

The Human Waste

A call for urgent action to combat the millions of deaths caused by poor sanitation

A report from Tearfund and WaterAid

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WaterAid is the UK's only major charity dedicated exclusively to the provision of safe domestic water, sanitation, and hygiene promotion to the world's poorest people. WaterAid works in 15 countries in Africa and Asia with a wide variety of different cultures and communities.

For more information on WaterAid's work, visit www.wateraid.org.uk or contact Sally Warren Tel: 020 7793 4508, email sallywarren@wateraid.org.uk

Charity registration number: 288701

Tearfund is one of the UK's leading relief and development agencies, working in partnership with Christian agencies and churches around the world to tackle the causes and effects of poverty. Tearfund works with partners in over 80 countries in Africa, Asia, Latin America, Central America, the UK and Ireland.

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Charity registration number: 265464

This report is part of Water Matters a campaign to ensure that everyone has access to safe water and adequate sanitation. Water Matters is urging the UK Government to lead the way at the World Summit on Sustainable Development and champion action for all people to achieve these basic needs.

For further information on the Water Matters campaign and to sign the petition online visit www.watermatters.org.uk

The Human Waste - executive summary

In the time it takes to read this report, 120 children will die from the effects of bad sanitation. Diarrhoea claims the lives of nearly 6000 children a day – that is over two million deaths a year.

These children are dying because they do not have access to adequate sanitation¹. Their deaths, from common diseases, are preventable. This human waste is a silent tragedy made worse by a scandalous lack of political will among governments to tackle the issue of poor sanitation. This failure to act means sanitation is now one of the world's most urgent health crises:

- **Four out of 10 people, 2.4 billion, are without adequate sanitation. This figure will rocket to half the world's population by 2025.**
- **In Asia half the people are without adequate sanitation².**
- **People suffering from water-borne diseases occupy half the world's hospital beds.**
- **In China, India and Indonesia twice as many people are dying from diarrhoeal diseases as from HIV/AIDS³.**

In setting Millennium Development Goals for halving poverty by 2015, world governments have ignored setting sanitation targets. And yet:

- **Major progress towards reducing world poverty will falter unless water and sanitation problems are urgently tackled.**
- **Action on sanitation will make other aid work more effective - in healthcare, education and trade productivity.**

In the developing world 80% of disease is due to poor sanitation. The answers are simple:

- **£15 can provide someone in the developing world with safe water, adequate sanitation and knowledge of good hygiene practices⁴.**
- **For £11 billion (the amount spent each year by Europeans and Americans on pet food), the number of people with no sanitation could be halved⁵.**

¹ Sanitation can be defined as access to excreta disposal facilities. In the developing world, this often means access to an 'improved' latrine. In addition adequate sanitation means a clean, private environment, as well as knowledge and understanding about the connection between hygiene and disease.

² WHO/UNICEF 2000; GWP 2000.

³ World Health Report 2001. 371,000 died from HIV/AIDS and 951,000 from diarrhoeal diseases in 2000.

⁴ WaterAid 2002.

⁵ WSSCC 2002.

- **The World Health Organisation says the lives of the 1.8 million children who currently die from water-related diseases each year could be saved by prevention or better treatment.**

The World Summit on Sustainable Development in August 2002 is the world's best chance of addressing the urgent sanitation crisis. WaterAid and Tearfund, through the Water Matters Campaign, are urging Prime Minister Tony Blair to make provision of sanitation a personal priority and to fight for immediate action when he attends the Summit in Johannesburg, South Africa.

The truth is that the diseases that swept across Britain in the 19th Century are the same diseases now killing millions of children in the developing world. Historically Britain led the world in ridding itself of water-borne disease. We must act now to help the world's poor countries do the same.

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‘Sanitation is more important than independence.’

– Mahatma Gandhi

Introduction

‘Every day there is disease in this slum. My two-year-old son died from diarrhoea. Two of my friends have also lost children to diarrhoea. We also have problems of dysentery, stomach pains and headaches. It is our children who suffer most...’

These are the words of 20-year-old Honufa, one of 2,200 people crammed into the aptly named Outfall Slum in Dhaka, Bangladesh. With thousands of flies crawling across fetid, open ditches of human excrement and rubbish only yards from her hut, Honufa adds: ‘We need a clean environment here.’

This report from WaterAid and Tearfund aims to make Honufa’s voice, and that of the 2.4 billion other people in the world without adequate sanitation, count in the run-up to the World Summit on Sustainable Development.

