

Quarterly newsletter on ecological and sustainable sanitation worldwide
A service by the GIZ program "Sustainable sanitation - ecosan" (on behalf of BMZ)

Issue no. 39
March 2011

Dear Readers,



The provision of sustainable sanitation for the urban poor poses a huge challenge. We are pleased to present to you in our 39th newsletter some technological and design innovations for urban sanitation that are being developed and tested around the world, for example in India, Kenya, China and South Africa. "Water for cities" is also the focus of this year's World Water Day on 22 March 2011.

In case you are wondering about our name change from GTZ to GIZ, here is the explanation: On 1 January this year, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH was established which brings together under one roof the long-standing expertise of the Deutscher Entwicklungsdienst (DED) gGmbH (German Development Service), the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (German technical cooperation) and Inwent – Capacity Building International, Germany.

If you see this newsletter in a text-only format, please adjust your e-mail program to display e-mails in HTML-format. This newsletter is sent to 3,967 subscribers for the English version and 294 subscribers for the [French version](#).

We hope you enjoy reading the newsletter as much as we did preparing it.

Best wishes from Germany,

Rahul Ingle (ecosan@giz.de)
(Program officer "Sustainable sanitation - ecosan")

Contents

- [Successful trial of unisex waterless urinals – Mar. 2011](#)
- [Peepoople cracks the million euro jackpot – Feb. 2011](#)
- [EAWAG conducts volume reduction experiments on urine – Feb. 2011](#)
- [Workshop: Fighting cholera through groundwater protection – Feb. 2011](#)
- [Sustainable sanitation course in Lima \(fourth module\) – Jan. 2011](#)
- [Nutrient platform launched in Delft – Jan. 2011](#)
- [Mobile ecosan units introduced in Tamil Nadu – Jan. 2011](#)
- [Promising developments since private dry toilets were legalised – Jan. 2011](#)
- [ECODOMEO dry toilets: a twist on urine separation – Jan. 2011](#)
- [Update: Our online photo database on flickr is steadily increasing in size and popularity – Jan. 2011](#)
- [New start-up and training program for graduates and young professionals– Jan 2011](#)
- [x-runner - A start-up in sustainable urban sanitation – Jan. 2011](#)
- [Sustainable sanitation in cities: a framework for action](#)
- [First SuSanA Case Study in German released: Experiences from 23 years of composting toilets in Allermöhe, Hamburg, Germany](#)
- [Technology review of constructed wetlands](#)
-

Breaking News

[The next SuSanA meeting will be in Kigali, Rwanda in July 2011](#) just prior to AfricaSan 3 and is co-hosted by UNICEF Rwanda.

Links

The "[Dutch WASH Alliance](#)" will execute a [five-year program](#) focusing on water, sanitation and hygiene (WASH) spanning 11 countries in Africa and Asia.

Sustainable sanitation is one of the main focal points of [WASH Peri-urbano](#), a group working in Latin America (in Spanish).

[A Russian version](#) of Wolfgang Berger's book on compost toilets is now available for order.

Article in IWA magazine Water21 about wastewater reuse: "[Making clear the reuse risk: approaching wastewater irrigation worldwide](#)".

We highly recommend that you let [Sanitation Updates](#) inform you: this is a blog and e-mail news service on sanitation run by IRC and USAID since several years.

In an effort to use human urine as fertiliser more effectively, [India's first urine bank](#) has been initiated in Musiri in India (we previously reported on a urine bank in Nepal in our [newsletter 37](#)).

Interested in ecosan projects in Kenya? Use the e-mail subscription for the [Ecosan Kenya Blog](#) run by GIZ which describes for example schools with UDDTs.

