



ecosan – newsletter – no. 20 – 05/2006 – english

This regular electronic news bulletin from the ecosan project 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. 20!

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-nl20-2006.pdf>

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French: <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/fr-ecosan-nl20-2006.pdf>

English: <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-nl20-2006.pdf>

Chinese*: <http://www2.gtz.de/Dokumente/oe44/ecosan/nl/cn-ecosan-nl20-2006.pdf>
[from June 2006]

* 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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 - 14-18/08/06 Short course: "Appropriate sanitation for the developing world", Norwegian University of Life Science, Norway
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 - 30/10-22/12/06 Biological Waste Treatment Technology for Urban Wastes, Swedish University of Agricultural Sciences, Uppsala, Sweden
- New upcoming events**
- 08-10/06/06 MEDA WATER International Conference on Sustainable Water Management, Rational Water Use, Wastewater Treatment and Reuse RUWTR 2006, Marrakech, Morocco
 - 18-22/09/06 Global Conference on Renewable Energy Approaches for Desert Regions, Amman, Jordan
 - 11-13/10/06 Tropentag 2006 - Prosperity and Poverty in a Globalized World. Challenges for Agricultural Research, Bonn, Deutschland
 - 17-18/10/06 1st Aachen Congress on Decentralised Infrastructure Water-Energy-Waste, Aachen, Germany
 - 28-30/10/06 1st International Symposium on Water and Wastewater Technologies in Ancient Civilizations (WWTAC'06), Heraklion, Greece
 - 07/11/06 "Shit Happens IV" – Ecological Sanitation Systems: An Option for the Alpine Region?, Vienna, Austria
 - 10-15/03/07 16th Annual Technical Education Conference and Exposition, Baltimore, USA
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- Events reminder**
- 05-07/06/06 International Conference: Management of Water, Wastewater and Environment Challenges, Nepal
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 - 27-30/06/06 IFAT China 2006 - 2nd International Trade Fair for Environmental Protection, China
 - 10-12/07/06 International Conference on "Decentralised Water and Wastewater Systems, Australia
 - 05-12/08/06 Int. Conference on Sustainable ecoCity Development (ecoCity 6), India
 - 16-19/08/06 Dry Toilet 2006: The Second International Dry Toilet Conf., Finland
 - 10-14/09/06 World Water Congress and Exhibition, China
 - 11-13/09/06 The International Conference on Environmentally Sound Technology In Water Resources Management, Botswana
 - 23-29/09/06 10th International Conference on Wetland Systems for Water Pollution Control, Portugal
 - 30/10-1/11/06 Regional EM Water Project Conference on Efficient Management of Wastewater Treatment and Reuse, Jordan
 - 01-03/11/06 Water Resources in the Mediterranean Basin, Lebanon
 - 13-17/11/06 Sustainable Development of Water Resources, Water Supply and Environmental Sanitation, Sri Lanka
 - 16-18/11/06 World Toilet Expo & Forum 2006, Thailand

In-house News

3rd meeting of the German advisory board of the GTZ ecosan Programme

The BMZ/GTZ ecosan programme was much praised by the members of the German project advisory council during its 3rd meeting on 5 May 2006 in Eschborn. Following the welcoming address by Andreas Kuck, the head of the Water section at GTZ, Martin Kipping, of the German Federal Ministry of Economic Cooperation and Development (BMZ) pointed out that the approaches supported by the ecosan programme have gained international recognition to a pleasing degree by now and will in future be even stronger rooted in the various projects and strategies of the BMZ.

The main topics of the meeting were an interim report on the state of affairs of the ecosan programme, followed by a discussion and recommendations for the future of the programme, as well as the DWA-BMZ-GTZ ecosan symposium planned in Eschborn in fall 2006 (see below).

Earlier on, the 35 members of the advisory council who were present –representatives of ministries, administration, industry and civil society– had presented the relation of their institutions to ecosan in a roundtable. These presentations provided a good overview on the current situation and led to a lively discussion interesting for all participants.

The German Federal Institute for Geosciences and Natural Resources (BGR), for instance, demonstrated the results of a project in the Kabul basin, in which the contamination of groundwater with nutrients infiltrating from pit latrines has reached critical dimensions. According to the BGR, the increasing soil acidity caused by the nutrient load might lead to a mobilisation of dangerous substances such as Arsenic, which can then pollute the groundwater and drinking water in the Kabul basin over the medium term. Accordingly, for groundwater protection reasons, the BGR considers ecosan a highly recommendable approach.

All participants agreed that ecosan should be promoted and implemented to a larger extent both internationally and in Germany. It was therefore all the more gratifying that some institutions could also report on their institutions' implementation of ecosan.

!!! Download:

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/de-programm-ecosan-beirat-05-2006.pdf>

!!! Contact: Christine.Werner@gtz.de

The newly renovated GTZ main building and the incorporated ecosan demonstration project will be put into operation in June 2006

GTZ will move into its newly renovated main building in June 2006. At the same time, the ecological sanitation system installed in the building will become operational. Within the scope of the renovation works, GTZ has installed in its main building 56 urine separation toilets, 25 waterless urinals, separate piping systems for urine and brownwater as well as urine collection and storage tanks. Additionally, within the frame of a research project currently in preparation, systems for the treatment of urine and brownwater will be installed, and the nutrients will be reused in agriculture. The project will first be presented to the public during a DWA-BMZ-GTZ symposium in October (see below).

!!! Download:

<http://www.gtz.de/de/dokumente/en-ecosan-pds-016-germany-gtz-eschborn-2005.pdf>

!!! Contact: Christine.Werner@gtz.de

Preparation for a DWA/BMZ/GTZ symposium on ecosan in October 2006

Organisation: DWA (German Association for Water, Wastewater and Waste), GTZ (Gesellschaft für Technische Zusammenarbeit, GmbH)

During the ecosan symposium, that will be organised by DWA, BMZ and GTZ in Eschborn from 26th – 27th October 2006, we would like to present and visit our new ecosan demonstration project in the newly renovated GTZ main building, as well as the ecosan demonstration project in KfW (Kreditanstalt für Wiederaufbau) headquarters in Frankfurt. These projects shall demonstrate that ecosan systems are comfortable, economically and ecologically groundbreaking solutions not only in southern countries but also in our climate. The symposium shall furthermore present other ecosan projects and activities in Germany, Europe and the rest of the world, and point out ways for Germany to contribute more to the achievement of the sanitation-related MDGs (Johannisburg Millennium Development Goals). A draft agenda was recently discussed with the GTZ ecosan advisory board and will be included in the next newsletter.

!!! Download:

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/03-DWA-BMZ-GTZ-ecosan-Tagung-Programmentwurf.pdf>

!!! Contact: Christine.Werner@gtz.de

ecosan at the *Umwelttag* (environment day) of GTZ on 6 June 2006

This year, the GTZ *Umwelttag* is devoted to “Desertification” and will take place in Eschborn on 6th of June 2006. The day’s activities include a picture gallery, the possibility to determine your own virtual footprint, a discussion on the topic “Losing ground”, and others. The GTZ ecosan team will participate in the *Umwelttag* explaining the ecosan system installed in the newly renovated main building to the staff that will soon be moving into the building. The ecosan team will illustrate how the ecosan approach contributes to resource protection, to saving water, and to increased food security on site as well as in arid regions.

!!! Contact: Christine.Werner@gtz.de

Changes in the GTZ ecosan team

We are pleased to welcome two new interns and one new employee in the GTZ ecosan team:

- **Diana Holland** from Germany is a graduate translator and has been involved in the backstopping of various projects as RODECO employee, e.g. the GTZ project “Decentralised Wastewater Management in the Governorate of Kafr El Sheikh, Egypt”. She will be doing an internship in the GTZ team in Eschborn from 15 May to 26 June.
- **Christian Dingel** completed the MSc course on “International Land and Water Management” at the University of Wageningen (The Netherlands) and is doing an internship in the ecosan sector project from 1 March to 31 May 2006. From June to August 2006, he will be working on a study on “Livelihoods and Resource Use” as intern in Akordat, Eritrea. This study is implemented within the scope of a university cooperation of GTZ, the University of Asmara (Eritrea) and the “Sustainable Land Management Programme” of the University of Bern (Switzerland).
- **Hagen von Bloh** (graduate in agricultural engineering/renewable energy) is a long-term employee of GTZ and will enrich the ecosan team for some time, as an assignment to Afghanistan planned for early this year had to be cancelled on short notice. He will mainly be contributing his expertise in biogas. Some information on his professional background is given below:

- Following his studies (TU Braunschweig) and a first assignment abroad (to Thailand for DED), Hagen von Bloh joined GTZ in 1982 in the headquarters as 'desk officer' for bio mass utilisation, solar drying and anaerob technologies (biogas). Thereafter, he led a major biogas dissemination programme in Thailand (1988 - 1994). Following his return to GTZ-headquarters, he used his knowledge and experience as planning officer, e.g. in the development of agricultural service systems. From 2000 to 2004, he supported a countrywide project on non-formal vocational education and skills training in Laos PDR. Back to headquarters in 2005, Hagen von Bloh joined the Corporate Development Department and worked on new GTZ – contract management tools. We are pleased that he will now support the ecosan team with his knowledge.

News from EcoSanRes

Map-based global overview on ecosan projects available

EcoSanRes has launched a database on ecosan projects, which is linked to a global map and thus shows which projects exist where. During a meeting between GTZ ecosan and EcoSanRes in Stockholm in March 2006 it was agreed that the GTZ ecosan project's data sheets and database as well as the EcoSanRes database shall be aligned to a joint format to render them compatible and comprehensive to each other. The resulting collection of information shall on the one hand improve the access to information on individual projects and on the other hand support the monitoring process with respect to the MDGs. In 2015, it shall then be possible to see and count where and how many people have access to ecological sanitation solutions and to learn about the characteristic features of the individual projects.

