



Special Focus Theme Report – Sanitation

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Context and Regional Dimensions

The Sanitation Challenge. The Last Taboo. The World's Greatest Development Scandal. These were all phrases to be heard at this year's World Water Week, which for the first time put special focus on sanitation. 2008 is the International Year of Sanitation, a year in which the international community recognised that the burden borne by people who live without sanitation dwarfs the efforts being made to address the gap (see Box 1).

A Complex Geographical Challenge

Figure 1 shows that the majority of those who lack access reside in Asia, and Figure 2 indicates that the bulk of the disease burden associated with lack of access to sanitation and hygiene falls on Africa.

Notwithstanding the huge challenges of Africa, other regions also present particular problems (see for example Box 2).

A Highly Effective Intervention

Investments in sanitation have been shown to have major impacts on reducing diarrhoeal disease and cutting deaths, especially to children under age 5 (see Box 3). Hygiene promotion is reported to be the single most cost-effective intervention in reducing health burdens, while sanitation lies within the top ten according to DCPDC data presented by various presenters including S. Cairncross and R. Franceys. Despite this, however, achieving these health gains is challenging. Experts increasingly believe that a complex combination of core behaviour changes and infrastructure use is required to achieve long term health gains. What is more, the drivers at individual and community level rarely relate to health and are more commonly associated with issues of privacy, security and pride. Thus, effective sanitation interventions are about more than the delivery of toilets.

Box 1: Poor sanitation is a big development issue which is relatively under funded

A number of excellent presentations were made during the week which highlighted the startling statistics around sanitation. The small selection below serve as an illustration.

- Diarrhoea kills more children under five than malaria and HIV/Aids together; 5,000 children die from diarrhoea every day. Source: World Health Organization.
- Up to 25 times more aid is allocated towards HIV/Aids than to sanitation. Source: Organisation of Economic Cooperation and Development.
- Approximately 2.5 billion people lack access to 'improved' sanitation as defined by the United Nations. An estimated 3.5-5 billion people lack access to sustainable sanitation that can reliably deliver the needed health and environmental benefits in the long term. Source: D. Mara, Leeds University.
- Approximately one quarter of Africans are still obliged to practice open defecation.
- Sanitation is the most cost-effective health intervention. Source: London School of Hygiene and Tropical Medicine, World Health Organization, World Bank.
- The money needed to achieve the sanitation targets in the Millennium Declaration is on par with the annual turnover of the bottled water industry. Source: United Nations Children's Fund.

Slow Progress

While progress has been made over the last 15 years, it is slow. In Sub Saharan Africa progress is barely keeping pace with population growth. While the absolute number of people without access globally has fallen by about 73 million, this number is small compared with the 2.6 billion who must still be provided for (Table 1). The number of urban dwellers without access is rising (by 24 percent over 15 years). Increasing urban growth and growing informality in urban areas are significant challenges.

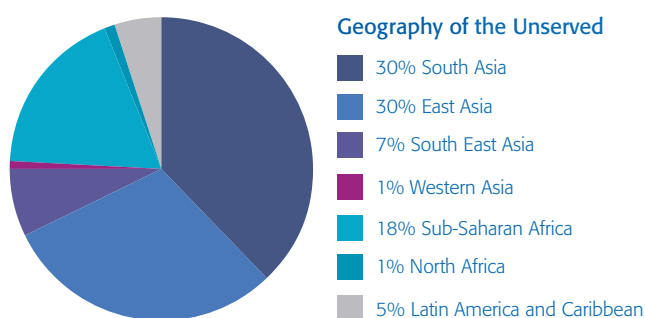


Figure 1: Geography of the Unserved. Source: JMP data presented by the Water and Sanitation Program.