- **During the 10 days of the Summit when Heads of State from around the globe meet, more than 50,000 children in the developing world will, like Honufa’s son, succumb to diseases linked to poor drinking water, hygiene and inadequate sanitation.**

This follow-up to the Rio Earth Summit 10 years ago is an historic opportunity for world leaders to set priorities for tackling poverty in the years ahead. The diseases that killed Honufa’s son are preventable. This loss of life must not continue - sanitation must be an urgent priority.

Sanitation - a dirty word?

Sanitation is a dirty word in most societies. Many people, including politicians, seem to prefer other more savoury topics. Often sanitation programmes are tacked on to water projects as an afterthought. This must stop. Sanitation is now a crucial issue in its own right.

- **Poor sanitation and water supplies are the engines that drive cycles of disease, poverty and powerlessness in developing nations. Action to improve sanitation is an important step to enable the poorest people escape poverty.**
- **In places like Honufa’s slum in Dhaka, even simple hygiene education about washing hands with soap and water can lead to the reduction of diarrhoeal disease by one-third.⁶**

The crisis is made more urgent by an urban time bomb set to go off as world population growth in years to come centres on major cities in developing countries. Honufa is part of this global trend. Dhaka’s population rose from 250,000 in the early 1970s to more than 10 million today. Two million of these people now live in overcrowded, insanitary conditions in squatter settlements and the numbers are rising.

⁶WHO/UNICEF 2000.

As a senior official in Dhaka said in February 2002: 'The entire city is a cesspool, a septic tank....the urban poor have no sanitation facilities whatsoever. The situation is getting worse by the minute.'

Water Matters

The Human Waste report is part of Water Matters, a joint campaign launched by WaterAid and Tearfund. We are urging the UK Government to ensure water and sanitation are made a priority at the World Summit on Sustainable Development. Through the Water Matters petition (which can be signed online at www.watermatters.org.uk) and the wider campaign, we are seeking to highlight the:

- **Catastrophic problem of poor sanitation around the world.**
- **Appalling implications for the poorest citizens of the world.**
- **Urgent need for immediate international action.**

'Safe water supply and adequate sanitation to protect health are among the basic human rights. Ensuring their availability would contribute immeasurably to health and productivity for development.'

- Dr Gro Harlem Bruntland, Director General, WHO

Recommendations

WaterAid and Tearfund believe that global attempts to reduce poverty will fail if the issue of poor sanitation is not urgently addressed.

There will be little progress in health, education and economic productivity without improving the numbers who have access to sanitation. Investment in sanitation and hygiene programmes now will bring economic benefits that vastly outstrip the costs. Sanitation must be an immediate priority.

WaterAid and Tearfund therefore call on the UK Government to:

- **Urge all UN member governments to promote and secure an international agreement and action plan to halve the number of people without adequate sanitation by 2015.**
- **Secure adequate sanitation for all by 2025.**
- **Prioritise sanitation, water supply and water resources within UK official development aid, and urge other developed countries to do the same.**
- **Set a timetable for increasing the UK's official development aid to the agreed UN target of 0.7% of Gross National Product (GNP). In 2000, official UK development assistance amounted to just 0.32% of GNP – less than half the target level.**
- **Raise public awareness of the issue of sanitation and work to promote good hygiene practices where it is needed.**
- **Ensure all sanitation programmes adhere to the principles of community participation, use of appropriate technologies and an emphasis on human dignity.**
- **Ensure women's voices in the developing world are heard in decision-making on sanitation.**
- **Make schools in the developing world a key target for improved sanitation facilities and hygiene education.**

These targets should be made a priority at the World Summit on Sustainable Development in Johannesburg later this year.

The scale of the problem

'Improper disposal of human waste is one of the developing world's most serious health problems. The statistics are staggering: nearly two million children die each year from diarrhoea.'

