

**ecosan – newsletter – no. 23 – 02/2007 – english**



This regular electronic news bulletin from the ecosan programme of GTZ, Germany, addresses a network of friends and professionals involved in initiatives and projects in the field of closed-loop wastewater management and sanitation.

**Dear friends and colleagues!**

Welcome to GTZ's ecosan newsletter issue no. 23!

The latest editions of the English version are distributed directly via e-mail in the globally readable, text-only format. You can also download German, French, Spanish, English and Chinese versions as easy-to-read pdf files from our web-site.

**!!! Downloads:**

**German:** <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/de-ecosan-nl23-2007.pdf>

**Spanish:** <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/es-ecosan-nl23-2007.pdf>

**French:** <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/fr-ecosan-nl23-2007.pdf>

**English:** <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-nl23-2007.pdf>

**Chinese:** <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/cn-ecosan-nl23-2007.pdf>  
(from March 2007)

\* For organisational reasons, the Chinese version is published later than the others.

Your ecosan team hopes you enjoy the current issue!

**Your contributions**

This medium lives through interaction. So please keep sending your suggestions, requests and information to be published via this newsletter to the addresses at the end of this issue. Thank you in advance for any contribution!



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  - 09-27/06/07 Short course Decentralised Water Supply and Sanitation, Delft, Netherlands

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- 07/03/07 Information day 2007, Zurich, Switzerland
  - 07-10/03/07 8<sup>th</sup> Water China, Guanzhou, China
  - 10-14/03/07 Water for all life, Baltimore, USA
  - March 2007 Project workshop, Romania
  - 04-06/04/07 Ecoexpo, Beijing, China
  - 09-11/05/07 Towards sustainable global health, Bonn, Germany
  - 14-16/05/07 Water Malaysia 2007, Kuala Lumpur, Malaysia
  - 15-17/05/07 GeO Movie, Goettingen, Germany
  - 20-23/05/07 Efficient 2007, Jeju Island, Korea
  - 23-28/05/07 Ecosummit 2007, Beijing, China
  - 04-07/06/07 4. IWA Leading Edge Conference & Exhibition on Water & Wastewater Technologies, Singapore
  - 20-22/06/07 East Asian Ministerial Sanitation Conference (EaSan), Beijing, China
  - 25-28/06/07 Novatech 2007, Lyon, France
  - 12-18/08/07 World Water Week, Stockholm, Sweden
  - 15-17/08/07 SUSTAIN, Gauteng, South-Africa
  - 27-31/08/07 Sustainable Cities and Villages, Dongshen/ErDOS, China
  - September 07 African Ministerial Sanitation Conference (AfricaSan), South-Africa
  - 27-28/09/07 International Symposium 2007: Water Supply and Sanitation for All, Berching, Germany
  - 09-12/10/07 6. IWA sp. conference on wastewater reclamation & reuse for sustainability, Antwerp, Belgium
  - 25-27/10/07 World Toilet Summit 2007, New Delhi, India
  - 19-23/11/07 Latin-American Ministerial Sanitation Conference (LatinaSan), Colombia
  - 06-09/02/08 8<sup>th</sup> specialised conference on small water & wastewater systems & 2<sup>nd</sup> specialised conference on decentralized water & wastewater international network, Coimbatore, India
  - 31-05/09/08 Urban Drainage, Edinburgh, UK
  - 08-12/09/08 World Water Congress and Exhibition, Vienna, Austria
  - 24-26/09/07 NETSSAF Final Conference, Ouagadougou, Burkina Faso
  - 01/05-31/10/10 World EXPO, Shanghai, China
- Events – reminders**
- 06-09/03/07 Belgium: World Biofuels Markets
  - 10-15/03/07 USA: 16<sup>th</sup> Annual Technical Education Conference and Exposition
  - 12-13/03/07 Germany: Advanced Sanitation
  - 21-24/03/07 Tunisia: Meda Water Int. Conference on Sustainable Water Management
  - 21-23/05/07 Greece: Fourth International Conference on Sustainable Water Resources Management
  - 20-22/06/07 UK: Energy 2007, The New Forest
  - 27-29/06/07 Malta: 4<sup>th</sup> International Conference on The Impact of Environmental Factors on Health
  - 05-07/09/07 Portugal: ECOSUD 2007
  - 12-14/09/07 France, Paris: New directions in urban water management
  - 01-05/10/07 Italy: Sardinia Symposium 2007
  - 28/10-1/11/07 Australia: 2<sup>nd</sup> IWA-ASPIRE Asia-Pacific Regional Group Conference and Exhibition
  - 11/06-14/09/08 Spain: EXPO Zaragoza 2008: Water for Sustainable Development
  - March 2009 Turkey: 5th World Water Forum

## In-house News

### GTZ hosts kick-off meeting for the promotion of sustainable sanitation / ecosan within the International Year of Sanitation 2008

On 29-30 January 2007 the GTZ ecosan programme and the Swedish EcoSanRes programme hosted a “kick-off-meeting for the promotion of sustainable sanitation / ecosan within the UN’s International Year of Sanitation (IYS) 2008” at the GTZ headquarters in Eschborn (Germany). Participants came from various organisations including AfDB, AWF, BGR, Eawag-Sandec, EcoSanRes/SEI, EcosanClub, EU-NETSSAF, EU-ROSA, GTZ, GTO, IWA, IEES, SEECON, TTZ, UNICEF, WASTE, WB WSP-Afr, WECF, WSSCC and WTO.

The workshop resulted in quite some commitments and a large number of joint decisions relevant for the update of the tentative joint road map for the promotion of sustainable sanitation / ecosan in IYS 2008.

Several working groups were set up to develop a series of publications and carry out other activities. Some of the working groups have been based on activities that were already planned or being conducted by some of the group members, whilst others are new initiatives.

In order to have a joint label for the planned activities, and to strategically align with other potential initiatives, the group decided to form a “Sustainable Sanitation Alliance”. This is not a new organisation, but rather a loose network of organisations working along the same lines, and open to others who want to join and be active in the promotion of closed-loop sanitation systems. The Sustainable Sanitation Alliance invites other organisations to join the network, contribute feedback, and to become involved in the working groups.

A steering group for the alliance has set a date for a second meeting, planned for 16-17 April in Zurich. At this meeting progress will be monitored and the commitments of the partners will be up-dated and coordinated. This meeting will be hosted by Eawag/Sandec and coordinated by IEES and GTZ.

The third meeting of the sustainable sanitation alliance will be organised by SEI and will take place in Stockholm on 11.-12. August, right before the Stockholm Water Week. Here it is hoped that first results will be presented.

We hope that this joint initiative will help make the IYS instrumental in providing more sustainable sanitation systems in the coming years.

!!! **Contact:** [christine.werner@gtz.de](mailto:christine.werner@gtz.de)

#### !!! Downloads:

Agenda of the meeting:

<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-gtz-agenda-iyos-kick-of-meeting-2007.pdf>

Joint roadmap for the promotion of sustainable sanitation/ecosan in the UN’s “International Year of Sanitation 2008”:

<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-gtz-joint-road-map-iyos-2007.pdf>

### Changes in the GTZ ecosan team

We are pleased to welcome the following new interns and employees to the GTZ ecosan team:

- **Jan Fischer** studied Environmental Engineering at the FH Wilhelmshaven and at Van Hall Instituut, Leeuwarden. He has previously worked on constructed wetlands for wastewater treatment in Mexico. Jan joined the GTZ ecosan team as a junior expert in January 2007 and will be working mainly within the NETSSAF project.
- **Robert Gensch** finished his studies of landscape architecture at the TU Berlin last year. In his Diploma-thesis he addressed urban agriculture in Havana/Cuba and its contribution to a sustainable city. He joins the ecosan team from February to May 2007 as a junior assistant.
- **Nanchoz Zimmermann** is a forest engineer, graduated from ETH Zurich, and works for Seecon GmbH (Switzerland). He is an intern at GTZ and is preparing to travel to India where he will work from summer 2007.

**News from  
EcoSanRes**

**“Sustainable Cities and Villages” in Dongshen/Erdos, China, 27-31 August 07**

Organised by the Municipal Government of Erdos and the Stockholm Environmental Institute (SEI) the “Sustainable Cities and villages” conference will take place 27-31 August 2007 in Dongshen/Erdos, China. The conference will showcase the ecosan project for 3 000 people in an urban context implemented in the new Erdos ecotown.

The organisers invite project implementers, practitioners and researchers within the areas of urban and rural ecological and sustainable sanitation, organic waste management and agricultural reuse to share experiences and best practices at this conference.

**!!! Deadline for abstracts: 1 April 2007**

**!!! Information:** <http://www.ecosanres.org/dongsheng2007.htm>

[http://www.ecosanres.org/pdf\\_files/Dongsheng2007Conference\\_announcement.pdf](http://www.ecosanres.org/pdf_files/Dongsheng2007Conference_announcement.pdf)

**!!! Contact** [Chinese]: [sunfuli@acef.com.cn](mailto:sunfuli@acef.com.cn)

**!!! Contact** [English]: [dongsheng2007@ecosanres.org](mailto:dongsheng2007@ecosanres.org)

**News from the  
IWA specialist  
group on ecosan**

**News from the IWA specialist group on “ecological sanitation”**

Dear members of the IWA specialist group on “ecological sanitation”!

Since issue 21, the GTZ ecosan newsletter has had a special section for the members of the IWA specialist group on “ecological sanitation”. All members of the group are cordially invited to submit their contributions.

**IWA conference on "advanced sanitation", 12 - 13 March 2007, Aachen, Germany**

The EcoSan SG is involved in the organisation of the IWA conference on "advanced sanitation". A large part of the presentations are on ecosan systems, high-tech but also several on low-cost solutions. For detailed information on the conference program please visit the website (<http://www.advancedsanitation.de>).

**Next Specialist Group meeting:**

The next meeting of the group will be on Monday 12<sup>th</sup> March at 17h00 at the conference on “Advanced Sanitation” in Aachen, Germany. The location will be indicated at the conference desk. Those who wish to participate in the SG meeting and do not attend the conference should send an e-mail to Ralf Otterpohl before the 9<sup>th</sup> March!! A new management committee will be elected in order to have a more balanced participation from around the world. Suggestions and volunteers from Africa, Asia, Eastern Europe, Australia and the Americas are welcome.

**EcoSan Session at the 16th Annual NOWRA and 1st International Conference, 10-15 March 2007, Baltimore, Maryland, USA**

The EcoSan SG organises an EcoSan session at the 16th Annual NOWRA (National Onsite Wastewater Recycling Association) Conference. For detailed information on the conference program please visit the website (<http://www.nowra.org>).

