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5 SUSTAINABILITY CRITERIA

# Making WASH in Schools more Sustainable VOL.II

Case Stories from SuSanA Partners

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This publication is the follow up of the first collection of WASH in Schools best practices by SuSanA partners. The first edition was launched in Stockholm at the SuSanA meeting in 2014 and received a great echo in the SuSanA community and beyond. Especially welcomed was the message that school sanitation is not only a challenge in the less developed countries but also in the developed world. Many schools can benefit from ideas on how to improve sustainably improve their WASH situation in terms of hardware, but especially in regards to software measures.

Many SuSanA members indicated that they would like to contribute their own stories to a second WASH in Schools volume. It was agreed that publishing this type of best practices collection is a very useful activity within the SuSanA. Therefore the SuSanA working group on WASH in Schools started a second call for case stories in late 2014. The feedback by SuSanA partners was great. As a result of this work, this publication shows again examples from all over the world but this time structured in four thematic areas including a thematic focus on monitoring and evaluation.

As not all stories which were sent in response to the call could be included in this publication, they will be made available in a SuSanA online Wiki on WASH in Schools. The wiki will be a growing online collection on best practices around sustainable sanitation. The establishment of the WASH in Schools section of the wiki is another activity in the working group on WASH in Schools.

#### THE FOLLOWING PEOPLE PROVIDED CASE STORIES, INPUTS AND/OR ADVICE:

Helen Huang/Chen Xiangyang (China; case story 1), Ina Jurga/Denise Reck (Germany; case story 2), Tynarbek Musabaev/Claudia Wendland (Kyrgyzstan/Germany; case story 3), Sanjay Banka (India; case story 4), Ina Jurga/Denise Reck (Kenya/Bangladesh; case story 5), Libby Daghlian (Uganda; case story 6), Claudia Wendland/Surayo Saidova (Germany/Tajikistan; case story 7), Maxie Matthiessen/Julie Weigaard Kjaer (Kenya; case story 8), Florian Klingel/Jonathan Hecke (Switzerland/Moldova; case story 9), Ashar Dean/Stephan Kraemer (Pakistan/Germany; case story 10), Alex Viwat Campbell (Cambodia; case story 11), Nicole Siegmund (Germany/Cambodia; case story 12), Dirk Walther/Dayanand Panse/Sreevidya Satish (Germany/India; case story 13), Regina Dube/Hanna Jaritz (Germany; case story 13), Dirk Schäfer/Hans-Heiner Rudolph (Kenya/Germany; case story 14), Bella Monse (Philippines/Cambodia/Indonesia/Lao PDR; case story 15), Janine Selendy/Francis Odupute (USA/Nigeria; comics), Arne Panesar/Hans-Heiner Rudolph/Emma Roach/Dorina Beck/Christian Rieck/Roslyn Graham (the role of monitoring) and Roland Werchota.

For the compilation of this publication, substantial work was done by the SuSanA secretariat: Emma Roach, Jan Schlenk, Jona Toetzke, Constanze Weimann-Koinzack, Christian Rieck, and WECF: Claudia Wendland and Isabell Wienpahl.



## DEAR READERS

Would you send your child to a school that neither provides access to water and hygiene facilities nor to functioning and clean toilets? This is sometimes the only choice for many parents. Almost half of all schools worldwide, particularly in low- and middle-income countries, lack these essential facilities that many of us take for granted. Schools where open defecation is practiced, or where lack of water and soap hinders proper hygiene behaviour, are negatively impacting on health and the ability of children to learn and thrive. Girls are particularly affected, as inadequate protection and lack of privacy in toilets often cause them to drop out of school at the age when they start menstruation, or to be absent repeatedly during their periods. We know how closely adequate water, sanitation and hygiene (WASH), good health and education are connected and that investments in WASH are ultimately also benefitting the learning performance of children.

We should also never lose sight of the important role that schools have in the life of children and the community. Children spend a large proportion of their time at school, they learn, live and play in the school environment and they acquire important skills that allow them to live healthy, productive and happy lives. Moreover, schools have the task of being role models for the wider community and society and should serve as examples of good practices that may also positively impact parents and families. Therefore, WASH in Schools must be an essential element of every child's safe and healthy school environment.

While significant progress has been made towards reaching the water target of the Millennium Development Goals (MDGs), the sanitation target aiming at halving the proportion of people without access to improved sanitation by 2015 will not be reached. It will thus be part of the unfinished agenda in the context of the post-2015 development framework. While Goal 6 of the new Sustainable Development Goals (SDGs) aims 'to ensure availability and sustainable management of water and sanitation for all', WASH in Schools is not explicitly mentioned. The 'WASH in Schools' community can make a huge contribution to strengthen SDG 6

Left: Uschi Eid.  
Middle: Uschi Eid testing a TippiTap.  
Right: Secretary-General Ban Ki-moon's Advisory Board on Water and Sanitation launches the 'Sustainable Sanitation: Five-Year Drive to 2015'.



by supporting the WHO/UNICEF Joint Monitoring Programme in its efforts to integrate WASH in Schools indicators in the wider SDG monitoring framework. Coupled with a strong constituency that helps in drawing public attention, this will ensure action and accountability in this important cross-cutting area and will strengthen the contribution that WASH in Schools can make to several of the SDGs.

The promotion of concrete programmes is much needed and was one of the key reasons for compiling the case studies presented. They highlight best practices on linking WASH in Schools and pragmatic sanitation approaches, integrating menstrual hygiene management and bringing WASH in Schools to scale. The case studies also show how existing WASH facilities can be improved together with advancing children's hygiene behaviours and skills.

On behalf of the United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB), I sincerely welcome the initiative for this publication from the Sustainable Sanitation Alliance (SuSanA) network. This second edition is a further milestone in the commitment of SuSanA to advance the sustainability of WASH in Schools. Such progress would not be possible without the inspiration, innovation and motivation of countless initiatives and programmes from around the world, some of which are documented here.

I encourage all decision-makers, the global WASH in Schools community and development partners to learn from each other, so that we can jointly achieve the aim of every child attending a school with access to adequate and equitable WASH.

Uschi Eid  
Chair, UN Secretary General's Advisory Board on Water and Sanitation



## DEAR READERS

The SuSanA working group on WASH in schools was a vibrant one from the very start of the Alliance in 2007, despite the fact that schools were not ‘counted’ in the MDG-Monitoring. For me this has always been an indication that the school setting as such has a high potential, and that working with schools and pupils makes sense for everybody involved on many levels. It has a direct positive effect on the learning environment of pupils; it directly affects their health and therefore indirectly improves food security. It can also spread new and more sustainable thinking and improve health behavior beyond the school environment, e.g. in the households of the children, the communities as a whole and it can showcase new pathways on how to break the taboo on sanitation. Children are especially gifted to look at new ideas with excitement and sometimes may motivate us to overthink the structures and habits we are used to.

I am therefore happy to see a second volume of the SuSanA WASH in Schools case story collection being completed for all interested readers. This publication presents various case stories from around the world on WASH in Schools. The stories range from successfully included productive sanitation in a school environment and developed educational games that give the children an understanding of the benefits of productive sanitation installations. The stories cover menstrual hygiene management, which is an issue as the dropout rate of girls in schools because of inadequate or missing toilets is still way too high. Other case stories show that business or income generation can play a major role for the financial sustainability of the projects, thereby being a precondition for scaling them up. Finally this second edition has a thematic focus on monitoring and evaluation, with a set of related case stories.

# INTRODUCTION & PURPOSE

Left: Arne Panesar.  
Middle: Arne Panesar  
supporting children  
of the Green Wicket  
Campaign in India.  
Right: SuSanA Secretariat  
(A. Panesar, A. Tempel,  
T. Surridge, L. Roeder,  
E. Roach).



The cases brought together here may stimulate us to merge the most successful aspects of the various methodologies together, to form a new concept for a more holistic WASH in Schools approach. I envision an approach that first activates schools with behaviour change measures, that uses the energy created for visionary thinking around improvements for cleaner and more hygienic school sanitation conditions, that reactivates or renovates existing handwashing and toilet facilities before the construction of new infrastructure and that increases ownership on all levels to jointly develop and install routines of how to keep the infrastructure clean and functional in the long term. Only an approach that creates the enabling school environment can ensure sustainable use of new or additional infrastructure.

This publication was realized because of the countless initiatives and individuals that have met under the umbrella of the SuSanA network and spent their time and energy to improve the school environment in various ways. We hope to hereby enrich the global discussion on striving for sustainable water, sanitation and hygiene for children and their teachers in schools. Certainly these stories provide a rich resource of proven and innovative solutions and approaches. I hope that they stimulate many readers and will thereby support the further development of sustainable WASH in School projects and programmes as well as national strategies and implementation plans.

Arne Panesar  
'Secretariat of the Sustainable Sanitation Alliance'  
hosted at the Sector Programme 'Sustainable Sanitation', GIZ

# CRITERIA FOR SUSTAINABILITY OF WASH PROJECTS IN SCHOOLS

## SUSTAINABILITY CRITERION 1 PROMOTE HEALTH AND HYGIENE EFFECTIVELY

Includes the risk of exposure to pathogens and hazardous substances that could affect the health of pupils, school staff member and communities. The sanitation system should at all points from the toilet via the collection and treatment system to the point of reuse or disposal be safe and child friendly in order to avoid the spread of diseases. To improve the overall livelihood this topic also covers awareness raising on hygiene and nutrition for students, their parents and teachers.

## SUSTAINABILITY CRITERION 2 PROTECT THE ENVIRONMENT AND NATURAL RESOURCES

Involves the required energy, water and other natural resources for construction, operation and maintenance of the system, as well as the potential emissions to the environment resulting from use. It also includes the degree of recycling and reuse practiced and the effects of these (e.g. reusing wastewater; returning nutrients and organic material to agriculture), and the protection of other non-renewable resources, for example through the production of renewable energies (e.g. biogas). Especially at schools, a big impact can be done by raising awareness on those issues.

## SUSTAINABILITY CRITERION 3 TECHNICALLY APPROPRIATE INCLUDING OPERATIONS AND MAINTENANCE

Incorporates the functionality and the ease with which the entire system including the collection, transport, treatment and reuse and/or final disposal can be constructed, operated and maintained. The functions should be flexible to make sure that they are suitable for different age groups, especially for children's needs, to raise the user friendliness and acceptance. Furthermore, the robustness of the technology should be taken into account, being aware that children and their skills and behaviour might sometimes not be suitable for very vulnerable systems.

## SUSTAINABILITY CRITERION 4 FINANCIALLY AND ECONOMICALLY VIABLE

Usually the government and/or the school itself/pupils' families pay for sanitation. This includes the construction, operation, maintenance and necessary reinvestments in the system. Besides the evaluation of the costs, it should be taken into account, how the schools could benefit from the recycled products like soil conditioner, fertiliser, energy and reclaimed water. Additional external costs, for example, environmental pollution, health hazards and external benefits such as increased agricultural productivity of school gardens or employment creation have to be observed.

## SUSTAINABILITY CRITERION 5 SOCIALLY ACCEPTABLE AND INSTITUTIONALLY VIABLE

The criteria in this category evaluate the socio-cultural acceptance and appropriateness of the system. The sanitation systems should be appropriate and well equipped for different age groups and different gender. Special needs for girls should be fulfilled in order to decrease school absenteeism. Special attention should also be paid on different religious customs to make sure that the facilities are not only suitable for pupils with different background, but also for children with special needs. The projects should be in compliance with the legal frameworks and stable and efficient institutional settings.





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## CHAPTER 1 HOW TO LINK SCHOOL AND PRODUCTIVE SANITATION?





Left: Living in the orchard, Tian Shui City, 2011.  
Right: Speech to the pupils, Tian Shui City, 2010.  
Below right: Unloading urine to the small tanks of the orchard owners, Anjiazhuang Village, Tian Shui City, 2012.

**THE USE OF URINE FROM SCHOOL TOILETS AS FERTILISER CAN BE A BUSINESS FOR FARMERS.**

Between 2009 and 2012, the local charity SOHO China Foundation built Urine Diverting Dry Toilet (UDDT) blocks for students and teachers in the countryside of Tianshui city of Gansu province. “The UDDT blocks are as clean as the hotels we see on the TV. There are mirrors and hand-washing water, too.”, writes a student of Wotuo Primary School.

Initially, SOHO China Foundation planned to build water flush toilets for hundreds of schools in Tianshui city. However, too many problems such as the lack of water due to Tianshui’s water scarcity, expensive water and maintenance work occurred after starting the operation of the first flush toilets in ten schools built in 2008. In 2010, SOHO China decided to only build UDDT as they are more appropriate and sustainable.

