# Footsteps 73

### SANITATION

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# Sanitation and the Millennium Development Goals

by Frank Greaves and Laura Webster

Sanitation – the safe management of human waste – is critical to the health of communities. Good sanitation can help to control infectious conditions, such as diarrhoea and dysentery. Improved sanitation and hygiene have a direct impact on child health in particular: 1.8 million children die of dehydration caused by diarrhoea each year and studies have shown that improved sanitation results in at least a 30% reduction in child mortality.

Around 2.6 billion people lack access to safe sanitation – more than a third of the world's population. The Millennium Development Goal (MDG) 7, Target 10, is 'To halve, by 2015, the proportion of people without access to safe drinking water and sanitation'. This is an ambitious target, but the MDGs have been important in focusing governments and NGOs on key development issues. At the halfway point, achievement of the sanitation element is too slow in 74 countries. At current rates of progress the target is not expected to be met in sub-Saharan Africa until at least 2076! This lack of progress on sanitation and hygiene is likely to have a big impact on other MDG targets such as maternal mortality, access to education, and tackling disease.

Studies by the Overseas Development Institute and Tearfund, as well as the UNDP Human Development Report 2006, have tried to identify the major barriers to improved sanitation. They have suggested some of the steps required if faster progress is going to be made towards the MDG target on sanitation. Sanitation as a priority There is a certain amount of taboo surrounding sanitation and hygiene, and government officials are less likely to speak out on this than, for example, the need to build new schools. As there is rarely an overall government ministry for sanitation, there are often few sanitation policies and strategies, and where they do exist, they are often poorly implemented. Also, communities do not tend to prioritise sanitation – perhaps due to a lack of education about the consequences of poor sanitation, or because the voices of women, who are most affected by poor sanitation, are not heard.

Links with other sectors While most people see clear links between sanitation and water, people are not always aware of the links between sanitation and other sectors. It is vital that projects and plans in sectors such as health, education and rural or urban development include efforts to improve sanitation.

**Capacity** There is often a lack of capacity in the sanitation sector – involving local government officials, public health promoters and those who design and construct suitable latrines. Capacity needs to be developed at all levels, and this will require more funding than is currently made available.



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### Footsteps

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*Footsteps* is free of charge to individuals working to promote health and development. It is available in English, French, Portuguese and Spanish. Donations are welcomed.

Readers are invited to contribute views, articles, letters and photos.

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Behaviour change Some sanitation projects have been unsuccessful because they have been based on a poor understanding of what influences the behaviour change that is needed to ensure good sanitation. Research suggests that the provision of subsidised latrines does not often result in improved sanitation and hygiene. On the other hand, investment in community mobilisation and education has produced better results. This has encouraged people to want latrines and to improve hygiene practices.

### **MDG** limitations

While it is always good to have a clear goal in sight, we should be aware of the limitations of this particular MDG target on improving access to sanitation and water supplies. Consider, for example, the following issues:

**Coverage and quality** The MDG target measures coverage (the proportion of households with access to sanitation) but does not consider the *quality* of these sanitation facilities. Broken or poorlyfunctioning 'improved pit latrines' are included in coverage statistics, but they bring huge public health risks for families and communities. In addition, what people want is often different from the technologies that governments and NGOs supply, leading to the presence of sanitation facilities that are unused.

Integrated water, sanitation and hygiene It is important that improved access to sanitation is accompanied by hygiene and health education. However, the MDG target does not measure increases in knowledge and good practice related to personal hygiene. Clean water, safe removal of excreta, and personal hygiene are three key elements of any strategy to improve public health. They must remain integrated.

### Community level partnerships

The MDG target measures sanitation improvement at household level, but it does not take account of the need for community-wide sanitation. Although successful sanitation programmes depend on changes in practice at household level, the public health benefits of installing one household latrine are unlikely to be achieved unless other households also have latrines. Installing a latrine in one household does

### Glossary of words used in this issue

**ANAL** relating to the anus, through which faeces pass

**DEFECATION** passing faeces from the body

**DIARRHOEA** the passing of at least three very watery faeces each day

**DYSENTERY** an infection causing diarrhoea containing blood and mucus, often accompanied by fever

**EXCRETA** human waste, both liquid and solid

**FAECES** solid waste products from the body

**SEWAGE** human and household waste that is carried away through constructed drains

**SUBSIDY** a transfer of money to help somebody to do something

URINE liquid waste from the body

not provide protection against the excreta of other households that do not have access to a latrine. In addition, community-based interventions tend to be more successful in bringing about lasting behaviour change and measurable health benefits than initiatives aimed at individual households. This is because communities that are educated together tend to act together and create a culture of good sanitation. The UN Human Development Report 2006 suggests that community level interventions require partnerships between communities and their local governments who carry out work under a national sanitation strategy.

**Environmental issues** Safe sanitation is not just about increasing the coverage of latrines. It is also about protecting the environment. If sanitation improvements do not reduce contamination of a groundwater supply or agricultural land, or if the chosen sanitation approach results in the environment being exposed to untreated sewage, there is an increased risk of poor health. Sanitation approaches must safeguard the environment and its limited natural resources, such as sources of groundwater and surface water.

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# Health promotion in Darfur, Sudan

by Anne McCulloch

Knowing the best way to keep yourself and your family healthy is important. This is especially the case for the people of Darfur in Sudan, who have been displaced from their homes due to fighting and are living in cramped basic conditions in camps or with relatives. Tearfund is working to provide safe water and sanitation in these areas and give appropriate health messages so that people use the resources effectively.



A children's club meeting.



Rachel Blackman

Editor

EDITORIAL

We all need to go to the toilet – usually a number of times each day. Despite this, sanitation is something that people are often embarrassed to talk about, making it easy to ignore. Around 2.6 billion people lack access

to safe sanitation, which results in hundreds of thousands of deaths each year. Sanitation is something we should not ignore!

The first article of this issue and the case study on page 7 look at barriers to achieving the Millennium Development Goal linked to sanitation, so that we can advocate effectively.