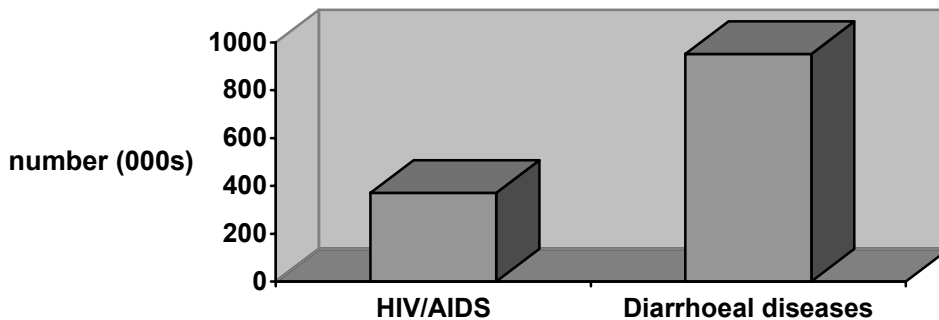
-Water Supply and Sanitation Collaborative Council

At least 2.4 billion people, 40% of the world's population, lack access to adequate sanitation.⁷ The majority of these people live in Asia where just over half the population (52%) do not have adequate sanitation. Shocking statistics like these are found throughout the developing world.⁸

By contrast in England and Wales, *all homes* now have an inside toilet. This has been the case for more than 30 years.⁹ Nearly a third of us these days have two toilets or more at home.¹⁰

In South-East Asia, including China, India and Indonesia, the number of people dying from diarrhoeal diseases is two and a half times greater than the number dying from HIV/AIDS.¹¹

Figure 1: Number of deaths by cause in South East Asia, 2000



Source: The World Health Report 2001, WHO

⁷ WHO/UNICEF/WSSCC 2000.

⁸ WHO/UNICEF/WSSCC 2000; GWP 2000.

⁹ 99% of the British population in 1971 had an inside WC. The proportion in 1961 was 93%. Source: Social Trends 30. Crown copyright 2000.

¹⁰ 99.8% of households have an inside WC. 32% of households have two or more WCs. Source: English House Conditions Survey, DETR 1996.

¹¹ The World Health Report 2001. 371,000 died from HIV/AIDS and 951,000 from diarrhoeal diseases in 2000.

Impact on health

Poor sanitation means bad health. Bacteria, viruses and parasites, which are major causes of diarrhoea and other diseases, are all linked to poor sanitation.

- **In the past 10 years diarrhoea has killed more children than all the people lost to armed conflict since World War II.¹²**
- **In 1998, 308,000 people died from war in Africa, but more than two million (six times as many) died of diarrhoeal disease.¹³**

Contaminated water, inadequate sanitation and poor hygiene cause over 80% of all disease in developing countries.¹⁴ Human waste is responsible for the transmission of schistosomiasis, cholera, typhoid and other infectious diseases that affect billions of people.

- **At any one time, 1.5 billion people suffer from parasitic worm infections stemming from human excreta and solid wastes in the environment.¹⁵**

Children in developing countries commonly carry up to 1,000 hookworms, roundworms and whipworms at a time, causing anaemia, stunted growth and other debilitating conditions.

(UNICEF 2000)

Poor sanitation and lack of water and hygiene can lead to:

- Dysentery – spread by person-to-person contact and contaminated water and food.
- Cholera - water or food contaminated by the human waste of the cholera victim.
- Typhus fever – transmitted by lice in human waste.
- Typhoid – spread by a salmonella bacillus found in human waste.
- Schistosomiasis – which currently infects 200 million people around the world.
- Trachoma – six million people have been irreversibly blinded.

One gram of faeces can contain:

- 10,000,000 viruses
- 1,000,000 bacteria
- 1,000 parasite cysts
- 100 parasite eggs

(UNICEF 2000)

¹² UNICEF 2000.

¹³ www.who.int

¹⁴ The Guardian, 9.1.2002.

¹⁵ Simpson-Hébert and Wood 1998.

Sanitation can be defined as access to excreta disposal facilities. In the developing world, this often means access to an 'improved' latrine.¹⁶

In addition, adequate sanitation is not just about the provision of a latrine, nor simply about the disposal of solid waste and excreta. People need a clean and private environment as well as knowledge and understanding about the connection between hygiene and disease.

(World Health Organisation)

Over the last 10 years, the number of people with access to sanitation has risen by 750 million. But population growth is so high in many developing countries that little impact has been made on the proportion of people still lacking adequate sanitation.

Simple steps save lives

Basic knowledge and understanding about the connection between hygiene and disease can save lives. The simple act of washing hands with soap (or ash, or earth) and water after going to the toilet is estimated to reduce diarrhoeal disease by a third.¹⁷

Oral Rehydration Therapy and other methods have already helped to reduce the number of deaths caused by diarrhoea, but it is now recognised that only its prevention, largely through improved sanitation and hygiene, will reduce the death toll any further.¹⁸

Health education efforts in poor communities around the world focus upon:

- Hand washing with soap after going to the toilet and before handling food.
- Use of clean drinking water.
- Safe practices for preparing and storing food.
- Safe disposal of human waste.