With some experiences due to the China-Sweden Erdos Eco-town and some knowledge about ecosan, Chen Xiangyang became a volunteer at SOHO China Foundation, teaching students and teachers on how to use and maintain the first 10 UDDT

blocks completed in 2009. As he had the ambition to establish a profitable and sustainable eco-toilet project for promoting UDDTs in China, he started looking for farmers, who were willing to use the urine for their crops. Surprisingly, all visited peasants laughed at the idea of reusing human waste as fertilizer, although they knew the taste of urine fertilized crops was much better than that of chemically fertilized ones, they said that chemical fertilizer would result in much better yields.

The schoolmasters showed not a lot of interest in using the newly-built UDDTs, claiming that the pit latrines were much better, because they had no budget for human waste removal.

“A big lesson I learned from the Erdos project is that a sustainable project should be profitable and sustainable by itself”, Chen Xiangyang decided to set up an eco-agriculture experiment for the farmers, encouraging them to take the urine from the UDDTs at their own cost, expecting that they earn more money by growing crops with urine as fertilizer. “My first step was to verify the capacity of the urine by measuring the yield of urine-irrigated crops. In 2009, my brother and I started to grow 3,000 m<sup>2</sup> of vegetables, fertilized with urine from a 600-people school. A year later we convinced a farmer to apply urine to his apple trees and two more farmers to grow chilly and corn.”

<sup>1</sup> [http://www.ecosanres.org/pdf\\_files/ErdosWorkshop-FinalReport.pdf](http://www.ecosanres.org/pdf_files/ErdosWorkshop-FinalReport.pdf)

## SUSTAINABILITY CRITERIA

- 2 ENVIRONMENT AND NATURAL RESOURCES:**  
The urine from the UDDT is used as a safe fertiliser for apple production.
- 3 TECHNOLOGY AND OPERATION:**  
UDDT is a sustainable and appropriate technology in areas without reliable water supply.
- 4 FINANCIAL AND ECONOMIC ISSUES:**  
It is possible to set up a business with sanitation products.



However, at last the farmers gave up using the urine, complaining about the high transportation costs to the fields or orchards. All the neighbouring farmers appreciated the vegetables, but they still refused to use the huge amount of urine: the first school UDDTs were constructed in a way that hand-washing water was collected together with urine in one tank which led to large volumes of mixed urine with greywater. With this feedback, the SOHO Foundation revised the toilet design, so that hand-washing water is stored in a separate tank.

Thenn Chen Xiangyang decided to start business on his own selling vegetables and some apples. With only little investment money (3,000 Yuán = less than 490 U.S. dollars), he continued to grow apples. In 2011, he paid another orchard owner for transporting about 40,000 litres urine to irrigate about 100 apple trees. 4,800 kg of apples were harvested and

sold to middle class consumers in big cities. The profit for the two of us was so good, that all peasants in the village expressed willingness to irrigate their apple trees, on the condition that he pays the urine transportation fee and buy all their apples.

In early 2012, he set up his own apple business. His apple-story was published in a blog after that 1,200 customers placed orders before the harvest. Working with about 30 farmers and using the urine from 31 UDDT blocks, the turnover of 2012 and 2013 was 1.4 and 1.3 million Yuán (= 225,500 and 210,000 U.S. dollars). Since 2011, over 6,000 customers have purchased his products and there are over 25,000 fans in his blog.

Tianshui Sweetest Apples Company closes the loop between safe sanitation, healthy nutrition and environmental protection.



The project was part of the foundation's 'Children's Virtue Training Program', that aims at improving the quality of education. SOHO China Foundation built 10 UDDT blocks in 2009 and an additional 21 blocks in 2010 in 31 schools located in different areas of Tianshui city in China. About 20,000 students and teachers are using these toilets. On the basis of this project, the commercial venture 'Tianshui Sweetest Apples Company' was formed, that uses the urine from the school UDDTs to fertilise apples farms and sells the harvest.

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### PROJECT DETAILS

**Type of project:** The toilet project is one part of the Children Virtue Training Program

**Project period:** since 2005

**Start of operation:** The UDDTs started in 2009

**Project scale:** At a cost of about 18 million RMB (= nearly 2.9 million U.S. dollars), 46 toilets were built between 2008 and 2012, serving 35,000 students and teachers, 15 water flush toilets and 31 UDDT blocks





Left and right: Boys and girls competing in the 'World Toilet Cup' game in Mukuru, Nairobi's informal settlement.

### COMBINING HARD- AND SOFTWARE EXPERTISE LEADS TO SUSTAINABLE IMPACT.

An effective game is not only fun and easy to understand, but also able to transfer its core message. Educational games enable people to generate their own insights and positive attitudes, which ultimately result in motivation to act. In addition, playing games together is affirming a sense of solidarity within the group and is very rewarding.

Building sanitation facilities in schools needs to go along with behaviour change interventions to assure proper use and ultimately to achieve sustainable impact. With this in mind, WASH United joined forces with hardware provider Sanergy Inc. for a hygiene promotion project at 15 schools of Nairobi's informal settlement Mukuru in 2013 and early 2014. Sanergy builds and franchises 'Fresh Life Toilets' with handwashing facilities to local residents, who run the toilets as small businesses and operate the facilities. Fresh Life Toilets follow the principle of urine diversion without water, so urine and faeces are stored in separate, exchangeable cartridges. On a daily basis, Sanergy collects the excreta from each toilet and converts it into useful by-products such as organic fertilizer and renewable energy. The fertilizer is then sold to several Kenyan farms.

Prior to the project start, only 1 out of 5 students practiced proper handwashing. To encourage good hygiene practices and to teach the correct use of Sanergy's Fresh Life toilets, WASH United uses an innovative game-based curriculum that engages children in an interactive way to generate their own insights about the problems surrounding poor WASH.

One of WASH United's signature games is World Toilet Cup (WTC), a football-based educational game for groups. The WTC addresses the benefits and the appropriate use of toilets and sanitary facilities. The players discuss and answer questions about sanitation/toilets and aim to shoot a brown ball (symbolising poo) in the two holes of the WTC wall (symbolising toilets). Together, they can score for a healthier, cleaner world.

30 teachers were trained to construct tippy taps and how to facilitate a set of games about water borne diseases, its source, modes of transmission, prevention, and very specifically on the proper use and maintenance of Fresh Life toilets, as well as correct handwashing with soap after the use of Fresh Life toilets. The trained teachers then reached a total of 2,739 students. After the trainings, the number of students, who started washing their hands increased to 2 out of 3 (60%). To ensure sustainability, resident teachers can independently implement

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
All toilets are equipped with handwashing facilities and the handwashing practice could be increased among the students.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
The toilet products are collected separately and safely used in agriculture.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
Software and hardware parts complement each other through a cooperative approach between NGO and business.



continuous activities, for example play the WTC with their students.

### SANERGY STAYS IN TOUCH WITH EACH SCHOOL FOR DAILY WASTE DISPOSAL AND THEREFORE CORRECT MAINTENANCE AND SUSTAINABILITY OF THE FACILITIES IS ENSURED.

For the initial project, WASH United provided the 'software' (behaviour-change trainings) and Sanergy the 'hardware' (toilets) part. After the project, Sanergy has started to build its own team to implement the software component. WASH United is currently training Sanergy staff to become hygiene trainers themselves.



WASH United is an international non-profit organisation that pioneers the use of fun, educational games, sport star ambassadors and strictly positive messages to increase the relevance of sanitation and hygiene and to facilitate behaviour change. WASH United designs and implements awareness raising campaigns and WASH in Schools programmes in Asia and Sub-Saharan Africa. WASH United believes that children are key agents of change. As children spend most of their time at school, this is the best place to learn good WASH behaviour.

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#### PROJECT DETAILS

Type of project: Hygiene Promotion Project  
Project period: 2013-2014  
Start of operation: 2014  
Project scale: 15 schools





Left: Pupils in front of the 'Al-Bukhari' Madrasah (Muslim education center).  
Right: Pupils washing hands in Navruz school.  
Below right: Ablution facilities in the Madrasah.



**A UDDT IS A SOLUTION ALSO IN MUSLIM REGIONS AND CONTRIBUTES TO INCREASED FOOD SECURITY.**

In the South of Kyrgyzstan, the urine-diverting dry toilet (UDDT) technology (ecosan) was implemented as a suitable technology in rural areas where there is no reliable water supply. Here are two examples of schools which implemented ecosan:

**1st SCHOOL: THE MUSLIM EDUCATION CENTRE 'AL-BUKHARI' IN ARAVAN DISTRICT, OSH OBLAST, APPROACHED CAAW EXPRESSING ITS NEED FOR NEW SANITARY FACILITIES, IN ORDER TO EQUIP THE NEWLY CONSTRUCTED DORMITORY.**

“Truly a headache for Muslims is the question of ablution before prayer. Not all believers come to the mosque with the state of the tahara (ritual purity). Even though Islam categorically instructs the faithful ones to observe the rules of hygiene and cleanliness, room for ablutions in many mosques in southern Kyrgyzstan are often messy, very dirty and smelly: In a local bigger mosque, some Muslims try to make their way to the treasured washstands holding their nose and thoroughly lifting pants. To visit the mosque toilet before ablution can be fatal, if you are not an acrobat. Inside the toilet it is better not to touch anything,” explains Tynar Musabaev, director of the Central Asian Alliance for Water and Sanitation CAAW.

For 'Al-Bukhari', CAAW recommended the implementation of UDDTs and washing facilities, but it was difficult to get the permission from the Islamic High Council (the local Council Leaders of Islam), as he was sceptical whether the UDDT concept corresponds to the principles of Islamic life.

Ecosan consultants organized talks with mudarris (teacher of Islamic knowledge) to find a verse in the Quran or sayings (Hadith) of the Prophet Muhammad, whether Islam prohibits using human waste as fertilizer. In result, CAAW specialists together with representatives of local religious institutions agreed that the use of human waste as fertilizer in agriculture in general is not prohibited.

CAAW experts discussed the information with the key religious representatives and as a result the Muftiate (Regional Religious Islamic Center) approved the construction of a public ecosan toilet for the 'Al-Bukhari' Madrasah. This was the first step towards improving the condition of the ritual purity in the madrasahs to ensure full safe sanitation for all users. Seven UDDTs were built, with a large area for washing for hands and feet and anal cleaning. Students and teachers do not use the same facilities; some toilets are blocked for faculty use only. The school administration, the Imam and the teachers, have passed ecosan trainings, including the usage of urine and faeces as organic fertilizer.

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
The installation of UDDT goes together with handwashing education based on the PHAST methodology for staff and children in the schools.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
The urine replaces chemical fertiliser.

**3 TECHNOLOGY AND OPERATION:**  
UDDTs have been adapted to local rural conditions. School children and staff are trained on UDDTs.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
The urine is a fertiliser for free so less chemical fertilisers have to be bought.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
The technology has been introduced into the religious background and is well accepted.



At present, more than 200 students are taught and reside at the school, learning to observe ritual purity, the rules of personal hygiene as well as the concept of ecosan. Each day, a hygiene club of 5 students is responsible for the tidiness and cleanliness of the facilities.

**2ND SCHOOL: THE SECONDARY PUBLIC SAIDAKMATOVA SCHOOL IN NAVRUZ VILLAGE OF ARAVAN RAYON HAS AROUND 400 STUDENTS, FROM GRADES 1 TO 11<sup>TH</sup> WITH AGES RANGING FROM 6 TO 16 YEARS OLD. THE NGO CAAW BUILT A UDDT BLOCK CONTAINING 7 TOILET CABINS IN TOTAL.**

Boys and girls use different toilet rooms and the boys' facility is additionally equipped with a urinal. While the old pit latrine is still in use until it is filled up and closed, most of the children prefer the ecosan toilet. The toilets have two 1 m<sup>3</sup> urine containers, which usually fill over a period of one year. Tanks are checked on a regular basis by the school UDDT technician. The faeces chambers take three years to fill up and when emptied, contained seven wheelbarrows of dried faeces each. The dry materials used to cover the faeces are sawdust and ashes. Ash comes from the neighbouring baker's ovens and sawdust is donated from other community members and sometimes bought. In the evaluation, the students indicated that their school ecosan toilet is cleaner, brighter and they are not afraid to go there, in comparison with their

old latrine, which smelled awfully, was dark and was a risky place to fall.