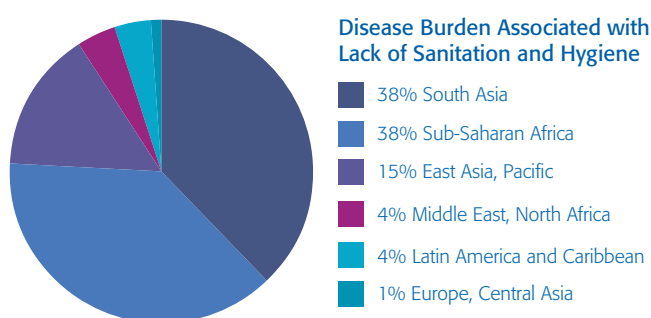


Figure 2: Disease Burden Associated with Lack of Sanitation and Hygiene. Source: Disease Control Priorities in Developing Countries (DCPDC) data presented by the Water and Sanitation Program.

Box 2: Sanitation Challenges and Developments in Europe

One less known sanitation challenge is that faced by the countries of Europe, particularly Eastern Europe. In many cases coverage is low and falling due to poor maintenance and a backlog of rehabilitation needs. More than 20 million Europeans lack access to improved sanitation. Excellent progress in modelling pollution risks and financial needs have resulted in some sophisticated decision-making arrangements (for example in assessing pollution abatement options for the Baltic Sea), but more work is needed to deliver basic sanitation and hygiene to the most needy. Source: Presentations by Women in Water in Europe and Swedish EPA.

Box 3: Impact of Sanitation Interventions on Diarrhoea Incidence

A review of available literature confirmed the following estimates of impact on incidence of diarrhoea:

Water Supply	
Public source	17%
Additional benefit with house connection	63%
Excreta disposal	36%
Hygiene promotion	48%

The review also revealed that:

- Hygienic disposal of children's faeces is much less prevalent than access to improved sanitation and is a neglected area.
- Health benefits from access to water are highest when a private connection is available. Benefits fall when the supply is public but remain fairly constant until the time taken for a round-trip to collect water rises to 30 minutes or more, at which time the benefits again fall dramatically.

Source: DCPDC data presented by various presenters including S. Cairncross and R. Franceys.

	Urban		Rural		Total	
	NO access	Millions	NO access	Millions	NO access	Millions
1990	21%	477	74%	2227	51%	2693
2004	20%	626	61%	1988	41%	2620
Change in absolute no.		149		-239		-73
Change in percent	-1%	24%	-13%	-12%	-10%	-3%

Table 1: Global numbers without access to improved sanitation. Source: JMP data presented by WSP.

Progress Made

Against this complex backdrop the presentations at the World Water Week highlighted several areas where significant progress has been made.

Sustainability and Behaviour Change

Much has been learned about the need to embed behaviour change with technologies to ensure that sanitation interventions are effective. This is particularly true for communities taking early steps towards achieving good sanitation. The shift from open defecation to fixed place defecation and the improvement

in design and use of traditional latrines are challenges which require long term attention and support.

Top-down investment programmes often score badly in terms of sustainability. In South Africa the push from the government to support sanitation has resulted in the provision of toilets to 11 million people. However, the crucial integration with health, hygiene and training has been neglected. The rapid up-scaling resulted in poorly thought through designs (single pit latrines with unmovable top structures), meaning that the toilets were abandoned once the pit was full. The approach focused on initial infrastructure delivery rather than long term service

delivery, leaving households and local authorities in no position to maintain services in the long run.

During the week there were, however, many examples of successful projects where a bottom-up approach had been used. One example was the Kasese District of Uganda where the District Water Engineer had committed to involve whole communities in the planning of new water and sanitation facilities. In doing so, previously common conflicts over land and access could be avoided.

By focusing on behaviour changes and raising awareness among the public, a demand for sanitation facilities can be created. These people-driven processes may prove crucial for driving sanitation forward particularly in dispersed rural areas.

