

Dear Readers,



This is our second newsletter in the new shorter format and it is still a steep learning curve for me as the editor, as well as for the contributing authors, to keep each item short and snappy. We have received much positive feedback on our last newsletter, and most people seem to like the new format. Regarding the different language versions, we have had some demand for a Spanish and German version, but are still collecting the e-mail addresses to reach a high enough number to make it worthwhile to translate the newsletter (the Chinese language version is still available).

Please continue to send us information about ecosan topics which you would like to see spread through this medium (we now have 3,800 subscribers to this newsletter in English, plus 4,600 subscribers to the Chinese version).

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.

Kind regards from Eschborn,

Dr. Elisabeth von Münch (ecosan@gtz.de)

News

Obituary (by Arne Panesar, GTZ-ecosan) John Kalbermatten, 1931-2009

John Kalbermatten died on 26 February 2009. Born in Luzern, Switzerland, he was one of the central figures to introduce "appropriate sanitation" in development cooperation and to address sanitation in a much more holistic way than had been done before.

John Kalbermatten was the World Bank Water and Sanitation Chief from 1978 to 1983. In the 1970s he initiated the TAG (Technical Advisory Group) which was later transformed into the "World Bank Water and Sanitation Programme". He started the World Bank Series "Appropriate Sanitation Alternatives" and contributed e.g. to its first two volumes as main author.

When John Kalbermatten addressed aspects of reuse-oriented sanitation, he did this in an inclusive way and on the basis of his holistic approach to sanitation which looked at all the different aspects.

Now it is up to us to continue the work for "appropriate sanitation alternatives" in his spirit.

- [John Kalbermatten's guest book on the Connell Funeral Home web page](#)
- [The "Eawag-Sandec News" online](#) (check in June 09 for obituary by R. Schertenleib)
- [Obituary to John Kalbermatten in Duncan Mara's Blog](#)
- [Vol 1: A Technical and Economic Appraisal \(1982\)](#)
- [Vol 2: A Planning and Design Manual \(1982\)](#)

9th SuSanA meeting

The 9th SuSanA meeting will take place in Addis Ababa, Ethiopia on 16 - 17 May 2009 prior to the 34th WEDC international conference. The meeting will be hosted by WSP and the Ethiopian WASH coalition and everyone is welcome to attend.

- [WEDC conference website](#)
- [SuSanA website](#)

Links

Ecosan photos on Flickr

There are now some 1,500 ecosan-related photos on Flickr uploaded by the GTZ ecosan team and others. See for example [this set for ecosan projects in the Philippines](#).

Peru: Women building UDD toilets

The consultancy firm Rotaria del Peru in cooperation with GTZ (PPP) is teaching female masons how to build UDD toilets, and is finding great enthusiasm and demand for this approach in Lima and surrounding villages.

[Baño Ecológico Seco](#) - Rotaria del Perú Flyer - in Spanish (PDF; 0.6 MB)

Video: Ecosan project in India

Wherever the Need (WTN), a UK registered charity and member of the Sustainable Sanitation Alliance, recently released a video on their UDDTs in India.

[Wherever the Need - Ecosan India](#)

By the way, there are currently 122 video clips on YouTube with the keyword "ecosan".

Kenya

Training course on the construction of UDDTs in Ugunja, Kenya by EU/GTZ/SIDA Ecosan Promotion Project, Feb. 2009



30 participants (artisans, member of Community Based Organisations and employees of local NGOs and Water Services Companies or Boards) exchanged experiences on constructing UDDTs (Urine Diverting Dehydrating Toilets) with emphasis on improving construction quality, cost reductions, updating bills of quantities and design amendments.

The training included a field visit and an official ground breaking of a new public toilet/biogas system in Ugunja market. An attending journalist published a full page article reporting about advantages of ecosan in the second biggest Kenyan Newspaper (on page 3) after the workshop.

Ugunja Division is located on the Kisumu-Busia highway, which links Kenya and Uganda. Ugunja town is 72km north of the nearest city, Kisumu, which sits on the shores of Lake Victoria.