The World Health Organisation states that hygiene, sanitation and better water combined could reduce death rates from diarrhoea by as much as two thirds.¹⁹ Sanitation alone will not improve community health. Behaviour must also change. A new latrine will not significantly reduce incidences of diarrhoea if:

- Some people are not using the latrine.
- Children's waste is not disposed of safely.
- Latrines are not properly maintained or cleaned.
- Hands are not washed by all at critical times.
- Food is not thoroughly cleaned, properly stored and heated through.

¹⁶ An 'improved' latrine is one connected to the public sewer or a septic system, a pour flush latrine, a simple pit latrine or a ventilated improved pit latrine. Not improved latrines are bucket or service latrines, where excreta are removed manually, public latrines or open latrines. WSSCC 2000.

¹⁷ WHO/UNICEF 2000.

¹⁸ Cairncross 1999.

¹⁹ World Health Organisation at website www.who.int. Figure quoted is 65%.

If hands are not washed before eating, or food is prepared by someone with dirty hands, food may be contaminated with bacteria such as salmonella, Ecoli and campylobacter, which is the most common cause of food poisoning.

CASE STUDY: EDUCATION THE KEY TO HEALTH IN GAWANDA, SOUTHERN ETHIOPIA

Village members in Gawanda, particularly the women, have benefited from a sanitation programme in the village.

'It was difficult before because of the disease, especially with five children', says Brahani, a part-time teacher at the local school. 'Women were ashamed to defecate during the day, but for men it was not a problem. They could go wherever they wanted. We had to wait until it was dark, and I was afraid of being attacked by wild animals or drunkards.'

A team of community workers taught the villagers, explaining the need for sanitation and good hygiene practices. They showed how a pit latrine was built. As a result, villagers took the initiative and each house now has a pit latrine.

'Sanitation is better here than in other villages because we had education from the community workers about water-borne diseases. So our sanitation and hygiene has improved,' says Brahani.²⁰

²⁰ Tearfund case study of Kale Heywet Church Water and Sanitation Programme.

The UK connection

In the UK we take our sanitation for granted. Plentiful, clean water is readily available and sewerage systems take our waste away. Diarrhoea, respiratory infections, cholera, tuberculosis and even diseases now referred to as tropical used to regularly cause disease and death in communities across the British Isles.

More than 200 years ago an Englishman, Alexander Cumming, had the first patent on a 'modern' toilet. However, the connection between dirty water and disease was not really understood for many more years. Different toilet models were invented and improved, and at the Great Exhibition in 1851 over 827,000 people paid to use the conveniences in the Crystal Palace.

- **But in Britain in the 1830s, over 21,000 people died in the first known cholera epidemic. The poorest people were living in slum housing, in overcrowded conditions with no sanitation.**

Only in 1848 did Parliament pass the Public Health Act, which would become a model plumbing code for the world to follow. Every house had to have sanitary facilities, whether a flushing toilet, privy or ash pit. The Government also released money for sanitary research and engineering and began to build a sound sewer system.²¹

The link between cholera and contaminated water was not clearly understood until the late 1800s when Dr John Snow charted the incidence of cholera in London's Soho. He found that over 500 cases occurred within 10 days in and around Broad Street, and established that the water pump supplying the street was infected by cholera. A second Public Health Act in 1875 compelled local authorities to provide sewage disposal facilities and clean water for all.

- **In England during a series of fly ridden hot summers in the 1890s infant mortality reached epidemic figures. By 1900, however, death rates had fallen dramatically, and most towns had efficient sewer and water systems.**

However, there were still major health problems, Surprisingly, even up to World War I diarrhoeal diseases accounted for a third of infant deaths.²² Mining towns in the 1910s and 1920s were notoriously insanitary and the infant mortality rate among miners' families was as high as 12% in 1910.²³

The UK water and sewerage industry has dramatically improved. According to the Chief Inspector of Drinking Water Quality²⁴ the quality of our drinking water is at an all-time high. There are 354,066km of sewers in the country - enough to stretch to the moon and back.²⁵

In the UK we have the history and tradition of a strong, world class water and sanitation industry. We have led the world with the introduction of modern plumbing

²¹ Source: www.bbc.co.uk

²² Buchanan: 'Infant Feeding in Colliery Communities' in ed. Oddy 'Diet and Health in Modern Britain'

²³ *ibid.*

²⁴ In *Drinking Water 2000*, www.water.org.uk

²⁵ Water UK at the website www.water.org.uk

and sewerage systems. A Briton discovered the link between contaminated water and disease. Our water engineers are internationally respected.