The school has in addition installed handwashing basins in every classroom as well as near the ecosan toilets. The greywater from basins is infiltrated in the ground near fruit trees. During parent meetings the children are asked to bring their own towels and soap, in order to practice handwashing. All the school children participate in Participatory Hygiene And Ecological Sanitation Transformation (PHAEST) trainings, where they learn how to wash hands before meals and after visiting toilet. Also these trainings helped children, their parents and the teachers to change their attitude to personal hygiene.

The school has its own farm land of 6 hectares, where the school guard grows cotton and rice. The urine from the UDDTs is used to irrigate and fertilize the rice fields, whereas cotton is being fertilized by dried faeces. The school guard carries out the task of applying the urine to the fields. According to the school director, the harvest of the last year was good with around 1 ton of rice. In comparison, without urine fertilization the harvest was around 600 kg of rice. Each child received one sack of rice for free and the rest was sold at the bazaar at a price of around 1 U.S. dollar per kg. From this income, around 100 U.S. dollars were given to the school cafeteria and some is being saved to construct a greenhouse later.

Together with Women in Europe for a Common Future (WECF), Central Asian Alliance for Water and Sanitation (CAAW) is a driver for innovative sanitation systems. CAAW solves WASH issues, e.g. WASH trainings with the Participatory Hygiene And Sanitation Transformation (PHAST) approach, a methodology for hygiene behavioural change. On the initiative of WECF, CAAW adapted PHAST for the promotion of hygiene and ecological sanitation. The adapted PHAEST is used to spread knowledge on ecological sanitation, and also in the context of training the right use of UDDT and obtained fertilizer.

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### PROJECT DETAILS

**Type of project:** Increasing living standards of rural population by introducing new technologies of eco-sanitation concept to agriculture  
**Project period:** 2009  
**Start of operation:** 2009  
**Project scale:** UDDTs were built in the Muslim Education Centre





Left: Vizianagaram (Andhra Pradesh).  
Right: Warangal (Telangana).  
Below right: Dalmiapuram (Tamil Nadu).

### BIO-DIGESTERS ARE A SUITABLE SANITATION SOLUTION FOR SCHOOLS WHICH CAN REPLACE THE SEPTIC TANKS.

Banka BioLoo Pvt Ltd. has grass-root experiences with sustainable sanitation solutions, especially the biodigester. Its solutions address the need for basic, easy-to-install and hygienic human waste disposal mechanism in areas with no infrastructural facilities, as well as the need for cheaper and easy-to-operate alternatives to the traditional waste disposal system.

The 'Andhra Pradesh Education Welfare and Infrastructure Development Corporation' (APEWIDC), a government owned entity entrusted by the Indian 'Rajiv Vidya Mission' is a government sponsored scheme with the objective to reach universalization of primary school education of satisfactory quality. It was in particular interested in constructing and restoring school sanitation in the state of Andhra Pradesh, India by implementing the innovative bio-digester technology for the toilets in its residential schools.

The technology installed in these schools involves a bio-tank that consists of a series of baffled chambers. At the bottom of each chamber, activated bacterial fluid is retained. During inflow into the chamber,

the wastewater is intensively mixed with the sludge whereby it is inoculated with wastewater organisms, which decompose the pathogens in an anaerobic condition. The products of this digestion are the liquid effluent which is partly sanitized and can be used as fertiliser in agriculture and biogas which is a fuel and can be used for cooking or lighting.

The bio-digester tank systems were installed in early 2013 and are still functioning well. While more than 2,500 children were reached with the pilot project, the overall mandate is to upgrade sanitation systems of 350 schools to sustainable ones.

In order to understand the efficacy and the functioning of the bio-digester system, a pilot project was launched including five schools all across the state. Banka BioLoo started to share knowledge and details with school administrative staff right from the project initiation. During summer vacation, when the students were at home and the school was relatively empty, a construction contractor appointed by APEWIDC redesigned the huge septic tanks to bio-tanks. Banka BioLoo provided necessary digester designs, guidance and other support including several site visits. Once tanks were installed, the company provided bacterial culture and ensured that the system was functioning well. APEWIDC was responsible for the costs and financing.



## SUSTAINABILITY CRITERIA

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
The toilet products are safely used in the school garden.

**3 TECHNOLOGY AND OPERATION:**  
The bio-digester is an appropriate, sustainable technology.



After the implementation was finished, Banka BioLoo interacted with school officers and teachers. They expressed satisfaction with the fact that their human waste was being treated at the source. They were happy to use the treated effluent to irrigate the plants within the school campus. The next step will be to collect and utilize the produced biogas for cooking.



### CONTACT

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Banka BioLoo Pvt Ltd. is engaged in the eradication of open defecation. The company provides environmentally-friendly bio-toilets, and also supports the conversion of conventional toilets to bio-toilets through the bio-tanks that hold the bio-digester bacteria that treat the human waste at source. The bio-toilets are branded ELOOs – the Bio-digester toilets. The company offers bio-toilets for families, public, community, schools, institutions and companies; bio-tanks for Indian Railways and other organizations, bio-digester bacteria for bio-toilets and bio-tanks, and upgrade of septic tanks to bio-tanks. It also services bio-toilets and similar advanced toilet technology deployed by the Railways, and has entered into annual operations and maintenance contracts with Railway zones.

### PROJECT DETAILS

**Type of project:** Pilot project  
**Project period:** Early/Mid 2013  
**Start of operation:** 2013  
**Project scale:** Sustainable Sanitation systems in 5 schools

FIRST, LET ME HIGHLY RECOMMEND THIS BOOK WHICH WE USE AT OUR HEALTH CENTRE... IT'S TITLED: "WATER AND SANITATION RELATED DISEASES AND THE ENVIRONMENT: CHALLENGES, INTERVENTIONS AND PREVENTIVE MEASURES"... \*

...EVERYTHING WE'LL LEARN HERE TODAY IS DISCUSSED IN FULL DETAIL AND WITH BEAUTIFUL ILLUSTRATIONS THAT AID CLEARER UNDERSTANDING AND PRACTICAL APPLICATION OF W.A.S.H-RELATED HEALTH MEASURES!...



... THERE ARE ALSO DVDs WITH MANY VIDEOS WE CAN WATCH TOGETHER LIKE ONES ON TRACHOMA, SANITATION, SCHISTOSOMIASIS, PLUS SOME SUPPLEMENTARY MATERIALS ACCOMPANYING THIS BOOK. ...VERY USEFUL BOOK!

→ NIGERIA FREE 'WASH 4 ALL' COMIC BOOKS  
RAISING AWARENESS AND IMPROVING WASH  
WITH YOUTH ENGAGEMENT

**WATER SCARCITY AND A CULTURE THAT FAILS TO  
RECOGNIZE THE IMPORTANCE OF SANITATION AND  
HYGIENE CALLS THE SHOTS...**



...**EKU RIVER** IS THE MAJOR SOURCE  
OF **WATER** IN **EBOKU COMMUNITY**.  
MANY **TRADITIONS** ARE FOLLOWED:  
SOME **GOOD** AND SOME **BAD**...

...FOR EXAMPLE, IT'S A **TRADITION** AT  
THIS **PRECIOUS RIVER** THAT **DRINKING**  
**WATER** BE **FETCHED** ONLY FROM THE  
**UPPER SIDE** FROM WHERE THE **WATER**  
FLOWS OUT OF THE **ROCKS**...

...IT IS ALSO A **TRADITION** THAT  
BATHING, **WASHING**, **RELIGIOUS**  
RITUALS, ETC. BE **CARRIED OUT** ONLY  
AT THE **LOWER END** OF THE **RIVER**...

**ALAS!** OTHER **HABITS** AND  
**TRADITIONS** GO ON AT THE  
**RIVERSIDE** MOSTLY **UN-NOTICED**.  
**OPEN DEFECATION** IS ONE...

'School children Battle Malaria and Other Diseases', the first edition of the 'WASH 4 ALL' 13-part comic book series, emphasizes the importance of avoiding open-defecation, the availability of clean water, and good hygiene habits. The comics, designed to positively engage youths in the fight against diseases related to WASH, are being distributed internationally for free and are available for download.

Horizon International, an NGO based at Yale University, USA, is producer of the series in collaboration with the media service of Beautiful Feet International (MediaBFI), a non-profit organization based in Nigeria.

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**CHAPTER 2**  
**HOW TO DEAL WITH**  
**MENSTRUATION**  
**HYGIENE**  
**MANAGEMENT**  
**IN SCHOOLS?**





Left: Boys and girls in Sylhet (Bangladesh) playing the 'Disposal Game'.  
Right: 'Red Yarn Game'.  
Below right: Preparing for the 'Disposal Game'.

**FUN, GAMES AND POSITIVE COMMUNICATION ARE EFFECTIVE INGREDIENTS FOR CHALLENGING MENSTRUAL TABOOS AND EMPOWERING GIRLS.**

Menstrual hygiene is a topic that is hardly included into students' education. To change this, WASH United uses innovative games, videos and discussions to address menstrual hygiene management (MHM). Together with local partners, WASH United has trained over 2,300 students (including 500 boys) and more than 60 teachers on MHM in India, Kenya and Bangladesh between 2013 and 2014.

The training of girls does not only provide knowledge, but also encourages good hygiene practices for usage of products and their disposal. In addition, it helps girls to understand that they are not alone with their problems, and that others share their challenges and questions around myths and taboos. Hence, the training affirms solidarity. In Kenya, the MHM trainings were an extension of the WASH in Schools curriculum. In Bangladesh, group discussions were conducted beforehand to build up trust and to understand the key issues that needed to be discussed during MHM trainings. Having fun while

playing games is beneficial, as it creates a positive atmosphere around a topic traditionally shrouded in silence and shame.

The training for boys facilitates general knowledge around puberty and the meaning of menstrual hygiene. Most importantly, the curricula for boys aim to empower them in their roles as supporters to sisters, mothers and female classmates. This includes discussions about myths and taboos to avoid misconceptions and to encourage them to break cultural barriers.

Sumitra Rani Dutta, a teacher at Kazi Jalaluddin Girls High School in Sylhet, Bangladesh says: "Generally Bangladeshi women have a number of [menstrual] taboos to follow. For Sylhet, the amount of taboos is even more. So, this program is quite apt. The girls have learnt a lot. Hope they will be able to change themselves in the desired manner as well as manage to place themselves better in the society. Looking forward to such programs again in the future, especially in the rural area."

The objectives of the training for teachers are to gain critical knowledge and thus to feel comfortable, while discussing pubertal changes at school, and to encourage them to play the required supportive role for students. Ultimately, they should be able to

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
Game based trainings can change the WASH behaviour sustainably.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
Girls and boys learn that menstruation is a natural process and nothing to be ashamed of. This new knowledge eventually leads to lower absence rates at school during menstruation.

conduct MHM education in the long-run. It is advised to check in with the students one to two months after the trainings to deepen their knowledge and to evaluate the impact of the trainings. In Kenya, the trainings were conducted with local NGOs, which will ensure sustainability on the ground as they are in continuous contact with the schools.



WASH United is an international non-profit organisation that pioneers the use of fun, educational games, sport star ambassadors and strictly positive messages to increase the relevance of sanitation and hygiene and to facilitate behaviour change. WASH United designs and implements awareness raising campaigns and WASH in Schools programmes in Asia and Sub-Saharan Africa. WASH United believes that children are key agents of change. As children spend most of their time at school, this is the best place to learn good WASH behaviour.

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### PROJECT DETAILS

Type of project: MHM Promotion Project

Project period: 2013-2014

Start of operation: 2014

Project scale: Training for over 2.300 students (including 500 boys) and more than 60 teachers on MHM in India, Kenya and Bangladesh between 2013 and 2014

Project location: Schools in India, Kenya and Bangladesh

Implementing institution: WASH United

Supporting agency: Local partners





Left: Emmanuel Seninde teaches Winnie Joyce Maiyani how to make the liner in the Days for Girls Uganda office in Kampal. Right: Nyadeng Malual Machol shows her new Days for Girls Menstrual Hygiene camp in Adjumani, Uganda. Below right: The Days for Girls kit displayed in the Kampala, Uganda office.