- [Short presentation about Kenyan Ecosan Promotion Project](#)
- [Description of EPP implementation line "rural sanitation"](#)
- [Description of EPP implementation line "sanitation in institutions"](#)
- [Description of EPP implementation line "sanitation at public places"](#)
- [Photos from the workshop and project field visit in Ugunja, Western Kenya.](#)
- [Outcome of the workshop: revised technical drawings for double vault UDDT, April 2009](#)

Mr. Johannes Orodri from GTZ-Kenya is explaining advantages of a UDDT in Western Kenya in English and Swahili:

- [Sanitation Video in Ugunja, Kenya](#)

News from EcoSan-Club and WASTE

Update on EU-funded project "ROSA - Resource Oriented Sanitation concepts for peri-urban areas in Africa"

This EU-funded project started in October 2006 and will last until March 2010. It is coordinated by the University of Natural Resources and Applied Life Sciences (BOKU University), Vienna, Austria; EcoSan-Club and WASTE are consortium partners. The concepts are to be applied in four East African cities: Arba Minch (Ethiopia), Nakuru (Kenya), Arusha (Tanzania) and Kitgum (Uganda).

The focus in the last year of ROSA is on the operation and the monitoring of the implemented systems. For two of the ROSA pilot cities, Arba Minch and Nakuru, large-scale programmes for implementation of sanitation in the whole city have already been launched. Within these implementation programmes, funded by the Dutch SPA programme, sanitation business plans have been developed.

At the 34th WEDC conference in Addis Ababa, Ethiopia, a joint side event from ROSA and ASKNet – the African Sanitation Knowledge Network – is organised on 19 May 2009.

Further information is available from the ROSA project co-ordinator, [Guenther Langergraber](#)

- [Resource-Oriented Sanitation concepts for peri-urban areas in Africa](#)

Burkina Faso

Update on large-scale peri-urban ecosan project in Burkina Faso (Ecosan_EU1)

GTZ ecosan literature database

The improved GTZ ecosan [literature database](#) currently contains around 1,100 entries. Please send your documents (particularly also MSc and PhD theses) to be included in the ecosan literature database to ecosan@gtz.de

GTZ ecosan website

We have updated our GTZ ecosan website. The [German](#) version has been expanded, and the [English](#) version restructured (to be completed in May).

Reminder: Active ecosan discussion forum available online

For ecosan-related questions and discussions, we remind you of the [web-based discussion forum](#) initiated by EcoSanRes.

Reminder: Newsletter archive (2001-2009)

A complete list of all published GTZ ecosan newsletters is available [online](#).

To search the archive for a specific news item, please do a Google search on e.g. ecosan newsletter Bangladesh.

Upcoming events

10/05/09 – 13/05/09
[International Conference on Nutrient Recovery from Wastewater Streams](#)
Vancouver, Canada

13/05/09 – 15/05/09
[4th International Conference on Sustainable Development and Planning](#)
Cyprus

18/05/09 – 22/05/09
[34th WEDC International Conference](#)
Addis Ababa, Ethiopia



The Ecosan_EU1 project started in June 2006, and it will soon end in June 2009. The project is being implemented in 4 peri-urban areas of the City of Ouagadougou, capital of Burkina Faso. Various documents (in English and French) are now available to explain progress so far and remaining work to be done. These documents also provide information on the roles and responsibilities of all stakeholders, and the challenges to make this project sustainable, beyond the end of EU funding.