The existing provisional database is a first version created for the World Water Forum in Mexico in March 2006. It will be significantly enlarged and will contain comprehensive information on the projects. In this context, we kindly ask all active supporters to help EcoSanRes and GTZ in the further development and completion of the project data sheets and the database.

!!! Database: <http://www.ecosanres.org/map/index.html>

News from Waste and EcoSanClub

EU-funded project "ROSA - Resource Oriented Sanitation concepts for peri-urban areas in Africa" starts in October 2006

EcoSan-Club and WASTE are partners in the new EU-funded project "ROSA - Resource Oriented Sanitation concepts for peri-urban areas in Africa" that will start in October 2006 (duration 3 years). The ROSA project will be coordinated by BOKU - University of Natural Resources and Applied Life Sciences, Vienna, Austria.

ROSA promotes resource-oriented sanitation concepts as a route to sustainable and ecologically sound sanitation in order to meet the UN MDGs. The sanitation concepts shall be applied in four cities in East-Africa, namely Arbaminch (Ethiopia), Nakuru (Kenya), Arusha (Tanzania) and Kitgum (Uganda). For the model cities strategic sanitation & waste plans (SSWPs) will be developed for the whole city area. These SSWPs will come up with the best solution for the city combining several techniques (resulting in hybrid systems) according to the local requirements.

The consortium comprises 5 European partners as well as 2 partners from each of the East African countries, a university and an end-user. Beside EcoSan-Club and WASTE the European partners are: BOKU - University of Natural Resources and Applied Life Sciences, Vienna (co-ordinator), Hamburg University of Technology, and London School of Hygiene and Tropical Medicine. Partners in Ethiopia are Arbaminch University and Arbaminch Water Supply and Sewerage Enterprise, Egerton University and the Municipal Council of Nakuru in Kenya, the University of Dar es Salaam and Arusha City Council in Tanzania, and Makerere University and Kitgum Town Council in Uganda.

!!! Information and contact: Dr. Guenter Langergraber, ROSA project co-ordinator
Guenter.Langergraber@boku.ac.at .

News from Waste

Smart sanitation solutions

Target 10 of Millennium Development Goal 7 is to halve the proportion of people without sustainable access to safe drinking water and improved sanitation by 2015. The Netherlands is ready to take concrete steps in this field and that is why the Dutch Minister for Development Cooperation pledged in 2005 to contribute towards providing access to safe drinking water and sanitation for at least fifty million people by 2015.

As a contribution to reach this goal members of the NGO platform, part of the Netherlands Water Partnership, together with local partners, presented the new publication 'Smart Sanitation Solutions' to HRH the Prince of Orange during the 4th World Water Forum in Mexico.

This new publication of the NWP, WASTE, IRC, Practica and Simavi describes household and community-based sanitation solutions that have proven to be effective and affordable. As such it is a source of inspiration rather than a 'how to' manual. From the subject pages links are provided to relevant websites.

!!! **Information and downloads:** <http://www.nwp.nl>, <http://www.waste.nl>,
<http://www.irc.nl>, <http://www.practicafoundation.nl>, <http://www.simavi.org>

!!! **Hard copies** are available from info@nwp.nl.

Report on the 4th World Water Forum

ecosan at the 4th World Water Forum in Mexico, 16 – 22 March 2006

From 16 to 22 March, the 4th World Water Forum took place in Mexico. The objective of the forum was to develop concrete activities and indicators to help accelerating the achievement of the MDGs.

Approximately 10,000 people visited the World Water Forum. The ecosan stand organised jointly by EcoSanRes, GTZ, Waste and SARAR proved to be a magnet – not only for the ecosan community. The events and excursions related to ecosan were staffed top-class, attended by large numbers and resulted in lively and productive discussions. Ron Sawyer of SARAR wrote a report on the forum from the ecosan perspective:

!!! **Download Report on ecosan at the WWF4- SARAR:**
<http://www2.gtzt.de/dokumente/oe44/ecosan/nl/en-ecosan-wwf4-2006.pdf>

!!! **Download Report on ecosan at the WWF4- ecoamericans:**
<http://www2.gtzt.de/dokumente/oe44/ecosan/nl/en-ecoamericas-6v8-ecosan-at-wwf4-2006.pdf>

In this context, we would like to particularly highlight three UN publications adopted or presented to the public, respectively.

UN Secretary Generals Water and Sanitation Advisory Board (UNSGAB) recommends ecosan approach

The highest body of the UN concerned with sanitation, the "UN Secretary General Water and Sanitation Advisory Board" (UNSGAB), presented a "compendium of actions" on the World Water Forum, which contains recommendations on actions to the UN institutions and the public as well as to the board members.

In the "compendium of actions", the ecosan-approach is recommended in chapter 4, together with the WASH campaign as main strategy for achieving the sanitation MDGs.

The Board announced that it will "*appeal to regional and international organizations to go into action for achieving the sanitation MDG in collaboration with existing initiatives and campaigns such as WASH and ecosan. Each Member will take responsibility for a specific region and specific organizations to make approaches.*" This clear commitment to an integrated approach towards sustainable sanitation will further strengthen the fast growing ecosan movement, and it will increase the momentum of the work of all regional ecosan initiatives.

!!! **Download UNSGAB "Compendium of Action" (0.2 MB):**
<http://www2.gtzt.de/Dokumente/oe44/ecosan/en-unggab-compendium-of-actions-2006.pdf>

UNDP “Poverty Environment Partnership Joint Agency Paper on Poverty Reduction and Water Management”

The problems (what the World Bank calls the “gloomy arithmetic of water”) can at first glance seem daunting, even insurmountable, but it is hoped that the analysis set out in this paper shows that effective and sustainable solutions are not only possible but that in most cases they are a good investment. This is the core message: investing in water and sustainable sanitation is not a drain on the national exchequer: it positively contributes to it.

It is in this publication of the “Poverty and Environment Partnership” (PEP) on “Water and Poverty” that the ecosan approach is appreciated as a new poverty reducing strategy.

The paper argues, that water management can impact on poverty reduction in a variety of ways, and that increased resource flows to water management have positive impacts on poverty and are beneficial in social, environmental and economic terms.

!!! Download:

http://www.who.int/entity/water_sanitation_health/resources/povertyreduc2.pdf

UNESCO/GTZ 2006 publication on "capacity building for ecological sanitation"

A UNESCO/GTZ publication on "capacity building for ecological sanitation" was launched during the WWF, which addresses the educational, training and research issues related to ecologically sustainable sanitation and is the result of a substantive collaborative effort between UNESCO's International Hydrological Programme (IHP) and the GTZ ecosan programme. The guideline provides support for academic institutes, training organisations and individuals in developing training and education material for ecological sanitation.

Along with this publication an accompanying ecosan resources material CD-ROM was produced by GTZ in a joint effort with many partner organisations (see below in section: “Publications CD-ROMs”).

!!! Download UNESCO/GTZ 2006 "capacity building for ecological sanitation" (9 MB):

<http://www2.gtz.de/Dokumente/oe44/ecosan/en-ecosan-capacity-building-2006.pdf>

World Water Week Stockholm 2006

Sweden **World Water Week “Beyond the River – Sharing Benefits and Responsibilities”**
20th - 26th August 2006, Stockholm

Organisation: Stockholm International Water Institute (SIWI), Sweden

The Stockholm Water Week will include many interesting ecosan-related events again this year. On the 20th of August, for example, which is Sunday prior to the welcoming event, a one-day seminar “Closing the Sanitation loop” will take place, and also at the end of the symposium (Saturday, 26th of August) field trips will be organised, e.g. to the conference centre “Sättra Gard”, which is oriented towards the idea of closing the loop. Topics of the symposium are for example “Water and wastewater in the sustainable city“, “Managing freshwater ecosystems to reach the MDGs“, or “Sharing the benefits of ecosystem services and the cost of ecosystem degradation.“

The „Water Prize Laureate Seminar“, on which seven former winners of the Stockholm water award will describe their view on „Challenges and opportunities of the water sector“, is likely to be very interesting as well. The titles of the Presentation by Barbara Frost, Sunita Narain, Morgens Henze and Peter Wilder suggest a clear relation to ecosan topics.

A systematic overview of dates and events is given in “2nd Announcement”, available since beginning of May.

!!! Download 2nd Announcement:

http://www.worldwaterweek.org/Downloads/2006_WWW_2nd_%20Announcement.pdf

!!! Download: Report on the World Water Week 2005:

[http://www.worldwaterweek.org/Downloads/2005_World_Water_Week%20Synthesis\(Web\).pdf](http://www.worldwaterweek.org/Downloads/2005_World_Water_Week%20Synthesis(Web).pdf)

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

!!! Contact: sympos@siwi.org

News - general

Second call for proposals for the "EU-ACP Water Facility"

The overall objective of the EU-ACP Water Facility is to contribute to the achievement of the specific MDGs for water and sanitation by supporting projects, and thus to make an indirect contribution to poverty reduction and sustainable development.

The two specific objectives are: (1) improved governance in water and sanitation and management of water resources at regional / trans-boundary, national and local levels, and (2) increased access to safe, affordable and sustainable water and sanitation services for the rural and urban poor, through the provision of catalytic funding for infrastructure and services. The Call for Proposals as the fundamental delivering mechanism of the Facility will cover three components: (A) improvement of Water Management and Governance, (B) Water and Sanitation Infrastructures, and (C) Civil Society and Decentralised Cooperation Initiatives.

