

## Rural Sanitation, Hygiene and Water Supply

### KEY STATISTICS

Use of sanitary latrines (% of rural population)	32
Defecating in the open (% of rural population)	9
Use of hanging latrines (% of rural population)	20
Children with diarrhoea during last two weeks (% rural)	7
Safe disposal of faeces of children (under 5) (% rural)	15
Access to safe drinking water (% of rural population)	72*

\* Source: WHO-UNICEF Joint Monitoring Programme Report on Water and Sanitation, September 2006. All other key statistics from MICS 2006.

### BACKGROUND

More than three-quarters of Bangladeshis - over 115 million people - live in rural areas. In many of these areas, running water and sanitary latrines are luxury items. Among the poorest families, almost one in three people defecates in the open. Open defecation exposes children to feces in their everyday environment. Of all the latrines in rural areas, only 32 per cent meet the international standards for a sanitary latrine in that they completely isolate excreta from the human environment through the use of a water seal U-bend or some other lid or barrier.

Without pipes and drainage, people must travel to water sources to collect their drinking and cooking water. 96 per cent of the time, it is the women and children in the family who carry the heavy pots of water back to the house. Every year, localised flooding ruins many water sources and latrines, and hampers efforts to build new ones. Severe floods and cyclones are becoming more common, wiping away entire villages along with their water and sanitation infrastructure.

Poor sanitation practices have dire health impacts. Diarrhea, typhoid and other diseases are spread by bacteria in feces. Diarrhoea and respiratory disease - the combined leading causes of childhood mortality globally and in Bangladesh - are common amongst rural children.<sup>1</sup> UNICEF efforts to improve the water, sanitation and hygiene situation of rural Bangladesh, not only contribute to millennium development goal 7 (target C) to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation; they also contribute to goal 4 to reduce child mortality by two-thirds.

### ISSUES

Over recent years, the number of people defecating in the open has decreased in rural

<sup>1</sup> Source: Bangladesh Health and Injury Survey 2004.

Bangladesh. Growing numbers of people are installing latrines and defecating in a fixed place. Unfortunately, because of the low awareness about the health and environmental benefits of sanitary latrines, many newly-installed latrines are unsanitary. Unsanitary latrines either leak raw sewage into the surrounding environment or fail to prevent flies and other vermin from accessing the pit that contains the raw waste. Hanging latrines, those constructed over ditches, ponds and rivers, are still used in many areas. Fecal matter in water sources increases the spread of disease-carrying bacteria.

When a new sanitary latrine is installed, complete with a U-bend water seal, a significant amount of water is required to flush out the latrine after use. Because water must be carried to the latrine from a water source, people often break the water seal so that flushing requires less water. Latrines with broken seals are not sanitary as insects are still able to enter the waste pit.

Open defecation remains a major issue in certain rural areas, particularly in the Chittagong Hill Tracts (CHT) and other remote areas home to many of Bangladesh's ethnic minorities. In these areas almost one third of people defecate in the open bush or fields. Among other problems, this practice means that children can be playing in contaminated areas.

While safe water sources reached 97 per cent coverage in the early 1990s, the discovery of arsenic contamination in tube wells reduced this figure to about 74 per cent. Lack of infrastructure, in terms of water points, is a big issue for rural people; and many resort to using unsafe surface water for drinking and cooking.



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Simply having the technology to wash both hands properly does not mean everyone will do it. Although 56 per cent of rural people in a 2008 survey<sup>2</sup> said that they washed their hands with soap or ash after defecation, only 17 per cent were observed to do so. Less than one per cent were seen to wash their hands before preparing food. Many rural Bangladeshi people still practice the traditional habit of eating with their right hand and cleaning themselves or a baby's bottom with their left. Therefore, many wash only their right hand before eating and wash only their left hand after defecation or cleaning a baby's bottom. This practice does not ensure proper elimination of the microorganisms that cause infectious disease.