Sanitation is a community-wide issue. If just one household in a community does not have access to safe sanitation, disease can spread and the whole community can suffer. Community-led total sanitation (page 12) is an approach that encourages local communities to consider the impact that lack of sanitation has on

### Health clubs

Health clubs have been set up in order to communicate health messages and provide fun activities for women and children affected by the conflict. The clubs on the border with Chad also include nomadic people who have had very little access to any sort of education and are keen to learn about good hygiene. There are women's clubs for a total of 14,000 women, and children's clubs for 65,000 children across the Darfur region. In order to fit into the women's daily routines and allow access for the few children who attend school, the clubs tend to meet in the early evening twice a week.

Each club is run by a group of local facilitators who are volunteers. The children's clubs also have an 'encourager' in each group of about 50 children. The encourager is a child who guides his or her peers and promotes hygiene through example.

The women's clubs provide an opportunity for social time and discussion about how to ensure they and their families stay healthy. Various methods are used for communicating and discussing health. For example, as it is cultural for one of the local tribes to jump to music, the women enjoy jumping to various songs and rhymes about hygiene.

The children's clubs involve a range of activities related to health, such as use

their health. As a result, communities take action to ensure that 100% of the households have access to sanitation and use it.

Many sanitation programmes are unsustainable because the technologies that are chosen are not appropriate. Pages 8–10 look at two methods of identifying technologies that are socially, technologically and financially appropriate. The second of these is a tool that can be used to identify the preferences of community members. Sustainable sanitation improvements also depend on accompanying improvements in access to water and hygiene education. There are two articles in this issue about hygiene education – among girls from the streets in Bolivia and people who have been displaced by the conflict in Darfur, Sudan.

This issue of *Footsteps* is timely as 2008 is the United Nations Year of Sanitation. Hopefully this issue will help us to consider what part we can play.

Future issues will look at health care in the home and innovations.

acher



of puppets, stories, songs, cloth charts, drawings, drama, skipping rhymes and games. One participatory activity is the 'rating chart' where children are asked a question such as, 'how often do you wash your hands?' Different choices are shown by pictures drawn on the ground with a stick. They use a stone to mark their answer. They then compare their answer with the answers of other children. The answers can be recorded and the activity repeated after a time to see how healthrelated behaviour is changing.

Men tend to be more difficult to target with hygiene messages than women and children as they already feel quite well informed about hygiene and are not so keen on the methods used in the women's clubs, such as singing songs. They sometimes receive such messages at community meetings. They also learn through household visits, which is another element of the programme. Some men have volunteered to take part in the programme as facilitators in the children's clubs.

### Household visits

Household visitors visit homes in the area to pass on hygiene messages and assist families to put into practice what they are learning at clubs. They provide vulnerable families with additional support such as identifying malnourished children for the nutrition programme. The household visitors are trained to provide families with psychosocial support where it is needed.

### Example of an activity used at children's clubs: 'Checking chums'

- Divide the children into pairs.
- The children should inspect their partner's hands and decide whether they are good, bad or okay in terms of cleanliness.
- Draw three large faces in the sand

   happy, okay and sad. Ask the children whose hands are clean to stand on the happy face, those with unclean hands on the sad face and so on.

If the latrine inspection is successful, the household visitor puts up a flag outside to show that it is well looked after

The household visitor checks to see that the latrine is clean and well maintained, and that water and soap or ash is available for washing hands. If the inspection is successful, the household visitor puts up a flag outside the latrine to show the neighbours that it is well looked after. At the next visit, if the inspection is unsuccessful, the household visitor takes the flag away. This simple method has proved to be highly successful in motivating people to look after their latrines, although it works better for latrines that are used by one household



The children paint murals on the walls of the latrines to make them look attractive.

- Ask the children to count how many children are standing on each face.
   Record the results. If there are more children on the happy face than the previous week, give them praise.
- Provide some warm water and soap so that the children standing on the sad face can wash their hands and move to the happy face. Make this fun so it does not embarrass the children.

than for shared latrines. Tearfund is therefore trying to provide more household latrines. This method is also empowering for the household visitors, because the presence of flags shows the fruit of their own work in educating the households.

### Training the volunteers

Each month the club facilitators, encouragers and household visitors receive training. The content of the training is decided by the volunteers themselves. For example, during the mango season they may ask for training about hand-washing and diarrhoea as people are likely to pick up and eat mangoes without washing the fruit or their hands. In winter the volunteers may ask for training about colds.

The volunteers are taught hygiene messages and various methods for communicating those messages. Some of the facilitators cannot read, so pictures are provided to help them to remember the different activities they can share with the community.

### Soap distribution

The United Nations has contracted Tearfund to distribute soap to communities in Darfur. This distribution has been incorporated into the health programme. There are three methods of soap distribution:

- 1 Soap is distributed at the women's and children's clubs. Each person is currently given two bars of soap every month.
- 2 Soap is distributed during household visits. Each household receives four bars





A woman who has just received her soap.

of soap each month. This is below the recommended minimum, but children from many of these households attend the clubs where they also receive soap.

3 Each facilitator, encourager and household visitor is given eight bars of soap every month as an incentive to take part in the programme.

This soap distribution has reinforced the messages given out at the clubs and has resulted in an increase in hand-washing. However, there are disadvantages of distributing free soap.

The money for the soap is running out, so it is not sustainable.

- If the distribution stops, hygiene may suffer as few people can afford to buy their own soap.
- Even though people came to the clubs before the soap distribution started, there is a concern that if the soap distribution stops, people will stop going to the clubs.
- Without the incentive of additional bars of soap for facilitators, encouragers and household visitors, it is possible that they will withdraw from helping with the work.

To address these issues, the following actions are taken.

- The club facilitators and household visitors are trained in promoting alternatives to soap, such as the use of clean ash or sand.
- Small amounts of money are being provided to groups of facilitators for starting income-generation projects. This provides an alternative incentive to participate in the programme when the soap distribution stops. Some of these facilitators have received money and training to make pasta to sell. It is hoped that in the future they will be able to make and sell soap, but it is currently difficult to obtain the ingredients.

