

Dear Reader,



In this newsletter we have many encouraging news items showing that the systems approach of sustainable sanitation is becoming more widely known and accepted: Bill and Melinda Gates Foundation advertise a position where the role description stresses "sustainable sanitation"; A European Union call for research proposals wants to address "sustainable sanitation service chains" and German development bank KfW stresses the importance to consider the entire "sanitation chain".

The newsletter also shows glimpses of our ongoing work to make your ecosan knowledge more easily available to everyone else, such as by using the new Sustainable Sanitation Alliance's [Facebook page](#), [2,400 annotated photos](#) (online on flickr), [260 documented ecosan projects](#) and [31 detailed sustainable sanitation case studies](#).

If you see this newsletter in a messy-looking text-only format, please adjust your e-mail program to display e-mails in HTML-format. A [French version](#) is also available.

Best wishes from Germany,

Dr. Elisabeth von Münch ([ecosan@gtz.de](mailto:ecosan@gtz.de))

## News

### Indonesia

#### Successful pilot project for production of prefabricated biogas digester – Feb. 2010

The prefabrication program for biogas digesters made of fiberglass was successfully implemented by the NGO C-BETech LPTP in Yogyakarta. The pilot program for DEWATS (Decentralised Wastewater Treatment Systems) introduced an improved design for Prefab-Biogas Digester with sizes of 6 m<sup>3</sup> and 8 m<sup>3</sup> and was financed and supported by the German organization CIM. This is a new option for quick and efficient biogas-digester installation.

[Short summary of the project \(PDF; 0.1MB\)](#)

[Project information on biogas digester by BORDA-SEA \(PDF; 0.2MB\)](#)

### Burkina Faso

#### New Project: Ecological Sanitation to increase food security – Feb. 2010



The EU "Food Facility" fund is intended for a rapid up-scaling of proven technologies to increase food security for rural populations. In Burkina Faso, CREPA together with the Ministry of Agriculture have received funding for the project "Improving food security by using sanitized human excreta as fertilizer in the Center-East and Center-West region of Burkina Faso". This project

with the name "EcoSan\_UE3" has a total budget of 2.1 million Euros, and a duration of 22 months from January 2010 to October 2011.

[1-page summary of EcoSan\\_UE3 project \(PDF; 0.1 MB\)](#)

### Niger

#### International study visit and workshop for promoting productive sanitation – Feb. 2010



The Productive Sanitation Aguié project partners invited representatives from IFAD-financed projects in four countries as well as national NGOs, research institutes and Ministries (Agriculture, Health, and Hydraulics) in Niger for a three day study visit/workshop on productive sanitation. The objective was to give a good understanding of the productive sanitation concept, visit the toilets/urinals and demonstration fields in the villages and exchange information with the local population and project partners.

[Report on study visit in Aguié by Linus Dagerskog \(PDF; 0.2MB\)](#)

[Presentations from study tour in English](#)

[Presentations from study tour in French](#)

[Six new factsheets \(in French\)](#)

## Breaking News

The [11th SuSanA meeting](#) will take place in Rio de Janeiro, Brazil on 19 – 21 March 2010.

## Links

Results of the [1st Water Symposium with focus on financing sanitation](#) hosted by the German development bank (KfW Entwicklungsbank) in Oct. 2009 stressing the importance of the sanitation chain.

The research project [SANIRESCH \(SanitaryRecycling Eschborn\)](#) will operate with treatment units for separated urine, brownwater and greywater streams in the main administration building of the GTZ.

Presentations from the [World Toilet Summit in Singapore](#), Dec. 2009 dealt with: creation of demand at the bottom-of-the-pyramid market, designing sanitation solutions, social financing mechanisms for scaling up sustainable sanitation.

See results from a [workshop on sanitation, wastewater treatment and reuse](#) (PDF; 0.3 MB) in Agadir, Morocco in December 2009 (in French).

Read presentations from the [Ecological Sanitation Technology Symposium](#) on Oct. 17-18, 2009 in Beijing organised by the Centre for Sustainable Environmental Sanitation (CSES).