**International Conference on Sustainable Cities and Villages with a focus on Urban and Rural Ecological Sanitation, Organic Waste Management and Agricultural Reuse, 27-31 August, 2007, Dongshen/Erdos, Inner Mongolia, PR China**

The EcoSan SG is supporting the organisation of this conference. Abstracts should be sent to [dongsheng2007@sei.se](mailto:dongsheng2007@sei.se) by April 1, 2007.

For more information, please visit <http://www.ecosanres.org/dongsheng2007.htm>

**Other issues**

*A conference on Ecological Sanitation is planned for South America, probably taking place in Brasil in 2007 or 2008 with the support of the specialist group. Those who are interested in giving a presentation or who can provide links to ecosan professionals in the region should send an e-mail to Håkan Joensson.*

*There is a dramatic lack of thorough research on low-tech ecosan systems.* The group is very interested in co-ordinating more research in this area. Despite many pre-conceptions low-tech research is very difficult, yet it lacks funding and is not seen as being as prestigious as high-tech. On the other hand ecosan is a growing field with a lack of specialists.

A new book has been published on sanitation strategies for Nigeria, including ecosan options: 'Pre-Feasibility Assessment of Onsite and Decentralised Sanitation Systems for New Satellite Settlements in Abuja, Nigeria' Dissertation at Hamburg University of Technology (TUHH) Ibiyemi J. Ilesanmi (Nigeria) Hamburg 2006 (order at [g.becker@tuhh.de](mailto:g.becker@tuhh.de)). Contact to the author: [yilesanmi@yahoo.com](mailto:yilesanmi@yahoo.com)

The group is also distributing sample lectures on ecosan and an introduction video lecture by Ralf Otterpohl can be viewed on [http://stream.mmkh.de/presentations/ecosan\\_files/fdeflt.htm](http://stream.mmkh.de/presentations/ecosan_files/fdeflt.htm) (sorry, video works only with fast internet and windows explorer).

There is also plenty of material in the group's website <http://www.ecosanres.org> and we welcome more material for posting.

All the best, the group team

**!!! Contacts:** Ralf Otterpohl (chair; [otterpohl@tuhh.de](mailto:otterpohl@tuhh.de))  
Håkan.Joensson (co-chair; [Hakan.Jonsson@bt.slu.se](mailto:Hakan.Jonsson@bt.slu.se)),  
Guenter Langergraber (co-chair; [Guenter.Langergraber@boku.ac.at](mailto:Guenter.Langergraber@boku.ac.at))

## News from Eawag/Sandec

### New EAWAG-headquarters with ecosan-concept inaugurated

In September 2006, Eawag celebrated the opening of Forum Chriesbach, its new headquarters in Duebendorf. The building, designed by the architectural firm Bob Gysin + Partner and built by Implenia, runs without heating or cooling as all energy – even the heat produced by the employees – is used efficiently. An ecosan-concept was also realized in the building: 39 NoMix-Toilets and 7 waterless urinals were installed; so far, the urine is used for research purposes only, at a later stage it shall be processed for use as fertilizer, as is already realized in the library of Liestal/Baselland. Rainwater retained by the extensive roof vegetation is collected in an 80 m<sup>3</sup> reservoir to be used for toilet flushing.

**!!! Information:** <http://www.eawag.ch/media/20060901/index>

### 6 sites now selected for field-testing the Household-Centred Environmental Sanitation Approach (HCES)

The HCES planning approach being championed by Eawag/Sandec is one of the recent innovations in inter-sectoral planning for improved environmental sanitation. The following six urban and peri-urban sites have been selected to carry out field testing of the HCES approach: Curridabat and Pococi, Costa Rica; Fada N'Gourma, Burkina Faso; Waruku/Nairobi, Kenya; Dodoma, Tanzania and Vientiane, Laos. Field testing is being carried out in collaboration with local research institutions (ProDUS in Costa Rica, CREPA in Burkina and URI in Laos) or sectoral NGOs such as Maji na Ufanisi in Kenya.

Monitoring and evaluation of the approach through action research will accompany the field testing in 2007 and 2008 and contribute to the validation of alternative methods for improved environmental sanitation planning. The programme is co-funded by Eawag/Sandec, SDC and seco, the Swiss State Secretariat for Economic Affairs.

**!!! Information:** [http://www.sandec.ch/EnvironmentalSanitation/SESP\\_Home.html](http://www.sandec.ch/EnvironmentalSanitation/SESP_Home.html)

**!!! Contact:** [schertenleib@eawag.ch](mailto:schertenleib@eawag.ch), [christoph.luthi@eawag.ch](mailto:christoph.luthi@eawag.ch)



## Material flow analysis for environmental sanitation planning

Material flow analysis (MFA) is a very promising method to assess the ecological impact of environmental sanitation systems and support the planning of environmental sanitation concepts that contribute to closing the water and nutrient loops. However, the application of this method in developing countries is constrained by limited data availability and data collection means. Sandec and its partners at the Asian Institute of Technology Centre in Vietnam (AITCV), the Centre for Environmental Engineering of Towns and Industrial Areas (CEETIA) and the National Institute for Soils and Fertilizers in Hanoi are therefore developing a tool to assist environmental sanitation planners in applying MFA despite limited data availability. It consists of a procedure on how to assess material flows with limited data availability and a mathematical model describing water and nutrient flows in the main components of the environmental sanitation and peri-urban agricultural system.

Application of the tool to a case study in Hanoi, Vietnam, revealed potential strategies to optimise water and nutrient management. The tool therefore proved to support the planning of environmental sanitation options contributing to minimise resource consumption and environmental pollution in spite of large data uncertainties. The next step should consist in testing and further adapting the tool as part of comprehensive environmental sanitation planning projects (see HCES case studies above).

!!! **Contact:** [montagnero@eawag.ch](mailto:montagnero@eawag.ch)

!!! **Download „Eawag News“** issue 62 (with many contributions about MFA):  
[http://www.eawag.ch/services/publikationen/eaneews/news\\_62](http://www.eawag.ch/services/publikationen/eaneews/news_62)

!!! **Subscription:** Eawag-news for free (English, German, French) under:  
<http://www.eawag.ch/services/publikationen/eaneews/index>

## News - general

### United Nations: 2008 declared International Year of Sanitation

The U.N. General Assembly has declared 2008 the International Year of Sanitation. It requested the U.N. Department of Economic and Social Affairs to serve as the focal point for the year and to develop proposals for activities, including possible sources of funding. The year was one of the recommendations of the Hashimoto Action Plan launched by the U.N. Secretary-General's Advisory Board on Water and Sanitation in March 2006 at the 4th World Water Forum.

Solving the global sanitation problem is of paramount importance. It is one of the most important keys to fighting poverty and thus to achieving the United Nations Millennium Development Goals and implementing the resolutions adopted at the World Summit on Sustainable Development held in Johannesburg in 2002.

Whilst international endeavours to improve provision of clean drinking water are considerable, efforts in the area of sustainable wastewater management and expansion of the provision of suitable toilet systems are insufficient. Between 1990 and 2004, for example, improvements in access to basic sanitation in sub-Saharan Africa were modest, with access rising from 32% to 37%. National governments, along with the international community of states, are called on to urgently reinforce their efforts to improve basic sanitary provision.

Following the considerable success of the International Year of Freshwater in 2003, the idea is that the designation of an "International Year of Sanitation" by the UN General Assembly shall help to create the urgently needed enhanced public awareness of the problems which exist in this area and of the social, ecological and economic benefits which can be gained by improvements in the area of wastewater management and education on hygiene.

As there is less than a year to 2008, all ecosan enthusiasts should begin thinking how they can cooperate with this initiative in order to promote sanitation in general, and ecosan in particular, so that the sanitation MDG can be achieved as sustainable as possible.

### !!! Downloads:

Revised draft resolution, U.N. General Assembly Document, A/C.2/61/L.16/Rev.1:  
<http://www.un.org/ga/61/second/proposalslist.html>

List of UN-resolutions: <http://www.un.org/Depts/dhl/resguide/r61.htm>  
[Search for "A/RES/61/192"]

UN press releases: <http://www.un.org/News/Press/docs/2006/ga10564.doc.htm>  
<http://www.un.org/News/Press/docs/2006/qaef3171.doc.htm>

Hashimoto Action Plan: [http://www.unsgab.org/Compendium\\_of\\_Actions\\_en.pdf](http://www.unsgab.org/Compendium_of_Actions_en.pdf)

### UNSGAB and AfDB sign joint action programme

The United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB) and the African Development Bank (AfDB) Group have signed a joint action statement. At the opening session of this first dialogue session of UNSGAB and African stakeholders in Tunis, the Prince of Orange, speaking on the behalf of the UNSGAB, declared that: "Our message is a simple one: no more new ideas and policies. We better implement the ones we already have. It's time for action!"

The objective of the dialogue was to formulate a framework of collaboration between the UNSGAB and key African organizations in support of the ongoing African water initiatives and programmes, including preparations for the 2008 International Year of Sanitation. The main outcome of the dialogue was the design of specific joint actions to be undertaken by UNSGAB and the African organizations to achieve a breakthrough towards achieving the Millennium Development Goals (MDGs) on water and sanitation in Africa.

### !!! Full article by AfDB, 15 Dec 2006:

[http://www.afdb.org/portal/page?\\_pageid=293.174339&\\_dad=portal&\\_schema=PORTAL&press\\_item=10206236&press\\_lang=us](http://www.afdb.org/portal/page?_pageid=293.174339&_dad=portal&_schema=PORTAL&press_item=10206236&press_lang=us)

### Ecosan-China Mailing-list

A mailing-list for experts and organizations interested in the topic of ecological sanitation in China has been established to exchange experience, information on projects, study tours, training courses, etc. The mailing is mainly in Chinese. Please feel free to join in.

!!! Information: <http://groups.google.com/group/ecosan-china>

!!! Contact: [ecosan-china@googlegroups.com](mailto:ecosan-china@googlegroups.com).

### Philippines export waterless urinals to Bulgaria

The Centre for Advanced Philippine Studies (CAPS), which manufactures ceramic urine-diverting toilet bowls for ecosan systems, has received orders from Bulgaria for 500 toilet bowls. For the period 2007-2010, CAPS aims to supply these systems to 5,000 Filipino households along with training in the proper use of the urine-diverting bowls and ecosan systems. At least 600 bowls have already been sold in the Philippines to ecosan projects of CAPS, GTZ, and various NGOs and implementing municipalities (e.g. the municipality of Bayawan) since the urine-diverting toilet was introduced last year.

!!! Download related article in the Philippine Inquirer: RP to export waterless toilets, December 16, 2006 by Blanche Rivera:

[http://globalnation.inquirer.net/news/news/view\\_article.php?article\\_id=38688](http://globalnation.inquirer.net/news/news/view_article.php?article_id=38688)



## Jobs

### Afghanistan: Advisor for water sector coordination - Kabul – GTZ

The drinking water supply and wastewater management for the populations of Kabul, Herat and Kunduz is to be improved through a restructuring and reinforcement of the systems of the water utility.