### Hygiene in schools

Another element of the programme involves hygiene education with school children. In each school there is a committee of children consisting of a child from each class. This committee ensures that the latrines are kept clean and that there is water and soap or ash for washing hands. The children on the committee are given a special uniform to wear when cleaning the latrines to ensure that their school uniform does not get dirty. As an incentive, these children are given a badge to wear and a certificate. There is a prize each month for the class that keeps the latrines the cleanest. Health messages are shared weekly at school assemblies.

Children paint murals on the outside walls of the latrines. This makes them look attractive and encourages the children to look after them. The murals usually contain health messages. Programme staff helped with the painting to start with, as it was a new concept, but now the children are inventing all sorts of creative designs themselves.

Anne McCulloch is Tearfund's Health Promotion and Children's Activities Manager in Genina/Beida, North Sudan.

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### **BIBLE STUDY** Setting a good example

This Bible study helps us to think about how we should live responsibly and set a good example to those around us.

#### Read Genesis 2: 4-25.

- What does God provide for Adam's benefit?
- What responsibilities does God give to Adam?
- What does this passage say about the way God intends us to care for the environment and those around us?

#### Read Deuteronomy 23:12-14.

In this passage, God is speaking through Moses to the Israelites about safe excreta removal. This command was given so that the camp would be kept holy (verse 14), but the practice would also have kept the camp healthy. Infections like dysentery, diarrhoea, intestinal worms, typhoid fever, and ringworm are a result of bad hygienic practices, and these can be prevented.

How much do our sanitation practices and personal hygiene show that we care about our own health and the health of our families and communities? What action can we take to show others how to practise good sanitation and hygiene?

Christians have the challenge of being salt and light in the world (Matthew 5:13-16). As followers of Christ, we should set a good example. Some people have said that 'cleanliness is next to godliness'.

How well have we maintained our homes? It would be bad if our homes were breeding places for animals, such as flies and rats, which carry diseases. We would be responsible for the lives of our neighbours if any of them acquired diseases as a result of our unhygienic environments.

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### Respecting rights, recognising duties

The idea of rights implies that of duties. The rights of one person bring about the duties of another and the duties of another bring about the rights of another.

Citizenship education means making people aware of their rights and duties as citizens. This can make a positive contribution to the promotion of peace, democracy, good governance and human rights, at all levels. Responsible citizenship education should be promoted in formal and informal education systems.

If each person, in their everyday life, were to respect the right of other people to life, education, health, physical integrity and individual freedom, and if they consistently carried out their duties to their village, country and all of humanity, would it not be possible to transform this world?

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### A smile

A smile costs nothing but can produce a great deal of happiness. It enriches those who receive it, without making the one who gives the smile any poorer. A smile

### Washing hands

Rinsing hands with water alone is not enough for good hygiene. Both hands should be rubbed with soap or ash and rinsed with running water to wash the germs away.

Hands should be washed frequently, especially after going to the toilet and before handling food.

is a gift that cannot be bought, or loaned, or stolen. Nobody is ever so rich that they can do without smiles. Nobody is so poor that they don't deserve one. And if sometimes you meet someone who no longer knows how to smile, be generous and give him yours.

Gabriel Sabi BP 180 Parakou Benin Email: peacegabi@yahoo.fr

### Using literacy in the church response to HIV

We have an HIV project, working with local churches in local languages. We printed booklets called *Nkana Mendo* ('Mendo's story') in Bulu, the language spoken here in the southern part of Cameroon. The

### Deworming, iron, and anaemia

In low- and middle-income countries, about 1.2 billion people are infected with roundworm, and more than 700 million are infected with hookworm or whipworm. Infection with intestinal worms is linked with poverty because it is caused by unsafe disposal of faeces.

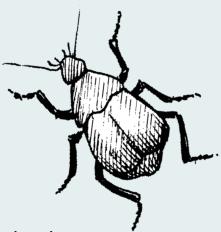
Infection can occur at any age, but is most common in school-age children. It affects physical and mental development during childhood. Worms cause anaemia, and anaemia can reduce mental ability.

Routine use of deworming medicines could make a public health impact on anaemia in populations affected by intestinal worms. Giving iron also reduces anaemia.

The most commonly used drugs for the treatment of common intestinal worms are albendazole (400 mg) or mebendazole (500 mg). They are given as a single tablet to all children, regardless of size or age. One pill can cost as little as US\$0.02 and generally needs to be given only once a year.

From Community Health Global Network (CHGN) Newsletter, June 2007 www.communityhealthglobal.net booklets are written in simple language so that even people who are just learning how to read should be able to understand them. They are distributed in the churches. The story is about a little girl called Mendo who sees her family devastated by AIDS. Both her parents die and she is left to care for her siblings. The story shows how local churches can be involved in responding to AIDS. There is also a facilitator's manual which has questions for discussion, facts about HIV, and Bible studies.

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### Cockroaches

I live in Bunia, in Democratic Republic of Congo. In the last few months my house has been invaded by cockroaches, especially in the cupboards and wardrobes. I have used a whole range of methods to get rid of them, but in vain. I would like information about how to get them out of my house (but not kill them).

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# Advocating for sanitation and hygiene

by Mwakamubaya Nasekwa and François Kiza

The Democratic Republic of Congo, a country coming out of a long war, faces many challenges, including that of improving the living conditions of its population through the promotion of sanitation and hygiene. Studies suggest that fewer than one in ten people in the Democratic Republic of Congo (DRC) have adequate access to sanitation and hygiene.

The Primary Health Care Promotion Programme (Programme de Promotion des Soins de Santé Primaires – PPSSP) carried out a study in collaboration with Tearfund and the Overseas Development Institute to find out why so few people in DRC have access to sanitation. The study explored the issues that hinder progress at both national and local levels. At national level, we researched national policies and institutions. At local level we carried out focus groups to identify the influences on people's attitudes and behaviour.

### **Issues for public policy**

The first thing that some people think of when sanitation is discussed is a latrine. However, sanitation is wider than that. UNESCO and the World Bank define sanitation as 'Maintaining clean, hygienic conditions that help prevent disease.'