**LOCALLY MADE WASHABLE PADS HELP GIRLS TO MANAGE THEIR MENSTRUATION AND CAN CREATE INCOME GENERATION FOR WOMEN.**

“One day I was sitting in class and felt something wet pass through my skirt. I lived with only my brother and no one had ever told me about periods. I felt scared.” Sharon Nakalinda’s story is not unique in Uganda, where the topic of menstruation remains taboo and many girls and women lack the finances or financial decision-making power to purchase pads. While there has been an increasing amount of attention given to the issue of menstrual hygiene in the past few years from international organizations and government bodies, there are still many challenges ahead. As of 2014, 1 in 10 girls in sub-Saharan Africa – and 60% of Ugandan girls – missed at least a day of school each month due to menstruation. Girls and women are lacking sufficient information, appropriate strategies, and affordable access to resources in order to effectively manage their menstruation.

Days for Girls International, a non-profit organization, is working with local partners in countries around the world to help close those gaps and provide women and girls with a holistic, sustainable, and locally-appropriate approach to menstrual

hygiene management. Days for Girls has been developing and piloting a program in Uganda to test a model that incorporates educational training programs, sewing of washable menstrual hygiene kits, and entrepreneurial skills development. Days for Girls uses a three-pronged approach to address menstrual hygiene challenges in Uganda– and believes this model can be readily adapted to different cultural and economic contexts around the world.

The first component of the model seeks to create a supply chain of high-quality, long-lasting washable menstrual hygiene kits. The kits are made with materials that are sourced from within East Africa in an effort to support local markets and businesses. The design is based on years of testing and feedback from girls and women around the world. Each kit contains a cotton shield, shaped like a traditional pad with ‘wings’ and clips to be fixed in the underwear. The shield has two pockets at either end to hold the flannel liner, which acts as the soft and absorbent pad piece. The liner uses a tri-fold design that maximizes absorbency when folded, yet allows for quick drying and a discreet ‘handkerchief’ look when unfolded.

While these kits provide an environmentally friendly and economical solution, there is still the issue of sensitization and education surrounding menstruation and reproductive health. This is where the

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
Days for Girls menstrual hygiene kits are a safe and reliable alternative to many unhygienic menstrual solutions being utilized by girls in low-income settings, such as old cloths, newspaper and banana leaves.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
Using menstrual hygiene kits eliminates the need for disposable products. Materials are sourced locally and do not have a substantial carbon emissions impact like imported goods.

**3 TECHNOLOGY AND OPERATION:**  
The Days for Girls kit uses a unique design: pockets in the shield component prevent slippage and the liner does not look like a traditional pad, allowing girls to hang them to dry discretely.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
Girls/women are supported to start own enterprises selling kits in their communities. The kit itself helps girls/women to save money, as they do not need to buy disposable products each month.

second component of the program comes in: Days for Girls works with primary and secondary schools to run educational training programs that teach basic reproductive health topics and allow the girls to try making their own kit. In 2014, Days for Girls launched an exciting partnership with the Dutch development organization, SNV Uganda, to reach 30,000 girls in 4 different districts through school-based training programs.

The last component of the program helps to create potential linkages between the product and the target end-users, and is supported by the awareness created through the educational programs. This third component involves working with low-income women in semi-urban and rural communities to act as Days for Girls ambassadors. The women are trained with entrepreneurial skills including marketing, budgeting, and business planning, and they are

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
The Days for Girls model is refined and adapted to each specific setting to ensure that the program being built is appropriate, and will be long lasting.

given the tools and resources needed to start their own Days for Girls Enterprise. Eunice, of Pallisa district, has already felt the impact of this program with the launch of her own Days for Girls Enterprise. She says, "I am now able to save something with the money I get from these kits. To date, I have sold 30 kits to some nearby schools."

Through these enterprises, the women receive continued support and mentorship from Days for Girls, and they are provided with access to a set of low-cost menstrual hygiene solutions including Days for Girls kits, a locally made biodegradable disposable pad called 'Makapads' from our partners at Technology 4 Tomorrow, and menstrual cups through our partner, Ruby Cup. They are also supported to host small community events to continue sparking discussion and education on menstrual hygiene and health. These three programs work together to generate awareness and discussion around menstrual hygiene and reproductive health, and also serve to provide necessary access points into markets that are otherwise difficult to reach. And what does that mean for a student like Sharon? It means the potential for better attendance rates in school, improved hygiene, and more self-confidence. Sharon has been using her Days for Girls kit and sharing the information with her friends. She says, "I'm happy now that I know about the reusable pad." Because health, hygiene and happiness go together!

Days for Girls is a non-profit organization dedicated to restoring days of dignity, days of school, days of work, and days of health by providing an holistic approach to menstrual hygiene management. Days for Girls has over 300 volunteer chapters around the world and operates a full-time country program in Uganda.

### CONTACT

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### PROJECT DETAILS

**Type of project:** Program to test a model that incorporates educational training programs, sewing of washable menstrual hygiene kits, and entrepreneurial skills development.

**Project period:** 2013, ongoing

**Project scale:** 4 staff, 18 sewing contractors, scaling a proven approach

**Project location:** Uganda

**Financial support:** The Uganda project generates ~50% of its monthly budget with income from in-country sales & programs. The remaining 50% is funded by Days for Girls International.





Left: New school UDDT for boys and girls at Gafurov school. Right: School girl using the UDDT. Below right: School girl using the hand wash facility.

**ESPECIALLY SCHOOL GIRLS  
BENEFIT FROM ECOSAN TOILETS  
AND WASHING FACILITIES  
IN RURAL TAJIKISTAN.**

A student in rural Tajikistan reported about the typical situation in his school: “Our toilet, a pit latrine, is more than 30 years old and, as a result, half of the roof is missing, some parts of the wall are broken. When it rains it is not possible to use the toilet, because rain enters into the inside of the toilet and wooden floor, which was already old and rotten, became slippery. My classmate during her visit to the school toilet fell down to the toilet. Fortunately she wasn’t alone and her classmate helped her to get out.”

Due to the lack of toilet paper, students sometimes used stones or dried cow dung lying around the school building for anal cleansing which creates high risk for WASH related diseases such as helminth infections. During menstruation, the girls are especially in trouble as they do not have any privacy in these latrines. The teachers reported that they did not drink in the morning to avoid going to the pit latrine during classes.

The school director asked the local NGO Agency for Support Development Process Nau (ASDP Nau) to renovate the toilet. The installation of urine-diverting

dry toilets (UDDT) in separated blocks for boys and girls were suggested by ASDP Nau as this technology has been proven to be suitable and sustainable. The new UDDT were realised and equipped with handwashing facilities which led to a high satisfaction among both boys and girls. However, the improvements and privacy provided is more important to the girls of the school. Guzal, a female student, says: “Now we are happy that we have a good toilet. It is equipped with all the necessary items. There is water for washing hands and a hygienic space, which is very necessary for us girls. The girls of our school didn’t come to school during the menstruation period, because they did not have a safe place to go, but now our new toilet has a door, a roof and girls are not afraid anymore to attend the school during the menstruation.”

The school was able to find a local farmer willing to purchase the urine collected at the school. The income generated helps the school cover part of the cost of supplies including toilet paper and soap.

ASDP Nau involved the community and the children in all steps of the project: informing, consulting, planning, implementation, monitoring, decision making process, management, etc. The design of the facility was developed in cooperation with an architect of the region, and the plan was approved by the relevant institutions. It is important to agree



## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
Especially the school girls benefit from the new toilet and the wash facilities and their hygienic conditions and privacy.



**2 ENVIRONMENT AND NATURAL RESOURCES:**  
Toilet products of the UDDT are being safely re-used and do not pollute the environment.

**3 TECHNOLOGY AND OPERATION:**  
Stakeholder involvement helps gain commitment to the new sanitation system.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
In one school the urine can be sold to a farmer.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
It is important to involve all stakeholders. The new toilets are of special benefit for the school girls.

on responsibilities and duties of the school and a Memorandum of Understanding clarifying these issues is usually signed by the head of the local Jamoat (municipality), ASDP Nau, and representatives from the school, and the school receives the grant and is responsible for construction and maintenance of the sanitation facility.

Still, it took time for students to get used to the new toilet because the use of a new type of toilet needs some time for acceptance, and education was an important part of that process. "It is a very sensitive issue. In one case we experienced that the students were too shy to go to the new school toilet as they were afraid to make it dirty so that they were still using the old pit latrine. Thanks to the education measures and active students, we could raise the acceptance," says Surayo from ASDP Nau. Therefore she recommends the removal of former pit latrines in addition to awareness raising activities.

ASDP Nau is a local NGO working on sustainable development and increase of socio-economic status in communities of Tajikistan. UDDTs were installed at seven schools in the Sughd region of Tajikistan by ASDP Nau with support of WECF. Funding came from the Dutch ministry of Foreign Affairs and the company NatraCare.



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### PROJECT DETAILS

**Type of project:** Ecotoilet with wash facilities for the school in Gafurov  
**Project period:** October 01, 2012 until March 31, 2013  
**Start of operation:** 2012  
**Project scale:** 55 schools, 776 school children and teachers, conducting 4 trainings for 133 participants  
**Project location:** Tajikistan, Sughd district  
**Implementing institution:** ASDP Nau, supported by WECF  
**Supporting agency:** Dutch ministry of Foreign Affairs, NatraCare





Left: Kenya Kibera Slum, four girls that have received a free Ruby Cup. Right: Kisumu, Kenya. Ruby Cup distribution during Global Menstrual Hygiene Day 2014. Below right: The Ruby Cup comes in various colours, e.g. in pink.

**THE MENSTRUAL CUP IS AN AFFORDABLE AND SUSTAINABLE SOLUTION FOR GIRLS TO MANAGE THEIR MENSTRUATION.**

Many girls are missing classes for fear of leaking, and absenting from school or hiding at home out of shame. For girls living in Kisumu, Kenya, this situation was a reality each and every month; students were missing classes and/or were using alternative sanitary solutions. Student Annet spoke of her first period “I felt ashamed of myself and stayed at home for a week because I thought it was not normal”. Her classmate Valentine asked friends and family to buy sanitary products “...I was asking my boyfriends, sometimes I was asking my mother and when my mother didn’t have any money I usually used rags and stayed at home.”

For students in Kisumu, things have begun to change and girls now have the opportunity to stay in school, achieve their potential and manage menstruation safely. In 2012, social business Ruby Cup formed a partnership with Golden Girls Foundation (GGF), a Kisumu-based organisation that empowers women and girls in their community. Together they provide students of 14 schools across the country with menstrual cups and the menstrual health information necessary to manage their periods with care and confidence.

**MENSTRUAL CUPS ARE A SUSTAINABLE HYGIENE PRODUCT THAT CAN BE WORN FOR UP TO 12 HOURS. THEY OFFER GIRLS MENSTRUAL SECURITY AND CONFIDENCE, WHILST ALSO FREEING THEM FROM A MONTHLY FINANCIAL BURDEN.**

Social business Ruby Cup produces and sells menstrual cups as a sustainable menstrual hygiene solution for women worldwide. Ruby Cup operates a ‘Buy One Give One’ social concept, which means that global menstrual cup sales can cross-subsidize the cost of menstrual cups in developing countries. Online and in-store sales generate donations, which allow cups to be distributed. Ruby Cup operates mainly in Kenya through its strategic partners, GGF and Femme International, but also engages with projects in other countries in East Africa and recently Nepal. The results have been positive. Girls using the cups prefer them to pads and some spoke to us about their positive experience with the menstrual cup; “Before I started using the menstrual cup I was using rags, sometimes I was using pads and I usually stayed at home until my menstruation stopped because I became shy. Now I can do anything... now no-one knows if I am menstruating” commented Valentine, and classmate Annet now feels the same sense of confidence while on her period. The comfort and reliability that a menstrual cup provides, has allowed girls the freedom to manage menstruation without worry.

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
Each distribution programme is coordinated alongside menstrual health education sessions. At each school, a female mentor is trained to be on-hand to give health advice and support to girls.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
Menstrual cups are reusable for up to 10 years, and replace disposable menstrual hygiene products that have a negative impact on the environment.

**3 TECHNOLOGY AND OPERATION:**  
Menstrual cups are very easy to use, provide comfort and reliability. They last for up to 10 years.



Distribution of cups is coordinated alongside educational sessions to ensure that girls are equipped with the knowledge and understanding to use cups and manage menstruation. During the workshops and informative sessions about basic anatomy, hygiene and menstrual health, the usage of the menstrual cup is thoroughly explained.

Ruby Cups are only distributed in locations where there is a reliable source of water on site, so that cups can be used and washed in appropriate facilities.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
Ruby Cup operate under a 'Buy One Give One' social concept – sales from online shop and European stores fund menstrual cup donations.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
Ruby Cup works in partnership with organisations that are established on the ground and that work to empower women within the community.