You will advise the Ministry of Urban Development and Housing, particularly the newly established Department for Urban Water and Environmental Sanitation and will represent water sector in the portfolio of GTZ in Afghanistan.

Time period: January 2007 - December 2007

**!!! Information:**

[http://www.gtz.de/de/karriere/stellenmarkt/detail\\_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60070557](http://www.gtz.de/de/karriere/stellenmarkt/detail_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60070557)

### Mali: Advisor for the Direction National de l'Hydraulique – Bamako – GTZ

The project supports the processes initiated by the Malian government to develop a water sector programme, taking the first steps towards the introduction of an integrated water management concept.

Your task is to advise, accompany the process and support the Direction National de l'Hydraulique (DNH) and selected regional departments (DRHE).

Time period: January 2007 till December 2009

**!!! Information:**

[http://www.gtz.de/de/karriere/stellenmarkt/detail\\_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60068952](http://www.gtz.de/de/karriere/stellenmarkt/detail_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60068952)

### Egypt: Advisor "Strategic counselling of the Ministry for Water Resources and Irrigation" - Cairo – GTZ

For the implementation of the national water policy the Ministry of Water Resources and Irrigation (MWRI) is conducting a radical institutional reform but has little experiences, knowledge and competence in such complex reform processes. The project thus focuses on the conception, implementation and steering of the institutional reform.

Time period: January 2007 - December 2008

**!!! Information:**

[http://www.gtz.de/de/karriere/stellenmarkt/detail\\_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60070328](http://www.gtz.de/de/karriere/stellenmarkt/detail_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60070328)

### Germany: Planner for the competence field: Water - Eschborn – GTZ

You will assist in the further development of our water portfolio and will work to introduce new forms of cooperation and financing for our projects. Your specific knowledge and consultancy will be focused on projects in the regions of the Maghreb, West Africa and Latin America. Furthermore, you will represent the water sector in German development cooperation in external tasks, such as steering of associations and knowledge management.

Time period: April 2007 - March 2010

**!!! Full job description:**

[http://www.gtz.de/de/karriere/stellenmarkt/detail\\_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60007674](http://www.gtz.de/de/karriere/stellenmarkt/detail_fachgebiete.asp?fachgebiet=Umwelt+und+Infrastruktur&anzeige=60007674)

**!!! Contact:** Mrs. Anne Ramp: [anne.ramp@gtz.de](mailto:anne.ramp@gtz.de)

### Uganda: 2 jobs from CIM in the water development agency - Kampala

The CIM (Centre for International Migration and Development) is a cooperation project of GTZ and the German Federal Labour Office (BA). The programme for integrated experts offers an additional remuneration to qualified European experts signing a contract with local institutions in developing countries. Applicants must have German or European nationality and should have several years of professional experience in the respective field of specialisation (except for junior positions). They should be fluent in German and not be living permanently outside of the EU.

The Water Development Agency in Uganda is the leading governmental agency in the field of water and sanitation, within the Ministry of Water, Lands and Environment (MWE) and is responsible for water supply in small and medium sized cities.

Some of the current challenges facing the Ugandan water sector include: improving institutional and legal frameworks, increasing economic and investment efficiency and improving the cooperation of small water systems with the private sector.

#### **Water Management Expert**

Duration: 2 years

Reference number: 60073376

#### **!!! Full job description:**

<http://www.cimonline.de/de/bewerber/199.asp?region=Afrika+s%FCdlich+der+Sahara&anzeige=60073376>

#### **Expert for the regulation of the water sector**

Duration: 2 years

Reference number 60073653

#### **!!! Full job description:**

<http://www.cimonline.de/de/bewerber/199.asp?region=Afrika+s%FCdlich+der+Sahara&anzeige=60073653>

**!!! Contact:** Frau Elke Heger: [elke.heger@gtz.de](mailto:elke.heger@gtz.de)

### **Water and Sanitation jobs with the German Development Service, DED**

The German Development Service currently has a large number of posts in "Water and Sanitation Supply". An up-to-date overview of all these posts can be found under:

#### **All DED Job descriptions in the water sector under:**

[http://www.ded.de/cipp/ded/custom/pub/content.lang,1/oid,311/ticket.g\\_u\\_e\\_s\\_t/-/Entwicklungshelfer\\_und\\_-stipendiaten.html](http://www.ded.de/cipp/ded/custom/pub/content.lang,1/oid,311/ticket.g_u_e_s_t/-/Entwicklungshelfer_und_-stipendiaten.html)

Please enter "Wasser" in the search mask.

Only some of the jobs currently available are presented below:

#### **Engineer for water supply/ wastewater management/ solid waste management, Uganda**

Development of a feasibility study and the implementation of the findings for water supply, wastewater and solid waste management for the Wobulenzi town council, for the improvement of these services in poor areas of the town.

PP-Nr: 6749-UGA-Wasser

#### **Civil Engineer specialised in urban water management, Yemen**

Sector coordinator for the sector "water and environment"

PP-Nr: 7145-YEM-WS-KOR

### **Germany: PhD position on water utilities management – Univ. Leipzig**

The Institute for Infrastructure and Resources Management at the Faculty of Economics and Management Sciences of the University of Leipzig is inviting applications for a Business Manager / Consultant or Environmental Engineer for international research projects on water utilities' management.

The position will be available immediately for an initial period of approximately 20 month. The successful candidate will be expected to qualify for a PhD. Applicants should have prior work experience in the field of wastewater services management.

To apply, please send a full resume, academic record and a writing sample (e.g. academic paper) in English via email to Prof. Dr. Robert Hollaender

!!! Information: <http://www.uni-leipzig.de/%7Edbusp/neu/html/deu/>

!!! Contact: [hollaender@wifa.uni-leipzig.de](mailto:hollaender@wifa.uni-leipzig.de)

!!! Deadline: 15. March 2007

News from the  
pilot projects ...  
... German  
cooperation

### Germany Borda Business unusual workshop 29<sup>th</sup> -30<sup>th</sup> November 2006

From the 29th to 30th of November 2006 the 2nd International BORDA Basic Needs Services (BNS) Workshop & Symposium titled "Business Unusual" was held in Bremen.

"Business Unusual" presented a platform for experts to meet and compile recommendations to up-scale BNS provision in Africa and Asia. The discussions focused on identifying the key principles of existing success stories and developing strategies for overcoming "bottle necks" and limiting factors for mass dissemination of BNS.

Presentations of key workshop participants from India, Indonesia, South Africa & Europe, included information on the experiences of the Durban municipality, where 20 000 urine-diversion dehydration toilets are built per year, and on a mass roll out of 20 000 units of household size biogas plants per year treating manure and household waste water implemented in Nepal, financed by the KfW and organised by the NGO SNV.

All presentations and key findings are available online at BORDAs website

!!! Downloads:

<http://www.borda-net.org/modules/wfdownloads/viewcat.php?cid=14>

<http://www.borda-net.org/modules/news/article.php?storyid=60>

### The Philippines Action research on the use of diluted urine in Cagayan de Oro

An action research on the use of diluted urine collected from urine-diverting dehydrating (UDD) toilets for the production of different vegetables, fruits and ornamental plants was conducted in Cagayan de Oro City from October 1, 2006 to January 15, 2007 by PUVeP of Xavier University College in Agriculture. The research was commissioned by the Foundation for a Sustainable Society (FSSI) with financial support of the Dutch organization WASTE. The objectives of this study were to assess the agronomic effects of urine as a fertilizer to food and non-food-crops as well as to determine the acceptability of such products for growers and costumers.

The study concludes that urine reuse for food and non-food crops are a viable option if certain logistical and technological constraints are appropriately addressed. The study was presented at the ISSUE Workshop "Strengthening our Gains in Ecological Sanitation" in San Fernando, La Union (Philippines).

!!! Information: [http://puvep.xu.edu.ph/snews/ecological\\_sanitation/Ecosan\\_Research/](http://puvep.xu.edu.ph/snews/ecological_sanitation/Ecosan_Research/)

!!! Contact: Yvette B. Guanzon: [yguanzon@xu.edu.ph](mailto:yguanzon@xu.edu.ph)

Robert J. Holmer: [rholmer@xu.edu.ph](mailto:rholmer@xu.edu.ph)

### Bulgaria First dry urine diverting toilets and constructed soil filter

In the scope of the MATRA project "Developing a Model for Sustainable Water and Waste Management for rural areas in Bulgaria", 2005-2007, financed by the Dutch Ministry of Foreign Affairs, the first constructed soil filter for the treatment of grey water and double vault dry urine diverting toilets were realized for a cultural centre in a small Bulgarian village, Sulitsa, in a touristic region of Stara Zagora. This pilot project was carried out in cooperation with the local partner Earth for Ever (EfE) Foundation. The consultancy OtterWasser, Luebeck, Germany, provided technical support.

The approach of decentral ecological sanitation is new in Bulgaria and will serve as an example for sustainable wastewater management and as an affordable and easy to realize improvement of sanitation in rural areas.

!!! Information: [http://www.wecf.de/cms/projects/bg\\_waterwaste.php](http://www.wecf.de/cms/projects/bg_waterwaste.php)

!!! Contact: [sascha.gabizon@wecf.org](mailto:sascha.gabizon@wecf.org)  
[Margriet.Samwel@wecf.org](mailto:Margriet.Samwel@wecf.org)  
[deegener@tuhh.de](mailto:deegener@tuhh.de)

### **Romania / Ukraine Urine diversion toilets for schools, public and households**

After the successful construction of the first dry urine diversion toilet (UDDT) facility for a Romanian school in Garla Mare, 2003, and for a Ukrainian school in Gozhuli, 2004, WECF and the local partners MAMA86, Ukraine, and GeoSan, Romania, constructed several UDD-toilet facilities in the scope of the one-year project "Sustainable Development for All", with financial support of the French Foundation Ensemble.

With technical support of the University of Technology, Hamburg-Harburg, Germany, double vault dry urine diversion toilets and urinals were constructed for a summer camp in Peredovoe and for a school with 360 pupils in Stepanovka in Ukrainian oblast Odessa. In Garla Mare a public ecosan facility was constructed for staff of the town hall and visitors.

In addition in both project countries double vault UDD-toilets were constructed for households. In Romania and Ukraine the local citizens and authorities have a high interest in an up-scaling of UDD-toilets, but the extreme poverty in the rural areas of these former Soviet countries is a barrier for dissemination of safe sustainable sanitation. In the project areas there is no central drinking water or sewage system. The citizens rely on severely polluted groundwater (by bacteria and nitrate) for drinking water purposes, the sanitation is to be considered as inadequate (bad smell and groundwater pollution by pit latrines).

