Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On behalf of





ecosan Newsletter

Newsletter on sustainable sanitation and ecosan

By the GIZ program "Sustainable sanitation – ecosan"

Issue no. 44 October 2012

Dear Readers,



In our last newsletter in May we had mentioned that this October newsletter would be our last one. However, we did not expect the large outcry from our French-speaking readership about this announcement – who stressed that they had few alternatives to this newsletter with regards to reading in-depth news on sustainable sanitation and ecosan! Based on this reaction, we decided that for the time being we should continue with the French version, and to do so, we

also need to produce an English version. We thank all of you who emailed us with your encouragement.

After having edited the last 15 editions of this newsletter over the past four and a half years, it is time for me to move on and to hand over this and other tasks to my successor at GIZ, Conrad Thombansen who is a water and sanitation expert within GIZ with many years of experience in Benin and Burkina Faso in particular. I say good-bye to you and hope to interact with many of you in the future on the SuSanA discussion forum.

This newsletter is sent to approx. 4,000 subscribers for the English version and 430 subscribers for the French version. If you see this newsletter in a text-only format, please adjust your e-mail program to display e-mails in HTML-format.

Dr. Elisabeth von Münch

(former program leader "Sustainable sanitation - ecosan") New contact email: <u>elisabeth.muench@ostella.de</u>

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Breaking News

<u>Bill & Melinda Gates Foundation</u> <u>announces third round of Reinvent</u> the Toilet Challenge

Links

Outcomes of the 16th SuSanA meeting are now uploaded on the SuSanA website. Photos and videos of the session are also available online. You can also follow the feedback and relevant discussion on the SuSanA forum.

Starting in October, the IWA
Specialist Group (SG) on
"Resources Oriented Sanitation
(EcoSan)" will electronically elect a
new SG lead and Management
Committee. Members of Ecosan
SG can cast their vote till the end
of December.

UNESCO IHE announces a

Postgraduate professional diploma
in Sanitation and Sanitary
Engineering. Students can join
anytime. The feedback from
students on one of it's online
modules on ecological sanitation is
available here. Contact: Mariska
Ronteltap

The Institute of Wastewater
Management and Water Protection
from the Technical University
Hamburg - Harburg is planning to
host an international conference on
Terra Preta Sanitation in
September 2013. In the Doodle
survey you can inform the dates
that suit you the best. The Institute
is also looking for interested co-

France – June 2012

- Emergency sanitation workshop in Delft June 2012
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- Ecological sanitation: why, how, how much?

News

Germany

New GIZ Sustainable sanitation program leader Conrad Thombansen's address to the readers – Oct. 2012



As the new GIZ program leader for Sustainable sanitation, I foresee the challenge lies in "boosting access to water and sanitation", the motto of the 2012' GIZ WASH sector conference in Uganda. While performance on the MDG goal for water has been fairly well, I think that we have not really done enough in promoting and

financing sanitation. From my field experiences as a development worker of ex-DED, as a consultant for NGO, BMZ, KFW, GIZ and as a GIZ water programme coordinator in West-Africa from 2005-10, I have concluded that sanitation lacks viable concepts and implementation methodologies, substantial investment, capacity development and institutional strengthening of partner organisations who at times do not realise the gravity of the topic. A professional approach along the sanitation chain is required to produce more and measurable health impacts. Successful scaling up requires sound financial systems and conducive institutional environments. Rome was not built in a day, but its latrines may still be visited in northern Algeria and elsewhere!

■ Contact: Conrad Thombansen (GIZ)

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Norway, Kenya

Design exhibition in Oslo displays Unisex Urinal from SuSan Design – Sept. 2012



The unisex urinal designed by Sustainable Sanitation Design in cooperation with the industrial designer Sarah Keller is presented at the exhibition "Design without Borders – Creating Change", at the Norwegian Centre for Design and Architecture. The design is based on the ideas and the needs of women from the slums of Kampala and the prototype has been

tested in Nairobi. The Norwegian Minister of Development and Environment, Mr. Heikki Holmås, inaugurated the exhibition and expressed special interest in the fertilising power of urine and the innovation that is needed to solve the sanitation crisis. The exhibition is open until 2 December 2012 and then it will move to other locations around the world within the context of "Design for the other 90%".

