

Dear Reader,



The feature theme of this 34th edition of our newsletter is the link between food security and productive sanitation. This important link was also recognised in the G8 summit in 2009 where participants signed the "[L'Aquila Food Security Initiative](#)" (PDF; 0.2 MB) which foresees that 20 billion US dollars will be made available over the next three years for investments in agriculture and in rural development in developing countries. Furthermore, "[land grabbing](#)" (PDF, 0.5 MB) – purchase and leasing of large areas of land in developing countries – is seen as a major threat by the German government and others.

My personal dream in this respect is this: A fund (perhaps a UN-fund) takes such land and becomes a neutral broker, helps in territorial planning and strictly sets aside the reserved land for (peri-)urban agriculture linked to productive sanitation systems – thus helping to feed the growing cities of the world.

On a general note, if you would like to read the newsletter in French, please view the [French version here](#). Feedback and suggestions to this newsletter are always [welcome](#). And 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.

Best wishes from Germany,

Dr. Arne Panesar (ecosan@gtz.de)

News

Germany, Brazil, worldwide

Terra Preta sanitation providing new options in ecosan systems - new research focus by Ralf Otterpohl at TUHH university – Nov. 2009

Terra Preta means "black soil" in Portuguese and is the name of "anthropogenic soils". Terra preta can enhance long term soil fertility as was already done in ancient Amazonian cultures - where it still covers, as a "left-over from history", around 10% of the Amazonian region. Such soil can be produced within dry urine diversion sanitation through an anaerobic process supported by fermenting bacteria. This results in no further need for desiccation of faecal matter, for ventilation of the toilet or for a two-chamber system.

[2-page overview article about Terra Preta by Ralf Otterpohl \(PDF; 0.1 MB\)](#)

[Presentation by Ralf Otterpohl about Terra Preta Sanitation \(PDF; 1.7 MB\)](#)

[IWA Specialist Group "Resources oriented Sanitation" \(group chaired by Ralf Otterpohl, contains more publications\)](#)

Switzerland, Nepal

Update: Sandec project on producing struvite fertiliser from urine – Nov. 2009



Eawag is highlighting an innovative research project from Nepal which combines improved sanitation with increased food security. The STUN project, funded through Eawag's discretionary funds in 2008/9, investigated the feasibility of collecting urine to produce a phosphorus-based fertilizer called struvite.

[Project summary on Eawag website, including a short video about struvite production in Siddhipur](#)

Kenya

Update: Ecosan Promotion Program implemented by GTZ-Kenya is improving food security in schools and rural households – Nov. 2009

The EcoSan Promotion Project in Kenya has so far built 230 UDDTs in schools and 550 in rural areas. Both schools and rural households are now producing various crops using the new fertiliser which is costing them nothing. The commercial fertiliser was too expensive and was out of reach for many. Youth groups have formed commercial farming groups in Ugunja using the same urine fertiliser. This is enhancing food security at households and in schools where feeding programmes of WFP are ongoing.

[Video showing how UDDTs are used in agricultural production, by Tembea Youth Group \(in local language Luo\)](#)

[SuSanA Case Study on UDDTs in Ugunja](#)

Niger

Update: Urine fertiliser results of Productive Sanitation Project in Aguié, Niger (IFAD, CREPA, SEI) – Dec. 2009

Breaking News

New publication by GTZ released: [Urine diversion technology review \(PDF; 1.6 MB\)](#).

Links

We have improved our [worldwide ecosan project list](#), particularly with regards to projects in India (please [e-mail us](#) with your updates).

GTZ International Services publishes [operation and maintenance manual for UDDT block \(PDF; 2.5 MB\)](#) at Adama university (Ethiopia).

[Presentations of "Improving Emergency Sanitation" workshop](#) by BORDA in Bremen (Sept 2009) now online.

Children love it: [cuddly pee and poo toys from Sweden](#). Good as an ice breaker for ecosan teaching!

How to explain to children and laypersons why urine diversion makes sense? See the latest, once again [excellent cartoon \(PDF; 3.1 MB\)](#) by Sourabh Phadke ([e-mail](#) & [website](#)).