Using this definition, activities relating to sanitation include:

- the supply, distribution and treatment of clean water
- safe disposal of excreta, treatment of sewage and industrial waste, reducing water pollution

Studies suggest that fewer than one in ten people in DRC have adequate access to sanitation and hygiene

- collection and disposal of rubbish
- the fight against insects, snails, rodents and other disease carriers
- monitoring the safety of foods, including the treatment of milk; the processing, storage and distribution of meat, poultry, fish and bakery products; hygiene in restaurants and bars
- monitoring the cleanliness of schools and public places
- the fight against air pollution due to smoke, dust, gases and odours.

### Challenges

The research found many factors that hinder the promotion of sanitation and hygiene. These include:

- poor coordination between different government ministries which each have partial responsibility for sanitation
- lack of political priority given to sanitation, where there are many competing demands on government
- lack of a national policy on sanitation and hygiene
- laws related to sanitation that are out of date, little known and disrespected
- shortage of competent, qualified staff because it is not an attractive sector to work in and because the staff are either unpaid or paid very little
- lack of financial support for the sector and lack of public infrastructure. For example, there are not enough public waste disposal sites and refuse collectors



A latrine in a school in the Democratic Republic of Congo.

- lack of involvement of women in debates and decision-making in the sector, even though women are actively involved in sanitation work at household level and in public areas
- the weight of tradition, where defecation in the bush or throwing rubbish on the road is not seen as a problem
- urbanisation and population growth, which make management of waste very difficult in towns.

### A ray of hope

PPSSP have been using the findings of this study to raise the profile of the sanitation problem in DRC. We have advocated for improved policies and practice. We presented the findings to a group of decision-makers at a workshop in Kivu province, and there are signs of positive change.

The authors work for the PPSSP (Programme de Promotion des Soins de Santé Primaires), which is a consortium of Tearfund partners in the Democratic Republic of Congo.

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For the full report of the study Sanitation and hygiene in developing countries: identifying and responding to barriers, visit: http://tilz. tearfund.org/Research/Water+and+Sanitation/ where it can be downloaded in English or French, or email: ppadministrator@tearfund.org to request a paper copy in English.

# Selecting appropriate latrines

by Frank Greaves

Why do so many latrine programmes not have their intended impact on the health of the community? In recent years there has been more emphasis on changing attitudes towards sanitation and hygiene, hygiene education and community ownership. But sometimes this has meant that little attention has been given to selecting appropriate latrine technologies. This article looks at how we can guide communities to select technically appropriate latrines, while at the same time ensuring that they have what they really want.

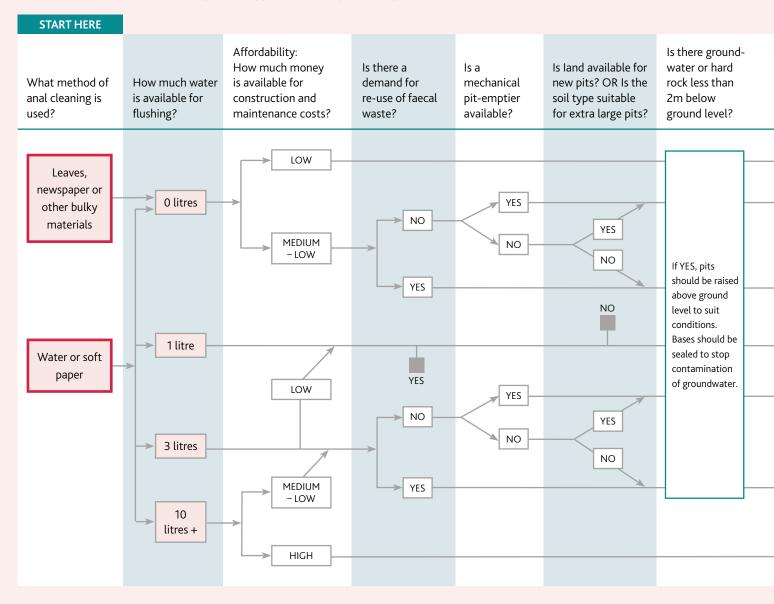
The following two methods can be used for selecting a latrine that is technically and socially appropriate. Method 1 (below) may reveal that more than one type of latrine is appropriate for the community. For example, where a 'pour-flush single pit offset' latrine is identified as best because a lot of land is available, a 'pour-flush twin pit' latrine could also be an option.

Once latrine options are identified, matrix ranking can be carried out with community members to enable them to make the final choice of latrine (see page 10).

### method 1

### Appropriate latrine technologies

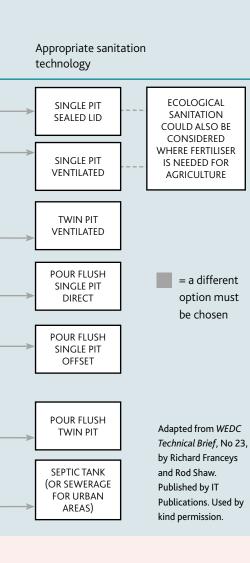
Information for this method should come from a Community Needs Assessment for water and sanitation (see *Footsteps 64*). Then use the flow chart below to identify an appropriate type of latrine for the community or household. Eight main types of latrine options are given.





An unfinished and abandoned latrine in Honduras: a result of inappropriate planning and design.





### LATRINE TECHNOLOGIES

**Single pit sealed lid** A single pit is dug. A lid is provided so that the squat hole can be covered up after the latrine is used. This reduces odour and stops flies from entering the latrine.

**Single pit ventilated** A single pit is dug. A vertical ventilation pipe is installed which takes away the smell. Wind blowing across the top of the pipe sucks air out of the pit while fresh air flows into the pit through the squat hole, which must be left uncovered. To control flies, the shelter must be kept dark and the ventilation pipe should have mesh fitted over the top.

**Twin pit ventilated** Two pits are dug next to each other. The shelter is built partly over both pits. One pit is used at a time. Once a pit is full, it is sealed. The pipe is moved to the other pit and the other squat hole is opened. After one year, the full pit can be safely emptied and the contents used as manure.