SuSan Design website

- Article from NORSK FORM Foundation for Design and Architecture in Norway about toilets in slums
- Fragment of the exhibition Design without borders catalogue (PDF; 4.1 MB)
- Contact: Karsten Gjefle (SuSan Design)

organisers for content related issues. Contact: <u>Torsten</u>
<u>Bettendorf</u> (TUHH)

The results of an ex-post evaluation of the GIZ EcoSan Promotion Project in Kenya is now available on the Ecosan Network Kenya Blog.

Exposant d' launches the Walloon Sustainable Sanitation Network on November 16th, 2012 in Louvain-la-Neuve (Belgium) with a press conference, an exhibition and a presentation on "Opportunities of mobile toilets for sustainable sanitation". Exposures and animations will continue until November 19th, the World Toilet Day.

Contact: Olivier Chaput (Exposant' d)

SuSan Center of Xavier University together with seecon international GmbH and the SEARSOLIN conducted a six-day workshop on Sustainable Sanitation and Water Management (SSWM) and its role in Emergency Preparedness and Response cycle in August. The workshop catalysed new ideas on optimising the SSWM system in the currently developed permanent site at Xavier Ecoville, where victims of the typhoon WASHI have been relocated. Course material can be provided on request.

Contact: <u>Analiza Umaran Miso</u> (Xavier University) or <u>Dorothee</u> Spuhler (seecon Gmbh)

Two posters - one on
"Decentralised wastewater
treatment in an urban setting Results from a full-scale
demonstration project" at the GIZ
Headquarters and another on
"Optimisation of struvite
precipitation from urine on bench
scale" are now available online.

A Master thesis on <u>"Reassessing stakeholders"</u> involvement in environmental sanitation planning and provision - A comparative analysis of three contemporary approaches in East Africa by Maria Cecilia de Carvalho

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USA, worldwide

BMGF's 'Reinvent the Toilet Fair' brings poo and toilets to the spotlight – Aug. 2012

The Bill & Melinda Gates Foundation (BMGF) hosted its first ever Reinvent the Toilet Fair in Seattle, Washington on August 14-15, 2012. Thirty-five grantees from Round 1 of the Reinvent the Toilet Challenge and Rounds 6 and 7 of the Grand Challenges Explorations initiative exhibited their toilet prototypes at the foundation's campus. WASH sector experts, scientists, engineers, and African ministers were among the 300 guests in attendance. Bill Gates himself also toured the fair and presented the following awards: first prize to California Institute of Technology; Second prize to Loughborough University; Third prize to University of Toronto; and Special Recognition for Toilet-User Interface to the Swiss Federal Institute of Aquatic Science and Technology (Eawag) and EOOS Design.

■ Videos on Reinventing the Toilet

- Video on Reinvent the Toilet Fair Highlights
- Bill Gates Impatient Optimists blog post about the fair
- Impatient Optimists blog post about fair winners
- Press Release on RTTC Round 1 Winners and Round 2 Announcement
- Relevant discussion in the SuSanA forum about RTTC
- Contact: <u>Doulaye Koné</u> (BMGF)

Switzerland, Austria, USA

EAWAG/EOOS' s source-separating toilet wins BMGF award for 'Outstanding design of a toilet user interface' – Aug. 2012



At the 'Reinvent the Toilet Challenge' Fair, the Bill & Melinda Gates Foundation (BMGF) awarded the project "Diversion for safe sanitation" a Special Recognition Award for Outstanding Toilet Design. Eawag scientists partnered with the Austrian Design Studio EOOS and developed a portable urine-diverting toilet with on-site wash & flush water recovery. A rotational mechanism in the toilet's squatting pan keeps three streams separated: undiluted urine, dry faeces as well as wash and cleaning water. The used wash water is recovered on-site based on a gravity-driven ultrafiltration

membrane inside the back wall of the toilet. The highlight of this system is that it requires very low energy input and maintenance and still provides safe water for hand washing, anal cleansing and toilet cleaning.

- Project website
- Video on Eawag/EOOS toilet
- Contact: <u>Tove Larsen</u> (Eawag)

Burkina Faso, Germany

A tool for spatial monitoring of sustainable sanitation in an urban environment – Aug. 2012



The National office of Water and Sanitation (ONEA) of Burkina Faso is supported by GIZ's Water and Sanitation Program (Phase 2: 2009 and 2012). One of its outputs is the development of a monitoring tool of the improved sanitation units built within the framework of the Urban Sanitation Strategic Plan in Burkina Faso. The project involved the implementation of a national survey on the access to sanitation of households and revealed massive presence of traditional

Rodrigues is available for download.