'The UK has faced and overcome disease and death linked to poor sanitation. We are ideally placed to take a lead helping the poorest countries in the world do the same in a technologically appropriate way.'

– Joanne Green, Water Policy Officer, Tearfund

A child dies every 15 seconds from diarrhoea, caused largely by poor sanitation and water supply.

(WHO/UNICEF/WSSCC 2000)

Women and children suffer most

It is often women and children who suffer the most from poor sanitation. Malnourished children are more vulnerable to disease, and prone to diarrhoea, pneumonia, measles and malaria. These four diseases plus malnutrition account for seven out of ten childhood deaths in developing countries.²⁶

- **In Zambia, one in five children die before their fifth birthday.²⁷ In contrast in the UK fewer than 1% of children die before they reach the age of five.**

Diarrhoea is the second most serious killer of children under five worldwide (after pneumonia) but in most cases it can be prevented or treated.

- **The World Health Organisation estimates that 90% of children who currently die annually from the effects of diarrhoea could be saved through prevention or better treatment.²⁸ The death toll for diarrhoea among children far exceeds the death toll for HIV/AIDS.²⁹**

Safe disposal of children's faeces leads to a reduction of nearly 40% in childhood diarrhoea.³⁰ The following case study illustrates what life is like for children and women in a slum community in Addis Ababa, Ethiopia.

CASE STUDY: DISEASE REDUCED BY SIMPLE LATRINES IN ADDIS ABABA, ETHIOPIA

Frehiwot, aged 19, is a student. She explains what it was like in the slums before the latrines were installed by a local non governmental organisation (NGO), Prognyst. 'Before we didn't have any toilets. Those who had jobs defecated at work. I was fortunate because I could go when I was at school.'

Those who weren't so fortunate had to walk to an open field or use a very small patch of wasteland next to where the toilets now stand. The impact on the community was terrible. 'We had diseases like typhoid. Children especially had many diseases. We were angry because we had no money to build a latrine, so we complained to the Government.'

Some women had to pay to use a toilet because they were too scared to go out at night to a field. And eating was not a pleasurable experience because 'the women would be thinking, where will we be able to go to the toilet? Now we are happy because we have the latrines.'

There has been a significant reduction in disease but there is still a sewerage problem. For 12 years an open sewer has remained blocked as people have thrown out their waste. As yet, no-one has done anything about it.

(Tearfund)

²⁶ *Reducing Mortality from Major Killers of Children*, WHO at www.who.int

²⁷ *State of the World's Children 2000*, UNICEF.

²⁸ *Reducing Mortality from Major Killers of Children*, WHO at www.who.int

²⁹ www.who.int With the exception of a few countries, the vast majority of AIDS cases belong to the age group 15-49.

³⁰ Water Supply and Sanitation Collaborative Council at www.wsscc.org

Lack of toilets halt schooling

The lack of adequate sanitation facilities in schools prevents girls from attending school, particularly when they are menstruating. Of the 113 million children currently not enrolled in school world-wide, 60% are girls.³¹ Girls' attendance at school is increased through improved sanitation.

For example, in Bangladesh, a school sanitation programme has increased the enrolment of girls by 11% per year since it began in 1990.³²

'Women with even a few years of basic education have smaller, healthier families; are more likely to be able to work their way out of poverty; and are more likely to send their own children - girls and boys - to school... Each additional year of female education is thought to reduce child mortality by 5-10%.'

(DFID 2000)

'Holding on' until dark

Poor sanitation hits women hard. In many cultures, women who have no access to a latrine must wait until it is dark to go to the toilet or they have to walk long distances to find an isolated spot. This exposes them to the danger of sexual harassment, assault and animal attacks, never mind discomfort and sometimes illness. They experience a loss of dignity as well as being 'prisoners of daylight'. Children's ill health caused by poor sanitation also places an increased burden of care on the women and girls who look after them, adding to their already heavy workload.

Men have greater freedom to go to the toilet during the daylight hours in the fields and by the roadside, or in cafes and bars. Men, too, are the usual decision-makers in controlling resources for sanitation, whether at community, national or international level. Enabling women's voices to be heard in the decision-making process is not easy, but a crucial part of the solution.