Contact: [Anselme Vodounhessi](#) (CREPA, Burkina Faso)

- [Document d'information sur le projet Ecosan UE \(2009\) - Information about Ecosan EU1 project - in French \(PDF: 7.6 MB\)](#)
- [Document de mise en oeuvre \(2009\) - work plan for Year 3 - in French \(PDF: 2 MB\)](#)
- ["Hebdo-Ecosan UE, bi-weekly progress report \(2009\) - in French](#)
- ["Some results of the mid-term evaluation" \(short narrative\)](#)
- [Photos from ecosan EU project in Burkina Faso \(Jan. 2009\)](#)
- [Presentation about mid-term evaluation - in English \(2009\) \(PDF: 1.2 MB\)](#)
- [Presentation about mid-term evaluation - in French \(2009\) \(PDF: 3.8 MB\)](#)
- [Centre Régional pour l'Eau Potable et l'Assainissement à faible coût \(CREPA\)](#)

Burkina Faso

Update on Ecosan_EU2 project in Koupéla, Burkina Faso

After the successful introduction of ecosan in Burkina Faso, another large-scale ecosan project, named ecosan_EU2, is being implemented in 30 villages of Koupéla in Burkina Faso by CREPA in cooperation with the national sanitation implementation agency ONEA (Office National de l'Eau et l'Assainissement) and INERA (Institut National des Etudes et Recherches Agronomiques) due to its experience on soil fertility.

With a budget of EUR 1.5 million (90% from European Union and 10% from CREPA), the 3-year project started in March 2008 with the overall goal to improve the agricultural productivity in the region of Kourittenga. 35 sanitation facilities and a collection system for urine and dried faeces in each village are to be built- 150 masons and 1,000 farmers will be trained, and in some villages production units will be constructed.

Contact: [Marie-Yvette Kanzyomo](#) (CREPA, Burkina Faso)

- [Rapport de l'atelier de démarrage Ecosan UE2 \(2008\) - report from kick-off workshop - in French \(PDF: 0.3 MB\)](#)
- [Centre Régional pour l'Eau Potable et l'Assainissement à faible coût \(CREPA\)](#)

Korea

1st National Conference on DEWATS in the Democratic People's Republic of Korea by CSES, Oct. 2008

In October 2008, the DPRK Ministry of City Management and UNICEF organised the 1st National Conference on decentralised Wastewater Treatment System (DEWATS) in Pyongyang. They contracted the services of CSES experts (Centre of Sustainable Environmental Sanitation) of the University of Science and Technology in Beijing) to explain to 40 national sanitation experts the concept and details of DEWATS and its reuse options of excreta nutrients and treated wastewater for agriculture, food production and household energy. Further information material in Korean language is available on request.

Contact: [Heinz-Peter Mang](#) (CIM, China)

- [China Node for Sustainable Sanitation](#)

June 2009

[UMB course on Sustainable sanitation "Sustainable sanitation - decentralized, natural and ecological wastewater treatment"](#)

Norwegian University of Life Sciences, Norway

17/06/09 – 19/06/09

[5th International Water, Wastewater, and Recycling Technology, Expo and Forum](#)

Jakarta, Indonesia

22/06/09 – 26/06/09

[Singapore International Water Week](#)

Singapore

30/06/09 – 02/07/09

[First International Conference on Advances in Wastewater Treatment and Reuse](#)

Tehran, Iran

08/07/09 – 10/07/09

[7th International Conference on Ecosystems and Sustainable Development](#)

Chianciano Terme, Italy

20/07/09 – 23/07/09

[Ecosys 2009](#)

International Symposium on Sustainable Ecosystems
Harmonious Ecosystems for a Bright Future –
Successful Pathways to Sustainability in Africa
Valley View University
Accra, Ghana

12/08/09 – 15/08/09

[3rd International Dry Toilet Conference](#)

Tampere, Finland

16/08/09 – 22/08/09

[Stockholm World Water Week](#)

Stockholm, Sweden

The 10th SuSanA meeting will be held in conjunction with this event.

31/08/09 – 04/09/09

[Bioenergy 2009, International Bioenergy Conference and Exhibition](#)

Jyvaeskylae, Finland

01/09/09 – 03/09/09

China

China Node for Sustainable Sanitation established by SEI, Nov. 2008

The China Knowledge Node for Sustainable Sanitation (CNSS) was established in November 2008 and the project document signed by Gunilla Bradberg, representative of the sponsoring Stockholm Environmental Institute (SEI) and Prof. Zifu Li, USTB, and James Gao, CWA. The University of Science and Technology Beijing – the Centre for Sustainable and Environmental Sanitation (CSES), and the Clean Water Alliance (CWA) – Vantone Foundation, are joining efforts for the next 2 years to promote ecosan concepts and projects.