[Manila Declaration 2010](#): 13 East Asian countries call for sustainable sanitation practices during second East Asia Ministerial Conference on Sanitation and Hygiene (EASAN 2).

New website launched for [Ecosan Services Foundation](#) in Pune, India (ESF is a non-profit company established in 2006, with support of GTZ).

Dry Sanitation improvement program for Zambia by Global Dry Toilet Association of Finland and partners ([Zambia project](#) and other [demonstration sites](#)).

[DWA brochure](#) on how to treat wastewater for reuse at the international and national level available for purchase.

[Sanimap](#) by Japan Water Forum is Google Earth based and aims to promote sanitation projects, assist donors to find credited projects, and raise awareness about sanitation.

We have further improved our [worldwide ecosan project list](#), particularly with regards to projects in Bolivia and Peru (please

European Union, Africa

### SPLASH research call on sustainable sanitation service chains – Feb. 2010

SPLASH, the ERA-NET of the European Water Initiative will launch a [research call](#) on March 1, 2010. The major objective of the SPLASH research call is to contribute to the understanding and implementation at scale of sustainable sanitation service chains in low-income urban areas in Sub-Saharan Africa. The overall call budget will be approximately 1.7 million Euros (deadline 23 April).

India

### Young citizens in Pune all set to save mother Earth – Jan. 2010

Students from DAV Public School, Aundh, Pune have come up with a colorful way to encourage each other and everyone else to care for the environment. Ecosan Services Foundation together with GTZ organised a poster competition to get children thinking about what they can do to make a difference to their local environment and tackle the problems of water and sanitation problems in their surrounding nature.

[Summary and photos of the event](#)

European Union

### Funding for "Sustainable Use of Phosphorus in the EU" – Jan. 2010

A one-year project being carried out in 2010 by Wageningen University (Netherlands) and Stockholm Environment Institute has been funded by the European Union through a competitive bidding process. The objective is to analyse requirements and solutions directed towards more sustainable use of phosphorus, considering the finite rock phosphate reserves, the environmental impacts and the preponderant lack of recycling. The study examines both the agricultural and sanitation perspectives, and also focuses on six cases from various EU countries and includes policy perspectives. For further information email [Arno Rosemarin](#).

Rwanda

### Update: Ecosan project at primary school for improving sanitation facilities – Jan. 2010

Muyogoro primary school has about 450 children and is located in a low/middle density peri-urban area in Huye sector, Southern Province. The school needed new sanitation facilities and the student run NGO Rwanda-Village Concept Project (R-VCP) came up with a UDDT 4-door design. R-VCP is a student run development organization at the National University of Rwanda. National and international students work together with the community to face local challenges in public health, economic sustainability and gender rights.

[Ecosan project in Rwanda \(PDF; 0.01MB\)](#)  
[UDDTs in Rural Primary Schools in Rwanda](#)

Germany, South Africa, worldwide

### WASH United: Football stars push for safe water and sanitation in Sub-Saharan Africa – Jan. 2010

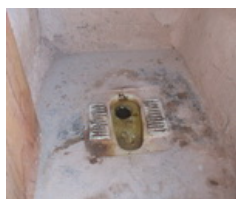


WASH United – an innovative new initiative – is based on the vision of Water, Sanitation and Hygiene (WASH) for all, the vision of every man, woman and child enjoying their fundamental human right to water and sanitation. Its goal is to improve the situation of millions of people by helping to ensure that everyone in Sub-Saharan Africa has access to safe drinking water, sanitation and hygiene. The project uses the soccer club motif and the sport itself to reach its audience, and is partnered with world class soccer stars and clubs.

[Website of WASH-United](#)  
[Press Release on WASH United](#)  
[Factsheet WASH United \(PDF; 1.4MB\)](#)  
[The Global Sports Forum Award nominated WASH United for its role in promoting health](#)  
Photos from [Stall at Second African Water Week](#) in Johannesburg

Afghanistan

### GTZ looks at options for sustainable sanitation – Jan. 2010



In two separate assessments for GTZ and GTZ International Services in Afghanistan, options were identified for sustainable household and public sanitation systems in Herat and Uruzgan, respectively. Construction will begin later this year. Reuse oriented systems were found to be suitable for the local conditions. Traditionally, dry toilets are used and the excreta are spread

on agricultural fields; however, as these traditional methods also pose great health risks, novel approaches are discussed on safe reuse practices.