- **Addressing gender issues around sanitation benefits women and girls' status and education, improves their privacy and restores their human dignity.**

The following case study, of a woman living in Periyapathu village in Tamil Nadu, Southern India, illustrates the problem:

CASE STUDY: HUMILIATION AND FEAR IN TAMIL NADU, SOUTHERN INDIA

Kasthuri is 29 years old. Last year she got her own latrine. She describes her life before. 'I used to walk more than half a kilometre to go to the toilet. I would only go when it was dark so I always needed company and would have to get up early to go before it got light.

When I had stomach disease or diarrhoea I couldn't walk all the way so I had to go near the house. It was very humiliating. My father had to cover it with mud. The area where we went to the toilet had snakes. If we saw a snake we wouldn't go to the toilet. Once a snake reared up behind me...'

(WaterAid)

³¹ DFID 2001.

³² Cairncross 1999, UNICEF 2000.

The case study below shows how the introduction of a latrine combined with hygiene education can lead to a great improvement in quality of life.

CASE STUDY: PRIVACY IS PARAMOUNT, TAMIL NADU, SOUTHERN INDIA

Mrs Peramel Pappaye is a 50-year-old grandmother. She lives in Peramangalam village in Tamil Nadu, India.

Every full moon day a meeting is held in her village where they discuss health and hygiene. Several families have built their own latrine with the help of WaterAid. Mrs Pappaye is proud of her toilet with its water reed frame:

'I am the first lady to have a toilet in the village. Privacy was the most important point. We used the busy roadside as a toilet, but it was very uncomfortable. I understood the health issues, but for me privacy is the most important point.'

(WaterAid)

Pollution

Every minute 1.1 million litres of raw sewage are dumped in to the Ganges River³³

Sewage pollution is the largest and most common type of pollution. In many developing countries, rivers are little more than open sewers. Levels of suspended solids³⁴ in Asia's rivers almost quadrupled since the late 1970's. Indicators that show levels of sewage present in Asia's rivers are 50 times higher than the WHO guidelines. In Latin America as a whole only 2% of sewage receives any treatment. Worldwide, polluted water is estimated to affect the health of about 120 million people³⁵.

The pollution of rivers and groundwater by sewage spreads disease and causes environmental degradation. The unchecked explosion of the pollution of water sources by sewage contributes to four billion cases of diarrhoea in the world each year, killing some 2.2 million children under the age of five³⁶.

³³ World Watch Vol 12 No 4 (July/August 1999).

³⁴ Small particles of solid pollutants that float on the surface of, or are suspended in, sewage or other liquids.

³⁵ GEO 2000.

³⁶ wsscc.org

The urban explosion

The problems are exacerbated by rapid urbanisation as every day 160,000 people move to cities from the country. At least 600 million urban dwellers in Africa, Asia and Latin America live in squatter settlements. The number of people living in these settlements is expanding so rapidly that governments are unable to keep up with the necessary infrastructure development³⁷.

CASE STUDY: URBAN EXPLOSION, DHAKA, BANGLADESH

Go to many cities in developing countries and you will see raw sewage being pumped into rivers while only feet away children swim and people wash. Dhaka, Bangladesh is no different.

An urban time bomb is ticking as world population growth in years to come will centre in major cities in developing countries. Dhaka's population rose from 250,000 in the early 1970s to more than 10 million today. The city's already-creaking water and sewerage systems simply cannot keep pace.

A senior official in Dhaka said in February 2002: 'The entire city is a cesspool, a septic tank...the urban poor have no sanitation facilities whatsoever. The situation is getting worse by the minute.'

Only recently has a city plan been drawn up to tackle the problem: 'We know that we need US\$500 million over the next 15 years to be able to reach 80% of the Dhaka population. This does not include the 20% of the population living in the slums. The reason it can't include them is that people need to be registered as permanent residents in order to work with them on sewerage systems and other services. The people in the slums don't have land rights and we can't invest the money in sewers based on the fact that they could be evicted at any time.'

So far there are no donors interested in funding this project.

(WaterAid)

³⁷ GEO 2000.

Sanitation – a dirty word?

Whether it's Bangladesh or Britain, privacy is a central issue to sanitation.

The fear of using public toilets is called paruresis and affects an estimated 7% of the population, or almost four million people in Britain.³⁸ Paruresis can affect people at work, in restaurants and on long journeys.