- [China Node for Sustainable Sanitation](#)
- [CNSS news on SEI website](#)

China

"Eco-Toilet Action" in earthquake hit area, Dec. 2008

101 NGOs gathered in Chengdu, Sichuan Province, for an "Eco-Toilet" forum to exchange experiences and to push for improving sanitation in rural areas of China. The "Day for Dry Toilet Action" on 18 December 2008 was the first joint action by NGOs in the sanitation sector.

Participants came from 78 NGOs, 8 foundations, 15 universities, 13 national and local media, and 33 representatives from central and local authorities. Clean Water Alliances as partner in the China Node for Sustainable Sanitation and its Beijing Vantone Foundation initiated and sponsored this event that comprised three components: the first pilot project with the implementation of 108 urine diversion dry toilets in "Water Drop Village" located in Deyang city, the "Eco-toilet Forum" in Chengdu, and the "Eco-toilet Action" co-announcement of the participants' promise on joint and continuous efforts to achieve the MDGs in water and sanitation in China.

- [China Node for Sustainable Sanitation](#)

United Kingdom

15 full-fee scholarships available for distance learning MSc at WEDC

The Commonwealth Scholarship Commission in the United Kingdom is making 15 full-fee scholarships available for students who wish to study the Water and Environmental Management MSc programme by distance learning, starting in January 2010. These scholarships are available only to applicants who are nationals of, and resident in, certain Commonwealth countries.

- [Distance Learning Scholarships @ WEDC](#)

Peru

2nd course on Ecosan in Lima, May 2009

The Agricultural University of Lima (UNALM) will host a second course on an introduction to ecosan from 22 to 23 May 2009. The same course has already been given once at the UNALM and once in Costa Rica (Universidad Nacional Costa Rica). The course gives an overview to the ecosan concept and describes available technologies. It is a first step toward a "diploma" in ecosan which is in preparation at UNALM.

- [Segundo curso de "Saneamiento Ecológico \(ECOSAN II\) y proyectos sostenibles de tratamiento de efluentes y residuos orgánicos" - Flyer, in Spanish \(PDF: 0.2 MB\)](#)

Ghana

Ecosys 2009, Symposium, July 2009

[Ecosys 2009 - International Symposium on Sustainable Ecosystems](#)

[5th Specialised Membrane Technology Conference for Water and Wastewater Treatment](#)

Beijing, China

06/09/09 – 09/09/09

[Emerging solutions to water and sanitation challenges](#)

(International Water Association, IWA)
Mexico City, Mexico

05/10/09 – 09/10/09

[SARDINIA 2009](#)

S. Margherita di Pula, Sardinia, Italy

25/10/09 – 28/10/09

[Efficient2009: 5th IWA specialist conference on efficient use and management of urban water](#)

Sydney, Australia

28/10/09 – 30/10/09

[10th WaterNet/WARFSA/GWP-SA Symposium](#)

Entebbe, Uganda

06/11/2009 – 09/11/2009

[Sustainable Water Infrastructure for Cities and Villages of the Future \(SWIF 2009\)](#)

Beijing, China

14/04/2010 – 16/04/2010

[The Sustainable City 2010 -Sixth International Conference on Urban Regeneration and Sustainability](#)

La Coruña, Spain

Jobs

GTZ has switched to e-recruiting and now offers an interactive e-recruiting system on [their website](#).

For GTZ staff only

We have transformed the old "ecosan product" into a new product called "Nachhaltige Sanitärversorgung/ecosan" – please see the [GTZ Intranet](#) (available in German for GTZ staff only).

The Symposium is part of a successful German-Ghanaian longterm cooperation, financed by the German Ministry of Education and Research (BMBF). The background of the symposium is the change of climate and of socio-cultural and economic systems, the wasting of natural resources and the necessity to bring human and natural systems into line.
Ecosys09 will deal with the possible solutions and the existing positive examples of sustainable human ecosystems.