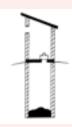
**Pour flush single pit direct** A single pit is dug and the shelter is built above it. A waterseal pan is used in place of the squatting slab. Each time the latrine is used, water is poured into the pan to flush it. The water acts as a barrier between the pit and the shelter. This stops smells entering the shelter and flies entering the pit.

**Pour flush single pit offset** A single pit is dug and the shelter is built a small distance away ('offset'). A waterseal pan and pipe is installed. More water is needed to flush because the excreta has further to travel to the pit, but the advantage of an offset pit over a direct pit is that the latrine can be located in a house and the pit is outside so that it is accessible for emptying.

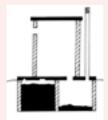
**Pour flush twin pit** This is the same as the pour flush single pit latrine, but there are two offset pits so that once one pit is full, excreta can be diverted to the other pit. After one year the full pit can be emptied and used again while the other is sealed and the contents allowed to decompose. The latrine is therefore permanent.

**Ecological sanitation** Ecological sanitation (eco-san) involves using the contents of the latrine for agriculture, after it has been treated to ensure it is not harmful to health. There are various types of eco-san including:

- **Composting latrine** The pit is watertight and ash or vegetable matter is added after using the latrine. After some months the mixture becomes good soil fertiliser. It is important fully to control the moisture content and chemical balance.
- Urine-diversion latrine (not pictured) When the latrine is used, urine is diverted into a separate container. After one week it can be used to fertilise crops. Faeces drop into either a container for transfer to a composting point, or into the pit where it dries out for at least six months before being used as fertiliser.

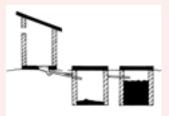


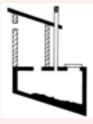












### method 2

### Matrix ranking to identify what the community prefers

Matrix ranking can be used to help community members to consider different types of toilet against a set of criteria, in order to identify which type of toilet is best for them.

Ask community members to describe the types of toilet that they know. Write these across the top of the matrix (see example below). Add any appropriate options identified during method 1. However, if community members have no experience of using these options, they will need to first visit another community where these types of toilet are being used.

In the matrix, list criteria against which the toilets can be judged, such as privacy and distance from home. Use those listed in the example below and invite community members to add any others.

Before they judge each type of toilet, ask community members to say how important to them each criterion is. This can be done by asking them as a group to score each criterion out of 10, where 0 is unimportant and 10 is important. Write these 'importance factors' to the left of each criterion. These scores will be used in calculations later on and will allow more weight to be given to criteria that community members view as important.

Then ask community members as a group to give a score of 0 to 10 for each type of toilet against each criterion. For example,



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bushes may be viewed as quite private and given a score of 8 while they may only be given a score of 3 for distance because they are around the edge of the village rather than near people's homes.

To find a total score for each type of toilet, multiply each number by the importance score for that row. These numbers are given in brackets in the table. In the example below, each score for privacy is multiplied by 9, each score for distance is multiplied by 8, and so on. Then add up the scores in brackets in each column to give a total for each type of toilet. The types of toilet can then be ranked. The toilet with the highest score is ranked '1' as the first choice, and so on. In the example below, the community's first choice is 'single pit ventilated' latrine with a total score of 250.

Adapted from Engineering in Emergencies, (2nd Edition, 2002), Jan Davis and Robert Lambert, ITDG Publications (page 77). Used by kind permission.

Frank Greaves is Tearfund's Programme Development Advisor for Water and Sanitation. Email: frank.greaves@tearfund.org

Example of	CRITERIA	IMPORTANCE		TOILET	ТҮРЕ	
matrix		FACTOR	Bush / field	Communal latrine	Single pit ventilated	Ordinary family pit
	Privacy	9	8 (72)	2 (18)	7 (63)	7 (63)
	Distance	8	3 (24)	2 (16)	7 (56)	7 (56)
	Bright inside	2	8 (16)	6 (12)	2 (4)	8 (16)
	Access at night	6	4 (24)	5 (30)	8 (48)	8 (48)
	Lack of smells	2	9 (18)	1 (2)	8 (16)	4 (8)
	Easy to clean	4	7 (28)	0 (0)	7 (28)	7 (28)
	Prevents disease	5	3 (15)	3 (15)	7 (35)	6 (30)
	Total score – add n	umbers in brackets	197	93	250	249
		Ranking	3	4	$\left( 1 \right)$	2

# Working to improve **hygiene and health** in Bolivia

by Felina Albornoz, Paulina Rivas and Hermógenes Lizarazu

Part of the Mosoj Yan programme in Cochabamba, Bolivia, is a 'Motivation Centre' which works with young female street dwellers. These people have acute health needs as they live in unhealthy and unhygienic conditions and suffer from frequent infections and an unbalanced diet.



Preparing meals in the Motivation Centre.

To address this situation, Mosoj Yan has started street-based health education which has three basic steps:

- We encourage girls and female adolescents to visit the Motivation Centre to wash their belongings, have a shower and enjoy a healthy meal.
- 2 If one of them decides to join the Motivation Centre, we explain the conditions of joining and together we make verbal and written agreements. Then she is introduced to her new family and encouraged to take care of her own personal hygiene, to take part in the household tasks such as cleaning and to join in the daily activities.
- 3 Once a girl or female adolescent has decided to stay and start to change her life, she is encouraged to gain educational, psychological and spiritual development and support, and take part in creative workshops.

In order to encourage a good routine, there is a timetable of activities from the time the girls wake up to the time they go to bed. The house rules help to regulate behaviour and attitudes. Group meetings are organised periodically to discuss participation within the house. The girls can share their views in these meetings and this process helps to ensure that they fulfil their responsibilities. Repeating this pattern enables them to form good habits.

We provide staff members who act as 'educators' to work alongside the girls. The participation of educators in all the activities and tasks in the house is vital because it sets a good example, gives guidance and fosters good relationships.