Exchange of information about the building of [Ecological Dry Toilets in Ecuador](#) by Chris Canaday (in Spanish and recent entries are in

RWTH Aachen University publishes a series of country specific case studies on sewage disposal (in German)

- [Low-cost sustainable sanitation solutions for the Philippines](#)
- [A rock and a hard place: peak phosphorus and the threat to our food security](#)
- [UNEP year book of 2011 emphasises phosphorus recovery and recycling](#)
- [EcoSan Club journal Sustainable Sanitation Practice issue 6 – Toilets](#)
- [PhD dissertation by Jennifer McConville: Unpacking sanitation planning](#)
- [PhD dissertation by Franziska Meinziger: A comparative assessment using material and energy flow analysis](#)
- [WEDC celebrates 40th anniversary with release of 2300 conference papers](#)
- [Menstrual hygiene management: policy briefs on menstrual cups published in Kenya](#)

News

Kenya, Norway

Successful trial of unisex waterless urinals – Mar. 2011



The unisex urinal, designed by the Norwegian NGO Sustainable Sanitation Design ([Susan Design](#)) for the usage in urban slums, was tested in the Nairobi slums of Mukuru kwa Njenga. One of the main intentions of the testing phase was to gain user feedback from women and their families which will guide SuSan Design in the process of final modifications to the unisex urinal. It can then be mass produced as part of a scalable value chain for urban sanitation. The collection of urine will serve the community when it is sold to local farmers as a safe fertiliser. The primary users

(women) were highly satisfied with the product.

- [Photos of unisex urinal trial in Nairobi](#)
- [Unisex urinal usability testing report](#)

top

Kenya, Netherlands, Sweden

Peepoople cracks the million euro jackpot – Feb. 2011

The self-sanitising biodegradable Peepoo toilet invented in Sweden will help to secure safe sanitation for the urban poor in Kenya. The Dutch Postcode Lottery announced their decision to donate 1.6 million Euros to the Dutch public health organisation [Simavi](#). Now Simavi will support Peepoople's first launch project in Kibera, Nairobi, one of Africa's largest slums. Thereby, the funding for the Peepoo market introduction in Kibera is secured until 2013. The pilot shall demonstrate that the Peepoo solution works in an urban slum. It will also test and evaluate alternative business models and demonstrate the solution's potential to improve the health, environment and living conditions for poor people.

- [What is a peepoo toilet? \(PDF: 1.3 MB\)](#)
- [Peepoople launch project in Kibera](#)
- [Photos from an earlier trial in Bangladesh](#)
- [Article in Appropriate Technology in 2009: Safer sanitation in slums and emergency settings with Peepoo bags](#)

top

Switzerland, South Africa

EAWAG conducts volume reduction experiments on urine – Feb. 2011

EAWAG is currently researching an option to reduce the volume of urine and to keep all the nutrients: Before the water is evaporated, urine is partially

English, too).

There are now [57 SuSanA case studies](#) of sustainable sanitation projects available (5 of these are in Spanish and one in German). You can browse by country, setting, technology and reuse type.

Our worldwide list of ecosan projects now has [315 ecosan projects](#) with a total of 4.81 million users in 100 countries. Another list shows 20 sustainable sanitation projects which have been [supported by the German Ministry BMZ](#) (approx. 104,000 users).

As part of the ICLEI-led initiative "[ACCESSanitation - accelerating city-to-city exchange for sustainable sanitation](#)", ten cities in India and the Philippines have started the participatory development of sanitation action plans.

SCOPE presents some of its [UDDT projects in Tsunami affected villages in India](#).

Photos and videos

Photo set on [different types of urine diversion seats and squatting pans](#).

A [report](#) and photos from ecosan projects in [Mozambique](#) and [Malawi](#) by Peter Morgan (from 2005).

[WTO](#) founder Jack Sim features in Vanguard's documentary series "[The World's Toilet Crisis](#)" on Current TV, which includes an explanation on the "magic" of CLTS (Community Led Total Sanitation).

UNICEF's new [sanitation program in Niger](#) strives for better health in rural areas where open defecation is still practiced by a majority (it is using CLTS).

Upcoming events

March to June 2011
[UNESCO-IHE ecosan online course](#)
Worldwide

nitrified to nitrate. After evaporation of water, a white solid along with an odourless clear liquid (the distillate) with low ammonia content is left behind. A pilot-scale reactor is being implemented soon at EAWAG in Duebendorf, Switzerland. This research, which is funded by Bill and Melinda Gates Foundation, forms a part of the VUNA collaborative project between the Swiss Federal Institute of Aquatic Science and Technology (Eawag), the University of KwaZulu-Natal (UKZN) and eThekweni Water and Sanitation(EWS) in Durban.

top

- [VUNA Nutrient harvesting project in South Africa](#)