In the key principles for the proposals, the EU emphasises the approach of Integrated Water Resource Management (IWRM) as an appropriate framework for the proposals: „IWRM applies at all levels: rivers, lakes and groundwater basins. Pollution of water is inherently connected with human activities. Collection and disposal of waste water and solid waste is important for the protection of the urban and rural environment. IWRM, featuring strong stakeholder involvement, a pro-poor emphasis and gender sensitivity, is designed to ensure the integration of water services within an overall water management framework. (Recommendations on how to prepare a proposal, S. 5)“

The EUWI Finance Working Group has produced a set of helpful key sheets with information for applicants. The key sheet series aims at providing guidance to various categories of applicants with regard to potential sources of co-financing. The ACP-EU Water Facility requires applicants to provide or ensure a minimum level of co-financing.

You are encouraged to submit numerous ecocan proposals to the EU-ACP-Water Facility again this time! We will gladly examine the best way to support you in these proposals.

!!! Contact: esther.geiss@gtz.de

!!! Deadline for the submission of proposals is on 30/06/2006 at 16:00 (Brussels).

!!! Information sheets of the EU on the preparation of EU-ACP-WF proposals:

<http://www.euwi.net/index.php?main=1&sub=7&id=10777#457>

!!! EU-ACP-WF Newsletter of the EU:

http://ec.europa.eu/comm/europeaid/projects/water/newsletter_en.htm

!!! Information on the second call of the EU-ACP-WF:

http://ec.europa.eu/comm/europeaid/projects/water/cfp2_en.htm

!!! General assessment and NGO criticism of the first call for proposals for the EU-ACP-WF in Source Weekly of 6 January 2006

<http://www.irc.nl/page/27591>

ecosan in the European Union MEDA research programme

The European Union is becoming more and more active in the field of ecosan, e.g. in the programme MEDA Water (Euro-Mediterranean Regional Programme for Local Water Management), which is implemented in cooperation with the countries of the Mediterranean region. The MEDA Water project “Zero-M, Sustainable Concepts towards a Zero Outflow Municipality” aims at optimising and implementing the recycling techniques to an extent that small settlements do not discharge any wastewater or waste – and become so called Zero Outflow Municipalities.

In the January 2006 edition of the Zero-M project periodical “Sustainable Water Management”, Claudia Wendland, Felix Tettenland and Ralf Otterpohl present the ecosan approach and ecosan examples that illustrate the potential of ecosan for Zero-M approach.

MEDAWARE is another project within the MEDA Water Programme, which is interesting from the ecosan perspective: It shall develop tools and guidelines for sustainable wastewater management in urban areas and the re-use in agricultural production. The following links provide an overview of projects in the MEDA Water Programme:

!!! **Information** MEDA Water Programme: http://www.emwis.org/MEDA/meda_water.htm

!!! **Information** MEDA Water project list: <http://www.emwis.org/MEDA/projects.htm> .

!!! **Information** Zero-M project: <http://www.zero-m.org>

!!! **Download** Zero-M project periodical: <http://www.aee-intec.at/0uploads/dateien226.pdf>

Indian environmental award not going down the toilet

Amelia Gentleman has written an interesting article titled “Indian award not going down the toilet” on the Indian “Total Sanitation Campaign”, which has been published by the International Herald Tribune. Since the start of the campaign in 1999, 20 million households in India have been equipped with toilets as a result of the campaign focusing on awareness raising and hygiene education.

The list of current award winners includes the NGO SCOPE Tiruchi, having received an award from the Indian president, Dr. A.B.J. Abdul Kalam, for exemplary work done for the promotion of rural sanitation in the country on 23 March 2006. SCOPE, an NGO established in 1986, has been deeply involved in sanitation, health and hygiene, and has been specializing in the field of ecosan in the past four years.

!!! **Information:** <http://ddws.nic.in/tsc-nic/html/index.html>
<http://www.scopetrichy.com>

!!! **Download:** Article by Amelia Gentleman in the International Herald Tribune
<http://www.ihf.com/articles/2006/03/28/news/village.php>

“Sanitation is Dignity” – Strong press response on the event of the German Toilet Organization in Berlin, Germany

From 7th to 12th of March 2006, an extraordinary exhibition took place in Berlin. The „German Toilet Organization“ (GTO) exhibited 35 life-size figures on Potsdamer Platz, in the heart of the city, which publicly relieved themselves behind various objects such as an umbrella or a waste bin.

The campaign was entitled “Sanitation is Dignity” and was meant to make people in the industrialised countries aware of the fact that 42% of the world’s population still do not have access to adequate sanitation facilities.

The GTO –member of the World Toilet Organization– uses unconventional methods to break the taboo of (the) sanitation (situation). It thus helps all organisations striving at an improvement in sanitation concepts. An information stand of the GTO informed visitors of the exhibition on sustainable sanitation concepts and GTO projects in Zambia, Sri Lanka and Germany.

The extensive media coverage of the event is available on the GTO website. Organisations interested in the hosting of a similar event can approach GTO directly.

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

!!! **Download:** "Sanitation is Dignity"- Event brochure (en):

http://www.germantoilet.org/images/gto_sanitation_is_dignity_broschuere_lq.pdf

!!! **Contact:** thilo.panzerbieter@germantoilet.org

Jobs

Burkina Faso GTZ – Programme Manager Water and Sanitation

The GTZ programme "KV Trinkwasser- und Sanitärprogramm in kleinen und mittleren Städten" is searching for a programme manager. The programme supports the Burkina Faso Ministry for Agriculture and Water Resources in planning and implementing water and sanitation projects, mainly in small and medium towns.

!!! **Full job description:**

<http://www.gtz.de/de/karriere/stellenmarkt/stellenangebote-nach-regionen.asp>

and follow the link ['Afrika südlich der Sahara' / Burkina Faso].

India CIM – Advisor on Eco-Sanitation in Chennai, Tamil Nadu

The CIM (Center 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.

Who can apply?

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 outside of the EU in the long run.

Job description

To solve the severe environmental problems in the field of sanitation in a sustainable and productive way, the Government of the Indian State Tamil Nadu has started different schemes, e.g. the Total Sanitation Campaign to achieve holistic development with special focus in the sectors of sanitation, environment, education, health, social security and addressing social issues. The Department of Rural Development (DRD) in Chennai is developing policies for integrated rural development and undertakes related projects with local Partners. The DRD now looks for an expert to meet the special challenges in the field of sustainable sanitation provision. The expert is expected to prepare, plan and implement recycling oriented ecological sanitation projects - with a focus on Tsunami-hit coastal regions.

The tasks will include dissemination of information and know-how concerning ecosan-systems and concepts, technical advice regarding various options of ecosan-toilet-systems, especially for rural areas, organisation and implementation of trainings on ecosan-systems in cooperation with local partners, and qualification and education of trainers and multipliers.

Duration: 2 years

!!! **Full job description:**

<http://www.cimonline.de/de/bewerber/199.asp?region=Asien&anzeige=60066460>

!!! **Contact:** Susanne Beck susanne.beck@gtz.de

CIM-Referenznummer: 60066460

**News from the
Pilot projects ...
... German
cooperation**

China (1): Pollution control project for Badaoshao village

To advance the solution to severe environmental problems that are resulting from pollution by household, livestock and distillery wastes in Badaoshao township, Yunnan province, China, Mrs. Yang Liqiong is doing a GTZ internship from March to August 2006. The project is supported by Yunnan Environmental Protection Institute and the local government in cooperation with GTZ ecosan and BORDA. Due to the geographical location of Badaoshao, the pollution not only destroyed the drinking water source but also caused serious pollution to Lake Puzhehei, thus affecting the long-term viability to use the lake for tourist purposes, which is a major source of local income. Mrs. Yang will finalize an ecosan conceptual plan by evaluating technical solutions for the different fluxes to protect the Puzhehei lake watershed, and which will fit into the circular economy strategy of Wenshang prefecture.

!!! Information: Yangliqiong@hotmail.com, florian.klingel@gtz.de

China (2): Successful Puzhehei ecosan project

A "Puzhehei Ecosan Project Dissemination Workshop" was held on March 20-21, 2006 in Yunnan Province, China. The Puzhehei Ecosan Project was launched by the Yunnan Environmental Protection Bureau (YEPB) with the support of SwissRe, aiming at the reduction of diffuse pollution in this scenic lake area. It successfully implemented 50 urine-diverting dry toilets, 6 household biogas plants, a urine-diverting dry public toilet and a water tower for a local primary school. The project was welcomed by the local villagers and got high recognition by local government. The project team intends to extend this experience to more villages in Yunnan Province.

!!! Information: Mr. Henry Voigt yedi@vip.km169.net

!!! Download press release on the project:

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-press-release-ecosan-yunnan-2006.pdf>

Eritrea (1) University cooperation between Asmara and Bern (Switzerland) assesses ecosan potential

Within the frame of the GTZ project "Rehabilitation of Water Supply Systems in Western Eritrea" (RWSS), the cooperation between the universities of Asmara and Bern, the Center for Development and Environment (CDE) and the Sustainable Land Management Programme (SLM) is being supported. A significant population increase in the project cities is expected as one consequence of the improvements in the urban water supply in four cities in the western part of the Eritrean lowlands. This might have an impact on the natural resources (fire wood, timber, water, land, soil, biodiversity) in the pilot cities and their surroundings.

In the context of the university cooperation studies will be carried out in two phases on various topics of sustainable resources utilisation. In winter 2005, an international student team elaborated a study on "Resource Use and Livelihoods in Akurdet Town and its surroundings". In summer 2006, a local resource utilisation monitoring tool will be developed and a study will be undertaken with respect to alternative approaches to the utilisation of natural resources and their impact on the region. One of the focal areas of the study, are possibilities opened up by the ecosan approach regarding an alternative and sustainable resources management.