The availability and cost of soap is another issue for rural people in a country where 83 per cent of the population lives on less than US\$2 a day. Although 10 US cents for a bar of soap is not necessarily a major expenditure, there are many conflicting living expenses. Hygiene often slips down the list. Even where soap is unavailable, cooking ash from wood-fires is a suitable alternative to soap; yet people are not motivated to use either.

Diarrhoea, resulting from poor sanitation and hygiene, causes many children to miss days from school. Some schools do not even have latrines available for students to use. Many adolescent girls miss one in four weeks of school because of a lack of facilities to deal with menstrual hygiene. Menstrual hygiene is a problem for many adolescent girls and women, who lack the privacy to properly wash and dry menstrual rags. In some rural areas, superstition and tradition means that rags are dried in the dark, away from male view. About

<sup>2</sup> *Health Impact Study Baseline Survey, Bangladesh 2008. The survey covered 1700 households in 90 upazilas (sub-districts) in 36 districts.*

two in five rural women commonly experience vaginal infections caused by damp rags.<sup>3</sup>

In many places - particularly in markets and rural bazaars - there is a lack of properly maintained public amenities.

## ACTION

UNICEF is working with the Government of Bangladesh on the largest intensive hygiene, sanitation and water quality improvement project ever attempted in a developing country. The Sanitation, Hygiene Education and Water Supply in Bangladesh (SHEWA-B) project, funded by DFID, builds on earlier UNICEF projects devoted to raising awareness about the importance of proper sanitation and to changing sanitation and hygiene behaviors.

Expanded in both scope and coverage, SHEWA-B activities target rural and urban communities in sixteen plain lands districts and the three districts of the Chittagong Hill Tracts (CHT). UNICEF-supported activities are tailored to the different groups in the CHT villages (called paras), through integrated service delivery points (para centres).

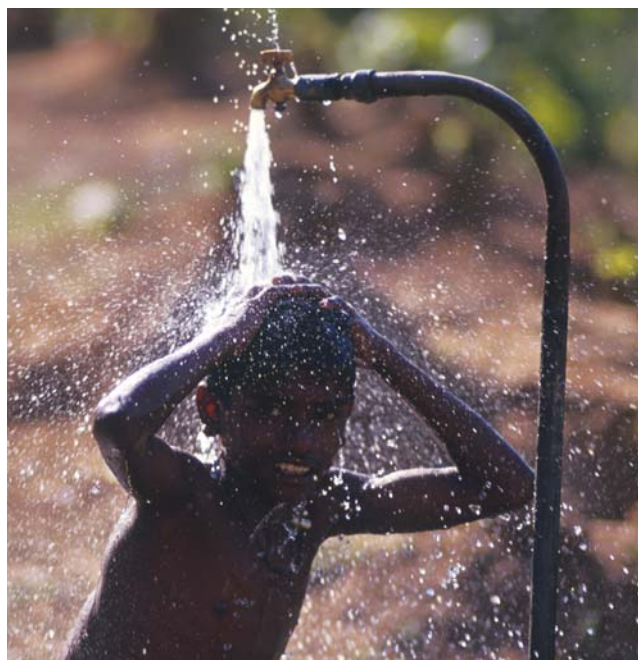
### Social mobilization

Through awareness-raising activities in both the plain lands and the CHT, UNICEF is working to create demand from local communities to improve their own hygiene behaviours, sanitation practices and water supply points. One of the key ways this is done is through the use of para workers in the CHT and community hygiene promoters (CHPs) in the plain land districts.

CHPs are generally young women trained from within the community, who educate their neighbours about the health benefits of sound hygiene practices. They facilitate discussions about sanitation and organise events to promote good hygiene within their communities. These include individual home visits, school visits, courtyard meetings, group meetings, tea stall and grocery shop sessions, video and film showings and dramas. CHPs are also often involved in teaching children and adolescents about hygiene and organizing hygiene fairs.