Zambia

Workshop: Fighting cholera through groundwater protection – Feb. 2011



In Lusaka, the use of untreated water from shallow wells in informal settlements is one factor leading to outbreaks of cholera. These outbreaks occur annually during the rainy season when groundwater levels rise and pit latrines are flooded. From 8 to 10 February 2011 a workshop was organised by BGR (German Federal Institute for

Geosciences and Natural Resources) addressing senior technical staff from various sectors including hydro geologists, sanitation experts and town planners. The participants developed a To-Do list, naming activities for the joint improvement of the situation in the selected unplanned settlements.

top

- [Workshop presentations](#)
- [Groundwater Information System and Management Program for Lusaka, Zambia](#)
- Expert contact: [Andrea Nick](#)

Peru

Sustainable sanitation study course in Lima – Jan. 2011

In the framework of a public-private partnership, a study course called "[Saneamiento Sostenible](#)" has been developed in cooperation between [Rotaria del Peru SAC](#), the [GIZ program Proagua](#) and the [University Agraria de La Molina \(UNALM\)](#). The fourth module on closing the loop of water and nutrient that revolves around sanitation and agriculture took place between 19 – 23 January 2011. The main focus was the analysis of international (WHO) and national (OMA) regulations regarding the reuse of water, nutrients, sludge and faeces, basics of soil genesis, nutritional requirements of plants, research results on biogas and high temperature composting.

top

- [Documents on sustainable sanitation prepared by Rotaria \(in Spanish\)](#)
- Expert contact: [Heike Hoffmann](#)

The Netherlands

Nutrient platform launched in Delft – Jan. 2011

After having executed a number of preparatory studies in the previous years, eight parties in the Netherlands decided to set up the Nutrient Platform, a network of Dutch organisations that share a common concern for nutrients depletion and its global impact. It brings together private companies, NGOs and knowledge institutions with the aim to contribute to a transition towards global sustainable use of nutrients (in particular phosphorus). The platform plans to practice a "learning by doing" approach, building on ongoing experiments in search for more sustainable solutions.

top

- [Global phosphorus network website](#)
- [Factsheet on sustainable nutrient management \(PDF: 1.0 MB\)](#)
- [Presentations during Nutrient Platform launch 13th January](#)

14 – 15 Mar. 2011

Seminar "[What Happens When the Pit is Full?](#)"

Durban, South Africa

14 – 18 Mar. 2011

[The Lake and Catchment Research Symposium \(LARS\)](#)

Nairobi, Kenya

29 – 31 Mar. 2011

[The East Africa Practitioners Workshop on Urban Sanitation and Hygiene](#)

Kigali, Rwanda

4 – 8 Apr. 2011

[SACOSAN IV](#)

Colombo, Sri Lanka

18 – 22 Apr. 2011

[International conference on Small Sustainable Solutions for Water \(SSS 4 WATER\)](#)

jointly organised by EcoSan SG, IWA Small Systems SG and the Decentralized Water and Wastewater International Network (DEWSIN).
Venice, Italy

25 – 28 Apr. 2011

[Smallwat11 - 3rd international congress](#)

Wastewater in Small Communities
Seville, Spain

25 Apr. – 01 July 2011

[UNITAR E-Learning Course on Governance in Urban Sanitation](#)

25 – 28 May 2011

[Decentralised Wastewater Treatment Systems \(DEWATS\) for Urban Environments in Asia](#)

Possibly with SuSanA side event (to be confirmed)
Manila, Philippines

3 – 5 July 2011

[2nd Southern African Regional Young Water Professionals Conference](#)

Pretoria, South Africa

6 – 8 July 2011

[WEDC Conference](#)

The future of water, sanitation and hygiene in low-income countries
Loughborough, UK

13 – 14 July 2011

[CWA Annual Conference: Constructed Wetlands - Domestic.](#)

India

Mobile ecosan units introduced in Tamil Nadu – Jan. 2011



enough income to sustain the project, there are no charges for the usage of the toilet.

