



Safe sanitation: a challenge we can meet together

Policy paper on sustainable sanitation



*German NGO Forum on
Environment and Development*

**German NGO Forum on Environment and Development
- Working Group on Water -
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SUMMARY

German non-governmental organisations have joined forces within the framework of the national Forum for Environment and Development to promote better conditions for a sustainable environmental policy in Germany itself as well as in its international Development Cooperation activities. This policy paper is an extension to the "Policy Paper on Fresh Water" (Positionspapier zum Internationalen Jahr des Süßwassers) of March 2003. In the context of the "International Year of Sanitation" (2008), declared by the United Nations, it calls for an increased contribution from Germany in this area.

The Working Group on Water within the Forum for Environment and Development calls upon the German government to start taking concrete steps towards reaching the Millennium Development Goals (MDGs) for Water and Sanitation. The further distribution of sustainable sanitation systems must be effectively supported. A motto for the urgently needed Action Plan could be:

100,000 MODEL TOILETS

In particular, we call for:

- **A German Action Programme of "100,000 Effective and Sustainable Toilets as Role Models":**

This would mean, the installation of 10,000 effective and sustainable sanitation facilities (connected to at least 10 toilets in each case) for schools or comparable institutions, which would be used as models and be financially supported. These sanitation systems

should not only contribute to human dignity and hygienic conditions but also show that additional economic value and potential is created, for example, in the production of renewable energy (biogas), fertilizer and irrigation water.

Preferential support should be given to circular sewage management systems, which separate sewerage outflow, as well as **self-sufficient water systems**, which produce no effluent.

1,000 of these initiatives should be implemented in strategic worthwhile sites in Germany and Europe and 9,000 worldwide with the poorest of the poor.

- **A national and international research, development and education campaign towards ecological sanitation and circular sanitation systems in the areas of research, training and small trade:**

Civil society partnership projects (e.g. through school and twin-town partnerships) on the theme "Basic Sustainable Sanitation" should be supported.

Within Germany, research and training in the field of new sanitation systems should be extended and a pioneering role in the development of innovative systems should be further promoted.

- **The promotion of legal regulation and authorisation of circular sanitation systems**, for the treatment and use of urine and faeces as organic manure or compost and treated wastewater in agriculture:

Political support for the authorisation of new sanitation systems in Germany and the EU as a role model for the world is needed. A lack of awareness among regulatory and enforcement authorities and a lack of legislation on the use of treated urine, faeces as organic manure or compost and purified wastewater are barriers. The WHO guidelines of 2006¹ provide a solid framework.

BACKGROUND

Basic Sanitation Provision is a Millennium Development Goal (MDG) of the United Nations

At the Johannesburg World Summit in 2002, more than 100 Heads of States committed themselves to halving the proportion of people without sustainable access to safe drinking water by 2015, within the framework of the Millennium Development Goals target: "Ensuring Environmental Sustainability". (MDG 7, TARGET 10). It was also part of this ambitious target to halve the number of people without access to basic sanitation (see text box). Millions of tons of human sewage flow untreated into the environment worldwide each year. One of the aims of the MDGs, once implemented, is to prevent the deaths of 5,000 people per day from drinking contaminated water, often polluted by faeces.

Given the negative trends in achieving the target in the area of Sanitation, the United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) (created in 2004) called for an "**International Year of Sanitation**", within the framework of the "Hashimoto Action Plan"². In 2006, the UN General Assembly unanimously agreed upon the year 2008.



What does basic sanitation mean?

According to the United Nations' definition, this can be a simple pit latrine without orderly disposal or recycling of urine and faeces.

To avoid an adverse impact on human health and environment, the term should, in our opinion, be extended:

Safe and Sustainable Sanitation consisting of a hygienic toilet (flush toilet or modern dry toilet) and the orderly handling of the resulting excrement, without burdening the environment.