The popular "[Compendium of sanitation systems and technologies](#)" by Sandec/Eawag and technologies is now also [available in French \(PDF; 4.4 MB\)](#).

The Indian Institute of Technology (IIT) Kanpur has created a [zero-discharge toilet](#), developed in conjunction with Indian Railways and UNICEF (based on the premise of ecosan).

SuSanA website now also available in [French](#) and [Spanish](#).

We call it UDDT, others call it "ecosan toilet". [Duncan Mara](#) proposes the name UD-VIV (urine-diverting alternating twin-vault ventilated improved vault latrine).

TIPS

[Portuguese Video showing examples of ecosan projects in Brazil](#).

View from minute 2.15 onwards to learn more about applied sustainable sanitation and the [ecocentre IPEC](#), an important reference center for sustainable living in Latin America.

[Pee to help make your garden grow on BBC News](#): Gardeners in Cambridgeshire are urging people to relieve themselves outdoors to help gardens grow greener.

The GTZ ecosan program has changed its name to: "sustainable sanitation – ecosan program" to emphasise our focus on

The harvest of urine fertilised sorghum and millet was recently finished in Aguié in Niger. Eight villages (120 farmers) have been involved in testing productive sanitation in the project mainly financed by IFAD (International Fund for Agriculture Development) and carried out by CREPA, PPILDA and SEI. The results show a 50% higher yield on the urine plot compared to the reference plot, while the chemical fertilizer plots and the two urine plots have roughly the same yield.

[1-page description of results by Linus Dagerskog, CREPA](#)
[Two MSc theses from university 2IE in Ouagadougou on risk/resources in urine and cost reduction](#)
[Research study: taste tests of urine fertilized vegetables](#)
[Video: Productive sanitation in Niger, experiences and perspectives from Aguié Province](#)

Italy, Worldwide

Meeting and briefing note: Linking Food security, agriculture and cities – Sept. 2009

A meeting on "Food, agriculture and cities: challenges and way forward" took place at the FAO in Rome on 24 - 25 September 2009 (a representative of the SuSanA network, Arne Panesar, took part in it). The meeting underlined that territorial planning and urban agriculture have high potential to feed the cities. Furthermore, the FAO briefing note states that "As the demand for water increases, the treatment, productive recycling and safe reuse of waste and wastewater will be crucial for peri-urban and urban agriculture and food security."

[FAO briefing note on Food for the Cities \(PDF: 0.4 MB\)](#)

Ghana

Presentations from regional Sanitation and Hygiene Symposium (including CLTS and ecosan) – Nov. 2009

The bi-lingual West Africa Regional Symposium on Sanitation and Hygiene (3-5 Nov 2009, Accra, Ghana) brought together about 140 participants from 17 countries. It was jointly organised by the Resource Centre Network Ghana, UNICEF, West Africa Water Initiative (WAWI), WaterAid, and IRC, and supported by WSSCC. There were some interesting discussions on whether or not it is possible to link productive sanitation (ecosan) to the CLTS approach.

[1-page description of discussions regarding linking CLTS and ecosan \(PDF: 0.1 MB\)](#)
[Papers and presentations from regional seminar](#)
[Paper of Linus Dagerskog on rural productive sanitation in Aguié, Niger \(in French\)](#)
[Paper of Fode Camara on the introduction of ecosan in Senegal](#)
[Paper of Chiaka Coulibaly on the Ecosan_UE project \(urban Ecosan in Burkina Faso\)](#)

Germany, worldwide

World Toilet Day on 19 Nov. gains more media coverage each year! – Nov. 2009



good solution.

The German Toilet Organisation also gained media attention with their initiative a "Klobalised World" (Klo equals toilet in German) in the centre of Berlin with pupils from Berlin's high schools.