This is an extreme form of a commonly felt emotion, namely, embarrassment over the subject of going to the toilet. It may be one reason why sanitation is given a low priority. The subject remains a taboo, unappealing and therefore no official international targets for its reduction have been agreed.

Just as we in the UK feel embarrassment over the subject of sanitation so too do people in the developing world. It can be a taboo, regarded with horror or ignored. It takes time to create an environment of trust where people will speak with complete strangers about such intimate matters as going to the toilet.

- Hygiene promotion is urgently needed. Many people do not understand the link between poor hygiene and sanitation and disease. In most societies, sanitation and hygiene involve difficult issues of taboos and shyness.

³⁸ The Guardian, 28.11.01 Source: The International Paruresis Association at www.paruresis.org

Economics

Poor health resulting from inadequate sanitation has a knock-on effect on the family economy. This results in a severe drop in income and a negative effect on the whole family's nutrition.

- **A study in Karachi found that people living in areas without adequate sanitation who had no hygiene education spend six times more on medical treatments than those with sanitation facilities.³⁹**

Poor sanitation also affects the national economy: significant funds are spent on health care and medicines to combat disease, while many working days are lost to ill-health resulting from poor sanitation.

- **Waterborne diseases (the consequence of a combination of lack of clean water supply and inadequate sanitation) cost the Indian economy 73 million working days a year.⁴⁰ And a cholera outbreak in Peru in the early 1990s cost the economy US\$1 billion in lost tourism and agricultural exports in just 10 weeks.⁴¹**

The following case study shows the benefits of improved sanitation and hygiene promotion at the family and community level:

CASE STUDY: DAILY WEALTH INCREASES IN TIRUCHIRAPALLI, INDIA

In Tiruchirapalli, Tamil Nadu, India a slum sanitation project led to 100% safe disposal of human waste and to handwashing practices increasing from 4% to 94%. This resulted in families saving over a quarter of their income which was formerly spent on medicines. The percentage of household income spent on treating diseases fell from 36% to 4%.

(WaterAid)

³⁹ UNICEF 2000.

⁴⁰ IRC 1994.

⁴¹ UNICEF 2000.

What can be achieved?

WaterAid and Tearfund are calling for 'sanitation for all' by 2025. But at present rates of population growth and sanitation provision it will take another 100 years to achieve this goal⁴².

The Millenium Development Goals which aim to halve poverty by 2015 will not be realised unless sanitation is given greater resources and political commitment.

An additional four billion people will need to gain access to sanitation in the next 24 years, in order to meet the proposed target of universal coverage.⁴³ The Water Supply and Sanitation Collaborative Council has described this situation as 'a shameful scandal'.⁴⁴

The typical annual contribution from major funders to water supply, sanitation, irrigation and water resources is £5.7 billion.⁴⁵ Irrigation accounts for a sizeable proportion of this, as irrigated farming takes up 70% of annual water consumption worldwide.⁴⁶ This leaves less in the purse for much needed sanitation projects.

- **The Department for International Development (DFID) spent £82 million on water and sanitation projects in 1999-2000.⁴⁷ This is just 3% of total UK official overseas aid.⁴⁸**

Vision 21, a report from the Water Supply and Sanitation Collaborative Council, looking at the future financing of sanitation, comments that '*aid finance will continue to be important, as it is generally allocated to basic services for people who are currently unserved.*'⁴⁹ However, *Vision 21* points out that the governments of developing countries are, and will continue to be, the main source of funds for sanitation and water. They could generate money for basic, community-managed sanitation services by:

- **Improving the efficiency of existing water and sanitation schemes.**
- **Recovering some of the costs of the higher level water and sanitation services they provide in urban centres.**

Water has always taken a central role in people's cultures and priorities, so people have demanded water as their first priority, rather than sanitation or hygiene promotion. However, investments in water quality and quantity can reduce deaths caused by diarrhoea by 17%, whereas sanitation can reduce them by 36% and hygiene by 33%.⁵⁰ Integrating water, sanitation and hygiene promotion projects is essential. Water Matters is calling for water and sanitation to be prioritised now.

⁴² WHO/UNICEF/WSSCC 2000.

⁴³ WHO/UNICEF/WSSCC 2000.

⁴⁴ Sir Richard Jolly, WSSCC Chairperson, at the 4th Global Forum of the WSSCC in Manila, November 1997.

⁴⁵ Typical annual financial contribution in the past four years. DFID March 2001. Major funders are OECD, World Bank, UNICEF, UNDP, EU and Regional Development Banks.