In autumn 2009, the UK based NGO "Wherever the Need" started looking at viable alternatives to urban and peri-urban areas with lack of space. They decided to design and construct a mobile ecosan unit (UDDT) that could be moved into place daily and serve the local needs. The project started in summer 2010 in Cuddalore. It now has 150 daily users with most of them being workers. The compost and urine produced by the toilet is sold to farmers. Since the output is generating

top

- [Wherever the Need mobile ecosan unit project in Cuddalore](#)
 - [Video on UDDT providing additional income source to women](#)
-

France

Promising developments since private dry toilets were legalised – Jan. 2011

In France, dry toilets have become a legal technology for on-site sanitation, since a ministerial decree was passed on 7 September 2009. Between 3,000 to 6,000 individual households which were already equipped with dry toilets have been able to legalise their situation. The French NGO Toilettes Du Monde, in its report "Family dry toilets" ("Les toilettes sèches familiales" in French) provides an overview of the current theory and practice of family dry toilets in various countries, with suggestions for supporting the sector in France. The new internet portal for on-site sanitation ("Assainissement-Non-Collectif") by the Ministry of Ecology also provides very good information to both, the general public and professionals.

top

- [Ministerial decree of 7 September 2009 \(PDF: 0.4 MB\)](#)
 - [Report by Toilettes Du Monde: Family dry toilets / "Les toilettes sèches familiales" \(in French\)](#)
 - [On site sanitation portal by the French Ministry of Ecology \(in French\)](#)
-

France

ECODOMEIO dry toilets: a twist on urine separation – Jan. 2011



a foot pedal and transports faeces and toilet paper to an attached composting unit, built at the back of the toilets (outside of the house). In this unit, local earthworms such as Aesenia Foetida feed on faeces (after the natural fermentation process is over) and pave the way for a transformation into a rich compost for the users' garden. A ventilation system in the composting unit gets rid of any odour.

With Ecodomeio's dry toilets, separation of urine from faeces is not done through a urine diversion bowl but with a conveyor belt situated inside the toilet seat. Urine flows underneath the belt into a type of funnel acting as a siphon and connected to a pipe. The conveyor belt is activated with

top

- [Photos of Ecodomeio toilets \(link to Flickr set\)](#)
 - [Ecodomeio website \(in French, English and Spanish\)](#)
-

[Commercial & Industrial](#)

Wakefield, UK

17 – 18 July 2011

[13th SuSanA meeting](#)

Kigali, Rwanda

19 – 21 July 2011

[AfricaSan 3 \(3rd African Conference on Sanitation and Hygiene\)](#)

Kigali, Rwanda

21 – 27 Aug. 2011

[World Water Week Stockholm](#)

Note: no large SuSanA meeting in Stockholm is currently planned
Stockholm, Sweden

12 Sept. – 02 Dec. 2011

[The World Vegetable Center's 30th International Vegetable Training Course](#)

Bangkok, Thailand

26 – 29 Sept. 2011

[8th International Conference on Water Reclamation & Reuse](#)

Barcelona, Spain

2 – 6 Oct. 2011

[The 4th IWA Asia Pacific Region \(ASPIRE\) Conference & Exhibition: Toward Sustainable Water Supply and Recycling Systems](#)

Tokyo, Japan

09 – 14 Oct. 2011

[Global Forum for Sanitation and Hygiene \(WSSCC\)](#)

Mumbai, India

21 – 22 Nov. 2011

[3rd International Symposium "Re-Water"](#)

Braunschweig, Germany

21 – 24 Nov. 2011

[2nd IWA Development Congress and Exhibition](#)

(IWA SG EcoSan plans Terra Preta workshop)
Kuala Lumpur, Malaysia

Mar. 2012

[World Water Council](#)

Marseille, France

Aug. 2012

[4th International Dry Toilet Conference](#)

Tampere, Finland

Germany, worldwide

Update: Our online photo database on flickr is steadily increasing in size and popularity – Jan. 2011

We now have 4 300 annotated photos in our sustainable sanitation photo database on flickr, thanks to all the colleagues who provided photos and photo descriptions. We get about 800 clicks (views) per day and receive a lot of positive feedback from people who use these photos in their work (e.g. students, journalists). See here some of the recently added photo sets:

- [Burkina Faso: Emptying of UDDT faeces vaults \(text in English and French\)](#)
- [Burkina Faso: Construction of UDDTs \(text in English and French\)](#)
- [Kenya: Biogas plant construction at a school](#)
- [Bangladesh: Large-scale UDDT projects by UNICEF](#)
- [Zambia: Various ecosan projects, e.g. UDDTs in Lusaka](#)

top

Switzerland

New start-up and training program for graduates and young professionals– Jan 2011

cewas – the international centre for water management services – is a Swiss association that aims at strengthening the implementation skills in the sustainable sanitation and water management sector on an international level. Organised in a Start-Up Centre, Think-Tank, Training Centre, and a Business Platform, it builds up SMEs (Small and Medium size Enterprises) in a unique program combining coaching by the Think-Tank (international high-level experts) and advanced education in the Training Centre. cewas is located in Willisau (Switzerland), where it gets financial support from the regional development program. Roland Schertenleib is the President and Johannes Heeb (seecon gmbh) the operational manager of cewas.

top

- [cewas website](#)
- [Start-up training program for 2011- 2012](#)
- [Application for cewas trainings](#)
- Expert contact: [Johannes Heeb](#)

Germany, India

x-runner - A start-up in sustainable urban sanitation – Jan. 2011

X-runner is an innovative product to tackle the sanitation crisis in urban slums. The private x-runner toilet is designed for the poor, urban households and aims to become a linking piece in existing sanitation systems. The interdisciplinary team is currently preparing a pilot project for New Delhi to test first prototypes within thirty local families. Sulabh International will provide the collection and treatment infrastructure and introduce the team to the community. A recently established collaboration with Sandec at Eawag (Switzerland) offers support by advising in scientific and research matters. Furthermore, the German Noah Foundation will be the pilot's carrier in financial and administrative matters.

top

- [The x-runner project brief \(PDF: 3.7 MB\)](#)
- [The Noah Foundation](#)
- [How to support the project](#)

Publications on ecosan and sustainable sanitation

Sustainable Sanitation Alliance

Sustainable sanitation in cities: a framework for action

This book was prepared by partners of the Sustainable Sanitation Alliance (SuSanA) within [SuSanA working group 6 - cities and planning](#)

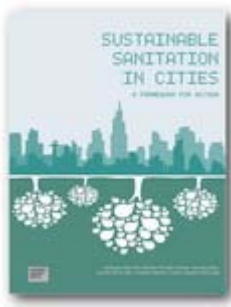
2012

3rd East Asian Ministerial Conference on Hygiene and Sanitation
Bali, Indonesia

Jobs

Applications are invited from international MSc students currently studying in Germany wanting to do a [3-months internship](#) with the GIZ Ecosan team in Eschborn, Germany.

Three [KfW Consultant positions](#) in the area of basic sanitation / wastewater management (in German).



and addresses sanitation as a key element of the urban metabolism. It gives an initial overview of the current state of urban sanitation, followed by a discussion of the new role of sustainable sanitation systems in future eco-cities. Planning innovations for urban sanitation, lessons learned and current challenges are addressed. Context specific challenges and opportunities are

illustrated in a variety of urban settings, from non-tenured low-income settlements (slums) to middle- and high-income inner-city areas, to stimulate action on the ground.

top

- [Sustainable sanitation in cities: a framework for action](#)

Sustainable Sanitation Alliance

First SuSanA Case Study in German released: Experiences from 23 years of composting toilets in Allermöhe, Hamburg, Germany

The SuSanA secretariat has published the first SuSanA Case Study in German language by translating the existing English version: Allermöhe is a residential area in Hamburg that hosts one of the first ecological settlements of its kind in Germany. The project realises high resource and energy efficiency through both the building and landscape architecture and by using appropriate ecological technology components like rainwater harvesting, composting toilets and a constructed wetland. The settlement was built between 1982 and 1994 and consists of 36 single-family houses with approx. 140 inhabitants. It has been a very successful project for more than 23 years by now and allows the residents to have a smaller footprint regarding average water and energy use. The SuSanA case study compiles the experiences gained within this project.

top

- [Case study on the Allermöhe/Hamburg eco-settlement \(in English and German\)](#)

GIZ, Germany

Technology review of constructed wetlands



This booklet published by GIZ focuses on treating domestic wastewater or greywater with subsurface flow constructed wetlands with coarse sand as a filter medium. The emphasis is on the application in developing countries and countries in transition. In the publication, an overview and basic guidance is provided on the design and maintenance of horizontal flow beds (HFBs), vertical flow beds (VFBs) and the "French System". A description of the most common pre-treatment systems is also included due to their vital importance for the proper functioning of