Videos and photos

Photos on low cost grey-water treatment for households, <u>Lilongwe, Malawi</u>.

Photos on privately built UDDTs in Adjumani town, <u>Uganda</u>.

Photos on 804 double vault UDDTs and 13 Decentralised Treatment Systems (DTS), Western province and South Nyanza, Kenya.

Video: Prof. Mosler (EAWAG, Switzerland) points out the importance of behaviour change for a successful sanitation concept and to reach the goals of the BMZ check list.

Video: 2012 World Water Prize winner, Miriam Otoo from IWMI (International Water Management Institute) talks about the importance of resource recovery reuse (RRR) in the sanitation sector.

Video: Darren Saywell (Plan International) presents the MDG and identifies the targets and indicators for post-2015 monitoring in the context of plausible global goals at the 16 SuSanA meeting.

Video: X runner provides an alternative sanitation solution in Villa El Salvador, Peru which lacks adequate sanitation.

Wherever the Need in this <u>video</u> explains the losses due to a lack of sanitation and the impact ecological sanitation can have on an individual's life!

"Growing tall with toilets, shit stunts!" This is the Slogan of the German WASH network and WSP's seminar on "No food and

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latrines. With the creation of a database connected to a GIS, it is now possible to identify the plots equipped with no sanitation,

ones with improved sanitation facilities and the ones which need rehabilitation. This tool will help to plan the improvement of access and quality of sanitation of urban households.

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- ONEA website
- GIZ project in Burkina Faso website
- Further information about the project (in French) (PDF; 0.1 MB)
- Contact: <u>Bakary Sanou</u> (PEA/GIZ Burkina Faso)

Democratic Republic of Congo, Germany

Sanitation is now on DRC's agenda - Sept. 2012

Fully conscious of the significance of sanitation issues in the key development sectors (health, education, economy and environment), the Congolese Government has initiated since 2006, a large scale reform on water and sanitation services which is assisted by the German Government through the GIZ project RESE ("Support to the water sector reform"). The CNAEA, an institutional platform which integrates all relevant stakeholders, is the main partner organisation of the project. From the very first beginning; decentralisation was considered to be at the core of the reform process. The approach, therefore, facilitates an intensive dialogue between national, provincial and local stakeholders in order to work out a National Sanitation Policy, in line with the country's overall development strategy. The main objective is to increase the access of the Congolese population, notably the poor, to adequate sanitation.

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- GIZ project in DRC website (in German)
- Further information about the project (in French) (PDF; 0.2 MB)
- Contact: <u>Janine Heinze</u> (GIZ DRC)

Switzerland, worldwide

New Specific Topic Modules added to SSWM Toolbox – Aug. 2012

The SSWM (Sustainable Sanitation and Water Management) Toolbox, an online integrative tool for capacity development created by seecon international gmbh has recently developed Specific Topic Entry Pages (STEPs) designed to reach out to specific user groups. Currently developed pages include: STEP Africa: a key capacity development tool for WASH initiatives in the African context; STEP University: a public platform for a web-based training course in sustainable sanitation and water management organised by the Norwegian University of Life Sciences; and STEP Business Development: a tool to foster applications of business approaches in the water sector in a sustainable way. Additional topics that are planned to be covered in STEPs are among others urban systems, links to the energy sector, sanitation systems, a special chapter addressed to the emergency response and preparedness sector.

SSWM Toolbox webpage

- Specific Topic Entry Pages (STEPs)
- Contact: <u>Dorothee Spuhler</u> (seecon gmbh)

Ghana

SanSol launches 'Waste Diversion Programme' to improve health and agriculture – Aug. 2012

Sanitation Solutions (SanSol), a not-for-profit NGO in Ghana announces the launch of a new organic waste recycling programme for rural Ghana. SanSol hosted a series of stakeholder meetings in August 2012, informing of their plans to support the development of business opportunities tailored to the sanitation needs of rural communities. The meeting and workshops were privately funded by the members of the 'Sanitations Solutions NGO' board and 'Millenium Villages' hosted the one day meeting in the Ashanti region. As an alternative to dumping solid waste on land and in the sea, SanSol will provide systems for communities to convert this waste into organic fertiliser. Following validation of sustainable

nutrition security without WASH" at Stockholm World Water Week presented in this video.

