



# Sanitation – Weapon Against Death and Disease

*Whether it is called a toilet, latrine, porcelain throne, john, water closet or the loo, speaking of sanitation tends to make people uncomfortable. Yet, the humble toilet is one of the most important defences against disease and death.*



Courtesy of CSIR

*Alternative sanitation, such as urine diversion toilets, are gaining ground in South Africa.*

**W**hy is sanitation important? Sanitation, defined as any system that safely manages human excreta, has a major impact on the health and dignity of people. Around the world, an estimated 2,6 billion (mostly poor) people, including 980 million children, lack access to proper sanitation facilities. This means they are forced to defecate in bags, buckets, fields, or roadside ditches, causing serious health risks to them and others.

Poor sanitation promotes the spread of health problems – including chronic diarrhoea, intestinal worms, bilharzia, hepatitis, and scabies. In fact, diarrhoea remains the number one killer of young children around the world. It is estimated that improved sanitation facilities could reduce diarrhoea-related morbidity in young children by more than a third. If hygiene promotion is added, such as proper hand washing, it could be reduced by two thirds.

Bad sanitation facilities pollute the environment and threaten drinking water facilities. It also threatens social and economic development as people have to stay home from school and work because of illness.

So important are toilets considered to our health that the *British Medical Journal*, following a global survey, has hailed sanitation as the greatest medical advance of the last 150 years.

Today, there is an international movement to address the lack of sanitation. This movement is largely spurred on by the United Nations General Assembly who in adopting the *Millennium Development Goals* in 2000 agreed to halve the global backlog in sanitation and water by 2015.

## USEFUL WEBSITES

- [www.dwaf.gov.za](http://www.dwaf.gov.za)
- [http://en.wikipedia.org/wiki/Flush\\_toilet](http://en.wikipedia.org/wiki/Flush_toilet)
- <http://en.wikipedia.org/wiki/Sanitation>
- <http://home.howstuffworks.com/toilet.htm>
- [www.mieliestronk.com/troon.html](http://www.mieliestronk.com/troon.html)
- [www.victoriancrapper.com](http://www.victoriancrapper.com)
- [www.who.int/water\\_sanitation\\_health/publications/factsfigures04/en/](http://www.who.int/water_sanitation_health/publications/factsfigures04/en/)
- [www.worldtoilet.org](http://www.worldtoilet.org)

## SANITATION IN SOUTH AFRICA

South Africa supports these goals, and the government has taken up the challenge to wipe out the water and sanitation backlog in this country. It has set itself even more stringent targets, aiming to ensure that all buckets in formal settlements are eradicated by December 2007, all clinics have safe and adequate water and sanitation by December 2007, and that all households have access to basic sanitation by 2010.

The latter will be no mean feat as an estimated 15 million people still don't have access to acceptable toilet infrastructure in South Africa. The country is making steady progress, however. Last year, an additional 250 000 households received access to basic sanitation.

Improved sanitation does not necessarily have to mean a flush toilet. Full water-borne sanitation is extremely expensive to implement as well as operate and maintain. These systems also use a lot of water. There are

### FLUSH TOILETS IN HISTORY

- **26<sup>th</sup> century BC:** Flush toilets were first used in the Indus Valley Civilisation, in India. The ancient cities of Harappa and Mohenjo-daro had a flush toilet in almost every house, attached to a sophisticated sewerage system.
- **15<sup>th</sup> century BC:** Flush toilets were found in the remains of the Minoan city of Akrotiri.
- **1596:** Sir John Harrington is said to have invented 'the Ajax', a flush toilet, for Elizabeth I of England.
- **1738:** A valve-type flush toilet is invented by JF Brondel.
- **1775:** Alexander Cummings invents the S-trap, still used today. It uses standing water to seal the outlet of the bowl, preventing the escape of foul air from the sewer.
- **1824:** The first public toilet appears in Paris, France.
- **1859:** Queen Victoria's toilet is decorated with gold.

many alternative forms of sanitation which are gaining popularity around the world, for example, urine diversion (UD) systems.

In UD systems, waste is deposited in a chamber and dry material (usually sand or ash) is added after each use to deodorise decomposing faeces while controlling moisture and facilitating biological breakdown (composting). Urine is diverted through a

specially adapted pedestal. In South Africa, most of the urine is led to a soakaway pit, but it can be tapped and used as a fertilizer in home gardens.

Other sanitation options include ventilated improved pits (VIPs – the most popular basic sanitation applied in South Africa), pour-flush toilets, aquaprivies, conservancy tanks, septic tanks or shallow sewers.



**DID YOU KNOW?**

**World Toilet Day is celebrated on 19 November**

*Far left: An aqua privy is another form of sanitation.*

*Left: The government hopes to eradicate the backlog of those people who still have to use bucket toilets by the end of this year.*

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