Challenging Taboos

In most cultures sanitation is seen as a private matter and is often hard to discuss. Several presenters gave examples of communities where certain members required separate facilities (for example women and their brothers-in-law might not be able to use the same facility). However, most of these examples showed that by investing in early and high-quality community consultation and dialogue, such constraints can be overcome. This 'leit motif' was laid out by Kamal Kar who gave a key note speech in the opening session highlighting how such taboos have been overcome at community and national levels in Bangladesh and in other countries using a programmatic approach known as Community-led Total Sanitation (see Box 5).

Many presenters echoed this theme during the World Water Week, showing that it is possible to challenge taboos and thus create communication on sanitation. A representative from WaterAid Bangladesh shared experiences from a courageous project succeeding in creating a dialogue on menstrual hygiene. Another sensitive subject discussed was how to address the practise of manual scavenging, particularly in India.

Box 4: WASH on the Agenda

The use of the term WASH to denote the beneficial interactions between water, sanitation and hygiene, is becoming widely accepted. The WASH programme launched by the Water Supply and Sanitation Collaborative Council, for example, aims to raise awareness around issues of sanitation and hygiene. Evaluation of WASH projects in Kenya and Kerala, India, show that schools working with the WASH programme have more toilets, a higher frequency of students practising handwashing (both at home and at school) and better attendance of girls.

A series of regional ministerial sanitation conferences are also having a positive impact; AfricaSAN reported an increased interest from ministers including ministers of finance; SACOSAN (South Asia) is now preparing for a fourth meeting; Latinosan and EASAN both held in the past 12 months, were the first meetings of their kind in Latin America and East Asia respectively.

Range of Available Sanitation Technologies

The over-riding message relating to technologies from the week was that there are a wide range of proven and effective technologies that can be effectively used in appropriate situations. A selection of those presented included:

- Various composting toilets (with and without urine diversion) that enable re-use of excreta in agricultural activities
- Shared and community-managed sanitation blocks for dense urban areas, temporary settlements and areas with limited tenure security
- Simplified sewerage which offers a low-water-use, cost-effective alternative to both on-site toilets and conventional sewerage in dense urban settlements
- Waste stabilisation ponds and other appropriate wastewater treatment options
- Decentralised wastewater treatment (DEWATS) which have been successfully deployed in India and Africa.
- Decentralised and centralised composting alternatives
- Mechanised faecal sludge emptying and transporting equipment
- Interceptor stations to enable disposal of faecal sludge in sewer networks

Prospects and Opportunities

Excreta as a Resource

Many presentations highlighted the opportunities presented to sanitation by the rising prices in the international food and fertiliser markets. Use of treated excreta as a soil conditioner and fertiliser has been promoted for many years both as a way of improving the marketability of sanitation and as a means of reducing adverse impacts on the environment through the discharge of untreated wastes and subsequent loss of nutrients in the soil. In many cases however the lack of a real market for the products of these systems has constrained their widespread adoption. This is particularly true for systems that use urine-

Box 5: Community-led Total Sanitation

In Community-led Total Sanitation the community are empowered to make decisions about their own sanitation situation. Led initially by trained facilitators, the community 'walk through' an analysis of their defecation practices. They calculate how much excreta is generated in the community and build up maps of where the excreta lie around on the ground. They then discuss possible solutions and gradually move towards making a commitment to eliminate open defecation. This approach, which places emphasis on basic management of excreta rather than a particular type of latrine, enables the community to take small achievable steps. It highlights behaviours over infrastructure and focuses on empowered communities. In the countries where CLTS has been used, there is a growing cadre of "community mobilisers" who can spread the approach to neighbouring communities. Key to its success lies in a willingness to confront the real problem (shit on the ground) rather than hiding the issue behind highly technical discussions on latrine designs.