!!! Contact: Esther Geiss: esther.geiss@gtz.de
Paul Roden: paul.roden@gmx.net
Christian Dingel: Christian.dingel@web.de

!!! Information on CDE: <http://www.cde.unibe.ch>
http://www.cde.unibe.ch/regions/slme_rs.asp

Eritrea (2) ecosan potential being assessed for Massawa

On request of the Eritrean Water Resource Departments in the Ministry of Land, Water and Environment, a pre-feasibility study is currently conducted, including the identification and evaluation of “closing the loop” approaches to water supply and sanitation in the port city of Massawa. Data collection and participatory development of approaches will take place during a 3-months preparatory phase in cooperation with Eritrean partners on the national, regional and municipal levels. The study will soon be available from the GTZ project “Rehabilitation of Water Supply Systems in Western Eritrea” (RWSS).

!!! Contact: Esther Geiss esther.geiss@gtz.de or
Paul Roden: paul.roden@gmx.net
Maria Eugenia de la Pena mdelapena@gmx.net

India Overview on IESNI projects

A brief overview on progress in projects of the Innovative Ecological Sanitation Network India (IESNI) in Gujarat and Maharashtra States shows how active the Indian network is.

Navsarjan Trust Projects in Gujarat

The new urine-diversion dehydration toilet (UDDT) complex at the Navsarjan Primary School in the Navsarjan Trust ecosan pilot project in Gujarat’s Dhandhuka Taluka is now in operation for almost 2 months. The construction of UDDT toilets at Limbdi Schools is finished, and the toilets will soon be inaugurated. The construction work for the ecosan facilities at the Navsarjan Trust Vocational Training Institute “Dalit Shakti Kendra” will be completed within a few weeks and will comprise: a common urine-centre for the collection and agricultural reuse of source separated urine, UDDTs, low-flush toilets and a biogas plant, and new bathrooms and reuse facilities for greywater.

refeasibility studies in Maharashtra

Three municipalities of Maharashtra State intend to take up ecological sanitation projects. The related prefeasibility studies have been jointly conducted by IWWA, GTZ and seecon GmbH for projects in Virar, Badlapur and Phandapur.

- **Prefeasibility Study “eco-friendly public toilet centre at Virar Science Garden”:** VIRAR Municipal Council plans for an eco-friendly public toilet centre at “Virar Science Garden”. The toilet centre shall serve stall owners from a nearby market area and passers-by. Construction of a biogas-linked-sanitation centre that facilitates source-separate collection, treatment and reuse of blackwater, yellowwater and greywater is discussed. Codigestion of wet organics from a nearby vegetable market along with the blackwater may be considered. Slurry and urine shall be applied as soil conditioner and nitrogen-rich liquid fertilizer in agricultural production. The greywater shall be used on-site for gardening purposes.
- **Prefeasibility Study “Badlapur”:** Adarsh Vidya Mandir School is located in Badlapur town, in Maharashtra’s Thane district and accommodates a Primary School, a Secondary School, a Junior College and the “Adarsh Vidyaprasarak Sanstha’s College of Arts & Commerce”. New sanitary facilities shall be provided to college students and staff members. Two alternatives, one considering the installation of specially designed squatting pans (“pour-flush” pans) made of ceramic that require a little amount of water for flushing only and treatment of blackwater in a biogas plant, the second going for a urine-diversion dehydration toilet block, are discussed at present.

- **Prefeasibility Study “Pandharpur”:** Pandharpur, located at the banks of the Bhima-River in Maharashtra’s Solapur district, is one of the most important pilgrimage places of the state. Having a permanent population of about 100,000 people and a floating population of ca. 25,000, the town accommodates congregations of several hundred thousand devotees (up to 1 million) on several occasions during the year. A proposal on source-separate collection, treatment and reuse of flowstreams from the riverbanks has now been submitted to Pandharpur Municipal Council and Maharashtra Jeevan Pradhikaran (MJP) State Environment Department.

!!! **Download brief project overview on IESNI project progress:**

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-iesni-ecosan-projects-05-2006.pdf>

!!! **Contact:** christine.werner@gtz.de

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Philippines (1): Health promoting schools with hygiene education, ecological sanitation and school gardens in Mindanao

The German Embassy in Manila, Philippines, has approved new projects related to ecological sanitation under its Small Projects Facility which were proposed by the Department of Education, City Schools Division of Cagayan de Oro and the Xavier Science Foundation. Six urine-diverting ecological sanitation toilets will be installed in the public elementary schools of barangays FS Catanico and Balulang. Provision of hand washing facilities including the improvement of the existing dental troughs and washstands will further complement the overall basic hygiene concept of these pilot schools. In addition, community-based school gardens will be established to improve the nutritional status of malnourished students through year-round availability of affordable, clean and healthy vegetables harvested in the school garden. Accompanying information and education campaigns will enhance the knowledge, attitude and behavior concerning healthy lifestyle among the school community.

The activities implemented in this project focus on prevention and health promotion within the WHO framework “Health Promoting Schools” which is based on the principle that the school itself has to become a healthy place.

While the funds for the materials will be provided with financial support of the German Embassy Manila, the labour to implement the activities will be provided by community partners and the Parents, Teachers and Community Association (PCTA). Technical assistance will be extended by two CIM experts, the Periurban Vegetable Project of Xavier University, the Department of Education as well the Philippine GTZ Water and Sanitation Program.

!!! **Download full article:**

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-philippines-health-promoting-schools-2006.pdf>

!!! **Information:** http://www.puvep.com/school_gardens.htm

!!! **Contact:** Andreas Kanzler andreas.kanzler@gtz.de

Robert J. Holmer rjholmer@philcom.ph

Bella Monse bella.monse@gmail.com

Philippines (2): Launching of UDDT Toilet in Gusa 1st Allotment Garden

The Periurban Vegetable Project (PUVeP) with the financial support of the German Embassy and in cooperation with the city government of Cagayan de Oro, the barangay administration and community of Gusa as well as the GTZ Water & Sanitation Program was able to launch the fourth ecosan toilet of the city at the Gusa 1st Allotment Garden in barangay Gusa on February 22, 2006. All so-called "ecosan toilets" established so far in other allotment gardens in Cagayan de Oro are well maintained and accepted by the community and they have convinced the local government of Cagayan de Oro to establish additional pilot ecosan projects in other areas, as well as to integrate this concept in its ecotourism program. The visit of the "ecosan toilets" has already become a part of the "Lakbay Aral" ("Educational Tour") program of the City Tourism Office for visitors from other cities and municipalities.

!!! Information: http://www.puvep.com/news/2006_02_27_Ecosan_Gusa.htm

!!! Contact: Andreas Kanzler andreas.kanzler@gtz.de
Robert J. Holmer rjholmer@philcom.ph

Philippines (3): Northern Mindanao goes ecosan

The Director of the The Periurban Vegetable Project (PUVeP), Dr. Robert J. Holmer, introduced the ecological sanitation concept to the Provincial Solid Waste Management Board of Misamis Oriental, Northern Mindanao last May 4 2006. The Provincial Environment and Natural Resources Office (PENRO) hosted this meeting with representatives, mostly municipal environmental officers and some mayors, from the 22

municipalities and cities of Misamis Oriental. The presentation was accepted with humour and fascination. A miniature urine diversionary toilet bowl was routed to give a clearer picture of its simplicity. Questions were raised by some of the audience especially regarding the safe reuse of the "ecosan products" and some technical aspects. The participants were open to the idea of establishing pilot ecosan toilets in their municipalities. A more detailed training on ecosan is scheduled in August 2006.

Vicente Y. Emano, City Mayor of Cagayan de Oro has confirmed in a discussion with PUVeP and the GTZ Water and Sanitation Program his interest in the further expansion of ecological sanitation in the city. Among the proposed activities are (a) the establishment of ecosan toilets for different eco-tourism projects in the city, (b) the construction of 50 to 100 ecosan toilets for informal settlers along the banks of the Cagayan de Oro River, as well as (c) to develop a strategy to integrate ecological sanitation into the overall city planning and development. These activities are expected to be initiated within this year.

Dr. Socorro O. Acosta, municipal mayor of Manolo Fortich, a neighbouring town of Cagayan de Oro, agreed to finance and set-up a pilot UDDT toilet in the municipal compound to be used by staff of different offices, among them the Municipal Agriculture, Environment and Health Offices. The first set of training on ecosan is scheduled for the first week of June 2006 which will be conducted by PUVeP in cooperation with the GTZ Water and Sanitation Program. The toilet is expected to be inaugurated in the later part of the year.

!!! Source: <http://www.puvep.com/news.htm>

!!! Contact: Andreas Kanzler andreas.kanzler@gtz.de
Robert J. Holmer rjholmer@philcom.ph

West and Central Africa: CREPA ecosan programme enters dissemination phase

From the 27th February to the 3rd March 2006, CREPA (le Centre Régional pour l'Eau Potable et l'Assainissement à faible coût) held a regional workshop in Ouagadougou, Burkina Faso, to formally bring to an end the first, research phase of their ecosan programme that ran from 2002 to 2005, and launch the dissemination phase, planned from 2006 to 2010. During the workshop a preliminary version of a tool-box developed during the course of the research phase was also presented, which aims to provide support in the technical, agricultural, sociological and hygienic implementation of ecological sanitation.

The workshop was attended by representatives of the CREPA network from Benin, Burkina Faso, Congo, Côte d'Ivoire, Guinea, Guinea Bissau, Mali, Niger, Sénégal and Togo, as well as representatives of EcoSanRes and GTZ ecosan.

