

Sanitation, Hygiene and Water Supply in Urban Slums

KEY STATISTICS

	slums	national
Children (under 5) with diarrhoea during last 15 days (% slum)	11	7
Use of sanitary latrines (%)	20	58
Use of hanging latrines (%)	61	15
Safe disposal of children's faeces (% under 5)	28	44

Source: MICS 2006

BACKGROUND

Bangladesh is one of the most densely populated countries in the world, with more than 1000 people per sq km. One quarter of the population lives in urban areas, where population density is 200 times greater than the national figure and population growth is twice the national average. By 2030, half the population (some 90 million people) will be living in urban areas, most of them below the poverty line.

Dhaka, the capital city of Bangladesh, is one of the fastest growing mega-cities in the world. Extreme poverty in rural areas is the main factor in driving the mass migration to urban centres. Yet, poverty is also the reality in urban areas, as a growing population places further strains on the limited infrastructure and services.

Millions of slum-dwellers in Bangladesh live stressful lives among teaming rubbish because there is no waste disposal system. Slum houses perch on the edges of fetid cesspools as there is inadequate sewer drainage and little access to sanitary latrines. Raw sewage and industrial waste continue to be discharged into rivers and ponds. These unsanitary conditions are exacerbated by seasonal floods.

Slum residents live under the constant threat of eviction because their landlords lack official ownership of their shanties. In this context, people are not motivated to spend money on sanitation infrastructure. Poor sanitation leads to an increased prevalence of diarrhoea and other parasitic diseases.

ISSUES

In slums, the lack of solid waste management is one of the biggest factors for environmental pollution and health risks. Solid waste is responsible for 49 vector borne diseases, such as dengue, in Bangladesh.

The use of hanging latrines, suspended over rivers and ponds, is three times as common in urban slums as in the country at large. This means that urban water sources are likely to be contaminated with raw sewage¹.

Hygiene awareness and knowledge of the links between poor hygiene and disease are lowest among the typically poorly-educated slum dwellers.

Poor sanitation contributes to high levels of acute respiratory infections (ARIs) and diarrhoea, which kills thousands of Bangladeshi children every year. Diarrhoea is responsible for about nine per cent of infant deaths and ten per cent of deaths of one to five-year-old children. Pneumonia is responsible for 23 per cent of infant deaths and 26 per cent of deaths among one to five-year-old children².

Diarrhoea also causes children to miss days from school, which means they must struggle to catch up. Currently, about half of all children do not complete primary school.³ In slums, four or more people often survive on one wage. If the wage earner falls ill with diarrhoea or another disease, the family has no income.

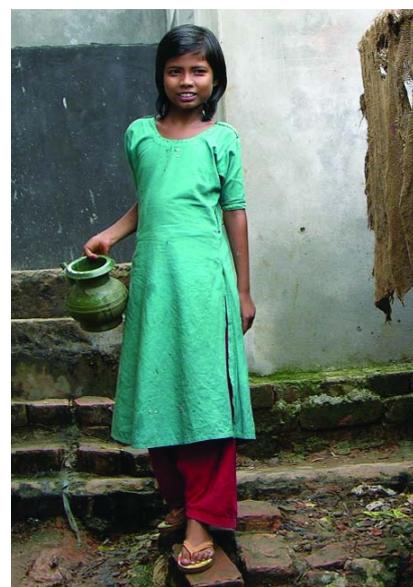
Menstrual hygiene is a problem for many adolescent girls and women, who lack the privacy to properly wash and dry menstrual rags. Using wet rags results in infection.

ACTION

In 2007, UNICEF and the Government of Bangladesh initiated the urban component of the Sanitation, Hygiene Education and Water Supply in Bangladesh project, a nationwide programme, targeting 30 million people in both rural and urban areas. SHEWA-B Urban component aims to reduce mortality, morbidity and malnutrition due to water and excreta related diseases, especially among women and children, in 31 urban municipalities. Reducing the incidence of diarrhea will also encourage school attendance and improve completion rates. The project also aims to raise standards of hygiene behavior (particularly in terms of hand washing), improve access to safe water, and reach 100 per cent sanitation in programme areas by 2010.

SHEWA-B is community-centered and demand driven, which means that considerable time was spent by local municipal committees in the preparation of data and proposal bids that were the basis of selection. This process instilled a sense of ownership in the local communities. As the project continues, eligible municipalities are fully responsible for assessing the community's needs, planning for hygiene promotion activities, and implementing infrastructural changes. Because of this participatory approach, project activities will vary between slums, according to the needs and decisions made by community members.