[Website of World Toilet Day](#)
[Speech by Thilo Panzerbieter \(German Toilet Organisation\): I have a dream \(in German\)](#)
[Greeting note by new German Federal Minister for Economic Cooperation and Development Dirk Niebel \(in German; PDF: 0.1 MB\)](#)
[Press release by German Toilet Organisation \(in German\)](#)
[Photos of seminar at GTZ on child health and sanitation in conjunction with World Toilet Day](#)
[25-minutes radio podcast on sanitation crisis and ecosan aired on World Toilet Day \(in German\)](#)

Worldwide

News from IWA Specialist Group Resources Oriented Sanitation (EcoSan) – Nov. 2009

The next Specialist Group meeting will take place during the [conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems](#) in Spain in April 2010. The election of a new chair team and a new management committee for the Specialist Group (SG) will be carried out prior to this meeting. Members of the SG can express their interest for SG lead and/or management committee by sending a short CV and motivation letter to [Guenther Langergraber](#).

sustainability (in addition to reuse).

Leave a comment in the [new SuSanA guest book](#), open to all members.

Listen to [25-minutes radio podcast on sanitation crisis and ecosan](#) aired on World Toilet Day (in German), featuring Thilo Panzerbieter, Elisabeth von Münch, Robert Holmer and Ralf Otterpohl.

Upcoming events

18 – 30 Jan. 2010
[Water and Sanitation for development and emergencies](#)
World Toilet College, Singapore

27 – 29 Jan. 2010
EASAN II (East Asia Ministerial Conference on Sanitation 2)
Philippines
Contact person: [Engr. Lito Riego De Dios](#) (Department of Health)

24 – 25 Feb. 2010
[International Symposium: Progress in treatment of manure and digestate](#)
Heiden, Germany

14 – 18 March 2010
[LatinoSan \(PDF: 0.2 MB\)](#)
Foz de Iguazu, Brazil

19 – 21 March 2010
[11th SuSanA meeting](#)
Rio de Janeiro, Brazil (to be confirmed)

22 – 26 March 2010
[World Urban Forum](#)
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

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

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

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

Jobs

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

If you are an international MSc student currently studying in Germany and interested in doing a 3-month internship with the GTZ ecosan team, [we would like to](#)

South Africa, Zimbabwe

AMCOW AfricaSan Sanitation Awards 2009 goes to Peter Morgan – Nov. 2009



The AMCOW AfricaSan award for Technical Innovation was awarded to [Dr Peter Morgan](#), a Zimbabwean national, who for four decades has provided Africa with the most innovative technical ideas in sanitation and hygiene directly affecting poor people. Peter is also an active member of the SuSanA network.

According to [Duncan Mara's blog](#), Peter's achievements in sanitation are, quite simply, outstanding: the VIP latrine, the Arborloo, the Fossa Alterna, the Skyloo – so the AMCOW award is very richly deserved!

[AMCOW AfricaSan Awards – 2009 \(PDF; 0.4 MB\)](#)

[Peter Morgan's popular book "Toilets that make compost" \(in English and French\)](#)

South Africa

Southern Africa network for sustainable sanitation launched – Nov. 2009

The ecosan research group (EcoSanRes) at Stockholm Environment Institute has launched its knowledge node on sustainable sanitation for Southern Africa during the [second Africa Water Week](#). The Water Research Commission (WRC) is managing the secretariat of the knowledge node. The Water Information Network South Africa (WIN-SA) is implementing it.

Contact: [Ditshego Kgopotso Magoro](#)

[Southern Africa network for sustainable sanitation launched](#)

South Africa

SuSanA special seminar "Upscaling sustainable sanitation in sub-Saharan Africa" took place before Second Africa Water Week – Nov. 2009

A special seminar was organised by WRC, GTZ and SEI in Midrand/Johannesburg to showcase latest experiences, trends and challenges for up-scaling sustainable sanitation in sub-Saharan Africa. The aim was to share experiences and to discuss messages of the SuSanA to the [Second Africa Water Week](#).

[Presentations from the seminar](#)

[Key messages from SuSanA for upscaling sustainable sanitation \(PDF; 1.4 MB\)](#)

Germany

Applications invited for 2nd International Huber Technology Prize – Oct. 2009

Students and PhD researchers can participate in the [Huber Technology Prize 2010](#), which is a competition under the theme "Water supply and wastewater treatment – New solution to old problems". Proposals submitted should display their feasibility in practice and represent a contribution to the Millennium Development Goals. Deadline is 31 March 2010.