Menstrual cups are a water-efficient alternative to cloth and other materials that are currently widely used. Cloth rags need daily soaking whereas cups need only to be rinsed daily and boiled once a month. Menstrual cups can be reused for up to 10 years, reducing daily and monthly waste significantly. The longevity of the product eliminates the issue of regular waste disposal, which negatively impacts the environment and can present a health risk where waste management systems are not in place.

Through local partnerships, Ruby Cup can continue to build on local knowledge, ensuring that programs are culturally and socially appropriate and well communicated. Engaging with students, teachers and parents means that mentorship can spread throughout the community; product knowledge and menstrual health information can be shared. Working closely with GGF and Femme International has allowed for review of product use and evaluation of long-term impact. To date, Ruby Cup has distributed around 4,500 cups – through partnerships and co-operations with NGOs and organisations such as Golden Girls Foundation. There are plans to continue expanding the Ruby Cup partner-base in the following years, and an aim to distribute 10,000 cups already by the end of 2015.

Ruby Cup is a social business based in Berlin and Nairobi that partners with local organisations, to provide a healthy, long lasting menstrual hygiene product to girls at the Bottom of the Pyramid. Menstrual cups are distributed alongside menstrual health education sessions in Kenya, Uganda, Nigeria, Ghana and Nepal. Ruby Cup has secured financial support from SIDA (Swedish International Development Agency), international investors as well as global prizes for innovation and the sustainable technology of the product.

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### PROJECT DETAILS

**Type of project:** Menstrual cup distribution and health education program  
**Project period:** 2012, ongoing  
**Start of operation:** 2012  
**Project scale:** 4,500 menstrual cups distributed to date



THE FOLLOWING WEEK, DAN, ANN AND MOST OF THEIR CLASSMATES AT SCHOOL MAKE A 'DEAL' TO TURN THEIR SCHOOL INTO A W.A.S.H-FRIENDLY SCHOOL, AND TO EXTEND THE "DEAL" TO THEIR HOMES.

A REVOLUTION HAS BEGUN IN EBOKU COMMUNITY...

...SO IT'S A DEAL AMONGST US ALL THAT GOING FORWARD, WE DECLARE "OPERATION FIGHT MALARIA AND ALL WATER AND SANITATION RELATED DISEASES- AT SCHOOL AND IN OUR HOMES..."

YES!!!



...REGULAR WEEDING AND SWEEPING OF THE SCHOOL COMPOUND...



...SAND-FILLING OF POTHOLES TO DRIVE AWAY STAGNANT WATER...



...PROPER DISPOSAL OF DISCARDED ITEMS AND REFUSES...



→ NIGERIA FREE 'WASH 4 ALL' COMIC BOOKS  
RAISING AWARENESS AND IMPROVING WASH  
WITH YOUTH ENGAGEMENT

...A MALARIA- FREE WORLD IS  
POSSIBLE. A HEALTHIER WORLD IS  
POSSIBLE. WE HAVE JUST SEEN WHAT WE CAN  
DO. NOW LET'S FIGHT MORE DISEASES  
CAUSING US MISERY AND DEATH...  
IT BEGINS WITH YOU AND ME. TARGET  
DIARRHEA, TARGET MALNUTRITION, TARGET  
TRACHOMA, SCHISTOSOMIASIS, AND MORE...  
BECOME WASH-FRIENDLY AND SEE THE  
CHANGES... LET'S DO IT!



...REGULAR HAND WASHING WITH  
SOAP- IN SCHOOL AND AT HOME...



"...ONCE WE CAN SECURE ACCESS TO CLEAN WATER AND TO ADEQUATE SANITATION  
FACILITIES FOR ALL PEOPLE, IRRESPECTIVE OF THE DIFFERENCE IN THEIR LIVING  
CONDITIONS, A HUGE BATTLE AGAINST ALL KINDS OF DISEASES WILL BE WON".  
FROM THE LATE DR. LEE, WHEN HE WAS DIRECTOR-GENERAL OF THE WORLD HEALTH ORGANISATION.

(NEXT EPISODE...)

## CHAPTER 3 HOW TO BRING SCHOOL SANITATION TO SCALE?





Left: Children using hand washing facilities in the Kindergarten of Carpineni village, Moldova, which has been connected to a new water supply system.  
Right: Teachers and senior pupils prepare for training of trainers for use and maintenance of ecosan school toilets in Soldanesti district, Moldova.  
Below right: New ecosan school toilet attached to the main school building of Oliscani village, Moldova.

**MOLDOVA'S RURAL SCHOOLS NOW HAVE AN ALTERNATIVE: CLEAN AND COMFORTABLE URINE DIVERTING DRY TOILETS.**

People in many Moldovan villages live with poor sanitation and water supply infrastructure. The majority of households still rely on simple pit toilets in the yards, and the situation in most schools is not better: Usually there are pit toilets, built away from the main school building. More often than not, the toilet buildings are in bad conditions, without cabins or separators for privacy, without electricity or heating in winter, with no hand washing facilities and only poorly maintained and rarely cleaned. These toilets are unhygienic and unpleasant to use and they pollute the groundwater. School authorities lack of good alternatives, as flush toilets are rarely feasible, because there are no sewer systems and wastewater treatment plants in villages.

Since 2007, the Swiss Cooperation has helped promoting an alternative option: Urine diverting dry toilets (UDDT), or 'ecosan toilets' as they are generally called in Moldova. WECF and the Moldovan NGOs WISDOM, SEAM and ECO-TOX were instrumental in initiating the construction of the first ecosan toilet blocks in Moldova, the promotion of this previously unknown solution with the local authorities, and the training of users.

Acceptance was excellent right from the beginning and demand for more such toilets appeared from everywhere, which convinced the Swiss Cooperation to integrate ecosan into their on-going support to improve school sanitation in Moldova. Nowadays, ecosan school toilets are built in cooperation with school authorities of the districts, by local design and construction companies and with financial and technical support from the Swiss project. The ecosan toilets are adjacent to the main schools building, so students and teachers can use them without having to go outside in the cold. According to modern standards, toilets are built with tiles, heating, lightning, ventilation and hand washing facilities. In the toilet blocks there are separate areas for girls and boys, each with several closed cabins for privacy.

“We are not late for the classes now, and it is more comfortable in wintertime, here we have toilet paper and we can wash and dry our hands.” says a student from Rădeni village in Strășeni district.

In each school a facilitator team of teachers and students introduce the proper usage of the ecosan toilets to all teachers and students of the school. The team also organizes campaigns on handwashing and hygiene. While the caretakers of the schools are responsible for cleaning and maintaining the toilets, the school administration staff takes care of budget for soap, paper and cleaning materials. The staff further organizes the removal of urine from tanks

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
The Moldovan ecosan school toilets control pathogens well and are generally much better maintained as the old pit toilets.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
Ecosan toilets protect the environment better than pits (in rural Moldova there is no management of fecal sludge) or flush toilets (no wastewater treatment). They allow reusing human waste in agriculture.

**3 TECHNOLOGY AND OPERATION:**  
Ecosan toilets have proven to work well in rural schools in Moldova. They can be operated and maintained by school staff.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
Construction costs of ecosan school toilets are so low that school authorities can realistically cover them. O&M can be financed with available school budget.



and of compost from collection chambers, the use of the urine for fertilizing fields and the use of compost in gardens or its disposal by burial. The facilitator team, the caretakers and the administration staff all receive initial and refreshment trainings in their field of activity from the Swiss project. Maria Bajurea, the school Principal of a school in Copăceni village, Singerei district says: "The new toilets changed not only the image and status of the schools, it changed also our attitude."

The demand for ecosan toilets is constantly increasing. By 2015, Swiss Cooperation has supported the construction of ecosan toilets in more than 56 schools, serving about 19,000 students and teachers. Throughout the years, a lot of effort was invested in monitoring and improving the toilets and the implementation approach:

- › The design has been optimized for reducing construction costs to about 35,000 € for an average school.
- › Toilet blocks are now attached to the main building rather than built as separate buildings,

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
Ecosan toilets are well accepted by students, teachers, parents and also various national agencies. Regulatory framework is being adapted to include ecosan as standard for rural areas.

which enormously improved comfort, acceptance and maintenance.

- › Barriers to access have been reduced, now the toilets can be accessed with wheelchairs.
- › Responsibility of school administrations, parents and students has continuously been increased, e.g. direct training of students and teachers has shifted to training of trainers.

- › The project has continuously worked towards up-scaling: The latest projects are done with the district school administration rather than with individual schools, which allows for higher number of toilets to be implemented in parallel.
- › Local financial contributions have increased over time and now approach 30%.
- › National authorities now know and accept ecosan toilets as valid solution and start including it in strategies and norms. In the coming years, the project will complete the handover of know-how and the lead for implementation of ecosan toilets to Moldovan school authorities.

The long-standing support of the Swiss Cooperation to the development of the ecosan toilet solution was key to the success, as it allowed for continuous improvements until the solution reached maturity. The majority of school toilets of the first generation continue to work well. In Moldova, ecosan school toilets are now widely known to function well and to be clean and comfortable.

The Swiss Water and Sanitation Project (ApaSan) is implemented by the consulting company Skat Consulting Ltd., financed by the Swiss Agency for Development and Cooperation (SDC) and co-financed by the Austrian Development Cooperation (ADC). The project has helped introducing and promoting ecosan toilets as an alternative option to unhygienic, uncomfortable and ground-water polluting pit latrines in rural schools in Moldova. In 8 years of support, more than 19,000 students and teachers in 56 schools have been served with better toilets, and the solution has been developed to maturity for up-scaling by Moldovan authorities.

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### PROJECT DETAILS

Type of project: Swiss Water and Sanitation Project (ApaSan)  
Project period: 2007-2015  
Start of operation: 2007  
Project scale: More than 56 schools in Moldovan villages (until 2015)



**skat** Swiss Resource Centre and  
Consultancies for Development



Top left: Students of Al Hamd public school, Kotla Naseer, Rajanpur.  
Top right: Teacher sensitizing Menstrual Hygiene Management to students of Government girls primary school, Dera Dildar, Rajanpur.  
Below right: Students of Government Elementary School, Raqba Nabi Shah village, Kotla Naseer, Rajanpur.

**SCHOOLS, PARTICULARLY STUDENTS ARE KEY AGENTS OF CHANGE FOR COMMUNITIES TO ACHIEVE AN OPEN-DEFECATION FREE ENVIRONMENT.**

“You shall be happy if you can partner with us to overcome WASH challenges in these schools and their surrounding villages”. This warm welcome to Union Council Fatah Pur, Pakistan, characterizes the acceptance of a program that World Relief Germany indeed has the privilege to partner in. The program uses the PATS-approach – Pakistan Approach to Total Sanitation, which has been successfully rolled out in Pakistan by other humanitarian actors before. While the focus is on whole Union Councils, the program recognizes the importance of schools and school students as agents of change.

Fatah Pur is located in South Punjab, Pakistan, in the district Rajanpur, where PATS is rolled out. The district with a size of 12,000 km<sup>2</sup> is located at the western banks of the river Indus. Two thirds of the total population does not have access to sanitation, hence open defecation is a significant health hazard.

Key to achieving its overarching goals is the involvement of schools. Six Union Councils in Rajanpur

with 200 schools were initially targeted. Teachers, parents and students were mobilised and assisted in establishing WASH clubs at each school. A club consists of 10 to 15 active student members and a teacher for coordination. These clubs distribute WASH messages into the surroundings of the schools and the communities where the students live in. The aim is to raise awareness on safe drinking water, improved sanitation and hygiene practices. At best the WASH clubs will also bring about behavioural change among the students and their families.

Initially, the project team trained teachers at the targeted schools to raise awareness on WASH issues and to provide tools for starting and coordinating WASH clubs. Project staff encouraged teachers to start sensitization campaigns at their schools and identified students to become active members of the clubs. Events like World Toilet Day and Global Handwashing Day, with specific events held on these days, helped to engage the youth and raise awareness for WASH.

The WASH clubs are run in both boys and girls schools. After the clubs were set up, they began with internal discussions and trainings, in order to familiarize the group with in-depth WASH topics. PATS goes beyond traditional CLTS (Community Led Total Sanitation) approaches and takes a holistic view on sanitation, including waste disposal.



## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
PATS students provide a holistic understanding of sanitation and its importance for health. They are able to develop ideas for concrete actions to improve the WASH situation.

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
Community sensitising on the value of an open-defecation free environment and on the fertilizing effects of human waste protects water sources and conserves mineral resources.