The results obtained during the three year research phase were critically appraised by participants, with recommendations being made as to how these lessons need to be adapted and developed upon in the dissemination phase. The dissemination phase aims to facilitate the access of poor, disadvantaged populations to affordable, sustainable and safe ecological sanitation systems that will contribute to an improvement in their standard of living, food security, protection of natural resources and to improving national legislative frameworks and the capacities of small and medium sized businesses for the implementation of ecosan.

CREPA has set itself the ambitious target in the dissemination phase of reaching up to 1.000.000 people with the benefits of ecological sanitation across the 10 countries currently involved in the programme.

The programme will be supported by EcoSanRes, and CREPA will also be cooperating with the GTZ ecosan project in an urban / peri-urban project in Ouagadougou which alone aims to reach up to 300 000 people.

!!! Download the results of the research phase (2002 – 2005) in French:

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

!!! Contact: amahlutse@yahoo.fr

News from pilot projects

- other organisations

The Netherlands: Urine diversion in action in UNESCO-IHE building in Delft: water-free urinals and dry toilet now in operation

Elisabeth von Muench, a lecturer teaching ecosan at UNESCO-IHE Institute for Water Education in Delft, asked herself: "Can we practise what we preach - here in our building?". As a result of this question, and with a subsidy of the City of Delft, eleven water-free urinals (type Uridan, Denmark; 700 Euro per urinal) were installed in the UNESCO-IHE building on 6 April 06. About 17% of the total water consumption in the building will be saved (conventional urinals use about 4-6 L per flush). The urine is discharged to the sewer and not (yet) reused - the main idea was to first raise awareness amongst people coming to the building about the water-free urinals and about the options for dry sanitation and ecosan in general. The users have hardly noticed any difference and there have been no problems with odour during six weeks of operation so far. In the frame of the project urine-diversion dehydrating toilet (type Separett Villa) has also been installed on 3 May 06. This is the first of its kind in a public building/institution in The Netherlands, causing already numerous discussions amongst staff members and students and creating ample opportunities for awareness raising, teaching and research.

!!! Information and contact: Elisabeth von Muench, e.vonmunch@unesco-ihe.org

!!! Download awareness raising posters for the UNESCO-IHE UD-toilets:

<http://www2.gtzt.de/dokumente/oe44/ecosan/nl/en-poster-dry-toilet-delft-2006.ppt>

<http://www2.gtzt.de/dokumente/oe44/ecosan/nl/en-poster-waterfree-urinal-delft-2006.ppt>

India: Community toilet block with Urine Diversion Dehydration Toilets (UDDTs) inaugurated in Musiri, Tamil Nadu

India's first "community toilet block with Urine Diversion Dehydration Toilets (UDDTs)", was opened for the public at Musiri, Tamil Nadu, on April 11th, 2006. The facility was constructed by SCOPE with assistance from WASTE, Netherlands, and the Musiri Special Village Panchayat Council. Dr. N. Markandan, former Vice Chancellor of the Gandhigram University and Organic farming specialist K. Nammalwar participated in the opening function.

!!! **Download:** Article in THE HINDU announcing the event

<http://www.thehindu.com/2006/04/09/stories/2006040919830300.htm>

!!! **Download:** Picture from the community toilet block in Musiri, Tamil Nadu, India

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/musiri-community-toilet-2006.jpg>

!!! **Kontakt:** <http://www.scopetrichy.com>, scopeagency86@rediffmail.com

Philippines: ecosan design for a hospital in Mindanao

Within the DKA (<http://www.dka.at>) financed project "Lumad Infirmary Hospital Balit", the Austrian EcosanClub supports the planning and construction of the water supply and sanitation infrastructure for a hospital in Balit (San Luis, Aguasan del Sur, Mindanao). The hospital's construction works are still in progress (since 2004) and the official opening is scheduled for September 2006. The water supply and sanitation component of the project focuses on the following main items:

Water Supply (Construction of drinking water supply infrastructure), Human Excreta Management (Construction of indoor urine diverting dehydration toilet units and construction of waterless urinals), Greywater Management (Horizontal flow subsurface constructed wetland system, incl. a filter unit for pre-treatment), Solid Waste Management (waste separation system, low cost medical waste incinerator, sanitary landfill, and composting), Stormwater Management (Rainwater harvesting system, and local infiltration of storm water), Reuse (Treatment and composting area; use of faecal compost from dry toilets and sludge from pre-treatment unite for hospital staff gardens; use of urine as fertiliser), Software (Participatory planning and decision support Training, Development of education material like posters and an O&M manual).

!!! **Download** short project description:

<http://www2.gtz.de/Dokumente/oe44/ecosan/nl/en-ecosan-hospital-balit-2006.pdf>

!!! **Contact:** elke.muellegger@ecosan.at and markus.lechner@ecosan.at

Sri Lanka Urine Diversion Dehydration Toilets Systems on their way in Sri Lanka

Having implemented Urine Diversion Dehydration Toilet Systems (UDDTs) in different regions in Sri Lanka already in 2001, accompanied by community training and culturally appropriate awareness raising campaigns, the National Water Supply & Drainage Board (NWSDB) of Sri Lanka has now been requested by the Sanitation Task Force (a working group of the National Water and Sanitation Coordination Group, including OXFAM, UNICEF, ACF and ITDG) to explain strategies used for building acceptance of so-called "Ecosan composting toilets", particularly in relation to areas with high water table and seasonal flooding. According to NWSDB Chief Sociologist D. Senevirathne, a proponent of sustainable, affordable and ecological sanitation, the 'compost toilet' is a suitable sanitation solution for Sri Lanka.

NWSDB is promoting UDDTs under the name of "Ecosan Compost Latrines" as a viable sanitation solution. The 55 units built in 2001 have been evaluated in 2003/04 and the following 4 main recommendations were made:

- That UDDTs are a suitable sanitation option for high water table areas.
- Beneficiaries should be informed of the advantages of the 'Compost Latrines'.
- Legislation should be updated to include UDDTs as a suitable technology.
- Local authorities should consider UDDTs, based upon local social, economic and environmental contexts.

Since 2005 the UDDTs are included in Sri Lanka's 'National Policy for Rural Sanitation' as an officially accepted sanitation technology. However, the key to the success of UDDTs is to make sure that the implementation is demand driven, and that an implementing agency has capacity to provide ongoing support for a minimum of 2-3 years.

Concern is raised that, because of the pressures of providing sanitation for donor driven housing schemes, initiatives to promote Urine Diversion Dehydration Toilets might be pushed too quickly, and undermine long-term acceptance of the technology in Sri Lanka.

!!! **Contact:** Elisabeth-Maria Huba, Elisabeth@worldtoilet.org

Uganda 500 ecological toilets to be build in AfDB project

Uganda is to get a US\$ 85.75 million (EUR 72 million) grant from the African Development Bank Group (AfDB) to finance projects in education and water and sanitation following two protocols signed in Tunis on 23 January 2006. The AfDB Acting Vice President in charge of West and Central Operations, Mr. Mohammed Gharbi signed the grant protocols with Uganda's Finance, Planning, and Economic Development Minister, Mr. Ezra Suruma.

Two thirds of the grant will contribute, among others, to the development of over 3,500 boreholes, 4,000 protected springs, 500 ecological toilets and provide gender balanced support to domestic and school hygiene promotion throughout all rural districts. The rest is set for the education sector improving post-primary education and training under its education sector strategic plan 2004-2015.

!!! **Source:** <http://www.irc.nl/page/28123> and African Development Bank
http://www.afdb.org/portal/page?_pageid=293.174339&_dad=portal&_schema=PORTAL&press_item=645099&press_lang=us

China: 2000 urine-diverting toilets built in Shaanxi province

Plan International, an international NGO working in the field of poverty alleviation, especially for children and their families, has successfully implemented ecosan in the colder north climate of China. Till now, they have implemented more than 2000 urine-diverting toilets for households, schools, and public toilets in rural areas in Shaanxi province. Plan is even trying to promote this kind of toilets for cave-houses, - hence houses, which were popularly used in north of Shaanxi, and where the people cannot imagine to install an in-house toilet. This will be a hard challenge for Plan-International.

!!! **Information:** Mr.Lin Jiang, jsqx@public.nn.gx.cn

Publikationen

... CDs

„Capacity building for ecological sanitation“ – resource material CD-Rom

Teaching materials from many sources have been compiled in a joint effort to develop a comprehensive capacity building ecosan resource CD-ROM to disseminate information on sustainable sanitation.

A large number of organisations have contributed materials to this CD-ROM, among them EcoSanRes (Sweden), WASTE (The Netherlands), GTZ (Germany), UNESCO-IHP (France), UNESCO-IHE (The Netherlands), CSIR (South Africa), Eco-sanClub (Austria), International Ecological Engineering Society (Switzerland), University of Agricultural Sciences (Norway), SARAR (Mexico), SCOPE-Trichy (India), Eawag-Sandec (Switzerland), Technical University Hamburg Harburg (Germany), the International Water and Sanitation Centre - IRC (The Netherlands), the World Conservation Union - IUCN, the DFID funded resource centre for water, sanitation and environmental health – WELL (UK), and from the Water and Sanitation Collaborative Council – WSSCC (Switzerland).

GTZ gratefully acknowledges the support of all these organisations for providing their materials, to enhance dissemination and capacity building for ecosan and for their contribution to achieving the sanitation Millennium Development Goals by 2015.

The compilation and organisation of the materials has been undertaken by C. Werner, A.R. Panesar, N. R ath, and F. Klingel.

The production of this CD-ROM was financed by the GTZ-ecosan programme, which is carried out on behalf of the German Ministry for Economic Collaboration and Development (BMZ).