Courtyard or tea stall sessions can often involve hand-washing demonstrations, extolling the need to wash both hands properly with soap. CHPs also talk with both men and women about menstrual hygiene, in particular the need to dry rags in direct sunlight to avoid mildew and other infection-causing bacteria.

CHPs plan and conduct public walks around their villages, during which community members identify all the water and sanitation facilities, including the location of latrines, areas where people defecate in the open and sources of water used for drinking, cooking and



<sup>3</sup> German Red Cross Report 2002.



washing. Based on these walks, CHPs produce hygiene and sanitation maps of their villages/paras which are used in planning for infrastructural improvements. The maps are also used to monitor whether latrines are kept clean and whether people use new facilities. Other than just a handy planning and monitoring tool, the maps serve as constant reminders of the villages' sanitation situations, encouraging positive peer pressure among community members to ensure that courtyards and latrines are kept clean and open defecation ceases.

Under the banner of the International Year of Sanitation 2008, UNICEF launched a national hand washing campaign. Broadcast on television and radio across the country, a campaign jingle and several short films explain the benefits of proper hand washing. UNICEF is interacting with the government on various other public events throughout 2008 to raise the public profile of sanitation.

### **School sanitation and hygiene education**

UNICEF and its partners have a strong school focus to both promote better hygiene behaviours and increase the community's sanitation practices. Schools are assisted in installing latrines, for both boys and girls, and safe water sources. Menstrual sanitation facilities have been piloted in 24 secondary schools, and facilities are now being included in latrine plans across the country.

In primary schools, children from grades 1 to 5 have weekly lessons on safe water, sanitation and hygiene. They are also encouraged to pass on what they have learnt to other children and to their families and communities to spread the information and good practices. These lessons are taken a step further in "student brigades". Student brigades are responsible for cleaning the school surrounds and latrines, cleaning their classrooms, spreading hygiene messages among their neighbours, conducting surveys, and participating in rallies and fairs. They even visit the homes of students who have missed a few days school to see why their peers have not been attending. Student brigades also teach boys about housework, a skill they might not otherwise learn in the patriarchal society.

### **Safe water supply**

UNICEF has helped many communities improve their safe water supply, with a specific

focus on arsenic mitigation. UNICEF addressed the naturally occurring arsenic contamination of groundwater by testing more than 1 million tube wells, providing alternative safe water in 68 upazillas (under SHEWA-B) and implementing public information and awareness campaigns on arsenic mitigation. CHPs discourage people from using open ponds and other unsafe water sources in their courtyard sessions.

### **Emergency Response**

Following two sets of floods and Cyclone Sidr in 2007, UNICEF led the joint UN and NGO response in water, sanitation and hygiene (WASH) relief. These disasters contaminated thousands of tube wells, polluted surface ponds and destroyed thousands of latrines in several districts. Following the cyclone, UNICEF distributed 5 million water purification tablets, 20 tonnes of bleaching powder, 120,000 jerry cans, 250 water tanks and 50,000 bars of soap. Ten water treatment trucks traveled through affected areas to purify pond water to potable standard. UNICEF is also assisting with the rebuilding of latrines for the hardcore poor in Sidr-affected areas.

## **IMPACT**

Although access to sanitary latrines continues to be a problem, improvements have been made in terms of people's sanitation behaviours. The percentage of rural people defecating in the open has decreased from 23 per cent in 2003 to only 9 per cent in 2006. Convincing people to defecate in a fixed place is the first step in sanitation improvement. The next step is to encourage people to invest in quality latrines that completely isolate excreta from the human environment.

Under SHEWA-B, over 9,000 community hygiene promoters have been trained to draw up village sanitation maps, prepare community action plans, motivate people to install sanitary latrines and educate them in safe hygiene practices. Through these activities SHEWA-B will reach 30 million people across Bangladesh by 2011.

In the CHT, where, on average, less than a third of the population has access to safe drinking water and open defecation is four times the national figure, CHPs are beginning to work in the 2,220 para centres, each reaching between 150 and 200 people.