**3 TECHNOLOGY AND OPERATION:**  
Students learn about the whole sanitation system, assess the status quo at their school and discuss/organise O&M, whilst mobilising fellow students to improve the system.



The teaching material provided by the project also included topics that were commonly neglected: A local student member said, “Menstrual hygiene was never discussed in school and at home for cultural reasons, but this project cared to sensitize us also on menstrual hygiene to ensure that we live a healthy life with dignity”.

After this initial forming phase, the WASH clubs begin with activities in their school. They ensure availability of soap and MHM material (re-usable, locally available cloth) “to create an ideal environment, where youth can nurture ideas for change”, as a visitor of the project described. In addition to these ongoing tasks and paying attention to WASH high,

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
The principles of PATS, that build on and put CLTS into a holistic approach within the Pakistani context, are adapted to make it more context-specific to the conditions South Punjabi students live in. Communities, families and schools that have improved sanitation facilities share their hygiene practices more confidently and boldly than those without it.

the clubs also organised special events inside their schools. This included, with the help of the project team, assessing sanitation facilities in the schools, proposing improvements (no-subsidy approach) and mobilizing people from the communities to implement the improvements.

The WASH clubs also reach out beyond their school by organizing ‘out-of-school’-events in their communities. Through these community events, the students get opportunities to share the obtained knowledge to a broader audience. The students raise awareness and mobilise people in the community for concrete action, e.g. building latrines for their own homes. The project only provides subsidies for the poorest households. The project team coordinates and cooperates closely with the WASH clubs – and is happy to be a partner in overcoming WASH challenges in Rajanpur.

The PATS project in Pakistan clearly shows how WASH in schools can become an instrument for developing WASH in the whole region, leading to open defecation free villages. Students that embraced the importance of WASH do not only bring positive change to their own generation, but also have the ability to mobilise whole communities to work alongside of them – for the benefit of all.

Based on the Pakistan Approach to Total Sanitation (PATS), World Relief Germany in partnership with UNICEF rolled out a project with 200 schools. Teachers and students were trained and guided to form WASH clubs that take action to improve the situation in regards to WASH – not only in their schools, but also in their communities. The project is an example that demonstrates how school students can become agents of change in a holistic program that is adapted to the local culture and institutional context.

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### PROJECT DETAILS

**Type of project:** Case Pakistan – from WASH clubs to total sanitation  
**Project period:** Sept 2014 – Sept 2015  
**Start of operation:** In Rajanpur August 2010; in Pakistan August 2000  
**Project scale:** Six Union councils, with schools as agents of change





Left: Older students help to keep the facilities clean at Kraing Thnong Primary School in Phnom Penh. Right: Excited winners of a hand washing competition at Bak Kheng Primary School. Below right: Looking inside the DEWATS at Kan Tork Primary School in Phnom Penh.

**SCHOOL MANAGEMENT LEADERSHIP AND OWNERSHIP, APPROPRIATE WASH FACILITIES, AS WELL AS HYGIENE AND OPERATION TRAINING ARE KEY ELEMENTS OF SCHOOL WASH SUSTAINABILITY.**

Not long ago, at Bak Kheng Primary School on the outskirts of Phnom Penh you would see students practice open defecation. The school already had some toilets, but Nhem Channuon, and her fellow 810 students and 16 teachers, would prefer to defecate in the open or wait until getting home to use sanitary facilities. The existing toilets were too old, dirty, and dark. Some were not functioning at all and wastewater was discharged in unsealed septic tanks that overflowed regularly.

In order to address problems like these, since 2009, ESC-BORDA Cambodia (Environmental Sanitation Cambodia; Bremen Overseas Research and Development Association) has developed the School Based Sanitation (SBS) approach, which addresses technical and social issues to improve the Health, Hygiene & Sanitation situation in Cambodian primary schools. It focuses on three main aspects:

1. BUILDING SCHOOL WASH INSTITUTIONS,
2. PROMOTING HEALTH & HYGIENE EDUCATION,
3. IMPROVING WASH FACILITIES INCLUDING ON-SITE DECENTRALIZED WASTEWATER TREATMENT SOLUTIONS (DEWATS) AND GOOD OPERATION AND MAINTENANCE (O&M).

DEWATS is a modular system that can be adapted to different effluent and pollution levels. The biological treatment of wastewater ensures that wastewater discharged meets environmental standards and improves the living conditions in surrounding areas. “We don’t just want to build toilets. Our approach combines WASH education with sanitary infrastructure including proper wastewater treatment. It is participatory, demand oriented, and focuses on long-term management”, says Ms Long Muoyhun, ESC-BORDA’s Deputy Coordinator.

In order to be selected for the SBS project, Bak Kheng Primary School had to prevail over four other schools in a competitive school selection process demonstrating their willingness, motivation and ability to continue key SBS activities in the long run. After having been selected, the school was supported in establishing a School WASH Committee (SWC), which is made up of school management, teachers, parents, and other community members. They are in charge of ongoing project implementation at school level, during and after the SBS project.

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE:**  
The creation and training of School WASH Committees helps to ensure school WASH sustainability.

**3 TECHNOLOGY AND OPERATION:**  
WASH facilities that are designed in a participatory manner and that are easy to operate and maintain are key elements of SBS in order to ensure sustainability.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
With low operational costs schools can manage O&M responsibilities from local sources and the annual government school budget.

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:**  
WASH trainings are an important component of school based sanitation. They recognize that the health outcomes improve with awareness of improved hygiene practices.

As part of the capacity building process, the SWC received several trainings. In turn, for example, the SWC trains students on WASH best practice, including hand washing with soap. To support this, a WASH Best Practice flip chart has been developed. Every day, teachers and students will review one important WASH issue. Mr Pak Phally, one of the parents, is glad about the trainings: "I think that all people always need good hygiene and sanitation, because this is an important part of improving health. If we have good health and hygiene, it means that we have wealth, because we don't get sick."

The design of the new WASH facilities is chosen through a participatory selection process involving different school stakeholders such as students, teachers, parents, local authorities and community members, so that the facilities meet their needs, and there is increased sense of ownership of the facilities. The construction includes clean water supply, toilets and DEWATS. The new toilets, separated for boys and girls, ensure the privacy, security and dignity of school children and especially of young girls.

Toilet and DEWATS O&M are important trainings. O&M for the facilities and DEWATS are in the responsibility of the school. SWC and School communities are trained on O&M, O&M work scheduling, and O&M budgeting. Bak Kheng Primary School set up an O&M cleaning schedule

and budget to help ensure sustainable clean facilities. The school uses the recycled wastewater to grow vegetables, sells them and uses the money to help pay for O&M.

The health improvements at Bak Kheng Primary School are noticeable. "Now the students are absent less often, because they are not getting sick. Also, because of the good sanitation facilities the students feel satisfied with the project", says Mr Pov Mengheng, the school director. Where before the project you would see students practice open defecation, you now see them running towards the toilets. "Washing your hands, living in a clean environment and eating healthy food are important for all people" adds Nhem Channuon, who doesn't wait until she gets home to use the toilet anymore.

Like at Bak Kheng Primary School, 33 other primary schools, urban and rural, in Cambodia are part of SBS projects so far. ESC-BORDA was able to upscale SBS project implementation each year from just one school in 2009 to more than 10 schools in 2014. The projects are supported by the Ministries of Education and Rural Development, UNICEF, the German Federal Ministry of Economic Cooperation and Development (BMZ), Clear Cambodia, the Center for Development (Cfd), and Ostasiatischer Verein Bremen (OAV Bremen).



'School Based Sanitation in Cambodia' implemented and supported by the Ministry of Education, ESC-BORDA Cambodia and UNICEF focuses on the three main aspects of building School WASH Institutions, promoting Health & Hygiene Education, and improving WASH facilities including on-site decentralized wastewater treatment solutions (DEWATS) and good operation and maintenance (O&M). In 2015, over 16,000 students, teachers and community members in 34 primary schools of urban and rural Cambodia are already benefitting. The average cost per student for a SBS project depends on the number of students and ranges from just 30 U.S. dollars to 50 U.S. dollars.

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### PROJECT DETAILS

Type of project: School based sanitation in Cambodia  
Project period: 2009 - ongoing, in the 5<sup>th</sup> cycle  
Start of operation: 2009  
Project scale: 34 urban and rural primary schools





Left: School communities can enhance and beautify the group washing facility (Cambodia).

Right: The group washing facility is usable for up to 22 students at the same time with reduced water consumption (Philippines).

**GOOD AND FLEXIBLE DESIGNS FOR HAND WASHING WITH WATER SAVING FEATURES AND SCALING UP SIGNIFICANTLY REDUCE OVERALL COSTS FOR WASH IN SCHOOLS.**

“I enjoy washing hands in a group! It’s good for me and I can help my teacher in leading my classmates and turning the water on and off of the group washing facility” (Dil Lita, Grade 6). Handwashing is central to WASH activities in schools, but sustaining good handwashing practices over time is difficult. One of the challenges are inadequately designed facilities.

A structure made of galvanized iron water pipes was designed by a product designer in 2013. Water flows into the pipes from an elevated bucket and is released through 11 boreholes with a 1.5 mm diameter, which were drilled into the pipes. The group washing facility accommodates up to 22 children for daily group handwashing and allows for individual handwashing at the same time. The water consumption is 115 ml per child (compared to 1200ml for an individual faucet). This is crucial given water scarcity and the high cost of water for many schools.

Cambodia is already the front runner in upscaling the pre-fabricated group washing facility. This is due in part to a rising demand in the country to align different approaches in the WASH sector towards group activities in schools, such as the new Minimum Requirements for WASH in Schools (based on the Three Star Approach for WASH in Schools published by UNICEF and GIZ in 2013).

“We are happy that many partners in Cambodia join the approach of group activities in Cambodia! This alignment makes a large scale production of the group washing facility in Cambodia necessary – and GIZ can provide technical assistance” says Nicole Siegmund, Regional Advisor of the GIZ Fit for School Program. Don Bosco Technical School (DBTS) has started producing the facility in their workshop in the capital Phnom Penh. DBTS is a reputable vocational training school in Cambodia, providing training to marginalized youth. GIZ conducted several technical trainings to handover the production knowledge and continues to support DBTS during up scaling. The price for one unit is currently at 85 U.S. dollars. This includes costs for materials (pipes, junction parts, primer and cement) reaching around 67 U.S. dollars and a production fee of 18 U.S. dollars for DBTS.

## SUSTAINABILITY CRITERIA

### 3 TECHNOLOGY AND OPERATION:

Water saving devices keep water consumption low. Easy packaging for delivery to schools.

### 4 FINANCIAL AND ECONOMIC ISSUES:

Short, simple, low-cost installation at schools. No faucets are used, which saves water and further reduces the costs and prevents repair or replacement costs (e.g. caused through broken or stolen faucets).

### 5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS:

Community involvement through daily routines and beautification measures.

The group washing facility will play an important role for WASH in School (WinS) projects in the future – especially in areas where water supply is not yet existing or insufficient. Nearly 60 % of all schools do currently not have access to water. The attached bucket allows for immediate use. Once running water on school grounds becomes available, the facility can be quickly connected to the main water supply.

The Ministry of Education, Youth and Sports (MoEYS) has declared to equip 60 % of all schools with hand washing stations by 2018. Within the next months, MoYES, supported by UNICEF and GIZ Fit for School, will deliver more than 1800

group washing facilities to 270 primary schools in several provinces. The installation of the hardware component will be accompanied by strategic capacity development trainings, to bring the implementation knowledge to provincial education officers and district training and monitoring teams (DTMT).

Experience proves that daily group routines, simple management and implementation guidelines at school level and community involvement ensures sustained use. The daily tasks and responsibilities like cleaning and refilling the bucket should be distributed fairly. The Fit for School 'School and Community Manual' helps to schedule maintenance activities, and provides guidance for school communities.

The Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (SEAMEO INNOTECH) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH have partnered to implement a school health program in Southeast Asia based on the Fit for School Approach. The approach aims to improve school environments and to integrate simple activities like daily group hand washing, tooth brushing and bi-annual deworming as well as daily toilet cleaning and maintenance into the school routine. The Fit for School Approach is implemented in elementary schools and day care centres across the Philippines, Laos, Cambodia, Indonesia.