The educators support the girls as they prepare meals which are based on a weekly menu. As the girls are often not used to certain types of food, we have worked hard to teach them about the importance of eating different foods in order to regain their health.

We try to make the girls more aware of the need to care for their bodies by setting health objectives with each girl, and by raising awareness of health and hygiene issues through talks, videos and interactive group activities.

### Results

In our work over the past few years, we have seen girls begin to enjoy better living conditions and work opportunities, overcome their fears and insecurities and start a completely new life.

### Sofía's\* testimony

When I arrived at Mosoj Yan they showed me lots of things ... how to prepare meals: breakfast, lunch and even food for the dog. We swept the sitting room, learnt how to dust, to put the rubbish in its proper place, to mop the floor and polish it with wax, to keep things tidy, to sweep and clean up the patio and to water the plants. They also taught me how to clean the kitchen surfaces, the shelves and the kitchen floor.

I know that everything they have taught me is good for me.

I also learnt about hygiene. I have a bath every day and really like it. I brush my teeth, comb my hair and change my clothes.

\* Not her real name

### Lessons learned

- To achieve the best results, it is vital to work with street dwellers in a holistic way, and consider their feelings and selfesteem.
- We believe that ongoing support is an essential part of our work.
- The girls should take an active part in the process of change and should be involved in decision-making.
- It is important to establish clear objectives with each girl, which are achievable.

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> In our work over the years, we have seen girls start a completely new life

# Community-led total sanitation

'Community-led total sanitation' was pioneered in Bangladesh by Kamal Kar (a development consultant from India) and the Village Education Resource Centre while they were evaluating an NGO's traditional subsidised sanitation programme. They wanted to convince the NGO to stop subsidising toilet construction because subsidies in the past had not led to community ownership and toilet usage. Instead, they suggested that the NGO should encourage people to help themselves. They developed an approach called Community-led total sanitation (CLTS) and it spread fast within Bangladesh among both Bangladeshi and international NGOs.

At the heart of the CLTS approach is a shift away from subsidising toilet construction for individual households towards changing attitudes and behaviour of the whole community in order to stop open defecation. This is achieved through mobilising the community. As a result, community members use their own initiatives to build latrines. CLTS does not identify standards or designs for latrines, but encourages local creativeness. This leads to greater ownership, affordability and therefore sustainability. The box below compares the CLTS approach with the traditional approach to sanitation.

### Methodology

The facilitator's job is not to convince the community to stop open defecation and start constructing toilets. Instead, it is to assist the community in analysing the local sanitation situation. This generally triggers a sense of disgust and embarrassment and motivates the community to stop open defecation. It is important that the facilitator does not preach or tell people what to do, but instead asks simple questions to draw people's attention to the issues.

Throughout the process, community members are encouraged to use local terms to describe faeces rather than the

	Traditional approach to sanitation	Community-led total sanitation (CLTS)
Starts with	Things e.g. latrines	People
Core activity	Constructing latrines	Inspiring people and helping them move towards action
Latrines designed by	Engineers	Community innovators
Number of designs	One or a few	Many
Materials	Cement, pipes, bricks	Often initially bamboo, jute bags, plastic, tin
Cost	High	Can be very low
Indicators	Latrines constructed	Communities free of open defecation
Sustainability	Partial and patchy	Very high so far
Key motivation	Subsidy	Self-respect
Coverage / usage	Partial	Total
Who benefits?	Usually the better off	All including the poorest

polite terms, in order to break the taboos surrounding sanitation.

The following are some of the ways used to trigger CLTS:

### Transect walk

The process often starts with an informal talk with a few community members during a walk through the village (a 'transect walk'). During the walk, areas of open defecation are pointed out as well as different types of latrines currently in use. It is important to stop in the areas of open defecation and spend time there asking questions. Having their attention drawn to the unpleasant sight and smell by a visitor to the community is a key factor in triggering mobilisation.

Once the interest of a few community members has been captured, the process continues with all community members.

### Mapping of defecation areas

Mapping involves creating a simple map of the community to indicate households, resources and problems, and to stimulate discussion. The map is often drawn on the ground. All households should be invited to locate themselves on the map, and use a leaf or stone to mark whether they have a latrine or not. The areas of open defecation are also marked and lines drawn to connect them to the households that visit them. The map can trigger discussions about when and how far some people walk to defecate and what this means in terms of safety, as well as indicating the contamination of water sources from the areas of open defecation.



Community in Hetauda, Nepal, mapping defecation areas and planning to stop open defecation.



Community map, Bangladesh.

### Calculations

The size of the sanitation problem can be illustrated by calculating the amount of faeces produced. Households can use their own methods and local measures for calculating how much human excreta they are generating each day. Multiplication can be used to find a figure for the whole community, and to calculate the amount of faeces produced each week, month or year. The quantities usually surprise the community. The calculations lead into further discussions about where the faeces go and the effects of having faeces on the ground.

The key point in the process which triggers CLTS is when the community realises that open defecation needs to stop. The discussion often turns to who would defecate in the open the next day, or who would take a bath in the river. If no-one would do these things, the community is ready to discuss alternatives to open defecation. At this point, the facilitator should point out that he or she is not there to provide a solution, sell toilets or subsidise latrine construction.

The community begins discussions about what action to take. If they ask the facilitator a question, he or she turns it back to them, so that they give an answer themselves. If people express an interest in constructing toilets but say it is too costly, the facilitator could draw a picture of a simple pit latrine built from locally available materials, to show that it does not have to be expensive.

### **Children's activities**

Children can be very strong advocates against open defecation. For example, they might lead processions where they shout slogans or sing songs about the need to stop open defecation. In some communities they use little flags to mark faeces to draw attention to them.

### Action planning

Activities that communities might decide to carry out include:

- forming a sanitation action group with representatives from every neighbourhood in the community
- making a list or map of households and their access to sanitation at present
- developing individual family plans to stop open defecation
- digging pits and using them as temporary latrines until others are constructed
- getting wealthy households to start constructing latrines immediately. These households could lend land, donate wood or bamboo for constructing latrines, or allow poor families to use their latrine in the short-term
- looking for suppliers of latrine construction materials.

