of less than 20%, and only 1 reports coverage above 80%.
- Questionable data on separate school facilities for girls and boy. For all countries except Togo, as we can see in Table 14.2, the same value is used for both boys' and girls' facilities. It can therefore be assumed that the identical coverage rates of separate facilities do not accurately reflect school sanitation coverage, but are rather an indication of the lack of gender-disaggregated data.
- Very low behavioural adoption of both hand washing and disposal of children's faeces at the household/community level. This increases the urgency for teaching hygiene through primary education.
- Lack of political engagement, as indicated by the lack of nationally defined WASH in Schools standards in most countries. Countries do not appear to know how much is spent on WASH in Schools, and nowhere does WASH in Schools seem to be a political priority.

Recommendations for West and Central Africa

The primary recommendation from the case study team for the UNICEF West and Central Africa Regional Office is to support the country offices in collecting and analysing WASH in Schools data. To advance this goal, we have developed a monitoring tool that can be used by the country offices to conduct a bottleneck analysis during the coming months. Through the proposed monitoring tool, the regional office can orient country offices in setting the minimum amount of data that should be available and support their work in monitoring WASH in Schools.

This tool will be shared with the country offices and will serve as a basis for the exchange of knowledge across countries. The collected results can subsequently be used to track challenges and progress, and to advocate more effectively for WASH in Schools throughout West and Central Africa.

The proposed monitoring tool is presented in Table 14.3, on pages 120–121. The suggested determinants, tracer indicators and means of verification are shown in Table 14.4, on page 122.

TABLE 14.2 WASH in Schools bottleneck analysis, West and Central Africa

	Enabling environment					
Country	Government institution responsible for WASH in Schools data	Integration of WASH in Schools in national data collection systems	Are national standards defined?	Has country adopted quality standards based on child-friendly schools?	School-age population	Net enrolment ratio in primary education
Benin	Yes	Yes	Yes	Yes	1,373,649	93
Burkina Faso	Yes	Yes	Yes	Partially	2,434,976	63
Cameroon	Yes	Yes	No	–	2,944,155	88
Cap Verde	Yes	Yes	No	Partially	74,984	84
Central African Republic	No	Yes	No	Partially	686,507	67
Chad	Yes	Yes	No	Partially	1,585,722	–
Congo	Yes	Yes	Yes	Yes	532,446	59
Côte d'Ivoire	Yes	Yes	No	Yes	3,236,421	–
Democratic Republic of the Congo	–	–	–	Partially	11,648,717	–
Equatorial Guinea	–	–	–	Yes	100,641	–
Gabon	–	–	–	Yes	201,731	–
Gambia	–	–	–	–	256,207	69
Ghana	–	–	–	Yes	3,479,238	77
Guinea	–	–	–	Yes	1,517,704	71
Guinea Bissau	Yes	No	No	No	225,039	–
Liberia	No	No	Yes	Yes	549,854	–
Mali	Yes	Yes	Partially	Yes	2,034,716	73
Mauritania	No	No	No	Yes	491,503	76
Niger	Yes	Yes	Yes	No	2,491,752	54
Nigeria	Yes	Yes	Yes	Yes	23,237,590	61
Sao Tome and Principe	–	–	–	Yes	25,745	96
Senegal	–	–	–	Partially	1,973,818	73
Sierra Leone	Yes	Yes	Yes	–	768,360	–
Togo	No	Yes	No	No	1,010,676	94
Source	WASH questionnaire 2011	WASH questionnaire 2011	WASH questionnaire 2011	COAR 2009	UNESCO Institute of Statistics	EFA Global Monitoring Report 2011

Keys:

Enabling environment
- Yes
- Partially
- No

Supply – Net enrolment ratio and gender parity
- 86–100%
- 71–85%
- 0–70%

Primary school water supply
- 96–104%
- 86–95%
- 70–85%

TABLE 14.2 WASH in Schools bottleneck analysis, West and Central Africa, continued