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[www.giz.de/en/worldwide/14407.html](http://www.giz.de/en/worldwide/14407.html)  
[www.fitforschool.international](http://www.fitforschool.international)  
[www.facebook.com/GroupHandWashing](https://www.facebook.com/GroupHandWashing)

#### PROJECT DETAILS

**Type of project:** Group Hygiene Activities in Schools  
**Project period:** 2011 - 2015  
**Start of operation:** November 2014  
**Project scale:** 100.000 students in 250 Primary Schools, located in 5 provinces  
**Project location:** Cambodia  
**Implementing institution:** Ministry of Education Youth and Sports Cambodia, SEAMEO  
**Supporting agency:** GIZ, UNICEF



## THE ROLE OF MONITORING

Monitoring is not an end in itself, but helps to answer the main question of development projects: did the intervention improve the lives of the people? One focus of this 2<sup>nd</sup> 'Making WASH in Schools more Sustainable' volume is on the challenges and potential of good monitoring and evaluation of WASH projects in schools. This is addressed below and three examples of monitoring approaches that are suitable for pupils or a school environment are presented in this chapter.

### THE CHALLENGE OF MONITORING HEALTH IMPACTS IN THE WASH SECTOR

It is widely accepted that water, sanitation and hygiene are necessary foundations for public health. For this reason, the WASH sector has traditionally based its justification for WASH interventions on the hypothesis that health problems of the target groups such as diarrhoea, typhoid fever, and parasitic infections will improve. However, evidence-based justifications for health impacts are costly and difficult to prove. Constraints include methodological and practical difficulties with generating evidence and isolating the direct effects from WASH interventions. Research trials are also difficult to implement in the typical intervention settings, such as in densely populated urban areas or remote rural areas and do not always address the social, gender-related, educational, economic and environmental impacts of WASH interventions. Also it is difficult to justify any delay in access to improved WASH services – which are a basic human right – just for research purposes, e.g. to compare interventions with costly and time intensive control studies. Therefore, the chapter shows that by using different methodologies for research and monitoring, the array of health impacts from WASH interventions can be better addressed and evidence-based data can be produced.

### A QUANTITATIVE APPROACH: CHOOSE THE RIGHT SETTING AND ASK THE RIGHT QUESTIONS

Specific settings like schools are an important focus for WASH interventions. In these settings, many people come together and people are a captive audience on a routine basis or for a specific time period. These situations help behaviour change techniques to work better and are an important opportunity to form lifelong skills and knowledge. In schools, health impacts can be observed, monitored and proven more easily than in household settings, as the skills-based approach of the GIZ 'Fit for School' programme in the Philippines (amongst others) has shown (Case Story 15). The approach is a hygiene behaviour change strategy with good evidence, where daily routines of hand-washing and tooth-brushing and bi-annual deworming have led to clear health benefits, including 20% less underweight children and encouraging the formation of life-long hygiene behaviours.

## KEY MESSAGES

THERE IS INADEQUATE EVIDENCE FOR THE DIRECT HEALTH IMPACTS OF WASH DUE TO LIMITATIONS OF AVAILABLE AND REALISTIC RESEARCH METHODOLOGIES.

HOWEVER, THE IMPORTANT ROLE OF WASH IN SCHOOLS AS A DETERMINANT OF PUBLIC HEALTH, INCLUDING NUTRITION, HAS WIDESPREAD RECOGNITION.

THE SOCIAL, PSYCHOLOGICAL, GENDER-RELATED, EDUCATIONAL, ECONOMIC AND ENVIRONMENTAL BENEFITS OF WATER AND SANITATION ARE CONSIDERABLE ENOUGH TO MERIT INVESTMENT AND CAN BE EQUALLY OR EVEN MORE IMPORTANT THAN DIRECT HEALTH BENEFITS, DEPENDING ON THE CONTEXT.

THE EFFECTIVENESS OF WASH PROGRAMS CAN BE IMPROVED THROUGH BROADER MONITORING AND EVALUATION TOOLS SUCH AS BOTH QUANTITATIVE AND QUALITATIVE APPROACHES, TO ADDRESS THE VARIED DIRECT AND INDIRECT IMPACTS OF WASH ON HEALTH.

## QUALITATIVE APPROACHES PROVIDE INSIGHTS INTO ATTITUDE CHANGES AND IMPROVEMENTS IN HEALTH CONDITIONS

One example of a qualitative approach is the 'Intergenerational Dialogue', which was applied in the GIZ Water Sector Reform Programme (WSRP) in Kenya (Case Story 15). This approach aims to better understand and document the perceived health changes in Mathare, one of the biggest slums in Nairobi, after the construction of water kiosks and public sanitation facilities. The method can be a cost-effective intervention that provides qualitative insight into the sanitation situation of the target community. It is based on key concepts like 'life world'<sup>1</sup> and individual perception of the context, which both get special relevance during the dialogue, where pupils are trained to undertake interviews with members of their community and achieve the status of ambassadors of their topic. The method relies on explanatory models and understanding human behaviour, recording so-called 'soft' data which usually cannot be quantified. Despite being non-representative, it can help in understanding motivations for individual actions which can be applied more generally.

## GOOD MONITORING TOOLS IN SCHOOL SANITATION CONSIDER OPERATION AND MAINTENANCE INTO ACCOUNT

Assuming that increasing knowledge through hygiene and awareness campaigns is enough to change attitudes and behaviour is in most cases insufficient. A greater focus on hygiene behaviour change is necessary in order to ensure that existing or newly built infrastructure and services are actually used, maintained and operated in a safe manner and on a continuous basis. A project from India (Case Story 13) gives an example on how significant improvement of the sanitation condition in schools can be achieved even with small funding. For assessing the status quo and for monitoring improvements, GIZ developed a benchmark indicator for measuring 'hygienically safe operated toilets'. Through awareness raising and capacity building for all involved stakeholders, the project gives evidence that school sanitation is a matter of commitment and accountability rather than money and technology.

There is not one right method for measuring impacts of WASH interventions but a well-balanced methodological mix can help to address the many health impacts of WASH interventions. Thus quantitative and qualitative monitoring methods should be considered to ensure that monitoring can maximise the potential to achieve project sustainability and produce evidence-based data. It can provide knowledge and understanding to set templates and standards for future projects.

### FURTHER READINGS:

The full concept paper ('Quantitative and quality results monitoring in the WASH sector'), including all the sources used for this article, is available at [susana.org](http://susana.org). The briefing note on the study 'WASH interventions – going beyond health impacts: recommendations for improving and monitoring the health impact of water, sanitation and hygiene (WASH) interventions', has been the main source for the above text. The document includes all the scientific sources on which this article is based on, and is available at [susana.org](http://susana.org).

<sup>1</sup> The term life world covers the four areas of socialisation (school, family, work, peer groups and friends) which are important in results monitoring, particularly in the WASH programmes.

## CHAPTER 4 WASH INTERVENTIONS IN SCHOOLS: GOING BEYOND HEALTH IMPACTS





Left: Plumber installs water tap of new urinals, Raipur, India.

Right: Young student in front of a newly installed washbasin and mirror, Raipur, India.

Below right: Refurbished toilets for girl students, Shimla, India.

Right page: Workshop for teachers conducted by ESF, Raipur, India.



## HYGIENICALLY SAFE OPERATED TOILETS ARE A MATTER OF COMMITMENT AND ACCOUNTABILITY RATHER THAN MONEY AND TECHNOLOGY.

Since 2008 the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in India is actively supporting the Ministry of Urban Development (MoUD) in various issues concerning sustainable urban development, through its programme 'Support to the National Urban Sanitation Policy' (SNUSP). A special emphasis is given to improve the sanitation situation for urban poor. In 2011, GIZ started school sanitation activities together with the partners Ecosan Services Foundation (ESF), Pune and Society for Action in Community Health (SACH), Delhi. Objective of the intervention was, even with small funding, to enable selected schools in underserved urban areas to significantly improve upon their sanitation conditions, leading to 'hygienically safe operated toilets'. 47 schools in five Indian cities (Delhi, Raipur, Shimla, Tirupati and Vasai Virar) were selected for intervention in cooperation with local partners. Main weaknesses, according to a previously conducted baseline study were found on infrastructure and operation and maintenance (O&M) of the school sanitation facilities.

Together with the school management, challenges regarding 'hygienically safe operated toilets' in the respective schools were identified vis-à-vis the

defined criteria. On this basis, School Action Plans (SAPs) were formulated. Forming the basis for the school interventions, the SAPs included

THE STATUS QUO AND THE GAPS REGARDING SCHOOL SANITATION,

THE REFURBISHMENT AND INSTALLATION WORKS FOR THE SCHOOL'S SANITATION AND DRINKING WATER FACILITIES TO BE FINANCED BY GIZ,

THE RESPECTIVE TRAININGS AND AWARENESS ACTIVITIES (WITH THE AIM OF IMPROVING PROCESSES AND INCREASING ACCOUNTABILITY IN EACH SCHOOL FOR AN OPTIMIZED O&M),

THE ROLES AND RESPONSIBILITIES OF THE CONSULTANT APPOINTED BY GIZ AS WELL AS OF THE SCHOOL AUTHORITY.

The main focus of the intervention was concentrated on awareness raising and capacity building. Different trainings and workshops were conducted to incorporate all stakeholders.

In order to measure achievements, GIZ introduced a benchmark indicator. Broadly, it covers three subjects namely the availability of sanitation infrastructure, operation and maintenance systems in place and appropriate usage by children. The parameters were deliberately kept simple so that all the



## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE**  
Removal of taboos about urban sanitation facilities in schools through capacity building and special awareness raising materials

**2 ENVIRONMENT AND NATURAL RESOURCES:**  
The refurbishment of the school sanitation facilities ensured the disposal of wastewater from the toilets through sewerage or septic tank and its maintenance.

**3 TECHNOLOGY AND OPERATION**  
Significant improvement of the school sanitation facilities through the implementation of supervision and reporting mechanisms combined with regular O&M. Development of a 'Minimum Standard Document for School Toilet Refurbishment' for plumbers.

**4 FINANCIAL AND ECONOMIC ISSUES:**  
'Hygienically safe operated toilets' in schools were achieved through comparatively small funds.

stakeholders could understand the evaluations. For 'hygienically safe operated toilets', each school could achieve a maximum of 30 points, but should reach at least 20. In addition to that, following sub-indicators had to be achieved:

### SEPARATE TOILETS EXISTING FOR BOYS AND GIRLS,

### WATER AVAILABILITY THROUGHOUT THE DAY (AT LEAST FIVE LITERS PER CHILD PER DAY),

### APPROPRIATE MECHANISM OF THE DISPOSAL OF WASTEWATER FROM THE TOILETS AND ITS,

### MAINTENANCE AND NO INSTANCES OF DEFECACTION AND/OR URINATION IN THE OPEN SPACE.

Particular attention was paid to O&M, as it forms the backbone of clean toilets, even if the compliance with formal construction standards is not feasible in a short run. An additional activity was refurbishment of the existing school sanitation facilities. Finding reliable and well-trained plumbers was a real challenge in all five cities. In order to equip plumbers with basic knowledge in regard to sanitary fittings,

**5 SOCIO-CULTURAL AND INSTITUTIONAL ASPECTS**  
In nearly all schools girl students have their own toilet facilities with water supply including a proper implementation of signage.

proper installation in a child-friendly and vandal-resistant way, GIZ together with ESF developed a 'Minimum Standard Document for School Toilet Refurbishment'. Combined with supervision and monitoring of the hardware implementation, the plumbing work was done in an appropriate way.

In March 2014 the project concluded. On average the expended costs for procurement and hardware installation were approximately INR 1,06,000/- (1,650 U.S. dollars) per school or about INR 240/- (3.70 U.S. dollars) per student. In contrast the costs for trainings, supervision and monitoring of the hardware installations were twice as high as the costs for procurement and installation. All selected 47 schools showed a clear improvement on school sanitation in comparison to the start of the GIZ project, even if only some of those (in total 30 schools) achieved the set benchmark. In addition, measurable improvements could be achieved on special gender issues. In nearly all schools girl students now have their own toilet facilities with water supply with at least one tap at each toilet seat.

The project has shown that in all the five cities across India school sanitation is mainly not a matter of money or technology. It is a matter of commitment and accountability. Only regular supervision, monitoring and evaluation of the sanitation status in each school coupled with incentives for good performance will improve the situation.

In 2011 GIZ, India started the school sanitation activities together with partners. The objective of the interventions was to enable the schools to significantly improve upon their sanitation conditions, leading to hygienically safe operated toilets. This endeavour demonstrated that, 'hygienically safe operated toilets' in schools can be achieved through improved operation and maintenance (O&M), comparatively small funds and behavioural change. This case study may be read as an abstract to the article 'School Sanitation in Underserved Urban Areas in India' (2015) by Hanna Jaritz, Dr. Regina Dube, Dayanand Panse and Sreevidya Satish.