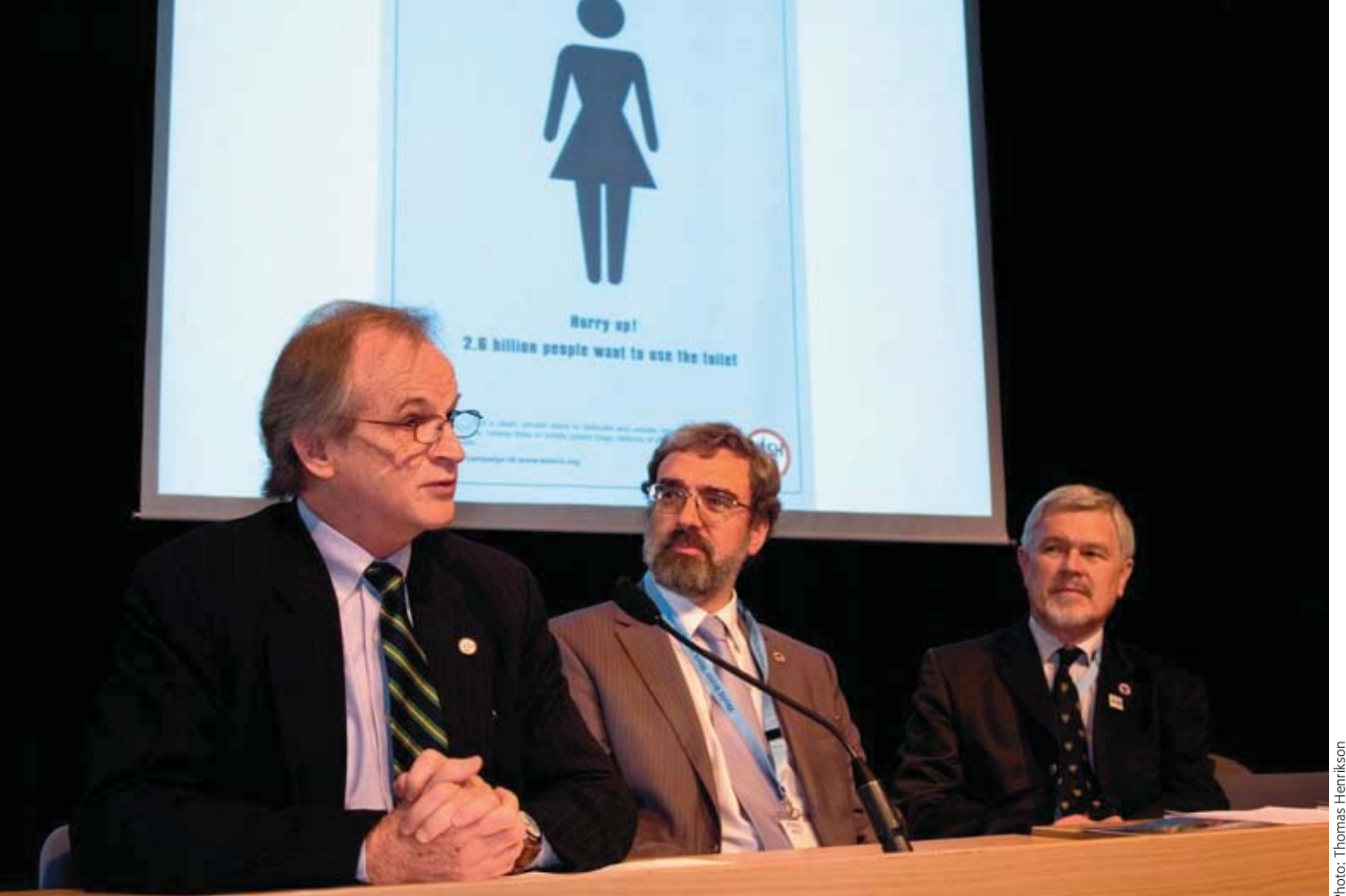


Photo: Thomas Henrikson

diversion at source (in the toilet) as they often require major shifts in private behaviours. The general consensus during the week was that well-designed composting toilets and wastewater treatment facilities would become increasingly marketable over the coming years – thus reducing some of the negative cost burdens previously associated with sanitation.

This is likely to have a significant positive benefit in Sub-Saharan Africa where declining soil fertility, low fertiliser use, inappropriate land and water management, falling agricultural productivity per capita and poverty remain huge challenges.