!!! Information: [http://www.wecf.de/cms/projects/ro\\_garlamare.php](http://www.wecf.de/cms/projects/ro_garlamare.php)

!!! Contact: [sascha.gabizon@wecf.org](mailto:sascha.gabizon@wecf.org)  
[Margriet.Samwel@wecf.org](mailto:Margriet.Samwel@wecf.org)  
[deegener@tuhh.de](mailto:deegener@tuhh.de)

### **Kyrgyzstan ecosan project started in Kyrgyzstan**

On 1st of December 2006, the 2-year project "A Decentralised Sustainable Wastewater Management in Kyrgyzstan" began with workshops and presentations by WECF and the Technical University Hamburg-Harburg on decentralised wastewater management. The focus of the project is on experiences, principles, operation and construction of dry urine diversion toilets, the sanitation and use of human excreta in agriculture and principles of soil filters. The aim of this project is to develop the knowledge and practical tools for ecological sanitation. A handbook on the gained experiences and several aspects of ecological sanitation, with a focus on the situation in Kyrgyzstan, will be published. The project is carried out in cooperation with four local NGOs: ALGA, BIOM, Habitat for Humanity Kyrgyzstan, and ULGU.

Different types of urine diverting toilets for household will be constructed, and an investigation on the impact of urine as a fertilizer will be carried out. For the implementation of this project financial support is received from the German Federal Ministry of Environment (UBA).

!!! Information: [http://www.wecf.de/cms/articles/2007/01/uba\\_kz.php](http://www.wecf.de/cms/articles/2007/01/uba_kz.php)

!!! Contact: [sascha.gabizon@wecf.org](mailto:sascha.gabizon@wecf.org)  
[Margriet.Samwel@wecf.org](mailto:Margriet.Samwel@wecf.org)  
[deegener@tuhh.de](mailto:deegener@tuhh.de)

**News from the  
pilot projects**

**- other  
cooperation**

**The Netherlands Working Group "Development of new sanitation systems" (ONSS) promotes urine diversion in The Netherlands**

The Kiwa Water Research Institute and Grontmij Consulting have installed urine diversion flush toilets in office buildings and are currently developing a mobile urine treatment unit, which shall treat the urine collected at different pilot installations. Apart from nutrients, special attention is currently being paid to pharmaceutical residues.

The "Development of new sanitation systems" (ONSS) group, which advances these projects, is part of STOWA, the Dutch umbrella organisation for applied research in the field of water pollution control. It focuses on urine-diversion (UD) flush toilet systems with the aim of furthering this technology by demonstration and research projects, as well as through full-scale installations.

!!! Information: <http://www.stowa.nl> > [Nieuwe sanitatie](#) > [Koepelgroep](#)] (in Dutch)

!!! Contact: [e.vonmunch@unesco-ihe.org](mailto:e.vonmunch@unesco-ihe.org)

**Armenia ecosan for a school in Hayanist**

For 3 months a newly constructed double vault urine diversion toilet and urinal facility has been used successfully by 370 Armenian school children, between the ages of 6 and 17, and 20 staff members. This pilot project is carried out in cooperation with the local partner "Armenian Women for Health and a Healthy Environment", AWHHE, in the framework of the TMF project "Tapping Resources", financed by the Dutch Ministry of Foreign Affairs.

The aim of the toilet facility was to provide the children a safe, odour-free and in winter a freeze-free sanitation and to protect ground and drainage water from infiltration of human excreta. Although in Armenia the winters are very cold, the children had to go a rather long way to visit of the previously bad-smelling latrine.

In Springtime 2007 the construction of a second school ecosan toilet facility will start in Fantan, another Armenian project village.

!!! Information: [http://www.wecf.de/cms/articles/2006/07/tmf\\_armenia\\_2005.php](http://www.wecf.de/cms/articles/2006/07/tmf_armenia_2005.php)

!!! Contact: [sascha.gabizon@wecf.org](mailto:sascha.gabizon@wecf.org)  
[Margriet.Samwel@wecf.org](mailto:Margriet.Samwel@wecf.org)

**China Happy Eco-School in Shanxi inaugurated**

The Chinese policy (announced in November 2006) to build new sanitation facilities for 300 rural schools in 10 provinces includes the construction of Biogas digesters for sanitizing the toilet waste. A demonstration project for improved school hygiene which is in line with this policy has now been completed. The project was conducted with the support of LIEN Aid Singapore, The World Toilet Organization, the Chinese Association for Poverty Alleviation & Development and the Institute for Energy & Environmental Protection. The 350 students of the Zhou Jia Gou middle school in Tianzhen county, Shanxi province now benefit from a new heating systems and a biogas sanitation unit. The produced biogas can be used in the kitchen. Along with the hardware implementation, a sanitary committee was founded, and Water, Sanitation & Hygiene education conducted.

!!! Information: <http://www.lienaid.org>

!!! Contact: [xuzhe@ieep.net](mailto:xuzhe@ieep.net) (biogas),  
[Elisabeth@worldtoilet.org](mailto:Elisabeth@worldtoilet.org) (education & training)

### **India SCOPE constructs 100<sup>th</sup> UDD-toilet in Tsunami hit village**

The 100<sup>th</sup> UDD-Toilet constructed in the tsunami hit coastal village of Kameshwaram, 15kms south of Nagapattinam, was opened by Mr. G. Radha, Project Officer, District Rural Development Agency, Nagapattinam on Dec 5<sup>th</sup> in the presence of Mrs. K. N. Vijayanthi, Project Officer, WES Unicef. The toilets were constructed by SCOPE, with financial assistance from Unicef, DRDA / FIN of France and by the house owners. In recent months there is increased awareness among Government officials, NGOs, funding agencies, and tsunami hit residents of the problems of conventional toilet models in high water table sandy coastal areas.

SCOPE, an NGO established in 1986, has been deeply involved in sanitation, health and hygiene, and has been specializing in the field of ecosan for the past four years.

!!! Information: <http://www.scopetrichy.org/>  
<http://www.hindu.com/2007/01/07/stories/2007010714450300.htm>

### **Sri Lanka Urine diversion toilets receive increasing support**

EcoSolutions together with the National Water Supply and Drainage Board (NWSDB) introduced 40 Urine Diverting Toilets (UDTs) in Sri Lanka in 2001. In the end of 2006 UNICEF, Sri Lanka evaluated the appropriateness of Ecological Sanitation Toilets in the socio cultural context of Sri Lanka, taking into account the experiences of the pilot project. Findings of the evaluation carried out by UNICEF were presented at the 32nd WEDC Conference in Colombo.

Main findings are: Additional to the 40 UDTs of the pilot phase approximately 50 urine diverting toilets were constructed by several NGOs and INGOs in 2005/06. Three different designs of squatting pans, all derived from EcoSolution's design, are used. No sitting versions are available. A stakeholder analysis showed that five years after the pilot the resistance from official bodies is considerably lesser. Former opponents are now strong supporters. The political environment is very supportive. The UDTs are locally called "ecosan toilets" (although the diverted urine is often not collected and reused), and are recognized by the Ministry of Urban Development and Water Supply as a safe sanitation option in the revised National Policy for Rural Sanitation. In January 2007 the Ministry of Health, NWSDB, and UNICEF released "Field Guidelines on Ecological Sanitation (Dry Compost toilet)" to pass the information to staff in the field. Several ecosan projects are ongoing or/and planned by different stakeholders. However, the tense political situation has put a hold on activities especially in the north and east of the country.

!!! Contact: [c.windberg@tuhh.de](mailto:c.windberg@tuhh.de) and EcoSolutions [paulc@vsnl.com](mailto:paulc@vsnl.com)

### **Malawi 1,900 UDDTs to be built this year by community-led water and sanitation initiatives**

A three year project that started in 2005 was granted to Homeless International in cooperation with the Centre for Community Organisation & Development (CCODE) and the Malawi Homeless People's Federation (MHPF) to improve access to sanitation, and safe and affordable drinking water in the three cities of Lilongwe, Blantyre, and Mzuzu. The project advocates community-city partnerships, and tries to develop financial mechanisms and capital funds which will enable poor communities to scale up infrastructure initiatives in the future. Up to now 500 UDDTs have been built and this year's target is to reach a number of 1900 installations.

!!! Information:  
[http://www.homeless-international.org/standard\\_1.aspx?id=1:28499&id=1:28496&id=0:276&id=0:262](http://www.homeless-international.org/standard_1.aspx?id=1:28499&id=1:28496&id=0:276&id=0:262)

!!! Contact: [info@homeless-international.org](mailto:info@homeless-international.org), [skuenkhoma@malawi.net](mailto:skuenkhoma@malawi.net)



### Ethiopia Arbor loos for 10,000 households

The Catholic Relief Service (CRS) Ethiopia and its partners have assisted about 10,000 households in rural Ethiopia to build Arbor Loos, and many households have now as many as 4 or 5 tree seedlings growing in their compounds, as it was reported by the end of 2006. At the European Union Water Initiative Multi-Stakeholder Forum in October 2006 in Addis Ababa, ecological sanitation was recommended as a main sanitation option for Ethiopia, and this was clearly stated in the MOU signed by the Ministries of Water Resources, Health and Education at the conclusion of the forum.

**!!! Download:**

<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-Ethiopia-Success-Story-2006.pdf>

**!!! Contact:** [maylingsh@yahoo.com](mailto:maylingsh@yahoo.com)

### Technology update

### Video-conferencing to reduce CO2 emissions

During UNESCO-IHEs regional "refresher course" (2-7 Oct 2006) with the title "Ecological Sanitation to Achieve Millennium Development Goals in Sub-Saharan Africa" a video-conference was one of the innovative features included in the programme. It connected for two hours students and experts in four countries, namely Burkina Faso, the Netherlands, Germany and Sri Lanka, and was highly appreciated by the participants. Video conferencing can be a great tool for teaching and capacity building on ecosan, reducing the need for expensive and CO2-emitting air travel.

The "Global Development Learning Network (GDLN)", used for this video conference is open for other organizations and individuals, which can contract the facilities and services of one or more GDLN Affiliates. Affiliates' facilities and services include video-conferencing and high-speed internet resources, facilitation and translation services. The set-up fee for the video-conference is 235 USD/session, connection costs have to be added.

**!!! Information:**

<http://www.gdln.org/WBSITE/EXTERNAL/GDLNCHILD/0,,hlgPK:64233317-menuPK:841862-pagePK:64234859-piPK:64234862-theSitePK:841731.00.html>

**!!! Download:** Two page report from the IHEs refresher-course

<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-unesco-ihe-report-burkina-faso-2006.pdf>

### Readers Question

### Information on dry urine diversion in cold climates needed

There is a lack of compiled information related to winter climates, e.g. regarding sanitization of urine and faeces, microbial activity/composting in wintertime, freezing of urine pipes, storage of urine until crop production starts in spring, insulation of tanks, pipes and constructions, etc.