Various hygiene and sanitation promotion activities will be run by community hygiene promoters (CHPs) - usually young women from within the selected slum community. Each CHP will receive training and a regular stipend from UNICEF and be responsible for around 300 households. CHPs work within the community to educate their



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neighbours about the health and financial benefits of sound hygiene practices and proper sanitation facilities. They can do this through information sessions, hygiene fairs and other public events in schools, courtyards and markets. CHPs are encouraged to maintain hygiene maps and mark all the houses, water points and latrines of the local area. These maps can be used by the community to plan for sanitation improvements.

Under SHEWA-B, over 4,700 latrines will be built, including at least two public latrines facilities per municipality. Each municipality will be able to install at least two rain water harvesters, a new drainage system and a waste composting plant, according to their demand. Composting barrels (that can be shared by around 30 people) and tricycle trucks are also provided under the project. These will not only aid in waste disposal, but will also provide livelihood opportunities for slum residents. Funds are available for the construction of 720 water pipe systems to link slums to the urban network or their own safe water source.

SHEWA-B builds on UNICEF's previous project: the Environmental Sanitation, Hygiene and Water Supply in Urban Slums and Fringes Project, which ran from 1999 to 2006. This project worked to promote better hygiene and sanitation behaviors in slum communities through the establishment of adolescent groups, women's courtyard meetings, school hygiene brigades and men's advocacy groups. Adolescent groups and school brigades empowered children to monitor and report publicly on the sanitation behaviors of their peers and neighbours. For example, on seeing anyone coming out from the latrine without washing their hands, the children would blow a whistle to remind them to wash their hands. They would later speak to their families and meet with community leaders to address the problem.

The Urban Slums and Fringes project installed more than 2,333 water facilities, 537 community latrines and 2km of drainage in five major city corporations and nine smaller municipalities. SHEWA-B targets a different set of slum communities, focusing on smaller municipal towns that have previously been overlooked in large urban sanitation improvement programmes. In the Urban Slums and Fringes project, community water and sanitation facilities were implemented by the Department of Public Health Engineering (DPHE). However, based on the lessons learned from the previous project, SHEWA-B entrusts municipal government groups to plan and install their own hardware facilities according to a community action plan (CAP). The Department of Public Health Engineering

will bear the role of facilitating agency.

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 song and several programmes explain the benefits of proper hand washing. UNICEF is collaborating with the government on various other public events throughout 2008 to raise the public profile of sanitation.

IMPACT

Following the Environmental Sanitation, Hygiene and Water Supply in Urban Slums and Fringes Project, considerable behavioral improvements were recorded in project areas covering 500,000 people.



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Washing hands with soap after defecation increased from 54 per cent in 2002 to 70 per cent in 2004 in project areas. Infrastructure improvements were also significant. Sanitation coverage increased from 42 per cent to 53 per cent; and proper rubbish disposal rose from 16 per cent to 30 per cent. Composting plants reduced the amount of rubbish going into landfill by 85 per cent.⁴

Understanding what causes diarrhoea also improved. 12 per cent of those surveyed in 2002 did not know what caused diarrhoea. This figure fell below 4 per cent by the end of the project. This knowledge continues to change behavior and rates of illness, leading to fewer days of school and work missed. Aside from sound improvements in hygiene and sanitation, a strong impact from the project was the boost in self esteem for the 6,635 adolescent girls involved in the adolescent groups. The girls are more confident in speaking out about issues that concern them and more aware of their own rights than they were before.

SHEWA-B Urban aims to improve the sanitation and hygiene behaviors of 500,000 people in the thirty-one municipalities covered under the project. In making the community responsible for planning their own sanitation improvements, SHEWA-B Urban will build knowledge in the community that will help to ensure the proper maintenance and possible expansion of all new water and sanitation facilities. Public sanitation campaigns as part of the International Year of Sanitation 2008 and the significant community education component of SHEWA-B will raise awareness of the importance of safe facilities and hygiene practices. It is hoped that this will motivate demand in the wider community for sanitation infrastructure, inspiring people to use their own money to improve their water, sanitation and hygiene facilities.

¹ Source: MICS 2006

² Source: Bangladesh Health and Injury Survey 2004.

³ School Survey Report 2007 of PEPDII, March 2008. Survival rate to grade five is 51.9% in GPS, RNGPS and experimental schools.

⁴ Source: Care Bangladesh, UNICEF and Government of Bangladesh Monitoring Survey Combined Report, 2005.