Upcoming events

24 – 26 October 2012

<u>Conference fair "Urban Tec –</u>

<u>Smart Technologies for better</u>

<u>Cities"</u>

Cologne, Germany

29 – 31 October 2012

International Conference:

Developments in faecal sludge

management

Durban, South Africa

29 October – 2 November 2012
2012 Water and Health
Conference: Science, Policy and
Innovation

Chapel Hill, North Carolina, USA

4 – 7 November 2012

2nd ECOSANLAC: Resource

Oriented Sanitation in Latin

America

Vila Velha-ES, Brazil

6 – 7 November 2012
Conference on NASS (new alternative sanitation systems) and final conference on SANIRESCH project (conference in German:
Neue
Wasserinfrastrukturkonzepte in der Stadtplanung)
Eschborn, Germany

12 – 23 November 2012

SARAR- VII Curso Regional en

Saneamiento Sostenible (in

Spanish)

Tepoztlan, Mexico

13 – 15 November 2012

Water Safety Conference 2012:

Improving service delivery and protecting public health

Kampala, Uganda

19 November 2012 <u>World Toilet Day</u> Worldwide

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sanitation as a viable business, SanSol plans a phased approach for the improvement of community sanitation systems in various parts of the country.

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- Sanitation Solutions (SanSol) website
- Workshop Concept (PDF; 0.1 MB)
- Contact: Andrew Craven (SanSol)

20 – 23 November 2012
Conference on Decentralised
Wastewater Management in Asia:
Meeting Urban Sanitation
Challenges at Scale
Nagpur, India

Finland

4th International Dry Toilet Conference - Aug. 2012



The Conference was held in Tampere, Finland on 22 - 24 August 2012. The main theme of the conference was "Drivers for ecological dry toilets in urban and rural areas". The main categories of the conference were - Cultural, gender and social aspects of dry toilets; Technological options and urban applications; Economy, profitability and marketing; Productive sanitation; Hygiene and health aspects; Sustainability and promoting of dry toilets; Operation and maintenance of dry toilets; Sanitation in extreme conditions. The oral presentations, papers and posters of the conference are now available online. GIZ also presented a paper on its project on dry

sanitation (Otji Toilets) in Omaruru, Namibia as well as poster on MoSan - an aesthetically designed mobile toilet prototype prepared by Mona Mijthab.

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- Conference website
- Download papers on SuSanA website
- GIZ paper: What does it take to convince decision makers in Omaruru, Namibia to scale up urine diversion by R. Ingle, S. Berdau, F. Kleemann, P. Arndt
- Case study on Otji toilets, Namibia
- Pictures on Flickr
- Contact: Rahul Ingle (GIZ)
- Poster of MoSan toilet (PDF; 5.0 MB)
 MoSan discussion on SuSanA forum
- Contact: Mona Mijthab (MoSan)

3 – 6 December 2012

World Toilet Summit 2012 - African

Sanitation: Scaling Up

Durban, South Africa

12 – 14 December 2012 2nd Africa High Level Forum on Water and Sanitation for all Dakar, Senegal

20 – 23 January 2013 2nd Water Research Conference Expo Singapore

Jobs

Job and internships on offer are continuously published on the SuSanA discussion forum.

Applications are invited from international MSc students currently studying in Germany who are interested in a 3-month internship with the GIZ Ecosan team in Eschborn, Germany.

France

First French school to offer solely sustainable sanitation facilities – July 2012



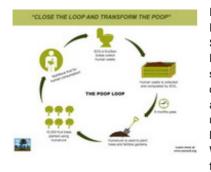
The newly built school of St Germé in Gers district attended by 60 pupils and 10 staff members is an ecological model. One of its unique features lies in the choice of sanitation system: the school is the first in France to be equipped with only dry toilets (Clivus Multrum). On the whole there are 4 toilets for the girls, 2 for the boys and

1 for the pupils with reduced mobility and the staff. All the units are connected to four composters situated in the basement. Moreover, 5 dry urinals of the brand Green Vision were installed. Last but not least, the grey water produced in the school is treated in planted filters. This project was implemented by Pierre and Terre eco-center.