(http://www.who.int/water_sanitation_health/mdg1/en/)

¹ WHO: Guidelines for the safe use of wastewater, excreta and grey water" http://www.who.int/water_sanitation_health/wastewater/gsuww/en/

² http://www.unsgab.org/docs/HAP_en.pdf (Named after the late UNSGAB chairman and former Japanese Prime Minister)

The Joint Monitoring Programme of WHO/UNICEF³ and the UNDP Human Development Report⁴ show that the current results are far from sufficient to achieve the targets for Sanitation. The number of people without access to a toilet steadily grows, or rather; sewage increases in proportion to the world's population growth. Given that there are 2.6 billion people worldwide without basic sanitation, **more than 100,000 toilets would have to be built daily**. Because of costs and limited water resources, the goal of implementing flush toilets, sewage canal networks and sewage treatment plants globally is not attainable. Another problem is that in rural areas, the usual drop pits or latrines result in disastrous hygienic conditions and groundwater pollution. Instead, intelligent, innovative sanitation solutions are called for to save on costs, water and energy, for example, dry systems with separate treatment for urine and faeces. There are already researched and proven projects and

Germany is at this time a leader in the area of innovative approaches to sanitation.

Water, a basic human right - inseparable from the human right to basic sanitation

The basic human right for water encompasses the basic human right for basic sanitation. The national governments of rich countries must increase their financial, technical and social support for countries with a poor access to safe sanitation, and focus more on targets.

Worldwide 2.6 billion people live without access to basic sanitation - that is over 40% of the world's population or 2 out of every 5 people. Water-borne diseases (such as infection from enteric bacteria, viruses or freshwater parasites) from polluted water and sewage cause 50% of all illnesses in developing countries. In India alone, 700 million people, out of necessity, daily defecate outdoors. Lack of privacy is in itself humanly degrading. The problem is especially concerning for girls

³ http://www.wssinfo.org/pdf/JMP_08.pdf

⁴ <http://esa.un.org/iys/progress.shtml>



and women. It has been shown that, for example, if a school lacks basic sanitation, the girls regularly skip school during menstruation, with serious consequences for their educational and vocational opportunities.

Research shows that basic sanitation of the population is a precondition for economic growth. The Organisation for Economic Co-operation and Development has calculated that in Armenia, for example, a fourfold return can be attributed to every euro invested in water and sanitation facilities for the community.⁵

Status Quo and the legal situation in the EU and Germany

Europe and the European Union

In Europe, according to the **United Nations Economic Commission** for Europe, 120 million people lack access to clean drinking water and adequate sanitation.⁶ Annually, more than 30 million cases of water-borne illnesses could have been avoided through better water and

wastewater management in this region, as the WHO press release 03.2005⁷ claims.

In rural areas of Central and Eastern Europe alone, at least 20 million EU citizens live under unhygienic conditions and without basic sanitation. Since the majority of investments go to networked services, rural community-based decentralized services remain excluded from vital support (55th WHO conference 2005).⁸

The European Urban Wastewater Directive 91/271/EEC, 1991 confirmed that decentralised treatment plants or other alternative solutions to centralised systems can be applied, if the installation of a centralised sewage treatment plant

⁵ http://www.oecd.org/document/31/0,3343,en_2649_34343_40267295_1_1_1_1,00.html

⁶ <http://www.unece.org/press/pr2002/02env01e.htm>

⁷ http://www.euro.who.int/watsan/issues/20030903_1

⁸ <http://www.euro.who.int/document/rc55/einfdoc01.pdf>



would lead to disproportionate costs and be of no benefit to the environment.

The European Directive 91/271/EEC favours the recycling of treated sewage and sludge when possible and appropriate. The treatment and recycling of separated waste matter, such as urine or faeces, is not regulated, however.

The Federal Republic of Germany

In Germany, 99% of the population are connected to the public drinking-water supply network and 96% to the public sewage system. However, Germany needs to make adaptations in the design of wastewater treatment. Following the nationwide decline in water consumption, which is caused partly regionally by a significant decline in population, it is common that lower rates of flow in sewage canals can occur, causing an increase in repair and maintenance costs. In the medium-term the solution lies in the intelligent adaptation of existing systems, including options like the dismantling of the centralised infrastructure and the decoupling of whole urban districts. This process would result in increased opportunities for decentralised, reuse oriented sanitation systems, supported by a corresponding rainwater management system. New and decentralised solutions must of course satisfy advanced clean-water requirements and be subject to appropriate regulation and monitoring.