An Increasingly Professional Sector with Multiple Actors

It was widely accepted that the perception of sanitation is shifting from a charitable development sector to one with significant economic importance. Part of this shift is reflected in a more mature discussion around the roles of government, NGOs and the private sector. Many presentations illustrated cases where private actors played a key role in service delivery (for example as faecal sludge managers in Freetown, as managers of public toilets in India, and as purveyors of household sanitary ware in Kenya). Several excellent cases focused on the effective use of marketing techniques to place products that were affordable in rural and urban markets, enabling households to aspire to well-designed sanitation goods and services.

The role of the private sector was acknowledged and several large private corporations hosted a workshop under the aegis of the World Business Council for Sustainable Development

(WBCSD) to debate how they can contribute to improved sanitation both “within the fence line” and beyond.

However, attracting the private sector has proven difficult. The need for long term commitments is not always compatible with market demands, and the low income of the target group limits private spending. The role of the government as a regulator is critically important.

Sanitation in the Water and Development Discourse

Many presenters commented on the specific opportunities provided by this year’s focus at World Water Week on sanitation. Within the field the arguments and ideas around sanitation have been much discussed, but practitioners welcomed the opportunity to debate with water professionals and show how sanitation is *sine qua non* for meeting many of the MDG targets – particularly those relating to reduction of infant and maternal mortality, malnutrition, education and poverty.

Challenges and Obstacles

Urban Growth

The world’s urban population is massively increasing. The most rapid growth is found among the low income populations in periurban and slum areas. Finding suitable sanitary solutions for these high density areas has proven to be a great challenge. The layout of the settlements is too chaotic for traditional sewage systems, and there is often not enough space for latrines.

Possible options are simplified sewerage, low-cost combined sewerage and community managed sanitation blocks.

Several frameworks have been developed that could be used to develop effective urban sanitation solutions – going beyond the traditional linear solutions towards conventional sewerage-based solutions. These include Household Centred Environmental Sanitation, Strategic Sanitation Planning, and Sanitation 21. The real challenge is to ensure that sanitation for the poor and unserved is on the top of the local political agenda and then build capacity to deliver visionary solutions.

Women and Girls

Evidence shows that girls and women are those who suffer most from lack of sanitation. Visits to public toilets or the search for a secluded spot to relieve oneself is often associated with the risk of rape. In cultures where women are expected not to leave the house, shared facilities or garden latrines may prove to be inaccessible. If school toilets are poorly maintained or shared with boys, girls often choose not to attend classes. This goes especially for girls who have reached the age when they start menstruating. Poor sanitary conditions also increase the workload put on girls and women, since they often are ones responsible for fetching water and for looking after sick family members.

Discrete but Coordinated Budgets

Water and sanitation have traditionally been funded together, with water getting significantly more funding than sanitation. For sanitation programmes to work, what is needed is coordinated inputs from several ministries – usually including the ministries of health (for long term hygiene and sanitation promotion), public works or water (for construction of institutional sanitation and coordination with water investments), education (for toilets in schools) and water resources or environment (for environmental regulation). There was a strong message from the week that discrete budgets for sanitation – linking inputs from several ministries to specific targets and outputs – is the surest way to secure adequate long term funding and the strongest potential coordinating mechanism.

The allocation of sufficient money to sanitation is hampered when the national budget is largely made up by donor money which can be earmarked (e.g. for water supply or HIV/Aids). Sector professionals need to build support in the Ministry of Finance if they are to achieve the needed financial targets.

Countries Suffering from Long Term Conflicts

Several speakers commented repeatedly on the specific sanitation challenges faced by countries suffering from long term conflicts. Specific approaches are needed in IDP camps, refugee camps and areas subject to repeated population movements. National governments in these countries may also be unable to formulate policies and strategies on sanitation,

which may result in a failure to attract donor funding or other external investments.