Switzerland, India, Nepal and Philippines

Launch of "Sustainable Sanitation and Water Resources Management Network Asia - Putting Sanitation into Focus" Project – Oct. 2009

With the financial support of the German Federal Ministry for Economic Cooperation and Development (BMZ), through the [German Technical Cooperation \(GTZ\)](#), the Swiss company [seecon international gmbh \(Switzerland\)](#) has launched the public private partnership (PPP) "Sustainable Sanitation and Water Resources Management Network Asia - Putting Sanitation into Focus", which aims to improve local capacity for sustainable sanitation and water resource management in Nepal and the Philippines and to mainstream the efforts in this area in India. Seecon's project partners in the 2-year project are [Ecosan Services Foundation](#) (India), the [Xavier University \(Philippines\)](#) and the [Environment and Public Health Organisation \(Nepal\)](#).

Contact: [Martin Wafler](#)

Philippines Center for Advanced Philippine Studies (CAPS) & Philippine EcoSan Network (PEN)

The Philippine Symposium on Sustainable Sanitation and the Global Handwashing Day Celebration – Oct. 2009

The Philippine Symposium on Sustainable Sanitation (theme: "Sustainable Sanitation Capacity Development for Decision-Makers") and the Global Handwashing Day Celebration were held during 15-16 October 2009 in Makati City. Organised under the Stockholm Environment Institute's EcoSanRes 2 Knowledge Node Project in the Philippines, the two-day sanitation event showcased innovative and forward-looking programs and good practices addressing the myriad of problems of sanitation in the country.

[Presentations from Philippines sanitation symposium](#)

Norway, Uganda, worldwide

Norwegian NGO SuSan Design works on sustainable sanitation in refugee camps – Oct. 2009



Sanitation in a refugee camp has special challenges and rewards. The challenges are similar to urban slums while the rewards can improve quality of life and cut the cost of running camps. SuSan Design works with industrial designers to bring research and incentives to sanitation systems in emergency situations and refugee camps

across Africa. Their planned solutions involve public urine diversion dry toilets in combination with hygienic logistics and ammonia-based treatment to transform human excreta into safe fertiliser.

[2-page flyer outlining ideas for refugee camps and sustainable sanitation \(PDF: 0.3 MB\)](#)

[Website of NGO Sustainable Sanitation Design](#)

Zambia

Toilets save eyesight, new study confirms – Nov. 2009

A new study conducted by Zambia's Ministry of Health and supported by Operation Eyesight found that trachoma was 28% more likely to strike in households that do not have proper toilet facilities. Trachoma is the world's leading cause of preventable blindness. "Believe it or not, toilets and blindness are directly connected", says Pat Ferguson, President & CEO of Operation Eyesight.

[News item from Sanitation Update: Zambia: Toilets save eyesight](#)

[Website of NGO Operation Eyesight](#)

Publications

GTZ and partners

Further expansion of ecosan photo collection on Flickr

We have now 1800 well-sorted [ecosan-related photos on Flickr](#) and we get an average of 300 hits (views) per day. With this medium we are reaching a different audience – including people who may never have heard of ecosan before. If you want to add your photos, just [e-mail](#) us.

New photos in the following countries are now online:

[Rwanda - UDDTs in rural primary schools \(by GTZ\)](#)

[Peru – Constructing UDDTs in Cusco from Adobe \(Rotaria\)](#)

[India – UDDTs in Tamil Nadu \(Eco-Pro\)](#)

[Uganda – School UDDTs after 5 years of use \(EcoSan Club\)](#)

[Botswana - UDDTs from GTZ ecosan pilot projects \(5 years later\)](#)

[Ethiopia – ROSA project](#)

[China - community led ecosan program in Shaanxi](#)

Eawag/Sandec, Switzerland

A system perspective in sanitation – Human waste from cradle to grave and reincarnation

Numerous technological innovations have been developed in the last decade but with innovation comes an increasing lack of consistency and increased communication difficulties. The main goal of this publication is to assist the decision making process to avoid fixed mind sets towards conventional solutions which to-date, have not always shown to be the best choice in a site specific context. An equivalent concept to the "cradle to reincarnation" is the "[cradle to cradle](#)" concept.