### Challenges

Since the year 2000, CLTS has spread to many countries in Africa, Asia and Latin

America, including India, Indonesia, Nepal, Pakistan, Cambodia, Ethiopia, Tanzania, Kenya and Bolivia. Using the approach in these other countries has raised some challenges.

The CLTS approach has challenged traditional mindsets and practices, particularly the idea that subsidies are necessary because people cannot afford sanitation. Using CLTS, community members are not assisted by outside subsidy but are empowered to help themselves and each other. They are motivated by the realisation that unless they stop defecating in the open, the risks of disease will remain for everyone in the community. This means that:

- agencies that use the CLTS approach need to have confidence in the capability and social solidarity of communities.
   Agencies need to become facilitators rather than providers
- agencies that have previously provided subsidies for sanitation have sometimes found it difficult to use the CLTS approach because they find it hard to break the community's dependency on them for provision of hardware
- agencies may find it difficult making the CLTS approach work in communities where other agencies are subsidising and promoting costly models of toilets.

The Institute of Development Studies (IDS) is carrying out a research and networking programme, supported by DFID, called *Going to Scale? The Potential of Community-Led Total Sanitation*. This project aims to gain a better understanding of the issues and challenges at community level so that the CLTS approach can become a widespread movement which supports the achievement of the Millennium Development Goals.

For more information on CLTS and the IDS-led research go to: www.livelihoods.org/hot\_topics/CLTS.html or contact Petra Bongartz, email: P.Bongartz@ids.ac.uk

## Sanitation and HIV

by Jennifer Organ

HIV is affecting communities across the world, especially in sub-Saharan Africa. People living with HIV often suffer from diarrhoea and tiredness. Diarrhoea increases the need for easy and frequent use of a toilet, while weakness reduces people's mobility and access to sanitation facilities.

Many children have been orphaned by AIDS, and in badly-affected areas, children, the elderly and the sick are often left caring for one another. In these situations, even digging a basic pit latrine cannot be considered a simple or affordable task (see box, right).

Failure to have and use appropriate toilet facilities can increase the spread of many diseases. People living with HIV have a weakened immune system, so they are more vulnerable to disease and often experience a slower recovery time from sickness. Many of these illnesses are made worse by poor water and sanitation and are easily preventable through improved access to facilities and better hygiene.

A study into HIV-affected communities was carried out in the Copperbelt Province of Zambia towards the end of the dry season in 2006. People living with or

### **Discussion questions**

- What sanitation issues affect people living with or affected by HIV in our local area?
- What ways can be found to enable people who are weakened by HIVrelated illnesses to access latrines more easily?
- How can households affected by HIV be supported to build latrines if they do not have the strength or money to do so themselves?
- How might stigma challenge efforts to address the sanitation needs of people living with HIV in our community? What can be done about this?



A latrine that is about to collapse in Luangwa, Zambia.

affected by HIV were interviewed to consider their needs, difficulties and capabilities in terms of access to water and sanitation.

The interviews showed that there were many problems associated with sanitation:

Use of latrines Half of the people living with HIV said that they have difficulty using a pit latrine. Many explained that when they are sick and have little strength, they find squatting difficult. One woman uses a bucket inside her home to allow her the comfort of sitting, and then disposes of the waste later. Although this helps her, there is a certain level of discomfort involved and a lack of dignity. There is also an added risk of diarrhoeal disease to those who assist in emptying the bucket, especially if water and soap or ash are not available for washing hands afterwards. Special hygiene guidelines are necessary for people living with HIV and their carers when they are sick. They need to know how to safely dispose of waste containing body fluids, such as using disinfectant and plastic gloves or bags.

Two women explained that they do not use their latrines during the rainy season for

### Lack of resources

Elena is 16 years old. She lives with her brothers and sisters in a small community on the outskirts of Kitwe city centre. Their pit latrine was built by Elena's father, but it collapsed after he became sick and they now use the surrounding bush as their toilet. Together, they feel that they would be able to construct a pit latrine, yet their main struggle is locating the tools to do so. With only a small disposable income shared between ten family members, a simple task becomes almost unachievable.

fear of falling in because the rainwater puts the latrines at risk of collapse.

**Cost of building latrines** Although a family may have its own pit latrine at the present time, should this collapse (as is frequent in the rainy season), require repairs or become full, the family may experience difficulties when it becomes necessary to build another. All of the respondents who had basic latrines said they would be unable to replace their latrines should the need arise. Even if a family is physically able to dig, it may lack the tools to make constructing a new latrine possible.

The families that do not have their own latrine reported that they are not able to construct the pit themselves or pay someone to build it for them. These households often have to ask permission to use a neighbour's latrine or simply use the surrounding outdoor areas. This results in a lack of dignity, health risks and an unattractive environment.

A full version of the study HIV and water: working for positive solutions is available from Action Against Hunger UK.

Email: info@aahuk.org Web: www.aahuk.org/publications.htm

> Half of the people living with HIV said that they have difficulty using a pit latrine

# **RESOURCES** Books • Newsletters • Training material

tilz website www.tearfund.org/tilz Tearfund's international publications can be downloaded free of charge from our website. Search for any topic to help in your work.



### A guide to the development of on-site sanitation

by R Franceys, J Pickford and R Reed

This book, published by the World Health Organisation, provides in-depth technical information about the design, construction, operation and maintenance of the major types of



on-site sanitation facility, from simple pit latrines to agua privies and septic tanks, with numerous practical design examples. It describes in detail the planning and development processes, and the financial and institutional factors that will need to be taken into account. Particular emphasis is given to the need to involve the community at all stages from planning to evaluation, to adapt projects and programmes to the local situation, and to provide continuing support to the community after the system is installed.