VERNA, a Swedish independent consulting company specializing in ecological sanitation, is currently working for WECF (Women in Europe for a Common Future) on a report dealing with dry urine diversion in cold climates that is where winter temperatures can reach below 0°C. VERNA would like to compile relevant experiences and therefore searches for experiences of these matters, practical advice, contacts, reports or publications. All contributions are very welcome! The report will be published through WECF when it is finished.

**!!! Contact:** [anna@verna.se](mailto:anna@verna.se)

**!!! Information:** <http://www.wecf.org>

### Publications

### Tampere Dry toilet conference 2006 report

The 2<sup>nd</sup> international dry toilet conference held in August 2006 in Tampere heard that improvements in design and workmanship are needed to make dry toilets as convenient as water closets. In terms of reuse it was stated that separating the urine allows nutrients to be recovered, and prevents chemicals and hormones from polluting water resources.

A summarizing paper of the conference was published in Land Use and Water Resources Research.

Rautanen, S.-L., Viskari, E.-L. (2006): In search of drivers for dry sanitation. In: Land Use and Water Resources Research 6, 4.1-4.9.

Summary of the conference: [http://www.drytoilet.org/pdf/DT06\\_Final\\_Summary.pdf](http://www.drytoilet.org/pdf/DT06_Final_Summary.pdf)

### Article on school health programmes and ecosan in the Philippines

An article published in the Appropriate Technology Journal, presents the pilot elementary schools in Cagayan de Oro, Philippines, which are part of the WHO "Health Promoting Schools" framework. Knowledge and active participation of teachers, parents and community members intends to improve nutritional status, general health and oral health of the school children in order to make the school itself a healthy place.

Holmer, R.J., Monse, B. (2007): School health programmes pay dividends. In: Appropriate Technology, Vol. 33, No 4 (p. 56-59).

#### !!! Information:

<http://www.researchinformation.co.uk/apte/contents/aptecont.php>

### Publications ... on the web

### Greywater Management in Low and Middle-Income Countries

Antoine Morel and Stefan Diener (2006): Greywater Management in Low and Middle-Income Countries, Eawag/Sandec, Duebendorf, Switzerland.

This report provides a review of different treatment systems for households or neighbourhoods, compiles international experience in greywater management on household and neighbourhood level in low and middle-income countries. The report is not a plea for stand-alone greywater management systems for all situations and at all costs but aims at providing a comprehensive description of the main components for successful greywater management.

!!! Download: [http://www.sandec.ch/Wastewater/DEWAT\\_Greywater.htm](http://www.sandec.ch/Wastewater/DEWAT_Greywater.htm)

### Greywater recycling

Fbr: H 201 - Greywater recycling

The Information Sheet H 201 by fbr (Fachvereinigung Betriebs- und Regenwassernutzung) documents the current standard of knowledge in greywater recycling and defines requirements for planning, execution, operation and maintenance of greywater recycling plants which have been proven in practice. The fbr Information Sheet H 201 serves as a recommendation for manufacturers, planners and other interested persons. It is available in English and German and can be downloaded as full paper or ordered at the fbr-office for 20 Euro.

!!! Download (English version): [http://www.fbr.de/publikation/engl\\_%20H%20201.pdf](http://www.fbr.de/publikation/engl_%20H%20201.pdf)

!!! Download (German version): [http://www.fbr.de/publikation/H201\\_Grauwasser.pdf](http://www.fbr.de/publikation/H201_Grauwasser.pdf)

### Translations of EcoSanRes Guidelines

The two EcoSanRes-guidelines "Guidelines on the Safe Use of Urine and Faeces in Ecological Sanitation Systems" by Schoenning and Stenstroem and "Guidelines on the Use of Urine and Faeces in Crop Production" by Joensson et al. have been translated into French by CREPA (Le Centre Régional pour l'Eau Potable et l'Assainissement à faible coût).

The pdf-versions can be found on CREPA's homepage:

<http://www.reseaucrepa.org/page/780>

## Helminths and Tuberculosis – PhD-Thesis

Elias, D. (2006): Helminths and immunity against tuberculosis, PhD-thesis at Karolinska Institutet, Stockholm.

The results of this study demonstrate that immunomodulation by helminths affect immune responses against tuberculosis (TB) as well as the immunogenicity of Bacille Calmette Guerin (BCG). This implies that treatment against helminths could offer a novel means to reduce the burden of TB in areas where worms are endemic.

!!! Download: <http://diss.kib.ki.se/2006/91-7357-035-4/>

Ecosan toilets provide true containment and can thus be subjected to various elements to reduce helminths e.g. heat (solar, hot ashes), lime and urea. Secondary treatment using onsite thermal composting is the second line of defence. Exactly how ecosan systems can be designed and introduced to reduce exposure to helminth eggs is therefore of high relevance for the ecosan community to tackle. An example for research in this field is a study currently conducted at Xavier University in Cagayan de Oro on the effect of vermicomposting on the presence of helminth eggs in human faeces collected from different UDD toilets. The results of this study will be available soon.

!!! Information:

[http://puvep.xu.edu.ph/snews/urban\\_agriculture/vermicomposting\\_project/](http://puvep.xu.edu.ph/snews/urban_agriculture/vermicomposting_project/)

## Large scale urine recycling in Stockholm

Richert Stintzing, A., Kvarnstrom, E., Johansson, M. 2006. Recirculation of human urine to agriculture: case study from Kulloen, Vaxholm. (In Swedish, summary in English). RTK report nr 2006:7. ISSN: 1402-134x

The ecocity Kulloen, in the municipality of Vaxholm, was planned and built based on knowledge about urine diverting systems at the end of the 1990s. The residential area comprises 250 houses from which urine is collected at the neighbourhood level. The overall conclusions from the project include that finding use for human urine in agriculture is not an overriding problem, not even in a large city region. Besides that, the establishment of a stable system for the reuse of human urine requires, next to others, trust between farmers and “urine producers” and quality control of the product to be reused and economic incentives and an actor who can cover eventual additional expenses that arise during the introduction of a new system.

The report is available in Swedish only, but an extended English summary can be downloaded from the VERNA website:

!!! Information: [http://www.swedenviro.com/verna/index\\_en.html](http://www.swedenviro.com/verna/index_en.html)

!!! English summary: <http://www.swedenviro.com/verna/documents/SummaryKullonVaxholm.doc>

!!! Full report (Swedish): <http://www.swedenviro.com/verna/documents/Kullon.pdf>

## Case studies from Africa, Asia and Latin-America

Snel, M. and Smet, J. (eds). (2006). The value of environmental sanitation: case studies. (Occasional paper series; no. 42). Delft, The Netherlands, IRC International Water and Sanitation Centre. – 134 p.

This paper includes eight case studies on environmental sanitation in countries in Africa, Asia and Latin-America, including Malawi, Tanzania, Ghana, Bangladesh, Philippines, Mexico and Peru. The case studies look at different aspects, such as the use of human excreta, financial and institutional challenges to make faecal sludge management an integrated part of the ecological sanitation approach, and private sector participation in peri-urban and rural sanitation.

!!! Download: <http://www.irc.nl/page/31975>

## Trainings and courses

### Europe Joint European Master in Environmental Studies (JEMES) October 2007

**Organiser:** TUHH in Germany, Universidad Autónoma de Barcelona in Spain, Universidade de Aveiro in Portugal and Aalborg Universitet in Denmark

Starting in October 2007 the TUHH in Germany, Universidad Autónoma de Barcelona in Spain, Universidade de Aveiro in Portugal and Aalborg Universitet in Denmark offer a joint Master-programme on environmental studies. The new course is part of the ERASMUS MUNDUS programme and students are required to study in at least two of the four universities. The MSc-programme includes the technological and managerial perspective of environmental studies, also dealing with chemical, physical and biological changes in the environment, and the behaviour of air, water and soil as they are affected by anthropogenic activities.

At TUHH ecological sanitation will be a topic of the course, next to treatment technologies for water, liquid and solid waste, soil and sediments; modelling of coastal and river morphology; assessment and prediction of pollutants behaviour; and bio-engineering.

**!!! Deadline for application:** 31 May 2007

(Deadline for applicants eligible for grants from ERASMUS MUNDUS has expired on 31 January.)

**!!! Information:** [http://www.tuhh.de/eciu-gs/pro\\_joint\\_jemes.html](http://www.tuhh.de/eciu-gs/pro_joint_jemes.html)

**!!! Contact:** [Study@tuhh.de](mailto:Study@tuhh.de); [jemes.icta@uab.cat](mailto:jemes.icta@uab.cat); [jemes@plan.aau.dk](mailto:jemes@plan.aau.dk); [gri@ua.pt](mailto:gri@ua.pt)

### Web Based Training on Efficient Management of Wastewater 11<sup>th</sup> April – 06<sup>th</sup> June 2007

Organizer: EMWater (Efficient Management of Wastewater) of MEDA Water Project

This Web Based Training offers an advanced course for professionals in wastewater management, treatment and reuse preferably from Jordan, Lebanon, Palestine and Turkey. One major topic of the training is Ecological Sanitation.

Objectives include refreshing the participants' knowledge of wastewater engineering, to provide solutions for decentralised wastewater treatment plants, to teach new appropriate technologies focussed on sustainability and water reuse in rural areas, and to improve know-how transfer. Web based training or e-learning offers flexible timing, independent from locations, as well as contact to international experts from the fields via chats and forums.

**!!! Information:** <http://www.emwater.org/activities/e-learning.htm>

**!!! Application deadline:** 31 March 2007

### Netherlands Short course on decentralized water supply and sanitation 09<sup>th</sup> – 27<sup>th</sup> July 2007, Delft

**Organiser:** UNESCO-IHE

The aim of this course on Decentralised Water Supply and Sanitation (DWSS) is to provide theoretical background and practical expertise for low-cost decentralised water supply and sanitation options specifically suitable for small towns, peri-urban areas and urban slums. It is intended for professionals dealing with management, engineering, decision making and education in the field of decentralised water supply and sanitation in developing countries or countries in transition. Participants will be from government organisations (local administrations, national agencies), non-governmental organisations, universities and the private sector.

The course deals with and integrates three important aspects of DWSS namely water supply systems, sanitation systems and management aspects. It covers different approaches and technologies for water supply (water sources, wells and pumps, rainwater harvesting, POU treatment system) and sanitation (ecological sanitation, MDGs, treatment aspects for excreta and greywater, safe reuse of ecosan products, faecal sludge management and low-cost drainage and sewerage). The fee is 2,040 Euro (excluding accommodation, living expenses and insurance).