[Read abstract via Sciencedirect \(Desalination journal, 248 \(1-3\), p. 410\).](#)

EcoSan Club Austria

Journal Sustainable Sanitation Practice – Oct. 2009



EcoSan Club Austria is proud to announce Issue 1 of the new Sustainable Sanitation Practice (SSP) Journal. With this journal, high quality information on practical experiences with existing sustainable sanitation systems will be made available. SSP should fill a gap as sustainable sanitation is being discussed among many disciplines. Issue 1 is dedicated to "Greywater". The topic of Issue 2 will be "Successful models for operation and maintenance of sanitation systems".

[Issue 1 of SSP journal: Greywater treatment and reuse](#)

Sandec – Switzerland and Nepal

Evaluation of biogas sanitation systems in Nepalese prisons

In January 2007, an agreement between ICRC and the local expert partner Biogas Sector Partnership Nepal (BSP-N) was signed to implement five biogas sanitation systems in three jails in Nepal. An evaluation [by Eawag/Sandec after one year of operation on behalf of ICRC](#) found that biogas plants are an appropriate solution for the combined treatment of blackwater and kitchen waste

in prisons as well as in other institutions in developing countries.

Contact: [Yvonne Voegli](#)

[Summary report "Evaluation of Biogas Sanitation Systems in Nepalese Prisons" \(on behalf of ICRC\) \(PDF; 0.4 MB\)](#)
[Presentation of the evaluation results \(PDF; 2.9 MB\)](#)

Sustainable Sanitation Alliance

New SuSanA case studies and Russian vision document – Oct. 2009



The members of the SuSanA network wish to highlight the new Russian vision document (thanks to WECF and partners) and the following case studies:

[Russian version of the SuSanA vision document \(PDF; 0.7 MB\)](#)

[Eleven SuSanA case studies from various countries dealing with UDDTs](#)

[Case study: Biogas public toilet facility with water kiosk, Naivasha, Kenya – draft \(PDF; 0.6 MB\)](#)

[Case study: Use of reclaimed wastewater in agriculture, Jordan valley, Jordan \(PDF; 0.6 MB\)](#)

[Case study: Pour-flush toilets with biogas plant at DSK Training Institute Gujarat, India - Draft \(PDF; 0.7 MB\)](#)

German NGO group

Safe sanitation – a challenge we can meet together: policy paper on sustainable sanitation – Oct. 2008

German NGOs 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. The NGO group calls for the installation of 10,000 effective and sustainable sanitation facilities for schools, which would be used as models and be financially supported.

[Policy paper: Safe sanitation - a challenge we can meet together \(PDF; 5.5 MB\)](#)

WSP Africa

Study for financial and economic analysis of ecological sanitation in sub-Saharan Africa – Sept. 2009

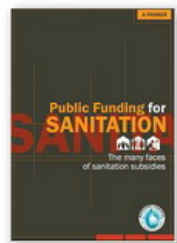


This WSP-financed study focused on urban settlements. The aim of the study was to compare ecosan with conventional sanitation systems in terms of financial and economic costs and benefits, in order to assist decision-makers and sponsors of development programs to make informed decisions about relative merits of different types of sanitation.

[Study for financial and economic analysis of ecological sanitation in sub-saharan Africa \(PDF; 5.6 MB\)](#)

Water Supply and Sanitation Collaborative Council (WSSCC)

Public funding for sanitation: the many faces of sanitation subsidies – Aug. 2009



This publication explains that the discussion on appropriate sanitation financing mechanisms for the poor goes far beyond the use of hardware subsidies. It must take into account aspects of hardware and software, capital and operational expenditure, the type of sanitation system being built, and, ultimately, the users of the sanitation system. This publication also discusses issues around financial sustainability.

[Public funding for sanitation: the many faces of sanitation subsidies \(PDF; 0.5 MB\)](#)

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