Documents about a related closed-loop sanitation project at Valley View University:

- [Pharmaceuticals in human sanitary products for use in tropical agriculture. Case study at the Valley View University in Accra, Ghana, 2008 \(PDF; 3.7 MB\)](#)
- [Cycles in the Ecological Development of Valley View University, Accra, Ghana, 2008 \(PDF; 1.6 MB\)](#)

Publications

PhD thesis, TUHH, Germany

Pharmaceutical Residues in Urine and Potential Risks related to Usage as Fertiliser in Agriculture



The aim of this PhD thesis by Martina Winker was to determine risks of pharmaceuticals contained in urine when used as fertiliser. Pharmaceutical concentrations in urine were identified and related to concentrations found in wastewater and urine. Pharmaceuticals may persist in soil and be taken up by plants, a potential concern with respect to fertilisation.

- [Pharmaceutical Residues in Urine and Potential Risks related to Usage as Fertiliser in Agriculture \(2009\)](#)

Sustainable Sanitation Alliance New SuSanA case studies

Since the last newsletter, the following case studies on sustainable sanitation projects were uploaded to the SuSanA website (more case studies are currently being prepared and will be uploaded by June 2009):

- [Wastewater reuse after reed bed treatment \(3 examples\), Dubai Industrial Zone, United Arab Emirates](#)
- [Effluent reuse from constructed wetland system, Haran Al-Awamied, Syria](#)
- [Blackwater and greywater reuse system Chorrillos, Lima, Peru](#)
- [Ecological Settlement Allermoehe, Hamburg, Germany](#)
- [Community-led Water and Ecosan Programme, Shaanxi Province, China](#)
- [Source separating sanitation in Olympic Forest Park, Beijing, China](#)
- [Navsarjan vocational training institute "DSK", Gujarat, India](#)
- [UDD toilets with reuse in allotment gardens, Cagayan de Oro, Philippines](#)
- [UDD toilets in rural areas, Bayawan City, The Philippines](#)
- [Rural community and school UDD toilets, Misamis Oriental, The Philippines](#)

SuSanA case studies, grouped by region, and the case study template are available [here](#).

Sustainable Sanitation Alliance New SuSanA fact sheets and recommended reading

- [WG 01 - capacity development fact sheet \(2009\)](#)
- [WG 02 - cost & economics fact sheet \(2009\)](#)
- [WG 03 - renewable energies, groundwater protection and climate change fact sheet \(2009, draft\)](#)

- [WG 12 - gender aspects of sustainable sanitation fact sheet \(2009, draft\)](#)
- Working Group 02 on Costs & Economics has added two new documents to its recommended reading section which can prove beneficial to NGOs, developmental agencies as well as individuals who wish to construct toilets (of various types) in India. Design drawings and cost estimating tables are included.
- [Assessment of Urine-Diversion Dehydration Toilet Designs with Respect to Construction Materials Used and Associated Costs. Wafler, M. \(2008\) funded by GTZ, Eschborn, Germany. \(PDF; 2.5 MB\)](#)
 - [Cost Estimates for 20-Seater Re-use Oriented Community Toilet Block. Wafler, M. \(2008\) funded by GTZ, Eschborn, Germany. \(PDF; 1.1 MB\)](#)
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Company Peepoople

Impact Assessment Report on the Peepoo Bag, Kibera, Kenya



The primary objective of this study was to find out if the Peepoo bag meets the expectations of users (residents in the Kibera slum in Nairobi) in somewhat improving their (deplorable) sanitation situation, and if the Peepoo bag is designed in such a way that it is not only biodegradable but also economically viable in terms of generating organic manure for sale.