CWs.

top

- [Technology review of constructed wetlands](#)

RWTH Aachen University, Germany

RWTH Aachen University publishes a series of country specific case studies on sewage disposal (in German)

In the frame of the [BMBF \(German Federal Ministry of Education and Research\)](#) project "export-oriented research and development on water supply and sewage disposal", country specific case studies on Algeria, India, Israel,



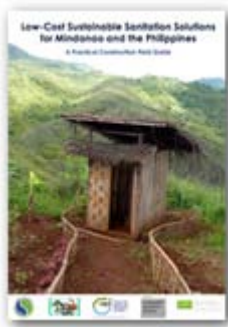
Libya, Morocco, Sudan and Thailand were published by [RWTH Aachen University](#). The studies address internationally oriented corporations of the German water and wastewater sector and contain, in addition to data and facts, information on legal framework and the local organization of the water sector.

top

- [Country specific case studies from RWTH Aachen University](#)

Xavier University, Philippines

Low-cost sustainable sanitation solutions for the Philippines



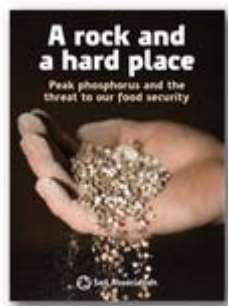
The Sustainable Sanitation Practical Construction Field Guide published by the [Sustainable Sanitation Centre at Xavier University](#) in Cagayan de Oro is a practical manual to guide those in need of proper sanitation without spending too much to obtain necessary materials to build a clean, safe and decent toilet. The guide points out how to build a proper toilet that is affordable, socially and culturally acceptable, and therefore sustainable at the household and community level.

top

- [Sustainable Sanitation Practical Construction Field Guide](#)

Soil Association, UK

A rock and a hard place: peak phosphorus and the threat to our food security



Climate change, resource depletion, diet-related ill health and population growth is forcing us all to think about how we produce and consume food. In this regard the British Soil Association of UK has published this report which points out that there is one critical issue in securing our future food which is missing from the global policy agenda: we are facing the end of cheap and readily-available phosphate fertiliser on which agriculture is totally dependent. The supply of phosphorus from mined phosphate rock could "peak" as soon as 2030. The report clearly

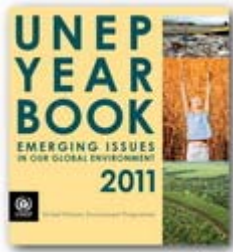
examines that we need not only change how we farm and what we eat, but also how we deal with human excreta.

top

- [Publication: A rock and a hard place: Peak phosphorus and the threat to our food security](#)
- [Futurity publishes a detailed global map that reveals imbalances in the use phosphorus around the world.](#)
- [Short and clever video highlighting the connection between phosphorus shortage and urine \(Phosphorus Recovery Project by the Institute for Sustainable Futures at the University of Technology in Sydney\).](#)

UNEP, Kenya

UNEP year book of 2011 emphasises phosphorus recovery and recycling



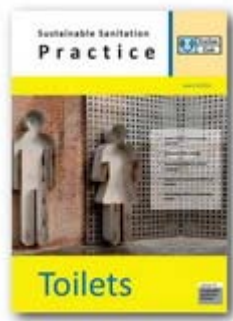
The UNEP (United Nation's Environment Program) Year Book brings emerging environmental issues to the attention of governments and other stakeholders for their consideration. In chapter 3 (Phosphorus and Food Production), the publication emphasises the need for phosphorus recovery and gives sustainable sanitation products a key role for the phosphorus recycling process (co-authors: Arno Rosemarin and Dana Cordell).

[top](#)

- [UNEP year book 2011: Emerging issues in a global environment](#)

EcoSan Club, Austria

EcoSan Club journal Sustainable Sanitation Practice issue 6 – Toilets



Acceptance of a sanitation system often depends on the acceptance of the user interface i.e. the toilet pedestal, pan or urinal. This journal issue provides an overview on developments of different technologies for user interfaces (only UDDTs and urinals). The contributions present developments in different geographical regions: South America, East Africa and the Eastern Europe, the Caucasus and Central Asia (EECCA) countries.