[Report for GTZ: Sustainable sanitation options for 50 households in Herat](#)

[e-mail us](#) to add new information or for the expanded list).

#### TIPS

Join SuSanA on [Facebook](#) or [Twitter](#) for a fun way of receiving and sharing information about sustainable sanitation issues.

GTZ report in Spanish [on ecosan projects in Bolivia](#): Introducción de Saneamiento Básico (ECOSAN) en el Programa PROAPAC de Bolivia.

See new photos on flickr from [Peru](#) (by Rotaria) for UDDTs during construction and use, and from [Uganda](#) (Kampala slums and UDDTs), taken by Enno Schroeder (GTZ).

The new [Hashimoto Action Plan II](#) (PDF; 0.1MB) by the United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB) mentions SuSanA as an organisation to cooperate with regarding wastewater collection, treatment and reuse.

Edited video summary of regional workshop on ecosan in Bangalore, India organised by Cap Net South Asia featuring ecosan legends Paul Calvert and Vishvanath (14 min.): [Ecosan workshop video from CAPnet South Asia](#).

See [Summary of the Follow-up Conference of the International Year of Sanitation](#) in Japan in Jan. 2010. The idea of having a half-decade of sustainable sanitation for 2010 to 2015 was proposed at [this event](#).

BORDA, FUE, GTO, SODI and WECF published a concept note on [Sustainable Sanitation for Schools in Africa and Central Asia](#) (PDF; 0.1 MB) highlighting the need for affordable, water efficient solutions with strong public participation and hygiene education.

GTZ-Burkina Faso and the regional West African university 2iE in Ouagadougou are now developing more [ecosan content](#) (PDF; 0.1 MB) in the Sanitary Engineering Masters Course of 2iE. Contact: [Abdoulaye Fall](#).

#### Upcoming events

4 Mar. 2010  
Mini-seminar on [Phosphorus Shortage organised at the European Parliament](#) (organised by Bas Eickhout (MEP), Lena Ek (MEP) and the Nutrient Flow Task Group) Brussels, Belgium

7 – 10 Mar. 2010  
[Cities of the Future](#)  
Boston, USA

14 – 17 Mar. 2010  
[LatinoSan](#)  
Foz de Iguazu, Brazil

with [SuSanA Side-event](#)

15 – 18 Mar. 2010  
[15th International African Water Association Congress and Exhibition](#)  
Kampala, Uganda

[\(PDF: 2.5 MB\)](#)  
[Report for GTZ-IS: Public toilet as UDDT at a market place in Uruzgan \(PDF; 1.4 MB\)](#)  
[Photos showing current poor sanitation in Herat and Uruzgan](#)

Ghana, UK

### Keeping adolescent girls in school may be a matter of access to sanitary pads – Jan. 2010

Professor Linda Scott of Saïd Business School in the UK is leading a research project in Ghana to investigate whether the provision of sanitary products in developing countries may offer a faster, more direct, and less expensive means of raising school attendance and academic performance among adolescent girls than from the more common community engagement programmes aimed at retaining girls in school.

[Research summary](#) (news item on Voice of America)  
[Background information on the study and researchers](#) (press release)

Zambia

### Turning urine into gold (urine reuse demonstration in Lusaka) – Dec. 2009

Seconded to the Water and Sanitation Association of Zambia (WASAZA) by the Bremen Overseas Research and Development Association ([BORDA](#)) and the Centre for International Migration and Development of Germany, sanitation expert Mr. Kellner wasted no time setting up a urine-fertilised vegetable garden on the grounds of the WASAZA offices in Lusaka. Kellner is piloting a system called a "fertiliser-producing toilet" which focuses on re-use of solid waste (a urine diversion dehydration toilet or UDDT). Such a toilet, once integrated into gardening, will never fill up.