The CD-ROM should be of use to teachers interested in developing their own teaching material for formal and continuing education and vocational training, to those planning awareness raising activities, and to those who need educational material during the planning and implementation of an ecosan project. To provide inspiration for the development of your own ecological sanitation capacity building activities, a range of examples of ecological sanitation curricula, workshop contents and awareness raising presentations are included in the CD-ROM along with the most relevant existing basic literature on ecosan.

A limited number of CD-ROMs can be ordered free of charge from ecosan@gtz.de

!!! **Download** table of contents of the CD:

<http://www2.gtz.de/Dokumente/oe44/ecosan/cb/en-ecosan-capacity-building-material-2006.pdf>

„ecosan Curriculum“ –CD-Rom

Recognising the lack of comprehensive training material in ecosan capacity building, Dr. Johannes Heeb from seecon international, Professor Petter Jenssen from the Norwegian UMB and Dr. Ken Gnanakan from the Indian NGO ACTS have decided to compile an “Ecosan Curriculum” to create a teaching material that can be distributed easily and at a low cost. The Beta version of the CD was launched at the World Water Forum in Mexico this March.

The CD itself is an extensive course which can either be accessed as a tutorial for self-study or can be presented to a broader audience in PowerPoint lectures. The different modules allow users from various backgrounds to find information according to their needs and concerns.

The CD “Ecosan Curriculum” can be ordered from seecon international against the nominal fee of 50 € (10 € for individuals or agencies from low-income countries). Please contact: Dr. Johannes Heeb/seecon international/Bahnhofstr. 2/CH-6110 Wolhusen /Switzerland

!!! **Contact:** johannes.heeb@seecon.ch

!!! **Download** one-page description of the CD-ROM:

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-ecosan-curriculum-CD-2006.pdf>

Publications

... books

Center for Global Safe Water calls for applied research on ecological sanitation

Moe, C.L. and Rheingans, R.D. (2006). Global challenges in water, sanitation and health. *Journal of Water and Health*; vol. 4, suppl. 1; p. 41-57.

In an article in the *Journal of "Water and Health"*, researchers from the Centre for Global Safe Water (CGSW) called for additional (applied) research to be carried out on the design, evaluation and marketing of low-cost technologies such as point-of-use treatment and ecological sanitation strategies. The water sector also needs to learn from the health sector about strategies to increase affordability through cost sharing strategies, microfinancing and savings arrangements.

The Centre for Global Safe Water (CGSW) is a partnership among Emory University, CARE USA, the Centres for Disease Control and Prevention (CDC), and Population Services International (PSI), focusing on water treatment and sanitation technologies for developing countries.

!!! **Information:** Centre for Global Safe Water <http://www.sph.emory.edu/CGSW/>

!!! **Contact:** Christine L. Moe clmoe@sph.emory.edu

Source: IRC News Weekly 3-4, 2006

Publications

... in the web

"Urine Diversion. One Step Towards Sustainable Sanitation" - EcoSanRes

Kvarnström, E.; Emilsson, K.; Richert Stintzing, A.; Johansson, M.; Jönsson, H.; af Petersens, E.; Schönning, C.; Christensen, J.; Hellström, D.; Qvarnström, L.; Ridderstolpe, P. and Drangert, J.-O. (2006): "Urine Diversion. One Step Towards Sustainable Sanitation." Report 2006-1, EcoSanRes Programme and Stockholm Environmental Institute, ISBN 91 975238 9 5.

Within the series of fundamental publications by the EcoSanRes Programme and the Stockholm Environmental Institute, this recently published booklet constitutes an important contribution to the discussion of the topic "urine diversion". Apart from a detailed introduction to the current state of the art, projects in Swedish cities and villages are presented and discussed. Additionally, the booklet deals with possibilities of an up-scaling of these projects and matters related to transport logistics and practices of distribution in agriculture.

!!! **Download:** http://www.ecosanres.org/PDF%20files/Urine_Diversion_2006-1.pdf

M.Sc. Thesis on Faecal Sludge Management - Anselme Vodounhessi

Vodounhessi, A. (2006): Financial and institutional challenges to make faecal sludge management an integrated part of the ecosan approach in West Africa. Case study of Kumasi, Ghana. Master of Science Thesis at UNESCO-IHE Institute for Water Education, Delft, March 2006.

This thesis proposes a new financial mechanism for sustainable faecal sludge management in cities. The concept of "Integrated Sustainable Faecal Sludge Management" is based on work undertaken at Eawag/Sandec and developed further within the frame of this thesis.

!!! **Download:**

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-faecal-sludge-management-ecosan-kumasi-2006.pdf>

M.Sc. Thesis “Potentials of Ecosan in Emergency Situations” – H. Mwase

The M.Sc. thesis of H. Mwase reviews the potential of ecosan in emergency situations. The results show that specific conditions have to be in place to make ecosan a viable option in emergency situations, e.g. expertise among aid agencies and knowledge about ecosan awareness raising methods. However, the study also points out that a disaster may be the catalyst for implementing a new technology, which can become more than just a temporarily available technological option, being the first step towards a sustainable sanitation approach.

Mwase, H.: “The Potential of Ecosan to provide Sustainable Sanitation in Emergency Situations and to achieve “quick wins“ in MDGs.“, Master of Science Thesis at the UNESCO-IHE Institute of Water Education, Delft, March 2006.

!!! Download:

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-ecosan-in-emergencies-2006.pdf>

M.Sc. Thesis on ventilation of composting and dehydration toilets – F. Groth

Groth, F. (2005): “Ventilation of dry toilets. Case Study: Close-ups of various Installations in Uganda“. - 82 pages; Diplom-Thesis at Fachhochschule Burgenland, January 2005.

This thesis aims at showing possibilities to improve the ventilation standards of dry toilet facilities. Therefore, numerous structures were monitored over a period of three months, from March to June, in the south-western districts of Uganda.

Each facility was observed three days in a row, capturing the inside and ambient temperatures, wind directions, general weather conditions and the air flow in the squatting hole, which represents the connection between the storage vault and the user area. The recorded data and basic theoretical knowledge served as a basis for further deliberations regarding the modulation and implementation of various elements and devices, such as wind or electrical power driven flow accelerators, capture elements and additional design recommendations.

The considerations and recommendations of this paper should support further development and improve future toilet structures in view of ventilation and related designs. It should therefore contribute to a higher quality and acceptance of compost and dehydration toilets in the long term.

!!! Download: http://www.ecosan.at/download/da_final_groth.pdf

Allotment gardens have a significant ecosan potential – 3 papers

As the combination of allotment gardens and ecosan, offers the possibility to implement a closed loop approach to sanitation, and contribute to food security, income generating measures and hygienic advantages, allotment gardens have significant potential for pilot ecosan projects and training activities. They also offer an entry point for the comprehensive integration of the ecosan concept to urban planning. The following publications deal with the significance of allotment gardens and refer to the implementation of ecosan elements.

Holmer, R. J.; Drescher, A. (2005): “Building Food Security Neighbourhoods: the role of allotment gardens.“, UA magazine.

!!! Download <http://www.ruaf.org/node/783>

Holmer, R. J.; Drescher, A. (2005): “Allotment Gardens of Cagayan de Oro: Their Contribution to Food Security and Urban Environmental Management.“, In: Knie, C. (ed.) (2005): Urban and Peri-Urban Developments – Structures, Processes and Solutions. Southeast-Asian-German Summer School Prog. 2005, Cologne/Germany, 16-29 Oct 2005, 149-155.

!!! Download

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-allotment-gardens-cagayan-de-oro-2005.pdf>

The following link leads to a comprehensive discussion on school gardens, including a well researched list of relevant literature:

Drescher, A. (2002): "Improving child nutrition and agriculture education through the promotion of (private) school garden programs." Draft report submitted to FAO/TCOS, Dec 2002.

!!! Download

<http://www2.gtz.de/dokumente/oe44/ecosan/nl/en-review-school-gardens-2002.pdf>

Trainings and Courses

Kenia **Sustainable Livelihood approaches to Water and Sanitation Programmes: tackling poverty through multiple uses of water.**
7. – 18. August 2006, Nairobi

Organisation: NETWAS International

Target group: Managers and other staff in development cooperation, development workers, managers of non-governmental organisations

The course will provide an introduction to water management and livelihoods development strategies. In this context, it will promote a better consideration of the cross-cutting issue "water" in the discussion of household's living strategies. The combination of the domestic and productive benefits can add up to an appreciable impact on livelihoods and poverty eradication.

!!! Cost: USD 1,480 (1,223 Euro) per participant. This fee includes tuition fees, course material, books and a field trip.

!!! Deadline: 7 July 2006

!!! Contact: Coordinator of the course, NETWAS International, training@netwas.org

!!! Information: <http://www.netwas.org/courses/courses/2006/6>

Norway **Short course:**
"Appropriate sanitation for the developing world",
14. – 18. August, 2006
Norwegian University of Life Sciences

Organisation: Norwegian University of Life Sciences, Ås Norway

This one-week course focuses on an assessment of ecological sanitation technologies in the context of developing countries. Sanitary solutions potentially appropriate for crisis situations shall also be discussed. The course addresses consulting engineers, staff of NGOs (field staff and administration) as well as scientists and students of various subjects. A limited number of scholarships are available. The fee amounts to NOK 5,200 for individual persons, NOK 1,800 for NGOs and NOK 750 for students. This charge does not include accommodation or food.