[top](#)

- [Sustainable Sanitation Practice \(SSP\), issue no. 6](#)

Chalmers University of Technology, Sweden

PhD dissertation by Jennifer McConville: Unpacking sanitation planning

This [PhD thesis](#) by [Jennifer McConville](#) attempts to bridge the professions of urban planners and sanitation engineers to better understand the planning processes used in the field of sanitation and their importance for the sustainability of sanitation efforts. Specifically, it explores how sanitation planning processes are structured, to what extent participation plays a role in sanitation planning, and to what extent different perspectives of criteria for sustainable sanitation appear in the planning process

[top](#)

Technical University Hamburg-Harburg, Germany

PhD dissertation by Franziska Meinziger: A comparative assessment using material and energy flow analysis

This [PhD dissertation](#) by [Franziska Meinziger](#) contributes to assessing the resource efficiency of urban sanitation systems using combined cost, energy and material flow analyses (ceMFA). For two case studies, Hamburg (Germany) and Arba Minch (Ethiopia), a number of possible system developments were assessed. Introducing appropriate system transformations in sanitation can provide the opportunity to reduce water consumption, increase energy efficiency and recover nutrients for agriculture. The ceMFA model allows the identification of such opportunities and highlights possible trade-offs. Using this work as a basis for decision support, strategies for implementing more resource efficient systems can be developed.

[top](#)

WEDC celebrates 40th anniversary with release of 2300 conference papers

As part of WEDC's commitment to sharing knowledge on water and sanitation, and this being the 40th anniversary year of WEDC (Water, Engineering and Development Centre), it has now extended the release of over 2300 [WEDC Conference Papers from 34 conferences](#) for download from the knowledge base. The papers trace developments in the sector from the growing acceptance of appropriate technology in the 1970s through the International Decade of Water and Sanitation during the 1980s right up to the present.

[top](#)

Publications on sanitation and health

African Population and Health Research Center, Kenya
Menstrual hygiene management: policy briefs on menstrual cups published in Kenya

Lack of access to sanitary products confines some women and adolescent girls at home during their periods, restricting their mobility and undermining their participation in education, economic and social activities. The project entitled 'Research and Feasibility Study to Explore Menstrual Practices and Investigate the Suitability of Menstrual Cups for Adolescent Girls and Women in Kenya' was designed to explore the potential benefits that can accrue from providing adolescent girls and women with safe, affordable, and convenient materials (such as the menstrual cup) for menstrual management. Further research, some of it funded by the Bill and Melinda Gates Foundation, is ongoing (contact: [Elisabeth von Muench](#) for details).

[top](#)

- [Three policy briefs on menstrual cups in Kenya](#)

Registration information

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn, Germany

Friedrich-Ebert-Allee 40
53113 Bonn, Germany
Phone: +49 228 44 60-0
Fax: +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
Phone: +49 61 96 79-0
Fax: +49 61 96 79-11 15

Email: info@giz.de
Internet: www.giz.de

Registered at
Local court (Amtsgericht) Bonn, Germany: HRB 18384
Local court (Amtsgericht) Frankfurt am Main, Germany: HRB 12394

VAT no
DE 113891176

Chairman of the Supervisory Board
Hans-Jürgen Beerfeltz, State Secretary

Chairman of the Management Board
Dr Bernd Eisenblätter

Managing Directors

Dr Christoph Beier
Adolf Kloke-Lesch
Tom Pätz
Dr Sebastian Paust
Dr Hans-Joachim Preuß
Dr Jürgen Wilhelm

To subscribe to this newsletter (free of charge):

<http://www.gtz.de/en/25939.htm>

If you no longer wish to receive this newsletter, please click [here](#).

In charge of this newsletter:

Dr. Elisabeth von Münch (elisabeth.muench@giz.de)

Editor(s):

Newsletter compiled by Rahul Ingle with support by the team of GIZ program "Sustainable sanitation - ecosan"
(ecosan@giz.de)

Our website: <http://www.gtz.de/ecosan>

Technical implementation:

Juergen Eichholz (juergen.eichholz@saniblog.org)

[Unsubscribe](#) | [Disclaimer](#) | [Contact](#) | [Recommend this newsletter](#) | www.giz.de