!!! Information: <http://www.unesco-ihe.org>

!!! Contact: [c.brakel@unesco-ihe.org](mailto:c.brakel@unesco-ihe.org)

## Events

New

**Suisse**      **Information day 2007**  
**07<sup>th</sup> March 2007, Zurich**

**Organisation:** EAWAG

The transdisciplinary Novaquatis project by Eawag explored topics ranging from technology development, ecotoxicology and social scientific aspects to initial implementation in pilot projects. The results of the project indicate that urine separation is a highly versatile innovation, offering advantages in a variety of scenarios. The different aspects will be presented at this Information event.

!!! Information: <http://www.eawag.ch/veranstaltungen/infotag/index>

!!! Contact: [infotag@eawag.ch](mailto:infotag@eawag.ch)

**China**      **8th Water China**  
**07<sup>th</sup> – 10<sup>th</sup> March 2007, Guanzhou**

**Organisation:** China Foreign Trade Guangzhou Exhibition Corp.

The 8<sup>th</sup> Water China will be conducted together with 7<sup>th</sup> International Pump, Valve and Pipe Trade show and the 4<sup>th</sup> international air and waste treatment show.

!!! Information:

<http://www.waterchina.merebo.com/?CFID=12194051&CFTOKEN=21218974>

**USA**      **Water for all life: a distributed infrastructure for a sustainable future**  
**10<sup>th</sup> – 14<sup>th</sup> March 2007, Baltimore/Maryland**

**Organisation:** National Onsite Wastewater Recycling Association (NOWRA)

As a side event of the NOWRA 16<sup>th</sup> Annual Technical Education Conference and Exposition the topics of this workshop include: Facilitating a Sustainable Infrastructure of Distributed Systems in the U.S.-What Does It Mean and How Can It Be Successfully Accomplished?; Innovative Solutions for Decentralized Wastewater Treatment; and Social and Economic Factors of Citizen Involvement in Planning Decentralized Systems: Implementing the Three Basics of Integrating Citizens, Watersheds and Results.

!!! Contact : [nowra@nowra.org](mailto:nowra@nowra.org)

!!! Information : <http://www.waterforalllife.org/>

!!! Download: <http://www.nowra.org/pdfs/wfl.pdf>

**Romania**      **Project workshop**  
**End of March 2007**

**Organisation:** WECF, GTZ, Mihai Eminescu Trust

WECF, GTZ and Mihai Eminescu Trust will conduct two ecosan-workshops in Bucharest and Transylvania at the end of March.

!!! **Contact:** [christine.werner@gtz.de](mailto:christine.werner@gtz.de)

**China**      **EcoExpo**  
**04<sup>th</sup> – 06<sup>th</sup> April 2007, Beijing**

**Organisation:** Global Eco Expo

Water related issues of the expo will be: water quality (treatment and pollution source reduction) and water supply (conservation, residential and industrial recycling).

!!! **Information:** <http://www.ecoexpo.com/news.aspx?id=34>

!!! **Contact:** [info@ecoexpo.com](mailto:info@ecoexpo.com)

**Germany**      **Towards Sustainable Global Health**  
**09<sup>th</sup> – 11<sup>th</sup> May 2007, Bonn**

**Organisation:** UNEVOC, UNU-EHS, ILO, University Bonn WHO Collaborating Centre

Key issues are: policy relevance, education and training, hygiene and public health, global health and poverty eradication, global change, urbanisation and human security, and the role of private commerce and public-private partnerships.

!!! **Information:** <http://www.gemini.de/global-health/>

!!! **Contact:** [marson.ihdp@uni-bonn.de](mailto:marson.ihdp@uni-bonn.de)

**Malaysia**      **Water Malaysia 2007**  
**14<sup>th</sup> – 16<sup>th</sup> May 2007, Kuala Lumpur**

**Organisation:** IWA

The centrepiece of this conference is the International Conference on Water Management and Technology Applications in developing countries. Special emphasis will be given to the progress in the tropical regions due to the fact that most of the recently reported findings and development in the area of water management and technology are conducted or targeted towards countries with temperate climate. The third session concentrates on wastewater and includes **wastewater recycling** as one topic.

!!! **Information:** <http://www.watermalaysia.com/conference/theconference.htm>

!!! **Contact:** [rubby@malaysianwater.org.my](mailto:rubby@malaysianwater.org.my)

**Germany**      **GeO Movie**  
**15<sup>th</sup> – 17<sup>th</sup> May 2007, Goettingen**

**Organisation:** IWF Wissen und Medien GmbH

Under the topical theme of Images of System Earth, the festival will present in May 2007 a wide variety of such media to the public: films, videos, digital and interactive media.



The festival aims at offering the public fascinating views of this natural science, and at being a forum for the dialogue, discussion and exchange between researchers, academics and the interested public. A special focus of GeOmovie 2007 will be the multifarious aspects of water.

!!! Information: <http://www.iwf.de/geomovie/>

!!! Contact: [iwf-goe@iwf.de](mailto:iwf-goe@iwf.de)

**Korea**                    **Efficient 2007**  
**20<sup>th</sup> – 23<sup>rd</sup> May 2007, Jeju Island**

**Organisation:** IWA

The “Efficient” conferences point out to be a meeting occasion for all water professionals around the world for updating, analysing the new practices of emerging challenges and the enlargement of new lines of research. In Korea “Efficient” expects the participation of professionals from around Asia and the Pacific area. “**Water Reuse and Recycling**” will be among the many interesting topics of the conference.

!!! Information: <http://www.efficient2007.com>

!!! Contact: [ihyun@dku.edu](mailto:ihyun@dku.edu)

**China**                    **Ecosummit 2007**  
**23<sup>rd</sup> – 28<sup>th</sup> May 2007, Beijing**

**Organisation:** Ecological Society of Beijing

The conference topics include advanced concepts, eco systems dynamics, sustainable planning and management to meet the challenges of environmental change and poverty reduction, education and capacity building. Ecological Sanitation will be a prominent topic at the summit and will be presented e.g. by Petter Jenssen, Johannes Heeb and Christine Werner.

!!! Information: <http://www.ecosummit2007.elsevier.com/index.htm>

!!! Contact: [ecosummit2007@rcees.ac.cn](mailto:ecosummit2007@rcees.ac.cn)

**Singapore**            **4<sup>th</sup> IWA Leading Edge Conference & Exhibition on Water and Wastewater Technologies**  
**3<sup>rd</sup> – 6<sup>th</sup> June 2007**

**Organisation:** IWA

The annual Leading-Edge Conference on Water and Wastewater Technologies is focused specifically on advances and developments in water and wastewater technologies. To keep the programme targeted and discussions meaningful, the conference consists of a single plenary session of invited speakers on the first day, followed by two parallel sessions (one for drinking water and one for wastewater) on days two and three. The conference will consist of invited speakers who are leaders in the fields of water and wastewater, as well as those having voluntarily submitted proposals. Several workshops will also be held on the afternoons of the first and second day.

!!! Information: <http://www.iwa-let2007.com.sg/>

!!! Contact: [info@iwa-let2007.com.sg](mailto:info@iwa-let2007.com.sg)

**China            East Asian Ministerial Sanitation Conference (EaSan)**  
**20<sup>th</sup> – 22<sup>nd</sup> June 2007, Beijing**

**Organisation:** World Bank - WSP

In the framework of World Bank - WSPs "Regional Knowledge Products – Sanitation Advocacy", the WSP-EAP countries and the other poorer nations in the region have identified common challenges which must be tackled at national level, alongside a strategic regional program to enhance and support the national efforts to achieve the sanitation MDG. Specific activities in this framework include the Ministerial Conference in Beijing.

**!!! More Information:**

[http://www.wsp.org/filez/activity/1312007124828\\_RegionalKnowledgeProductsSanitationAdvocacy.pdf](http://www.wsp.org/filez/activity/1312007124828_RegionalKnowledgeProductsSanitationAdvocacy.pdf)

**France            NOVATECH 2007 - 6th international conference on sustainable techniques and strategies in urban water management**  
**25<sup>th</sup> – 28<sup>th</sup> June 2007, Lyon**

**Organisation:** IWA

Sustainable solutions to urban water management in wet weather cover a broader field than just drainage and drainage professionals. That is why the 6<sup>th</sup> Novatech conference will deal with three complementary dimensions of urban water management during wet weather:

- Integrated approaches to urban planning;
- Innovative technologies;
- Integrated approaches to the protection and enhancement of receiving water bodies.

A detailed programme of the sessions can be found on the homepage given below:

**!!! Information:** [http://www.novatech.graie.org/a\\_index.htm](http://www.novatech.graie.org/a_index.htm)

**!!! Contact:** [novatech@graie.org](mailto:novatech@graie.org)

**Sweden            World Water Week**  
**12<sup>th</sup> – 18<sup>th</sup> August 2007, Stockholm**

**Organisation:** Stockholm International Water Institute (SIWI)

The overall theme of this year's World Water Week is Progress and Prospects on Water: Striving for Sustainability in a Changing World.

The workshop topics will be:

- Workshop 1: International Targets and National Implementation
- Workshop 2: Progress in Environmental Public Health
- Workshop 3: Progress on Management Reforms for Better Services
- Workshop 4: Progress on Financing Water Services
- Workshop 5: Sustainable Water Technologies in Industry
- Workshop 6: Building Capacity for Future Challenges
- Workshop 7: Water - A Brake on Economic Development?
- Workshop 8: Managing Future Consumer Demands
- Workshop 9: Making Governance Systems Effective

**!!! Information:**

[http://www.worldwaterweek.org/Downloads/1st\\_announcement%2007\\_web.pdf](http://www.worldwaterweek.org/Downloads/1st_announcement%2007_web.pdf)

**!!! Contact:** [sympos@siwi.org](mailto:sympos@siwi.org)

**South-Africa SUSTAIN**  
**15<sup>th</sup> – 17<sup>th</sup> August 2007, Gauteng**

This conference – a business-orientated exhibition – sets out to present an overview of business solutions and scientifically based technologies that can be employed to reduce the impact of twenty first century man on the planet's resources. SUSTAIN will have four development components: water, energy, earth and air. Companies are encouraged to display their technologies, products and services that contribute to protecting the environment while reducing energy consumption and supporting sustainable economic development.

!!! Information: <http://www.sustainex.co.za/>

!!! Contact: Zia Tomes: [ziat@exhibitafrica.co.za](mailto:ziat@exhibitafrica.co.za)

**China Sustainable Cities and Villages**  
**27.-31. August 2007, Dongshen/Erdos**

**Organisation:** Municipal Government of Erdos, Stockholm Environmental Institute (SEI)

Project implementers, practitioners and researchers within the areas of urban and rural ecological and sustainable sanitation, organic waste management and agricultural reuse are invited to share experiences and best practices at this conference in Dongshen/Erdos, China. The conference will also showcase the new Erdos ecotown.