Advocacy and Information

Despite recent gains, more and better communication is still needed. Plain language, simple terms and strong visuals are powerful when it comes to engaging the public. Calculations of cost-benefits and cost-effectiveness can help governments understand what they are losing right now from not working with sanitation. Finding the right ways of addressing the problem is also crucial. Convincing governments to invest only in the poor can be difficult. Formulations, such as “poor inclusive”, can be powerful to attract investment.

Knowledge Gaps

Though several important areas for new research and ideas remain, many speakers at the conference emphasised the need to (a) communicate the importance of sanitation outside of the sector; and (b) find better ways to spread existing knowledge and capacity at field level.

Communicating the Links between Sanitation and Health to Health Sector Professionals

The importance of clean drinking water for health, for example, has become widely known and accepted. Yet the public perception of the link between sanitation and health remains weak. While the international health agenda is dominated by curative medicine and vaccinations, a critical and highly cost-effective health intervention (basic sanitation and handwashing) remains neglected by health professionals.

NGOs and Local Governments with Insufficient Technical Competence

The correctional shift towards a holistic socio-cultural approach has meant that sanitation no longer is something which falls exclusively under the responsibility of engineers. If the process is driven too far, it may result in a loss of technical expertise. In one seminar a speaker from UNEP warned that NGOs are getting weak in the technical area. Other speakers emphasised the lack of capacity in local governments, particularly in countries which are decentralising.

Global and Regional Definitions

As more and more work is done in the field of sanitation, many speakers called for better monitoring and evaluation of progress. While the international system of the Joint Monitoring Program (JMP) provides an important longitudinal measure of progress, more work is needed to develop meaningful and more detailed parameters at local level. Only then can real progress (from open defecation, to fixed place defecation, to improved latrines, towards sustainable sanitation) be measured.



Photo: Mikael Ullén

Conclusions and Recommendations

The State of the Sector – Sunshine and Showers

There is growing awareness of the importance of sanitation. The evidence base for health benefits is robust. Technical solutions exist. However, awareness (particularly among women and children) is not as high as it needs to be. Most decision-makers are more able to imagine contracting HIV/Aids than living without a toilet and political pressures prevent cities and local governments prioritising sanitation. The need for improvement is urgent.

Practical Ideas –Four Seasons in One Day

Practical ideas and solutions do exist:

- Where access is very low, sanitation is primarily about behaviour change (i.e. Community-led Total Sanitation in Bangladesh).
- Where access increases, sanitation is primarily about improving the quality of the services provided (for example in Ghana).
- In dense urban settlements the additional challenge is to link people's efforts with the city system (i.e., in Kumasi, Dar es Salaam, Karachi).
- In the long term, new technologies hold the promise of a more sustainable future (i.e., eco-cities in China).

People are crucial. New ways of thinking for demand-responsive approaches are being developed and rolled out to address the real needs of the unserved.

Remaining Challenges – Storms Approaching

Some of the key gaps relate to the need for:

- Local Information – making the case at local level (Cost effectiveness studies, health impact studies, community self-assessments).
- Finance – more money is needed but mostly for long term support (i.e. health extension workers) – this requires new financing mechanisms.
- Government Leadership – success stories all reflect strong government leadership to remove confusions and lead co-ordination (e.g. Madagascar, Ethiopia, India, Bangladesh, China and Rwanda). This is needed in all countries.

The concept that there is an “end point” of water borne reticulated sewerage needs to be more sophisticated. Sanitation has strong links to environmental management, climate change, food security, etc. A new vision is needed that recognises the changing geopolitical landscape. This vision must be the gold standard that is applicable to rich and poor alike.

Building for the Future – A New Sunrise

Finally, there is a need to enthuse a new generation of sanitation experts and activists. Young professionals need a reason to get into sanitation. A lot is going on to ensure that communities, governments and the private sector participate in the sanitation sector, but little is being done to motivate young people to enter the field. 2008 World Water Week in Stockholm went some way to address this gap.