[Article on liquid gold in Lusaka \(IPS news\)](#)

## Publications

Sustainable Sanitation Alliance

### 7 new case studies, videos and photos on SuSanA website – Feb. 2010

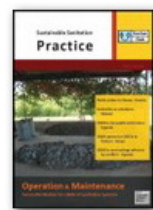
Seven new SuSanA case studies in Sub-Saharan Africa, India and Germany have been uploaded on the SuSanA website (in total there are now 31 case studies). Also some new [videos](#) and a wide range of sustainable sanitation [photos](#) are now online.

New SuSanA case studies:

[Botswana – Rural urine diversion dehydration toilets \(after 6 years\), Hanahai and Paje villages](#)  
[Burkina Faso – Urban urine diversion dehydration toilets and reuse, Ouagadougou](#)  
[Kenya – Public toilet with biogas digester and water kiosk, Naivasha](#)  
[Rwanda – Urine diversion dehydration toilets in rural schools, Huye and Ngororero Districts](#)  
[India – Reuse of human urine in aquaculture, Kalyani, West Bengal](#)  
[India - UDD toilet centres at Navsarjan Boarding Schools, Gujarat](#)  
[Germany – Waterless urinal sheds in the inner city, Hamburg](#)  
[Peru – in Spanish: Sistema de reutilización de aguas negras y grises en Chorrillos, Lima \(Blackwater and greywater reuse system\)](#)

EcoSan Club Austria

### Journal Sustainable Sanitation Practice – Jan. 2010



The second issue of the Sustainable Sanitation Practice (SSP) Journal with the title "Successful models for operation and maintenance of sanitation systems" is now available online for free. The journal seeks to contribute high quality information on practical experiences with available sustainable sanitation systems. The topic of Issue 3 (planned for April 2010) will be "Use of urine".

[Issue 2 "Successful models for operation and maintenance of sanitation systems"](#)

GTZ

### Technology Review on urine diversion components – Dec. 2009



This publication is an important contribution of the GTZ program "Sustainable sanitation – ecosan" as it brings together scattered knowledge around the topic of urine diversion in a concise manner. The publication explains the purposes of urine diversion, its benefits and challenges, urine precipitation, urine treatment and reuse in agriculture. Further, it provides an overview on design and operational aspects for equipment needed, such as waterless urinals and urine diversion toilets including supplier information and indicative costs.

[GTZ publication on urine diversion components](#)  
[Appendix: Worldwide listing of suppliers for waterless urinals and urine](#)

19 – 21 Mar. 2010  
[11th SuSanA meeting](#)  
Rio de Janeiro, Brazil

22 Mar. 2010  
[World Water Day, worldwide](#)  
(see also [The World's Longest Toilet Queue](#))

22 – 26 Mar. 2010  
[World Urban Forum](#) (includes [SuSanA/UN Habitat Dialogue](#))  
Rio de Janeiro, Brazil

23 – 25 Mar. 2010  
[Decentralized wastewater treatment solutions in developing countries \(IWA and BORDA\)](#)  
Surabaya, Indonesia

14 – 16 Apr. 2010  
[The Sustainable City 2010 - Sixth International Conference on Urban Regeneration and Sustainability](#)  
La Coruña, Spain

19 – 22 Apr. 2010  
[IWA conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems](#)  
Girona, Spain

22 – 23 Apr. 2010  
[1st Annual High Level Meeting on Water and Sanitation \(hosted by UNICEF\)](#)  
Washington DC, USA

1 Jun. 2010  
[Summer course in sustainable sanitation \(deadline for application: March 1, 2010\)](#)  
Norwegian University of Life Sciences (UMB), Norway

Sept. 2010  
[High-Level Meeting to Review Progress on the MDGs](#)  
New York City, USA

5 – 11 Sept. 2010  
[World Water Week](#)  
Stockholm, Sweden

15 – 17 Sept. 2010  
[International Conference on Sustainable Water Management](#)  
Jamshoro, Pakistan

19 – 24 Sept. 2010  
[IWA World Water Congress](#)  
Montreal, Canada

4 – 7 Oct. 2010  
[12th IWA International Conference on Wetland Systems for Water Pollution Control](#)  
Venice, Italy