Supply				Demand		
Gender parity in primary education	% primary schools with adequate water supply	% primary schools with adequate sanitation facilities for girls	% primary schools with adequate sanitation facilities for boys	Hand-washing materials in the household (water tap, soap or ash, and basin)	Disposal of child's stools (child uses toilet or throws in toilet or latrine)	% of population not practising open defecation
0.87	–	77.0%	77.0%	–	24.0	44%
0.89	45.0%	65.0%	65.0%	6.3	18.1	41%
0.86	42.0%	55.0%	55.0%	–	–	94%
0.93	86.5.%	94.5%	94.5%	–	–	72%
0.71	27.0%	30.0%	30.0%	–	–	80%
0.70	15.0%	13.0%	13.0%	–	–	38%
0.94	15.0%	60.0%	60.0%	–	–	92%
0.81	Rural = 42.0% Urban = 70.0%	Rural = 29.0% Urban = 56.0%	Rural = 29.0% Urban = 68.0%	–	–	72%
0.85	–	–	–	–	64.6	91%
0.96	–	–	–	–	–	–
–	–	56.0%*	56.0%*	–	–	99%
1.06	–	50.0%*	50.0%*	–	–	98%
0.99	62.0%*	–	–	–	42.5	81%
0.85	20.0%*	–	–	–	36.0	80%
–	20.0%	23.0%	23.0%	–	–	69%
0.90	59.0%	2.4%	2.4%	–	22.5	55%
0.84	40.0%	12.0%	12.0%	8.2	45.0	86%
1.08	15.0%	7.0%	7.0%	–	–	46%
0.80	16.3%	17.0%	17.0%	–	14.2	21%
0.88	51.0%	41.0%	41.0%	43.4	54.6	78%
1.01	76.0%*	73.0%*	73.0%*	–	27.4	45%
1.04	–	53.0%*	53.0%*	34.9	46.6	83%
0.88	23.0%	25.5%	25.5%	–	57.7	72%
0.94	30.0%	20.0%	30.0%	–	–	49%
EFA Global Monitoring Report 2011	WASH questionnaire 2011	WASH questionnaire 2011 * COAR 2009	WASH questionnaire 2011 * COAR 2009	DHS	DHS	JMP 2012

Primary school sanitation facilities
- 80–100%
- 30–79%
- 0–29%

Demand
- 80–100%
- 30–79%
- 0–29%

TABLE 14.3 Proposed monitoring tool for West and Central Africa

Country	Enabling environment					
	Social norms	Legislation/ policy	Budget/ expenditure	Governance/ partnership		Availability of essential commodities/ inputs
	Is there a specific government institution responsible for WASH in Schools?	Are national WASH in Schools standards defined?	Does the Government provide a budget for WASH in Schools?	Integration of national data collection systems	Rating of data reliability	% of schools with access to a safe water supply
Benin						
Burkina Faso						
Cameroon						
Cape Verde						
Central African Republic						
Chad						
Congo						
Côte d'Ivoire						
Democratic Republic of the Congo						
Equatorial Guinea						
Gabon						
Gambia						
Ghana						
Guinea						
Guinea Bissau						
Liberia						
Mali						
Mauritania						
Niger						
Nigeria						
Sao Tome and Principe						
Senegal						
Sierra Leone						
Togo						

TABLE 14.3 Proposed monitoring tool for West and Central Africa, continued

Supply		Demand					Quality
Availability of essential commodities/ inputs	Access to adequately staffed services, facilities and information	Financial access	Sociocultural practices and beliefs		Continuity of use		
% of schools with access to sanitation facilities	Number of schools with at least one teacher trained in hygiene promotion	% of schools with soap available for hand washing	Separated data on girls' and boys' access to school latrines is available	Children are expected by their peers to wash their hands after using the latrine	Behavioural proxy for hand washing	% of population not practising open defecation	% of schools with health clubs that organize maintenance and cleaning of toilets

TABLE 14.4 Determinants, tracer indicators and means of verification for the West and Central Africa regional monitoring tool

Category	Determinant	Tracer indicator	Verification
Enabling environment	Social norms	Is there a specific government institution in responsible for WASH in Schools?	Desk review
	Legislation/policy	Are national WASH in Schools standards defined?	Desk review
	Budget/expenditure	Does the Government provide a budget for WASH in Schools?	Desk review
	Governance/partnership	Integration of WASH in Schools in national data collection systems	Desk review
		Rating of reliability of data	
Supply	Net enrolment ratio in primary education	–	National administrative data
	Availability of essential commodities/inputs	% of schools with access to water supply	EMIS
		% of schools with access to sanitation facilities	
	Access to adequately staffed services, facilities and information	Number of schools with at least one teacher trained in hygiene promotion	Survey
Demand	Financial access	% of schools with soap available for hand washing	Survey
	Sociocultural practices and beliefs	Separated data on girls' and boys' access to latrines in schools is available	EMIS
		Children are expected by their peers to wash their hands after using the latrine	Focus group discussion
	Continuity of use	Behavioural proxy for hand washing	DHS
		% of population not practising open defecation	JMP
Quality		% of schools with health clubs that organize maintenance and cleaning of toilets	Survey

The WASH in Schools Distance-Learning Course was developed by Emory University and UNICEF as a cost-effective capacity-building initiative that reaches practitioners on the ground. This intensive web-based course will help participants identify areas of concern, advocate for improved WASH conditions, select appropriate behaviour change and technology approaches, and monitor programme outputs and outcomes.

The course can be adapted by universities in developing countries to reach practitioners in the field, either face to face or through distance learning. By expanding the distance-learning experience, we will help build the capacity to fulfil our vision of bringing safe water, improved sanitation and hygiene education to schoolchildren across the globe.

Let us know how you have adapted this course, or if you are seeking support, by contacting Matthew Freeman, mcfreem@emory.edu, or Murat Sahin, msahin@unicef.org.