!!! **Deadline for abstracts: 1 April 2007**

!!! Information: <http://www.ecosanres.org/dongsheng2007.htm>  
[http://www.ecosanres.org/pdf\\_files/Dongsheng2007Conference\\_announcement.pdf](http://www.ecosanres.org/pdf_files/Dongsheng2007Conference_announcement.pdf)

!!! Contact [Chinese]: [sunfuli@acef.com.cn](mailto:sunfuli@acef.com.cn)

!!! Contact [English]: [dongsheng2007@ecosanres.org](mailto:dongsheng2007@ecosanres.org)

**South-Africa African Ministerial Sanitation Conference (AfricaSan)**  
**September 2007**

**Organisation:** World Bank - WSP

WSP-Africa has been working on the conceptualization of a sanitation marketing approach for a better understanding of sanitation services demand, and established the basis for sanitation networking by holding a continental conference (AfricaSan) in 2002. The marketing framework includes the regulation of transport and waste disposal, including ecosan. In 2007, there will be an AfricaSan +5 conference to keep the momentum alive.

!!! Information:  
[http://www.wsp.org/filez/activity/1312007112430\\_KnowledgeDevelopmentinSanitationinAfrica.pdf](http://www.wsp.org/filez/activity/1312007112430_KnowledgeDevelopmentinSanitationinAfrica.pdf)

**Germany International Symposium 2007: Water Supply and Sanitation for All**  
**27<sup>th</sup> – 28<sup>th</sup> September 2007, Berching**

The proposed conference themes are:

- The conceptual and enabling framework
- From purification to recovery
- Central versus decentral: contradiction or complement?
- From discharge to reuse

!!! Information: <http://www.huber.de/hp1033/Symposium-2007.htm>

!!! Contact: [Susanne.Lindner@huber.de](mailto:Susanne.Lindner@huber.de)

**Belgium**      **6<sup>th</sup> IWA specialty conference on wastewater reclamation & reuse for sustainability**  
**09<sup>th</sup> – 12<sup>th</sup> October 2007, Antwerp**

**Organisation:** International Water Association (IWA)

There will be three sessions dealing with a Rationale for sustainable water reuse, Advances in water reclamation techniques, and Implementation and operation of water reuse schemes. Ecosan relevant topics may be:

- Economic benefits of water reuse (internalities or externalities)
- Sustainable cost recovery
- Health risks
- The role of decentralised water reuse systems
- Reclamation techniques for decentralised water reuse
- and more...

**!!! Information:** <http://www.wrrs2007.org>

**!!! Contact:** [info@wrrs2007.org](mailto:info@wrrs2007.org)

**!!! Download call for abstracts:**

<http://www.iwahq.org/uploads/events/2007/Reuse%20Call%20for%20papers.pdf>

**India**      **World Toilet Summit 2007**  
**1<sup>st</sup> – 4<sup>th</sup> November 2007, New Delhi**

**Organiser:** Sulabh International Social Service Organization and WTO

The World Toilet Summit 2007 will incorporate the International Toilet Conference & Expo 2007. News on the programme shall appear soon on the website given below.

**!!! Information:** <http://www.worldtoiletsummit2007.org>

**!!! Contact:** [info@worldtoiletsummit2007.org](mailto:info@worldtoiletsummit2007.org)

**Colombia**      **Latin-American Ministerial Sanitation Conference (LatinaSan)**  
**19<sup>th</sup> – 23<sup>rd</sup> November 2007**

**Organisation:** World Bank - WSP

The WSP-LAC will develop activities to make more emphasis on sanitation development, by developing a sanitation marketing approach, promoting alternative sanitation options, and providing technical assistance to the development of Sanitation MDG Roadmaps. A major conference on sanitation (LatinaSan) is planned within this framework.

**India**      **8<sup>th</sup> specialised conference on small water & wastewater systems & 2<sup>nd</sup> specialised conference on decentralized water & wastewater international network**  
**06<sup>th</sup> – 09<sup>th</sup> February 2008, Coimbatore**

**Organisation:** International Water Association (IWA), Centre for Water and Environmental Studies (CWES) of the Kumaraguru College of Technology, India and the Laboratory for Environmental Biotechnology (LBE) of the National Institute of Agronomic Research, France; supported by IWA, Indian Water Works Association (IWWA), French embassy, and the Indian NGO Siruthuli

Proposed topics of the conference include:

- Decentralised domestic and industrial wastewater collection and treatment systems
- Aerobic and anaerobic treatment
- Low technology treatment systems

**- Ecological sanitation**

- Wastewater reclamation and reuse
- Sludge management
- Nutrient removal

!!! Information: <http://www.kct.ac.in/small2008>

!!! Contact: [small2008org@kct.ac.in](mailto:small2008org@kct.ac.in)

**UK**                    **11<sup>th</sup> international conference on Urban Drainage**  
**31<sup>st</sup> August – 5<sup>th</sup> September 2008, Edinburgh**

**Organisation:** International Water Association (IWA)

At this stage the proposed topics of the conference are:

- The effects of climate change on urban drainage systems
- Demographic effects
- Urban drainage in developing countries
- Multi-disciplinary and sustainable aspects of urban drainage systems
- Management at or near the source
- Catchment systems, holistic and integrated operation and management
- Hydro informatics

!!! Information:

[http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=641703](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=641703)

!!! Contact: [r.ashley@sheffield.ac.uk](mailto:r.ashley@sheffield.ac.uk)

**Austria**            **World Water Congress and Exhibition**  
**08<sup>th</sup> – 12<sup>th</sup> September 2008, Vienna**

**Organisation:** International Water Association (IWA)

In 2006, almost 3000 delegates attended this important water event in Beijing. In 2008 the World Water Congress will be hosted in Vienna, coming back to Europe after 7 years.

!!! Information: <http://www.iwa-vienna2008.org/>

**Burkina Faso**    **NETSSAF Final Conference**  
**24<sup>th</sup> – 26<sup>th</sup> September 2008, Ouagadougou**

**Organisation:** CREPA, NETSSAF consortium

The objective of the conference is to bring together members of the NETSSAF consortium jointly with other decision makers, sanitation professionals and practitioners and scientists to present their findings and discuss future trends and directions concerning the development of sustainable approaches for large scale sanitation issues in rural and peri-urban areas.

!!! Information: <http://www.netssaf.net/170.0.html>

**China**                    **World EXPO 2010**  
**01<sup>st</sup> May – 31<sup>st</sup> October 2010, Shanghai**

The theme of the world EXPO 2010 is "Better City, Better Life". An ecosan study undertaken in preparation of the EXPO 2010 has recently been presented at a DWA-BMZ-GTZ Symposium and is available as download.

!!! Information: <http://www.expo2010china.com/>

!!! Download: Shanghai 2010 reference project [in German]

<http://www.gtz.de/de/dokumente/de-innovative-staedtische-infrastrukturen-expo-projekt-shanghai-text-2006.pdf>

## Events Reminder

### Belgium **World Biofuels Markets** **06<sup>th</sup> – 09<sup>th</sup> March 2007, Brussels**

**Organiser:** Green Power Conferences

World Biofuels Markets is the premier business networking congress and exhibition for the global renewable fuels industry. The inaugural event attracted over 450 participants from 45 countries, over 650 high level executives are expected in 2007.

!!! **Information:** <http://www.worldbiofuelsmarkets.com/>

!!! **Contact:** [annie.ellis@greenpowerconferences.com](mailto:annie.ellis@greenpowerconferences.com)

### USA **16<sup>th</sup> Annual Technical Education Conference and Exposition** **10<sup>th</sup> – 15<sup>th</sup> March 2007, Baltimore/Maryland**

**Organisation:** National Onsite Wastewater Recycling Association (NOWRA)

NOWRA is the largest organization in the USA dedicated solely to educating and representing members within the onsite and decentralized industry. The overall program theme will be Integrated Water Resource Management and Distributed Systems. Session topics include: management, assessment and monitoring of decentralized systems within a watershed, applications of integrated water resource management in watersheds, nutrient reduction strategies, re-use and reclamation successes, bio mimicry applications, groundwater impacts of medical discharges, citizen involvement in planning decentralized systems, and more.

!!! **Contact:** [shc@umn.edu](mailto:shc@umn.edu)

!!! **Information:** <http://www.nowra.org/?p=645>

### Germany **Advanced Sanitation** **12<sup>th</sup> – 13<sup>th</sup> March 2007, Aachen**

**Organisation:** Institute of Environmental Engineering RWTH Aachen University (ISA) and the International Water Association (IWA)

Conference topics include:

- Decentralized Wastewater Systems (on-plot systems)
- Advanced Systems for Urban and Rural Sanitation
- High-Tech Systems for Wastewater Treatment
- Non-Conventional Wastewater Treatment Systems, Concepts and Technologies
- Ecological/Environmental/Sustainable Sanitation (source control, separation systems, reuse systems, closed loop sanitation systems, etc.)
- Decision Support Systems: Centralised vs. Decentralised Wastewater Systems
- Economics (financing and cost recovery, cost-effective sanitation, pricing and tariffs, capital efficiency, utility finance, benchmarking, cross and direct subsidies, etc.)
- Social aspects
- Case studies

!!! **Information:** <http://www.advancedsanitation.de/>

!!! **Contact:** [lambertz@advancedsanitation.de](mailto:lambertz@advancedsanitation.de)



**Tunisia**      **Meda Water International Conference on Sustainable Water Management**  
**21<sup>st</sup> – 24<sup>th</sup> March 2007, Tunis**

**Organiser:** Conference Partnership (Centre de Recherches et des Technologies des Eaux (CERTE), Tunisia AEE Institute for Sustainable Technologies (AEE-INTEC), Austria; Associazione Ambiente e Lavoro Toscana - ONLUS (ALT), Italy; Tuebitak-Marmara Research Centre (MRC), Turkey; Water Research & Pollution Control Department, National Research Centre (NRC), Egypt; Institute Agronomique et Vétérinaire Hassan II, Wastewater Treatment and Reuse Unit, Morocco; Department of Geography and Regional Research, University of Vienna, Austria; TU Berlin, Central Co-operation and Department for chemical engineering', Germany; University of Hanover, Centre for Further Education, Germany; Fachvereinigung Betriebs -und Regenwassernutzung e.V. (fbr), Germany)

Conference topics:

- Water systems for small rural communities, remote tourist facilities, and periurban areas;
- Household-centred water management;
- Rainwater harvesting for domestic use;
- Industrial water management and cleaner production;
- Integration of wastewater reuse in the overall water resources management;
- Best technologies/systems for sustainable treatment of urban wastewater in the Mediterranean area;
- Risk assessment;
- Approaches for the assessment and valuation of safe wastewater agricultural reuse;
- Relevant policies and socioeconomic instruments;
- Guidelines and quality standards for reclaimed water;
- Case studies; and
- Demand management.