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#### PROJECT DETAILS

Type of project: Awareness Raising / Capacity Building on Hygiene, School Sanitation Facilities and Operation and Maintenance  
Project period: April 2011 – March 2014  
Project scale: 5 cities, 47 schools, 21,000 students





Left: Intergenerational dialogue with one of the oldest women in Mathare. Right: A water kiosk in Mathare.



**THE INTERGENERATIONAL DIALOGUE PROVIDES YOUNG AND OLD PEOPLE WITH A PLATFORM TO EXCHANGE THEIR PERCEPTION OF THEIR WATER, SANITATION AND HYGIENE SITUATION.**

Inadequate access to drinking water is a serious concern in urban areas. About 80 % of all illnesses in Kenya are directly connected to poor water supply and sanitation. Infant mortality is higher than the national average in these most rapidly growing areas of Kenya. Women and girls are particularly affected by poor urban sanitation. The Water Sector Reform Programme (WSRP) aimed to formalise service provision for all citizens and fulfil their human right to water supply and sanitation. After nine years (2004–2013) of project implementation Mathare benefited from water kiosks (picture ‘Water kiosk women’) and will benefit in future from public sanitation facilities financed through the WSTF.

The focus of the intergenerational dialogues in Kenya was on the exchange between young and old about perceived (health) changes that took place at the individual, group and institutional level; changes that took place by providing access to sanitation and water supply and the use of innovative hygienic measures in schools, among other things.

(School)boys and girls between 11–15 acted as ‘community researchers’ in a monitoring process, asking older inhabitants (friends, family, municipal key persons etc.) about their past and present life in Mathare, rural to urban migration, working conditions, family life, challenges of life and future prospects. There was a special focus on the perception of the actions and results in the context of water and sanitation and the improvements brought by the construction of water kiosks in Mathare. At the heart of the surveys were questions on what has changed for people in this respect and what politics, business, local authorities and the younger and older inhabitants themselves can do to make changes more effective and sustainable.

Intergenerational dialogues as part of results monitoring in schools, families and local communities have a clear relevance to approaches based on the sociology of knowledge, action research and ethnography (see introduction). The subject is the relationship between everyday life, biography and life history (individual level) and social and sociocultural reality (social level). The question of the socio-psychological importance of changes in perception and attitudes is particularly relevant for lessons learned in WASH projects. The intergenerational dialogue project was carried out jointly by GIZ-WSRP Kenya and the ‘New Sociopolitical Perspectives’ Group in Eschborn. The reports and biographies offer an authentic and reflective look at daily life situations in densely-populated low income urban areas like Mathare.

SPOTLIGHT ON THE METHOD: EACH STAGE OF THE GENERATIONAL DIALOGUE HAS ITS IMPRESSION



**PREPARATION:**

- > Attract the attention of boys and girls between 11-14 in the community as participants and 'young researchers'.
- > Letters to parents to get their permission, training older students as youth promoters
- > Clarifying logistics: locating a suitable editorial office for at least four days; organize safe transportation (e.g. bus) for the children to get to their interviews.

**FORMING THE GROUPS:**

- > Formulation of imaginative 'discovery questions' in order to learn about the perspective of the inhabitants of Mathare.
- > Every group covered the issue of water and sanitation, which was supplemented by a specific area for each group (Group 1: Everyday life in Mathare; Group 2: Funny and sad stories; Group 3: Youth, growing up and family)
- > Goal: raising awareness for understanding and discovering social reality and the impacts of the WASH activities through the eyes of the children.

**COMMUNITY DIALOGUE:**

- > Raise interest in and curiosity about the biographies of the 'young and old' participants fruitful dialogue with regard to monitoring the impacts of water, sanitation and hygiene measures
- > Goal: stimulate curiosity in discovering 'unknown aspects of things which seem familiar'.

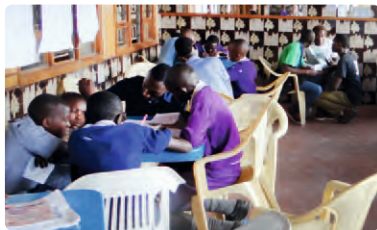
**EXPANDING THE QUESTIONS:**

- > In the course of the community dialogue, key questions were treated in more depth and compared.
- > Special focus on the question of water and sanitation, and on residents' perception of improvements, especially with regard to the water kiosks and access to sanitation.

**WRITING AND SUMMARISING:**

- > Collection and visualisation of articles and reports in the notes, sketches and interviews: Was there a perception of an improvement in everyday life of people in Mathare as a result of the WASH measures? (Measuring results of the project)
- > Useful tool: the 'life cycle' which demonstrates and reconstructs the link between personal and social life.

Left: Young researchers working in groups.  
Middle: Young boy fetching water.  
Right & below: The young participants of the inter-generational dialogue in Mathare.



The Kenyan Government has implemented water sector reforms for the last ten years, including among other things developing and strengthening comprehensive pro-poor policies and putting in place new legal and institutional frameworks. Based on these policies and strategies, the Water Sector Reform Programme (WSRP), funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and implemented by GIZ under a BMZ commission, focuses on sustainable development through institutional and human capacity development. In close collaboration between water utilities, the Water Services Trust Fund (WSTF) and German financial cooperation (KfW), a number of water kiosks and public sanitation facilities have been built in low income areas since 2009.

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**PROJECT DETAILS**

Type of project: Water Sector Reform Programme (WSRP)  
Project period: 9 years, January 2004 – December 2012  
Start of operation: January 2004  
Project scale: EUR 17,000,000 (partner contribution around EUR 200,000)



The complete publication is available at [www.susana.org](http://www.susana.org) or [http://www.susana.org/\\_resources/documents/default/2-2051-giz-bmzwater-life-and-perspectivesinter-generational-dialogue-in-mathare-kenya.pdf](http://www.susana.org/_resources/documents/default/2-2051-giz-bmzwater-life-and-perspectivesinter-generational-dialogue-in-mathare-kenya.pdf) – International's book's DVDs free of charge.



Left: Cleaning of toilets is part of daily school routine (Lao PDR).  
Right: Handwashing and toothbrushing is done as group activity (Lao PDR).  
Below right: Individual handwashing after using the toilet is encouraged (Indonesia).

**WINS IMPROVEMENTS ARE POSSIBLE IF SIMPLE, STEP-WISE APPROACHES ARE USED AND ALL STAKEHOLDERS WORK TOGETHER EFFECTIVELY.**

Access to WASH in Schools (WinS) is a critical factor to promote school attendance, learning and health of children. The Fit for School (FIT) approach is an example of a WinS initiative, which aims to turn the school environment into a healthy setting by establishing a culture of cleanliness, hygiene and good maintenance. The approach stimulates healthy hygiene habits through the institutionalization of handwashing with soap and tooth brushing with fluoride toothpaste as daily school-based group activities. This requires effective collaboration between schools, local communities, Ministries of Education (MoEs) and other partners based on clear and transparent agreements.

The FIT approach originated in the Philippines where it has been implemented by the Department of Education as the Essential Health Care Programme. GIZ and SEAMEO INNOTECH are collaborating to expand the FIT approach to Cambodia, Indonesia and Lao PDR. The introduction of the approach during the ‘Research

and Development phase’ (2012–2015) included a comprehensive programme assessment study comprising different elements. The focus of research was to evaluate the effectiveness of the programme interventions in creating a healthier school environment and changing hygiene habits of children. Moreover, implementation templates were developed to enable and support a programme scale-up through the national governments and other WinS partners.

A WASH survey was part of the research components, consisting of baseline assessments in 41 FIT model schools and the same number of control schools in Cambodia, Indonesia and Lao PDR. A modified version of the UNICEF WASH in School Monitoring Tool was used to collect follow-up data two years later (2014).

The survey revealed that before the programme started, all schools had limited access to handwashing facilities. And that the FIT programme brought significant improvements in access to water and soap in all three countries. All FIT model schools had on average 5 group handwashing stations with water and soap available, while 74 % of control schools had no group handwashing stations. As a result, the average number of children sharing a water slot could be reduced to 4, 7 and 2 in the FIT model schools in Cambodia, Indonesia and Lao PDR, respectively; as compared to 68, 216 and 67 children sharing one

## SUSTAINABILITY CRITERIA

**1 HEALTH AND HYGIENE**  
Daily group hygiene activities improve the broader culture of cleanliness.

**3 TECHNOLOGY AND OPERATION**  
Parents and community members have an important role in advocating for WinS and keeping schools clean.



water slot in the respective control schools. It was positively noted that FIT model schools even went beyond the intended programme activities and also built more handwashing facilities for individual use. As a basic principle, none of these improvements were implemented by third-parties, but rather by the schools and the school communities themselves.

To complement the WASH survey, a behavioural survey was conducted in Cambodia aiming to investigate possible changes in norms and practices for independent handwashing with soap (HWWS) after using the latrine. Observations in the schools showed that the practice of HWWS was generally better in FIT model schools: 28 % of children washed their hands with soap when leaving the latrine, compared to only 3 % of children in control schools – the main reason being a lack of soap in control schools. These findings highlight the importance of ensuring both, adequate access to hygiene facilities and availability of soap/water in schools so that positive hygiene behaviour becomes possible.

The research also looked into the status and usability of toilets, which was used as a proxy indicator to assess school cleanliness and maintenance in general. Toilets in FIT model schools had slightly better conditions in terms of functionality and cleanliness

compared to control schools. The mean percentage of fully functional and clean toilets was 8 %, 62 % and 43 % in FIT model schools, compared to 1 %, 36 % and 16 % in control schools in Cambodia, Indonesia and Lao PDR, respectively. These findings indicate that the FIT programme improved the capacity of school principals, teachers and students in creating a healthy and clean school environment. However, there is still room for further improvement.

The programme will be joining forces with UNICEF and other agencies during the next programme phase in order to support the scale-up process in the respective countries. The development of government strategies, including the definition of minimum standards, will be guided by these and many other implementation experiences. The GIZ/UNICEF 3-Star Approach and the Fit for School Action Framework provide a concept for stepwise improvements of WinS infrastructure and programming; with the ultimate goal of reaching national standards. Starting the WinS journey and experiencing that school communities can make a difference is most important:

**WASH IN SCHOOLS IS EVERYONE'S BUSINESS.**

The Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (SEAMEO INNOTECH) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH have partnered to implement a school health programme in Southeast Asia based on the awarded Fit for School Approach. The approach aims to improve school environments and to integrate simple interventions, such as daily group hand washing, tooth brushing and bi-annual deworming into the school routine. The Fit for School Approach is implemented in elementary schools and in some countries also in day-care centres.

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### PROJECT DETAILS

Type of project: School-based programme  
Project period: November 2011 to November 2018  
Start of operation: November 2011



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## LAYOUT

[www.malzwei.de](http://www.malzwei.de)

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IF YOU WOULD LIKE TO CONTRIBUTE A STORY OF SUSTAINABLE SANITATION IN SCHOOLS TO A FUTURE PUBLICATION, PLEASE SEND IT TO: [info@susana.org](mailto:info@susana.org)

While significant progress has been made towards reaching the water target of the Millennium Development Goals (MDGs), the sanitation target aiming at halving the proportion of people without access to improved sanitation by 2015 will not be reached.

More than 2.5 billion people in the world still lack access to toilets or latrines. The lack of sanitation services in a community often extends to public schools. It sometimes forces students to defecate in the open which contributes to the spread of diseases and creates an unhygienic and unsuitable environment for students to learn in.

Girls, in particular, suffer when adequate sanitation facilities are not available because proper menstrual hygiene is not possible. This sometimes forces the girls to stay home or even stop attending school altogether. Adequate sanitation facilities can contribute to better health, improved school attendance, gender equality, and environ-

mental sustainability and can help in the effort to achieve the corresponding Sustainable Development Goals (SDGs).

While Goal 6 of the new SDGs aims 'to ensure availability and sustainable management of water and sanitation for all', WASH in Schools is not explicitly mentioned. The WASH in Schools-community can make a huge contribution to strengthen the Water SDG by supporting the efforts to integrate WASH in Schools indicators in the wider SDG monitoring framework.

Supporting this aim, the promotion of concrete programmes is much needed and was one of the reasons for compiling the case studies presented. They highlight best practices on linking WASH in Schools and pragmatic sanitation approaches, integrating Menstrual Hygiene Management and upscaling WASH in Schools.

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