- [Impact Assessment Report on the Peepoo Bag, Kenya, 2009 \(PDF; 2.5 MB\)](#)
 - [Peepoople website](#)
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PhD thesis, TUHH, Germany

Anaerobic Digestion of Blackwater and Kitchen Refuse

Anaerobic digestion (AD) was investigated as an option for treatment of blackwater within this PhD thesis by Claudia Wendland. It could be proven that AD of combined blackwater from vacuum toilets and kitchen refuse has major advantages in terms of energy and water efficiency. The digested output is rich in nutrients and can be applied as fertiliser.

- [Anaerobic Digestion of Blackwater and Kitchen Refuse \(2009\)](#)
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WECF (Women in Europe for a Common Future)

Making Sustainable Sanitation work for women and men - integrating a gender perspective into sanitation initiatives

This publication gives background information on the pressing need to integrate a gender perspective into the efforts to promote safe and sustainable sanitation. It provides guidance on how to mainstream gender into this sector.

- [Making Sustainable Sanitation work for women and men - integrating a gender perspective into sanitation initiatives \(2009\)](#)
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BMZ Special

German Development Cooperation in the Sanitation Sector



The English version of BMZ Special „German Development Cooperation in the Sanitation Sector” was published in February 2009 and is now available online. BMZ is the German Federal Ministry for Economic Cooperation and Development.

The publication describes the negative impacts of poor sanitation on health, economy and human dignity and thus a country's chances for a sustainable development.

Principles and activities of German Development Cooperation in the sanitation sector are presented as well as regional initiatives and project examples.

- [German Development Cooperation in the Sanitation Sector - English version](#)

(PDF; 0.4 MB)

- [Entwicklungszusammenarbeit im Bereich Siedlungshygiene und Abwassermanagement \(2009\) - German version \(PDF; 0.5 MB\)](#)
 - [Website of the German Federal Ministry for Economic Cooperation and Development \(BMZ\) \(2009\)](#)
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German organisation on process water and rainwater utilisation - fbr
Greywater recycling publication (in German: Grauwasser-Recycling - Wasser zweimal nutzen)

A new publication on greywater recycling is [now available](#) in German language for EUR 25. It includes case study descriptions and information about international market developments in greywater recycling.

GTZ publication

Selected Resources on the Human Right to Water and Sanitation

The GTZ program "Realizing Human Rights in Development Cooperation" has compiled a list of relevant literature about the Human Right to Water and Sanitation. The "human rights approach" can be a useful tool to support demand for sanitation and to make this demand heard.

- [Selected Resources on the Human Right to Water and Sanitation \(2008\) \(PDF; 0.03 MB\)](#)
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GTZ Mongolia

Ecological Sanitation in Mongolia. Result-oriented monitoring 2008

Report about a GTZ-supported ecosan project where 40 UDD toilets were built in Mongolia by the Urban Development, Construction Sector and VET Promotion Program, explaining the difficulties in making these toilets affordable and the reuse viable (published in 2008).

- [Ecological Sanitation in Mongolia \(2008\) \(PDF; 4.3 MB\)](#)
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Technical University Hamburg-Harburg (TUHH), Germany
Urine-Diverting Dry Toilets in Multi-Storey Buildings in Ethiopia

Poster presented at: International Symposium Coupling Sustainable Sanitation & Groundwater Protection, 14 - 17 October 2008, Hannover, Germany by F. Meinzinger et al.

- [Urine-Diverting Dry Toilets in Multi-Storey Buildings in Ethiopia \(2008\) \(PDF; 0.09 MB\)](#)
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Eawag-Sandec, Switzerland

Marketing Compost: A Guide for Compost Producers in Low and Middle-Income Countries (2008)



This guide describes a marketing approach to composting, and is intended to help compost producers run more viable initiatives by unlocking the value of their product. The handbook starts from basics and introduces the key principles and techniques. These include understanding the 'marketing environment', identifying appropriate target customer groups, and developing and promoting products to suit the market. Many marketing issues explained in this publication are equally applicable to products from ecosan systems (e.g. fertiliser, soil

conditioner, urine).

- [Marketing Compost: A Guide for Compost Producers in Low and Middle-Income Countries \(2008\)](#)
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