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- Pierre et Terre website
- Contact <u>Ecocentre Pierre et Terre</u> (in French only)

Haiti



Ecological sanitation is catching on in Haiti with the reuse of faecal compost. SOIL (Sustainable Organic Integrated Livelihoods) has already had some success marketing and selling faecal compost in Haiti, e.g. in agricultural and reforestation programs, and urban gardens. Recently, SOIL launched a campaign with Trees Water People to plant 10,000 trees in the coming year using SOIL's

compost. This project will help close the loop in Haiti by offering agricultural education and outreach programs to generate demand for faecal compost and for the innovative, dry sanitation technologies that produce it. In June this year, SOIL and UNICEF hosted Haiti's first Sustainable Sanitation Conference in Portau-Prince attended by more than 55 organisations and government bodies and discussed the ways forward for sustainable sanitation.

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- SOIL website
- Help Trees Water People and SOIL plant 10,000 trees
- Contact: info@oursoil.org

France

First steps for geopurifiation (grey water treatment and reuse) in gardens in France – June 2012

Two days of training on a technology for grey water treatment to irrigate gardens, gathered about 20 water and sanitation professionals in the South of France in Nyons last June. This event was organised by Toilettes du Monde in connection with the visit in France of Laura Allen from Greywater Action (USA). The systems presented consist in spreading grey water in surface trenches filled with mulch. This approach is easy to implement, has low costs and allows reusing a substantial amount of water to irrigate gardens. It would be appropriate for houses or buildings with surrounding landscape.

Inspired by this concept, the French association Graine d'Eau developed phytogeo-purification of grey water (combination of Phyto-purification and geo-purification) and intends to pilot two systems funded by the beneficiaries in France for individual houses and three systems in Chile in a holiday centre early 2013.

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- Website of Toilettes du Monde
- Photos from the workshop
- Website of Grey Water Action
- Leaflet on the training in English and French (PDF; 0.2 MB)
- More about geopurification (in French) (PDF; 0.7 MB)
- Contact: <u>Benjamin Berne</u> (Toilettes du Monde)
- Graine d'Eau's website
- More about phyto-geo-purification (in French)
- Contact: Nathalie Ribeyrolles (Graine d'Eau)

The Netherlands

Emergency sanitation workshop in Delft – June 2012

A consortium of organisations (The Netherlands Red Cross, WASTE, OXFAM GB, the IFRC, and UNESCO-IHE) brought together for three days private manufacturers, humanitarian organisations, and researchers to foster the development of sanitation designs and systems to particularly tackle the challenges regarding sanitation infrastructure in emergency camps, be it in refugee situations or after natural disasters. The workshop focussed on elevated latrines, latrine emptying and sludge disposal and treatment. The presentations, a video and photos from the workshop held in Delft, June 2012 are online at the SuSanA website. You can share your impressions or opinions in the active discussion on the SuSanA Forum.

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- Discussion on emergency sanitation at SuSanA Forum
- Contact: <u>Jan Spit</u> (Waste)

Morocco

UDDTs in the oases in the South of Morocco - June 2012

Twelve UDDTs (Urine Diversion Dehydrating Toilets) have just been built in two schools of Tafilalet, Southern Morocco: 6 for an elementary school in Errachidia (250 students, including 140 girls) and another 6 for a middle school in Erfoud region (350 students including 200 girls). They were installed within the framework of a project by the Moroccan Association of Microbial Biotechnology and Protection of Natural Resources, and the Faculty of Science Semlalia in Marrakech aiming at the development of a sensitisation strategy towards water resources conservation in the biosphere reserve of the Oases in Southern Morocco. This was achieved through capacity building of the local actors, improvement of quality of schooling conditions and hygiene. This project was funded by the small grant program of the UNDP's Fund for the World's Environment and by the program Solid' air.

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- Solid'air's website
- Moroccan Association of Microbial Biotechnology's website
- Semlalia's Faculty of Science's website
- Project detail
- More about the GEF Small Grant Program
- Contact: Mohammed Yacoubi Khebiza (Semlalia's Faculty of Sciences)

Sweden, Kenya and Pakistan

Peepoo stands the test of emergencies – May 2012



The personal, single-use and biodegradable toilet 'Peepoo' has now been tried during and after emergencies providing sanitary, safe and quick access to toilets. Reports from the two most recent projects in emergencies are now available. The

first report is from UN-HABITAT who decided to try Peepoo in the floods in Sindh, Pakistan last year. The second report is from Kenya Red Cross who chose to respond to the flooding around the Nyando district with the help of Peepoo in May this year. Both reports show that the communities were quick to adapt Peepoo and found it convenient and easy to use. The Peepoople Humanitarian Response Model, used for implementing the projects, integrated well into the partners' established routines for hygiene promotion. In Pakistan, the addressed rural community also saw the direct value of Peepoo as a fertiliser for farming.