This is a useful and practical publication for engineers, health workers, administrators, planners and others concerned with improving sanitation in poor communities. It is available to download free of charge, from the WHO website www.who.int/ water\_sanitation\_health/hygiene/envsan/ onsitesan/en/

### **UNDP Human Development** Report 2006: **Beyond scarcity: Power, poverty** and the global water crisis

Chapter 3 of this report focuses on sanitation. The whole report, or chapter 3 only, can be downloaded from hdr.undp. org/hdr2006/report.cfm in various languages including English, Arabic, Chinese, French, Portuguese, Russian and Spanish. Paper copies of the report can be ordered from any good bookshop.

### **Durable Rural Development** by Peter Storey

This is an accessible and practical handbook about sustainable rural development. It describes the basic steps of planning and implementing rural

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development projects and considers the wide range of needs and priorities facing rural people. There are many case studies illustrating different approaches, as well as practical tools and techniques.

It is available as a CD Rom which costs £8 and can be ordered from the website www.peterstorey.co.uk

Peter Storey, 38 Bellingham Road, Kendal, Cumbria, LA9 5JW, UK.

Email: books1@peterstorey.co.uk

### Strategies for Hope

The Strategies for Hope (SFH) Trust has produced over 1 million copies of its materials in English, French,

KiSwahili, Portuguese and other languages. The series consists of books, videos and training manuals aimed at promoting informed, effective, community-based approaches to HIV and AIDS, particularly in sub-Saharan Africa. Many SFH materials document the work of churches and faith-based organisations. The most recent SFH materials include the first three titles in the Called to Care toolkit of practical handbooks designed for use by church leaders with their congregations and communities. SFH also produced the film, What can I do?, about the HIV ministry of Canon Gideon Byamugisha in Uganda, and the Stepping Stones training package. For more information and to order resources, visit the SFH website: www.stratshope.org

### **Useful websites**

Useful fact sheets on all sorts of topics: www.lboro.ac.uk/well/resources/ Publications/Publications%20list.htm

### WEDC Technical Briefs

www.lboro.ac.uk/well/resources/ technical-briefs/technical-briefs.htm

(See Technical Briefs 51, 54, 63, 64, 45, 61 – all available to download free)

Technical Briefs 2, 6, 9, 16, 23, 28 are also very useful. These are not available on the web, but are available in a book called The Worth of Water (IT Publishing, 1991, reprinted 2007). For more information go to www.developmentbookshop.com

### WELL-WEDC Factsheets

### **Ecological sanitation**

www.lboro.ac.uk/well/resources/ fact-sheets/fact-sheets-htm/ Ecological%20sanitation.htm

### **Emptying pit latrines**

www.lboro.ac.uk/well/resources/ fact-sheets/fact-sheets-htm/Emptying %20pit%20latrines.htm

On-site sanitation in areas with a high groundwater table www.lboro.ac.uk/well/resources/factsheets/fact-sheets-htm/lcsahgt.htm

Why promote sanitation? www.lboro.ac.uk/well/resources/factsheets/fact-sheets-htm/wps.htm

### End Water Poverty campaign

End Water Poverty aims to change policy and practice in water and sanitation. For more information see www.endwaterpoverty.org



## **Gender and sanitation**

Compiled by Rachel Blackman

When considering sanitation and hygiene, it is important to consider the different needs and preferences of both men and women.

Women in particular are affected by a lack of adequate latrines.

- If women have to defecate in the open, they are vulnerable to assault and rape.
- If women cannot have privacy when defecating, they may wait until dark.
   Delaying defecation or drinking less can cause health problems.
- Teenage girls will usually not attend school if there are no latrines or no separately-allocated latrines, especially during menstruation.
- Women are usually the primary carers for family members who are ill. This exposes them to ill health, especially when dealing with faeces of relatives suffering from diarrhoeal infections.

### Women and menstruation

People usually find it embarrassing to talk about menstruation, but methods of sanitary protection are important. Questions to ask include:

- What method of sanitary protection do local women use?
- If special cloths are used, how often are they changed? How are they washed? How are they dried?

It is important that cloths are changed regularly, washed thoroughly and dried in the sun to stop them getting mouldy. Women are often embarrassed about washing and hanging their cloths in public areas. Encourage the community to put aside a separate washing and drying area that women can use without embarrassment.

It is important to challenge beliefs that menstrual blood is impure or contaminating. Menstruation is natural and normal. Men and women sometimes prefer different types of latrine. For example, men may like some of the public latrines to be urinals, which women cannot use. Women may not like pour-flush toilets because it means more work for them in collecting water.

It is necessary for both women and men to practise good hygiene, such as washing hands after defecating. Yet in places where hygiene is seen only as keeping the cooking area clean, it will be seen as a woman's issue.

**Gender analysis** is vital in any work to improve sanitation and hygiene. Here are some questions that could be asked in such an analysis.

- Is it customary for men and women to use the same latrine?
- What are men's and women's preferences for sanitation technologies and their location?
- Who will be responsible for constructing and maintaining the latrine?
- Where people need to pay to use a latrine, who controls household income?
- What personal hygiene practices are used by men and women?
- What methods are preferred by men and women for receiving hygiene education?

### Appropriate responses might include:

- identifying a sanitation technology that is appropriate for both men and women
- ensuring that latrines are located where women and men spend their time, with adequate lighting for the evening
- finding ways to involve both men and women in constructing the latrine so that they both value it



It is important that boys and men as well as girls and women receive hygiene education.

- if women are to be responsible for maintaining the latrine, ensuring that men give them the time and financial support to do so
- ensuring that women can afford to pay fees for using latrines, such as by providing loans so that they can generate their own income
- providing hygiene education in a way that is sensitive to the needs and availability of men and women. People might find it embarrassing to attend meetings or training to discuss hygiene issues if both men and women are present. Separate meetings may be needed for women and men. Men may not attend such sessions at all if they do not understand that it is important for them to practise good hygiene. Awareness-raising might be needed first, using methods that will reach men.

**Indicators** for gender-sensitive sanitation and hygiene work include:

- the attendance of men and women at meetings and training events
- the involvement of men and women in constructing and maintaining latrines
- the use of latrines by women and men
- the involvement of men and women in hygiene promotion
- the presence of men and women in a committee that controls fees collected from latrine use.

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