!!! Information: <http://www.zer0-m.org/medawaterconf/>

!!! Contact: Dr. Ahmed Ghrabi (LEE): [ahmed.ghrabi@inrst.rnrt.tn](mailto:ahmed.ghrabi@inrst.rnrt.tn)  
Dr. Latifa Bousselmi (LEE): [latifa.bousselmi@inrst.rnrt.tn](mailto:latifa.bousselmi@inrst.rnrt.tn)  
Dipl.-Ing. Dr. Barbara Regelsberger (AEE INTEC): [b.regelsberger@ae.at](mailto:b.regelsberger@ae.at)

**Greece**      **Fourth International Conference on Sustainable Water Resources Management**  
**21<sup>st</sup> – 23<sup>rd</sup> May 2007, Kos**

**Organiser:** Wessex Institute of Technology

Conference themes include: Water management and planning, Waste water treatment and management, Urban water management, Water quality, Pollution control, Water and health.

!!! Contact: [zbluff@wessex.ac.uk](mailto:zbluff@wessex.ac.uk)

!!! Information: <http://www.wessex.ac.uk/conferences/2007/waterresources07/>

!!! Deadline for abstracts: as soon as possible

**UK**                      **Energy 2007**  
**20<sup>th</sup> – 22<sup>nd</sup> June 2007, The New Forest**

**Organiser:**            Wessex Institute of Technology

This International Conference aims at bringing together researchers and practitioners from academia, industry and government interested in current developments in energy systems, and will include topics related to Sustainability in Energy Production, Energy Storage and Distribution and Energy Management.

**!!! Information:** <http://www.wessex.ac.uk/conferences/2007/energy07/>

**!!! Contact:** [rswinburn@wessex.ac.uk](mailto:rswinburn@wessex.ac.uk)

**Malta**                    **4<sup>th</sup> International Conference on the Impact of Environmental Factors on Health**  
**27<sup>th</sup> – 29<sup>th</sup> June 2007, Malta**

**Organiser:**            Wessex Institute of Technology

The conference aims to provide a forum for the dissemination and exchange of information on the diverse aspects of the impact of environmental factors on health across different disciplines. Topics include: Risk analysis, Water quality issues, Food contamination, Housing and health, Education and training.

**!!! Information:** <http://www.wessex.ac.uk/conferences/2007/health07/index.html>

**!!! Contact:** [zbluff@wessex.ac.uk](mailto:zbluff@wessex.ac.uk)

**Portugal**                **ECOSUD 2007**  
**05<sup>th</sup> – 07<sup>th</sup> September 2007, Coimbra**

**Organiser:**            Wessex Institute of Technology, University of Coimbra, University of Siena

The aim of the conference is to encourage and facilitate the interdisciplinary communication between scientists, engineers and professionals working in ecological systems and sustainable development. Emphasis will be given to those areas that will most benefit from the application of scientific methods for sustainable development, including the conservation of natural systems around the world.

The Conference objectives have evolved over the years, seeking to integrate thermodynamics, ecology and economics into "ecodynamics".

**!!! Submissions deadline:** send abstracts as soon as possible

**!!! Information:** <http://www.wessex.ac.uk/conferences/2007/eco07/index.html>

**!!! Contact:** [zbluff@wessex.ac.uk](mailto:zbluff@wessex.ac.uk)

**France**                    **New directions in urban water management**  
**12<sup>th</sup> – 14<sup>th</sup> September 2007, Paris**

**Organiser:**            UNESCO-IHP

UNESCO's International Hydrological Programme is approaching the end of its Sixth Phase of IHP (2002-2007) and an end-of-phase Symposium related to Urban Water Management activities will be held on 12-14 September 2007 at UNESCO Headquarters, Paris.

This event will be an occasion for bringing together leading international urban water management experts to discuss new concepts, approaches and technologies for dealing with urban water problems. There will also be the opportunity to learn about IHP-VI urban water management projects results and outputs.

Symposium topics include: Processes and interactions in the urban water cycle, Integrated urban water system interactions: complementarities among urban water services, Urban water security, human health and disaster prevention, Socio-economic and institutional aspects in urban water management, Urban water education, training and technology transfer.

!!! **Download:** First announcement and call for abstracts/papers for the Symposium.  
<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-unesco-urban-water-management-flyer-2006.pdf>

!!! **Download:** UNESCO-GTZ Publication "Capacity Building for ecosan"  
<http://www.gtz.de/de/dokumente/en-ecosan-capacity-building-2006.pdf>

!!! **Contact:** [SymposiumUWM2007@unesco.org](mailto:SymposiumUWM2007@unesco.org)

**Italy**                      **Sardinia Symposium 2007**  
**01<sup>st</sup> – 05<sup>th</sup> October 2007, Cagliari**

**Organiser:** International Waste Working Group (IWWG) and Environmental Sanitary Engineering Centre (CISA)

The symposium will focus on innovative aspects of Waste Management, presenting new technologies, describing the state of the art and related case studies, discussing the main controversial subjects, sharing experiences among different countries, valuating social and economical balances. The Symposium will include oral presentations, poster sessions, specialized sessions and specific Workshops. Before the start of the Symposium, training courses will be offered by IWWG under the supervision of international leading experts.

!!! **Contact:** [info@sardiniasymposium.it](mailto:info@sardiniasymposium.it)

!!! **Information:** [http://www.sardiniasymposium.it/SARDINIA\\_eng/index\\_eng.html](http://www.sardiniasymposium.it/SARDINIA_eng/index_eng.html)

**Australia**                      **2<sup>nd</sup> IWA-ASPIRE Asia-Pacific Regional Group Conference and Exhibition**  
**28<sup>th</sup> October – 01<sup>st</sup> November 2007, Perth**

**Organisation:** Australian Water Association (AWA) and International Water Association (IWA)

The conference will focus on the design, operation, maintenance and management of water and wastewater systems. Innovations in the field, case studies on safe and reliable systems for removal of nutrients, water reuse, and methods of better operation will also be discussed. There will be a specific emphasis on issues facing the Asia-Pacific Region. Ecosan-relevant topics are especially wastewater treatment and onsite and small scale systems.

!!! **Information:**  
<http://www.awa.asn.au/Content/NavigationMenu2/Education/NationalInterestEvents/ASPIRE2007/default.htm>

!!! **Contact:** [aspire@awa.asn.au](mailto:aspire@awa.asn.au)

!!! **Download the first announcement and call for abstract submittal:**  
<http://www.awa.asn.au/Content/NavigationMenu2/Education/NationalInterestEvents/ASPIRE2007/AspireCFALoRes.pdf>

!!! **Deadline for Submission of Abstracts: March 30<sup>th</sup> 2007**

**Spain**      **EXPO Zaragoza 2008: Water for Sustainable Development**  
**11<sup>th</sup> June – 14<sup>th</sup> September 2008, Zaragoza**

**Organiser:** Bureau International des Expositions (BIE)

The organisers expect 6 million visitors and the participation of 70-90 countries, as well as international organisations, NGOs and companies.

Key themes include: water, a scarce resource; water for life; waterscapes; and, water, an element linking peoples.

The EXPO includes a Water Tribune based on the theme of 'Water and Sustainable Development', which will include: themed weeks consisting of sector seminars and meetings culminating in an international Conference on Water and Sustainable Development; a forum for citizen participation; and parallel events by international bodies and associations.

Output shall be given by the International Declaration of Zaragoza on Water and Sustainable Development.

**!!! Contact:** [expo2008@vardagroup.org](mailto:expo2008@vardagroup.org)

**!!! Information:** <http://www.expozaragoza2008.es>

**Turkey**      **5<sup>th</sup> World Water Forum**  
**March 2009, Istanbul**

**Organiser:** World Water Council

**!!! Information:** <http://www.worldwatercouncil.org/>

**Links and Tips**      **Links on the GTZ ecosan-Homepage**

You'll find an extensive list of interesting links on our homepage at:

<http://www.gtz.de/en/themen/umwelt-infrastruktur/wasser/9837.htm> and

<http://www2.gtz.de/ecosan/english/links.htm>

We would greatly appreciate your calling our attention to additional links of interest:

[ecosan@gtz.de](mailto:ecosan@gtz.de)

**Virus information**

Sometimes viruses steal our addresses from other computers and use them to distribute themselves. We know, that this problem is common for e-mail addresses that have been saved by many people, but unfortunately, we cannot prevent this from happening.

We would therefore recommend that you ensure all your mails are scanned by an up-to-date virus scanner and that you do not open any obscure attachments. Our newsletter is sent simply as text, with no attachments of any sort, instead, documents are always offered as download-links from our website. **If you do receive a mail from us with an attachment claiming to be related to the newsletter, do not open the attachment.**

**Homepage**

Would you like to know more about GTZ's sectoral project ecosan or about the subject in general?

If so, visit our homepage (expansion and update in progress):

<http://www.gtz.de/ecosan> (new)

<http://www2.gtz.de/ecosan>

## Newsletter

If you would like to contact the administrators of this newsletter please send an e-mail to:

[owner-ecosan@mailserv.gtz.de](mailto:owner-ecosan@mailserv.gtz.de)

Your proposals for contributions to the newsletter, and any inquiries and comments you may have are always welcome.

## Contact

### The GTZ ecosan team:

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## Mailing list / Newsletter

- user  
information

### How to use the ecosan mailing list

You can interact with the Majordomo software of our mailing list server by e-mailing commands to:

[majordomo@mailserv.gtz.de](mailto:majordomo@mailserv.gtz.de)

Commands must be the only text in the e-mail, and not as part of the subject line! You can send several commands in one and the same e-mail message. Just be sure to start a new line for each command.

If you attach a signature block to the end of your e-mailed messages, the Majordomo software could perhaps mistake it for another command, so please enter the word "end" by itself in the line below the last command.

#### Useful mailing-list commands:

##### **subscribe ecosan**

Use this command to subscribe to the ecosan mailing list

**subscribe ecosan** [your.name@xy.org](#)

Use this command to receive the newsletter at an address other than that listed in your registration (e.g. if you send the e-mail from your workplace account, but wish to have the newsletter sent to your private e-mail address).

##### **unsubscribe ecosan**

Use this command to cancel your subscription.

**unsubscribe ecosan** [your.name@xy.org](#)

Use this command to de-register your receiving address, if this differs from the one from which you are currently using to send the request.

##### **info ecosan**

Use this command to request general introductory information about the ecosan mailing list.

##### **index ecosan**

Use this command to obtain a list of files sent so far via the mailing list.

**get ecosan <filename>**

Use this command to obtain a specific file sent via the mailing list (e.g., an archived newsletter).

**help**

Use this command to obtain information on how to use the Majordomo software.

**end**

Use this command to terminate a list of commands, e.g., especially if your mailer attaches an automatic signature.

**ecosan sector program**

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