!!! Deadline: 7 July 2006

!!! Contact: petter.jenssen@umb.no and arve.heistad@umb.no

!!! Information: <http://www.umb.no/research/ecosan/>

!!! Content: as in 2005 (The major topics have not changed in 2006)

<http://www.umb.no/research/ecosan/vedlegg/ecosan-norway-1-2005.pdf>

Sweden/Ukraine Training Programme in Ecological Sanitation Targeted for the Balkans, Eastern Europe, Caucasus and Central Asia
18 Sep – 06 Oct 2006, Sweden, April 07 Ukraine

Organisation: EcoSanRes Programme at the Stockholm Environmental Institute

This advanced international training programme in ecological sanitation focuses on attractive sanitation solutions for urban and peri-urban areas to promote human health, enhance human dignity, improve nutritional status and protect water sources. The basic principle of ecological sanitation is "Closing the Loop on Sanitation", which implies that the nutrients in human excreta –after proper hygienisation– are used as a resource in local cultivation, including urban agriculture and that the water used in households is treated and returned safely to the environment.

The programme is aimed at professionals in selected countries in the Balkans, Eastern Europe, the Caucasus and Central Asia involved in town planning, water supply, waste management; hygiene, and socio-economic development; researchers and teachers/trainers in fields related to sustainable sanitation and key persons employed by NGOs with projects associated with community development for improved sanitation and water supply.

Programme content

- Water and nutrient cycles in time and space, and related routes of contamination
- Management options for improved sustainable urban sanitation, in particular dry systems and ways to utilise nutrients in human excreta as a resource in urban agriculture
- Risk assessment incl. hygiene in handling sanitized urine and faecal matter, plus residents' and professionals' attitudes and norms concerning such risks
- Environmental costs and benefits of dry sanitation systems compared to current alternatives
- Exchange of experience of household efforts to improve their well-being through safe excreta disposal and the protection of well water
- Training in carrying out social surveys

!!! Closing deadline: 1st of June 2006 (late applications might be accepted).

!!! Information: http://www.ecosanres.org/ESR_course_2005.htm

!!! Contact: cecilia.ruben@sei.se

Sweden Biological Waste Treatment Technology for Urban Wastes, Swedish University of Agricultural Sciences.
30 Oct – 22 Dec 2006, Uppsala

Organisation: Swedish University of Agricultural Science, Uppsala.

The course "Biological Waste Treatment Technology for Urban Wastes" is a graduate course (with a project to be carried out in January 2007) at the Swedish University of Agricultural Sciences [10 credits (15 ECTS credits)].

The main focus of this course is on treatment and handling systems allowing for the safe, environmentally friendly and resource efficient recycling of plant nutrients and organic matter in organic household waste (urine, faeces, kitchen waste etc.) back to the cultivation of crops. The emphasis of the course is on source-separating sanitation systems (e.g. urine diversion systems), composting and anaerobic digestion, but conventional handling and treatment systems (waterborne sanitation systems and processes, active sludge processes, bio-beds, chemical precipitation, pond systems; incineration and land-filling of solid organic waste) are also covered.

The course treats processes and systems relevant both in developed and developing countries.

The course ends with a two-week individual project on producing initial plans for an ecosan system and evaluating its effects on society and environment. The intention is that this project is done back home during the weeks following the course weeks in Sweden.

The course is aimed at linking advanced theoretical understanding with practical experience. It is well suited both for graduate students and experienced professionals.

The course is given in English using PBL (problem based learning). It is given at the Swedish University of Agricultural Sciences in Uppsala, 80 km north of Stockholm. It starts Oct 30, the lectures in Sweden end on Dec 22, and the project is due during January 2007.

!!! Registration deadline for applications:

Oct 1st 2006 to Hakan.Jonsson@bt.slu.se
(Applications should include your qualifications.)

!!! Information: <http://www.slu.se/?id=371&Kurskod=TN0186&engelska=true&>

!!! Contact: Hakan.Jonsson@bt.slu.se

New upcoming events

Marocco **MEDA WATER International Conference on Sustainable Water Management Rational Water Use, Wastewater Treatment and Reuse RUWTR 2006**
08 – 10 June 2006, Marrakesh

Organistaion: AEE INTEC, Agronomic and Veterinary Medicine Institute Hassan II (IAV), National Technical University of Athens, University Choualb Doukkali, University of Cyprus; supported by the EU-MEDA WATER initiative

Conference topics include household-centred water management, integration of wastewater reuse into overall water resources management, best technologies / systems for sustainable treatment of urban wastewater in the Mediterranean area, risk assessment (human health / environment), approaches to the assessment and valuation of safe wastewater agricultural reuse, and others.

!!! Information: http://www.zer0-m.org/meda_conference/index.htm

!!! Contact: b.elhamouri@iav.ac.ma

Jordan **Global Conference on Renewable Energy Approaches for Desert Regions**
18 – 22 September 2006, Amman

Organisation: University of Jordan / Renewable Energy Bureau (REB)

This conference will be devoted to the development of wind, solar, biogas and geo-thermal energy in desert areas.

The focal topics are:

- Technologies (e.g. biogas)
- Applications of reuse oriented technologies
- System Integration (remote areas, rural sites,...)
- Management
- Socio-Economic and Environmental Impacts
- Legislation and Policies

!!! Deadline for full paper submission: 15 June 2006

!!! Information: <http://www.ju.edu.jo/confernces/gcreader/Index.htm>

!!! Contact: gcreader@ju.edu.jo

Germany **Tropentag 2006 – Prosperity and Poverty in a Globalized World. Challenges for Agricultural Research.**
11 – 13 October 2006, Bonn

Organisation: Council for Tropical and Subtropical Research (ATSAF e.V.), Universities of Berlin, Göttingen, Hohenheim, Bonn and Kassel-Witzenhausen, in cooperation with BEAF/GTZ

The Tropentag 2006 will discuss global challenges such as an improved livelihood, health and education of the rural population as well as reduced pressure on the environment by agricultural production. Multi-disciplinary sessions will try to tackle issues of resource allocation and use, biodiversity and income generation of different scales.

!!! **Information:** <http://www.tropentag.de/conference/general.php?menu=2>

!!! **Contact:** info@tropentag.de

Germany **1st Aachen Congress on Decentralised Infrastructure Water-Energy-Waste**
17 – 18 October 2006, Aachen

Organisation: Prüf- und Entwicklungsinstitut für Abwassertechnik, RWTH Aachen

Discussion topics encompass new sanitary systems, decentralised energy supply, small wastewater treatment plants, innovative decentralised traffic systems, closing the loop regarding water and nutrient cycles, production of service water, water and energy supply and sanitation for tourist infrastructure.

!!! **Information:** <http://www.pia.rwth-aachen.de/aktuelles.htm>

!!! **Contact:** krumm@isa.rwth-aachen.de

Greece **1st International Symposium on Water and Wastewater Technologies in Ancient Civilizations (WWTAC'06)**
28 – 30 October 2006, Heraklion/Kreta

Organisation: International Water Association (IWA)

The aim of this symposium is to examine which ancient water and wastewater technologies might still be relevant today. Topics include methods and techniques of water management over time, urban water use and urban wastewater and stormwater technologies.

For people interested in ecosan, this symposium offers the appropriate platform to demonstrate how relevant ecosan has been throughout history.

!!! **Information:** <http://www.nagref.gr/symposium/>

!!! **Contact:** angelak@nagref-her.gr

Austria **“Shit Happens IV” – Ecological Sanitation Systems: An Option for the Alpine Region?**
07 November 2006, Wien

Organisation: EcoSan Club Wien, Institut für Siedlungswasserbau of the University of Natural Resources and Applied Life Sciences, Vienna (BOKU) and Umwelt- und Alternativreferat der ÖH BOKU.

The envisaged programme of the fourth “Shit Happens” event includes:

- Peter Kapelari, Austrian Alpine Club: Difficulties and problems of sanitation in the Alpine Region

- Gunnar Amor, Planner: Planning and implementation of the sanitary concept for the "Bettelwurfhütte" (Karwendel, Tirol)
- Christian Gschnitzer, lodge manager of Bettelwurfhütte: Operation of the sanitation system and experience gained from practice
- Wolfgang Becker, Institut für Infrastruktur und Umwelttechnik, University of Innsbruck: The sludge problematic in high mountains

!!! **Information:** Elke Müllegger, EcoSan Club, Tel.: +43/(0)1 – 405 38 17

!!! **Contact:** elke.muellegger@ecosan.at

USA **16th Annual Technical Education Conference and Exposition**
10 – 15 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.

!!! **Deadline for abstract submittals:** **30 July 2006.**

!!! **Contact:** shc@umn.edu

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

Germany **Advanced Sanitation**
12 -13 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

!!! **Deadline for abstract submittal :** **31 May 2006**

Australia **2nd IWA-ASPIRE Asia-Pacific Regional Group Conference and Exhibition**
28 October – 01 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/NavigationMenu/NewsEvents/ASPIRE2007/ASPIRE_20071.htm

!!! Contact: aspire@awa.asn.au

!!! Download the first announcement and call for abstract submittal:

http://www.awa.asn.au/Content/NavigationMenu/NewsEvents/ASPIRE2007/Aspire_1st_Ann.pdf

Events reminder

Nepal **International Conference: Management of Water, Wastewater and Environment Challenge**
05th – 07th June 2006, Kathmandu

Organiser: Nepal Engineers' Association (NEA), Society of Public Health Engineers Nepal (SOPHEN), the Ministry of Physical Planning and Works (MPP&W) and the Ministry of Environment, Science and Technology (MOEST)

"Management of Water, Wastewater and Environment: Challenges for the Developing Countries". This theme has been selected in view of the importance of the subject matter for overall development and improvement of quality of life in the developing countries.