⁴⁶ *The Water Crisis A matter of life and death. Understanding Global Issues*, Buxton Press, ed. Richard Buckley

⁴⁷ DFID 2001.

⁴⁸ Total aid £2.94 billion. DFID, April 2001.

⁴⁹ *Vision 21*, WSSCC.

⁵⁰ Water Supply and Sanitation Collaborative Council at www.wsscc.org

Water sector agencies are typically led by highly qualified water engineers, either untrained or uninterested in sanitation and hygiene issues. The medical profession has also played its part in perpetrating the neglect of hygiene promotion. It concentrates most often on cure rather than prevention, neglecting the critical importance of hygiene and sanitation. ⁵¹

⁵¹ WSSCC.

What are the costs?

The basic cost of a latrine can be strikingly low. For example, in India, a basic latrine with a small concrete slab and a surrounding structure built from local materials costs from £3-4 if the ground conditions are favourable and £10-15 if conditions are wet and the pit needs to be lined. A latrine with an improved slab and a stone lining costs around £15, while a twin pit latrine, with a concrete slab, and a brick or ferrocement structure costs £35-40.⁵²

The Global Water Partnership estimates that an additional £11 billion per year needs to be spent worldwide in order to reach the proposed target of halving the number of those without access to adequate sanitation by the year 2015.⁵³

Although this figure is high, the costs of not investing in sanitation are much higher, when medical treatment and lost days at school and work are taken into account, not to mention the loss of life from diarrhoeal and other diseases.⁵⁴

The cost of sanitation

£11 billion is needed each year to halve the number of people with no sanitation and yet....

- £7 billion is spent each year in Europe on ice cream
- £11 billion is spent each year in Europe and the US on pet food.⁵⁵

It has conclusively been shown that investing in health in developing countries saves lives and produces clear and measurable financial returns.⁵⁶

There is increasing recognition of the links between poverty and poor sanitation. The international development targets on achieving universal primary education, reducing mortality rates for infants and children and reducing maternal mortality are unlikely to be met if the global sanitation problem is not addressed.

The vicious circle needs to be broken. On one hand, the sustainability of basic services depends on the eradication of poverty and the building of growing economies, while on the other hand the provision of basic services is a requirement of poverty eradication.

On a personal scale, improved hygiene behaviour and sanitation services lead to better health. This in turn enables the poor to work more and to earn more to support their families. On the macro scale, improved water supply and sanitation infrastructure and services attract industries and investments into a community.⁵⁷

⁵² WaterAid.

⁵³ GWP 2000.

⁵⁴ UNICEF 2000.

⁵⁵ WSSCC 2002 in *Vision 21*.

⁵⁶ *Scaling Up the Response to Infectious Diseases: A Way out of Poverty*. Report from WHO, UNICEF, UNAIDS, the World Bank, UNESCO and UNFPA. February 2002.

⁵⁷ *Vision 21*, WSSCC.

Conclusions

WaterAid and Tearfund are calling for the UK government to take a lead in tackling the silent emergency of sanitation. Central to this we hope will be the urging of other governments attending the World Summit on Sustainable Development to:

- **Promote and secure an international agreement and action plan to halve the number of people without adequate sanitation by 2015.**

These targets will only be met if increased resources are allocated to sanitation. One source of funding is official development assistance. The UK Government should therefore set a timetable which maps out their moves towards allocating 0.7% of GNP to overseas aid and encourage other donor countries to do the same. Within this increase the UK Government should prioritise spending on the water and sanitation sector and encourage OECD⁵⁸ countries to follow suit.⁵⁹

The UK Government should also prioritise sanitation as a key development issue, particularly in the fight against poverty, and champion it in policy debate.⁶⁰

We hope that promoting sanitation will become a personal priority for the Prime Minister at the World Summit on Sustainable Development. The Water Matters campaign is urging Tony Blair to lead the way by insisting that sanitation be part of the discussions on poverty reduction, and ensure that sanitation is not omitted from discussions on water supply.

⁵⁸ OECD – Organisation for Economic Co-operation and Development

⁵⁹ The call for greater investment in the sector is also made by the Water and Sanitation Program South Asia and the WSSCC, among others.

⁶⁰ Supported by WSP South Asia and WSSCC.

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WaterAid and Tearfund are grateful for the co-operation and expertise of the Water Supply and Sanitation Collaborative Council (WSSCC). We have drawn inspiration from their Water, Sanitation and Hygiene for All (WASH) campaign in the formulation of our messages.

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