31 Oct – 4 Nov 2010  
[IWA specialist congress: the 12th world congress on Anaerobic Digestion \(AD12\)](#)  
Guadalajara, Jalisco - Mexico

Dec. 2010  
World Toilet Summit and Expo  
Philippines

2 – 5 Feb. 2011  
[International Conference on Integrated Water Management](#)  
Perth, Australia

Mar. 2012  
[Sixth World Water Forum](#)  
Marseille, France

GTZ/BMZ (German Ministry for Economic Collaboration and Development)

### The human right to water and sanitation. Translating theory into practice (Kenya example) – Dec. 2009

Water and sanitation are an integral part of a comprehensive international legal human rights framework. This publication seeks to explain how the rights theory can be translated into practice by showing how an assessment of the water sector from a human rights perspective was conducted in Kenya. Kenya has been progressively implementing this right by adopting specific pro-poor initiatives. The experience shows that a human rights-based approach to water and sanitation can be successfully pursued, gradually leading to sustainable benefits for all.

[GTZ publication on human right to water and sanitation \(PDF; 0.5 MB\)](#)

Sweden/Uganda

### PhD thesis: Treatment technologies for human faeces and urine – Nov. 2009

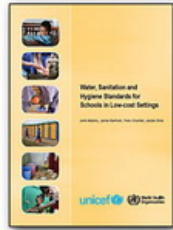
This PhD thesis examined simple, cheap, environmentally friendly and resource efficient technologies for the treatment of source-separated human faeces and urine to enable safe recycling of their nutrients for plant production in developing countries. The technologies investigated for faeces included composting, incineration, storage, use of urea and burying.

This study has been carried out as a collaboration between the Swedish University of Agricultural Sciences (Uppsala, Sweden) and Makerere University (Kampala, Uganda).

[PhD Thesis "Treatment technologies for human faeces and urine" by Charles Niwagaba](#)

UNICEF/WHO

### Water, sanitation and hygiene standards for schools in low-cost settings – Nov. 2009



Adequate provision of water supply, sanitation, hygiene and waste management in schools has a number of positive effects and contributes to a reduced burden of diseases among children, staff and their families. Such interventions also provide opportunities for greater gender equity in access to education, and create educational opportunities to promote safe environments at home and in communities. This document provides guidance on water, sanitation and hygiene required in schools.

[Publication on water, sanitation and hygiene standards for schools in low-cost settings](#)

EAWAG, SEI, Swedish Water House, GTZ, IWA, TU Delft

### Paper: Rethinking sustainable sanitation for the urban environment – Nov. 2009

Sustainable urban sanitation presents one of the most significant service delivery challenges related to poverty alleviation and sustainable development in the decades to come. This paper gives an initial overview of the current state of urban sanitation with a North-South perspective, followed by a discussion of the new role of sustainable sanitation systems in future eco-cities. This paper was presented at the 4th International Conference of the International Forum on Urbanism (IFoU) in Amsterdam and Delft, the Netherlands.

[Paper by Luethi et al. on urban environment \(PDF; 0.2 MB\)](#)

Germany/Kenya

### Characterisation of greywater from peri-urban areas in Nakuru, Kenya – Apr. 2009

This MSc thesis estimated the greywater quantity and determined its quality by sampling greywater from different households and different sources (kitchen, laundry and combined) in the low and middle income areas of Nakuru. The study was carried out at the University of Applied Sciences in Weihenstephan, Germany, and was part of the EU-funded ROSA project.

[MSc Thesis "Characterisation of Greywater from peri-urban areas in Nakuru, Kenya" by Laura Kraft \(PDF; 4.9 MB\)](#)

2012  
3rd East Asian Ministerial  
Conference on Hygiene and  
Sanitation  
Bali, Indonesia

#### Jobs

GTZ uses e-recruiting and offers an [e-recruiting system](#).

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

The Bill and Melinda Gates Foundation has advertised a position for a [Senior Program Officer](#) - Sanitation Technologies and Tools (to improve sustainable sanitation service delivery in urban areas).

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