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- Peepoople website
- Nyando Peepoo trial project report
- Peepoo Try Pakistan report
- Presentation on Peepoople in refugee camps and emergency situation
- Contact: <u>Åsa Angelino</u> (PeePoople)

Publications on ecosan and sustainable sanitation

GIZ. Germany

Sanitation activities of GIZ and partners in eight countries in Sub-Saharan Africa: Factsheet compilation (draft) – Sept. 2012



The compilation of factsheets highlights the sanitation activities of GIZ and partners in eight countries in Sub-Saharan Africa. Each country factsheet - Benin, Burkina Faso, Burundi, Kenya, South Sudan, Tanzania, Uganda and Zambia - summarises on 2 pages the sanitation challenges, GIZ's approach, program activities and outcomes.



The compilation contains comparative tables which provide a comprehensive overview at a glance (e.g. funding, people reached, activities at which level).

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- Link to the Factsheet compilation
- Photos of the projects
- Contact: Rahul Ingle (GIZ)

SuSan A

New case studies in the SuSanA library



The following four new case studies have been uploaded to the SuSanA website.

Ecological Sanitation in peri-urban area of El Alto city, Bolivia (draft)

Promotion of ecological sanitation,
Sabaithuwa, Parsa District, Nepal (draft)

<u>Urine-diverting dry toilets at Adama</u> University, Adama, Ethiopia

<u>Large-scale peri-urban and rural sanitation</u> <u>with UDDTs, South Western region, Uganda</u> (draft)

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- Pictures on Flickr of large scale peri-urban and rural sanitation with UDDTs in the South Western region of Uganda here and here
- Contact: <u>SuSanA Secretariat</u>

Zimbabwe

We can do it - Teaching school girls how to build toilets



This manual brings techniques used to teach people who are not artisans how to build simple toilets that are suitable for small-scale settings. The method described in this booklet shows how the girls can build the spiral shaped toilet house (superstructure) in bricks. The girls are taught how to make a slab, make the house and also how to make a roof. Learning how to build in bricks is useful and the toilet which is built reminds the girls that they too can do anything a man or a boy can do. They enjoy this building and are very proud of their achievement.

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- Link to the publication
- Contact: Annie Kanyemba or Peter Morgan (Aquamor Pvt Ltd)

EcoSan Club, Austria

Issue 12 of Sustainable Sanitation Practice (SSP) on treatment wetlands



Constructed treatment wetlands (TWs) are a simple technology in construction as well as in operation and maintenance. They have a high buffer capacity for hydraulic and organic load fluctuations as well as a high robustness and process stability. TWs are



therefore a suitable technological solution for small villages and single households and are becoming more and more popular all around the world for treating different types of water. Issue 12 of Sustainable Sanitation Practice (SSP) provides insight on treatment wetlands through six articles.

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- Link to publication
- Contact: Günter Langergraber (Boku)

Technical University, Berlin

Embedding innovative sanitation technology - An assessment of urine diversion dry toilets in Bangladesh (MSc thesis)

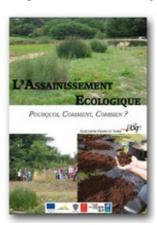
This report assesses factors involved in socially embedding UDDTs in Bangladesh. The author contends that the ultimate success or failure of the UDDT system is, to a large degree, dependent on the whether the toilet and its treated excreta become assimilated into the daily lives and routines of its users. The study evaluated existing UDDTs in seven distinct geographic localities in Bangladesh and gathered data during open-ended interviews with the toilet's users and experts involved in the planning and implementation of the sanitation interventions. The results of this study indicate that the social embedding of the UDDT system is largely contingent on the typology of the settlement in which the toilet is constructed.

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- Link to publication
- Contact: Anthony Guadagni

France

Ecological sanitation: why, how, how much?



The French Association Pierre and Terre which manages an ecological center in Gers, in the southwest of France published last January a complete guide on ecological sanitation. It presents various techniques for building constructed wetlands as well as a complete panel of ecological toilets available on the (French) market. It is a useful guide to choose the ecological sanitation solution which will suit best the users dwellings and lifestyle.

■ Link to publication (in French)

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partner of

sustainable sanitation alliance

GIZ is a partner of the <u>Sustainable Sanitation</u> <u>Alliance</u> (SuSanA) - a loose network of 191 organisations active in the field of sustainable sanitation.

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