

At the End of the Pipe?

Sanitation practices today contribute to the exhaustion of:

- **Water resources**
Sewerage and sewage treatment methods use large amounts of water in the transportation and treatment of human excreta. Water is required to ensure good hygiene, but not necessarily good sanitation. Alternative practices that do not demand large volumes of water are therefore very valuable for water stressed regions and regions with vulnerable water resources.
- **Nutrient resources**
Current sanitation practices lead to the loss and destruction of nutrients that are necessary for food production, in particular phosphorus. Alternative sanitation practices provide opportunities to “close the loop” returning nutrients back into the soil.
- **Energy resources**
Conventional sanitation practices involve high levels of energy consumption in wastewater transportation and treatment. Alternative sanitation practices do not rely on high-energy consumption for the treatment of human excreta.

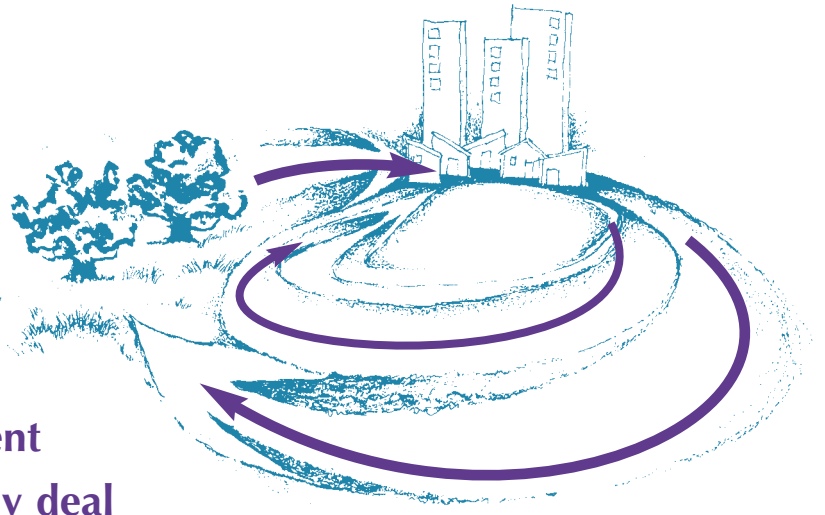
Most sanitation practices threaten:

- **Public health and the environment**
Two-fifths of the world’s population (2.4 billion people) still don’t have access to improved sanitation. The direct discharge of sewage into water bodies and the discharge of poorly treated effluent from wastewater treatment plants mean that potentially lethal chemicals, hormones and traces of medicines are released into surface waters. In addition, leaking sewers and latrines cause widespread ground water pollution.

***“We cannot solve our problems with the same thinking we used when we created them”,
based on Albert Einstein***

At the End of the Pipe is organised by **WASTE** in collaboration with **NCDO**, **Habitat Platform**, **Netherlands Water Partnership (NWP)** and **Partners for Water**, and is liased with the programme "Learning for Sustainable Development 2004-2007" of the Dutch Government.

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The question is whether current sanitation practices adequately deal with the problem of handling human excreta. Are the dominant *end-of-the-pipeline* or *down the pit* sanitation options still the best and only options available to us?

A sustainable sanitation approach will benefit from the following recommendations:

- Give equal importance to waste and excreta management as water supply and treatment. Decisionmakers need to demonstrate leadership in this discussion.
- Allow for resource recovery from human waste through the development of appropriate national and international sanitation regulations and guidelines. (See also the announced publication of the WHO Guidelines on Safe Use of Human Excreta and Grey Water.)
- Farmers are potential 'consumers' and the agricultural sector provides a 'market' for nutrient rich products recovered from human excreta.
- Avoid waste mixing and sewage generation as far as possible. Strive to use the shortest material cycles based on an understanding of water, nutrient and pathogen cycles.
- Demonstrate new approaches and technologies now. Valuable time will be wasted if we wait until the private sector is forced to deal with the mounting problems resulting from traditional sanitation practices. We can anticipate these problems and highlight economic opportunities of alternative sanitation options.
- Demonstrate the relationship between sanitation and the challenge of food security through awareness raising with key stakeholders.
- Recognise and promote new viable sanitation options and anchor these within institutions and institutional memory. The implementation of these options should not depend on the participation of specific individuals and should move beyond the limits of individual organisations and their responsibilities.

These visions have been expressed during expert meetings held in the Netherlands (2005) with invitees from India, the Philippines, China, South Africa, Kenya, Germany, Sweden and the Netherlands in which the need for a shift in the sanitation paradigm to meet the ambitious targets presented by the Millennium Development Goals (MDGs) was discussed. Proceedings of these meetings can be found on www.waste.nl or requested from office@waste.nl

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