In Germany, decentralised and innovative Sanitation concepts often cannot be implemented, because the mandatory connection to the centralised sewage treatment systems inhibits the utilisation of the nutrient value of locally recycled water. In the federal state of Brandenburg alone, the sewage system for 400,000 residents is in need of renovation. Despite mandatory variant comparisons, decentralised sustainable solutions are not considered equivalent, even if they are less costly and have ecological advantages.

Since Germany and Europe are considered role models, we should be open to environmentally sustainable technologies in the sewage sector, not only in research but also in implementation. Sewage can no longer be considered as waste, but as a nutrient resource and must therefore be effectively processed.

Water and Nutrient Recycling as a Goal for a New Sanitation Concept

Although many people worldwide feel a flush toilet to be the epitome of progress, the water flush system and centralised sewage treatment plants cannot be implemented globally. This system is in many localities too complex from financial and technical points of view. Furthermore, it contributes to water shortages and water pollution. Even if a sewage connection may exist, this would not necessarily mean that the sewage is treated at all.

The advantages of decentralised systems, specifically with regard to the recycling of nutrients from sewage as fertilizer, are obvious: beyond saving much water, water-saving or dry toilets enable nutrients from urine and faeces to be reused in agriculture. This reduces the water-pollution of rivers. The water remains available for use in an ecological system and does not become a burdening factor in the rivers and seas. This will also help support the conservation of the local climate.

Recycling of human urine, faeces and grey water will increasingly contribute to the production of food and renewable raw materials as the world's population is growing. It is foreseeable that the phosphorus resources needed for the production of artificial fertilisers will only last a few generations. Phosphate in urine is an important renewable resource that must not be wasted.

Therefore, we should focus on effective and sustainable sanitation facilities,

Bellagio Principles for Sustainable Sanitation

(by the Water Supply and Sanitation Collaborative Council and Sandec)

(1) Human dignity, quality of life and environmental security at household level should be at the centre of any sanitation approach.

(2) In line with good governance principles, decision making should involve participation of all stakeholders, especially the consumers and providers of services.

(3) Waste should be considered a resource, and its management should be holistic and form part of integrated water resources, nutrient flow and waste management processes.

(4) The domain in which environmental sanitation problems are resolved should be kept to the minimum practicable size (household, neighborhood, community, town, district, catchments, city).

as defined in the Bellagio Principles⁹ for Sustainable Sanitation (see textbox) and the WHO guidelines (for the safe recycling of human urine and faeces, and grey water), which could be implemented in every country.

The undersigned organisations and initiatives call on the Federal Republic of Germany and the administrations of the federal states to intensify their efforts and ensure that the basic sustainable sanitation targets of the "Millennium Development Goals" (MDGs) will be achieved. If we are serious about accomplishing these targets by 2015, every day about 500,000 people must be supplied with a sanitation system that protects people and environment! Although this is a big challenge, we can achieve it if all stakeholders work together and use the best expertise available to implement sustainable and local solutions.

LINKS:

- Forum Environment and Development/ Forum Umwelt und Entwicklung: www.forumue.de
- www.ecosanres.org
- gtz ecosan: www.gtz.de/ecosan
- Global Water Partnership, GWP: www.gwpforum.org
- SuSanA: www.sustainable-sanitation-alliance.org
- Women in Europe for a Common Future, WECF: www.wecf.eu
- International Year of Sanitation IYS2008; <http://esa.un.org/iys/> www.unsgab.org/iys2008/
- Internationales Jahr der sanitären Grundversorgung: www.dgvn.de/sanitaerjahr2008.html
- www.sanitation-is-dignity.org

⁹ http://www.eawag.ch/organisation/abteilungen/sandec/publikationen/publications_sesp/downloads_sesp/Report_WS_Bellagio.pdf

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