!!! Contact: Conference Secretariat NEA: nea24@mail.com.np

Canada **3rd World Urban Forum**
19th - 23rd June 2006, Vancouver

Organiser: United Nations Human Settlements Programme (UN- HABITAT)

The World Urban Forum was established by the United Nations to examine the impact of rapid urbanisation on communities, cities, economies and policies. The overall topic of this Forum is how to minimise burgeoning poverty in cities, improve the urban poor's access to basic facilities such as shelter, clean water and sanitation and achieve environment-friendly, sustainable urban growth and development.

!!! Information: <http://www.unhabitat.org/wuf/2006/>

!!! Contact: Mr. Lars Reutersward <mailto:lars.reutersward@unhabitat.org>

China **IFAT China 2006 - 2nd International Trade Fair for Environmental Protection**
27th – 30th June 2006, Shanghai

Organiser: Shanghai New international Expo Centre (SNIEC), Munich Trade Fairs International Group (MMI), Munich Trade Fairs (Shanghai) Co. Ltd and China Association of Resources Comprehensive Utilization (CARCU)

CHINA 2006 is the comprehensive exhibition in the Asian marketplace for practice-oriented solutions in the key sectors for environmental protection including water supply, sewage, waste disposal and recycling, air pollution, environmental technology and environmentally sound energy sources.

!!! **Information:** <http://www.ifat-china.com> (for exhibitors)
<http://www.dvgw.de> and <http://www.dwa.de> (for lectures)

!!! **Contact:** Mrs. J. Dettmann dettmann@messe-muenchen.de (for exhibitors)
Mrs. Gabriele Martens matens@dwa.de (for lectures)

India **International Conference on Sustainable ecoCity Development (ecoCity 6),**
5th – 12th August 2006, Bangalore, India

Organiser: Ecocity Builders, Project Agastya and 25/Bangalore

International Conference on Sustainable ecoCity Development (ecoCity 6) as a part of the International Convention of the Cities of the Future in Bangalore during July/August 2006.

Topics of the conference comprise:

- Symposium 1: Planning and Implementation
- Symposium 2: Urban settlements and ecological environments
- Symposium 3: Urban climate and Climate Change
- Symposium 4: Efficient and Sustainable Urban Utilities Management
- Symposium 5: Urban Stakeholders
- Symposium 6: Cultural and Social Environment

Ecological sanitation is discussed in Symposium 4. Other topics of Symposium 4 are: Integrated Sustainable Water & Resources Management; Integrated Sustainable Waste Management; Health & Sanitation; Power & Energy; Urban Transport Management; Air & Soil Pollution; Public Safety & Security; Eco-Tourism, Leisure & Entertainment ; Urban Poverty & unemployment..

!!! **Information:** <http://www.tciconferences.com/ecocity2006/ecocity2006.htm>

!!! **Contact:** Mr. Rajeev Kumar, project.agastya@gmail.com

Australia **International Conference on "Decentralised Water and Wastewater Systems" 2006,**
10th -12th July 2006, Fremantle

Organiser: Environmental Technology Centre, Murdoch University

The conference will focus on design, operation, maintenance and management of small treatment units and the uptake of decentralised systems. Innovations in the field, case studies on safe and reliable systems, removal of nutrients, water reuse, and methods for unattended operation will be discussed at the conference. Water supply and the treatment of wastewater for single houses or housing complexes will also be discussed.

The conference topic will include:

- Decentralised Wastewater Management Systems
- Rain Water Harvesting
- Economics and Decentralisation
- Urban Decentralisation: advantageous change
- Soils and Land application systems
- Alternate types of toilets
- Management of onsite services

!!! **Information:** <http://www.etc.murdoch.edu.au/conferences/decent.html>

!!! **Contact:** Dr. Kuruvilla Mathew, K.Mathew@murdoch.edu.au

!!! **Updates:** <http://www.etc.murdoch.edu.au/conferences>

Finland **Dry Toilet 2006: The Second International Dry Toilet Conf.**
16th – 19th August 2006, Tampere

Organiser: Global Dry Toilet Club of Finland, Tampere Polytechnic, and Tampere University of Technology

The objective of the conference is to offer a platform for discussion for the professionals and other interested parties. The conference will disseminate the latest information on various aspects of dry toilets. The popular Dry Toilet Exhibition will also be organised during the conference.

!!! **Information:** <http://www.drytoilet.org/dt06.html>

!!! **Contact:** secretary2006@drytoilet.org (for program)
drytoilet@tavicon.fi (for registration and accommodation)

China: **World Water Congress and Exhibition**
10th – 14th September 2006, Beijing

Organiser: IWA China

Auspices: Ministry of Construction, P.R. China

Over four thousand delegates are expected to gather in Beijing to address water issues from a holistic point of view. The congress themes cover most areas of the global water industry, such as water resource utilisation and protection, water treatment technology and facility operation and management, water safety and health, water recycling, and sustainable utilisation, with an emphasis on the needs of developing countries.

The delegates will discuss and communicate with thousands of Chinese colleagues from the academia, industry, and government. Leading researchers and professionals will present the latest innovations in water technologies and management in the Congress, and promote their transfer to China and other countries interested.

Meanwhile, the international exhibition area will demonstrate the state-of-the-art water treatment technologies, equipment and services.

!!! **Information:** <http://www.iwa2006beijing.com>

!!! **Contact:** The Ministry of Construction, Secretary iwa2006@mail.cin.gov.cn

Botswana **International Conference on Environmentally Sound Technology In Water Resources Management**
11th – 13th September 2006, Gaborone

Organiser: The International Association of Science and Technology for Development (IASTED)

- Topics of the conference comprise :
- Water Supply and Sustainable Use
 - Wastewater and Stormwater Management
 - Integrated Watershed Management
 - Pollution Prevention and Reduction in Industry
 - Issues in Implementing Environmentally Sound Technologies

!!! **Registration Deadline :** **15 June 2006**

!!! **Information:** <http://www.iasted.org/conferences/2006/Botswana/c515.htm>

!!! **Contact:** calgary@iasted.org

Portugal **10th International Conference on Wetland Systems for Water Pollution Control**
23rd – 29th September 2006, Lisbon

Organiser: International Water Association (IWA) Specialist Group on the Use of Macrophytes in Water Pollution Control

Constructed wetlands are considered low-cost alternatives for treating municipal, industrial and agricultural effluents. A vast amount of literature has been published on various topics including potential use of these systems to remove biochemical oxygen demand, nutrients and to a limited extent metals and toxic organic compounds; engineering assessment and design criteria; and optimization and cost-effectiveness.

The following technical and scientific topics may be addressed in oral presentations and posters:

- Global issues
- Critical Process Dynamics
- Design criteria
- Economics
- Treatment Performance of Wetlands in Water Pollution Control
- Case studies

!!! Contact: Veríssimo Dias (Conference Organizer), verdis@gaiagreen.pt

!!! Information:

http://www.wetconf10.adp.pt/10th%20Conference%20Web%20Page_Eng.htm#Overview

Jordan **Regional EMWater Project Conference on Efficient Management of Wastewater Treatment and Reuse**
30th October – 1st November 2006, Amman

Organiser: organised in the framework of EMWater Project, funded by the European Union – the MEDA Water Program Initiative

All MEDA countries are currently facing serious problems regarding the supply of sufficient water resources to cover their increasing water supply demands. In the year 2025, countries like Jordan, Israel and Palestine will have less than 150 cubic meters per capita and year. Other countries like Syria and Lebanon, at present classified as "water rich", will also face similar water stress problems during the next two decades. Therefore, these countries need water strategies that have to take into account alternative measures to cope with this situation. Wastewater reuse is one of the essential options MEDA countries have to consider for the development of their national water policies and strategies.

Conference Themes

- Appropriate and non-conventional wastewater treatment technologies
- Operation and maintenance of wastewater treatment system
- Health and environmental aspects of WWT
- Wastewater treatment
- Socioeconomic aspects of wastewater treatment and reuse
- Policy guidelines, regulations and standards of wastewater treatment and reuse
- Sustainable urban drainage systems (SUDS)
- Capacity building

!!! Contact : Dr. Ismail Al Baz, Fax: +962 6 5686184, ismailalbaz@nets.com.jo

!!! Information: <http://www.emwater-conference.org/>

Lebanon **Water Resources in the Mediterranean Basin**
1st – 3rd November 2006, Tripoli

Organiser: Lebanese University in co-operation with the Lebanese Committee for Environment & Sustainable Development

The conference themes comprise:

- Integrated water resources management
- Global change: effects on water resources
- Optimisation of water use in terrestrial ecosystems
- Mediterranean aquatic systems functioning
- Domestic and industrial wastewater : treatment and reuse
- Water quality, pollution and health
- Hydrology - Hydrogeology
- Water Resources Policy

!!! Information: <http://www.watmed.com/English/Conference/Page.aspx?PageID=9>

!!! For more information: info@watmed.com

Sri Lanka **Sustainable Development of Water Resources, Water Supply and Environmental Sanitation**
13th – 17th November 2006, Colombo

Organiser: Institution of Engineers, Sri Lanka and Water, Engineering and Development Centre (WEDC), U.K.

Papers are invited under the following themes:

Water resources, Water supply, **Environmental sanitation**, Institutional issues, Cross-cutting issues.

!!! Information: <http://wedc.lboro.ac.uk/conferences/conference1.php?ID=7>

!!! For more information: wedc.conf@lboro.ac.uk

Thailand **World Toilet Expo & Forum 2006,**
16th – 18th November 2006, Bangkok

Organiser: Ministry of Public Health, World Toilet Organization (WTO) and Meeting Planners International (MP) Asia Pte Ltd

The World Toilet Expo & Forum (WTE&F) is a series of events created by the World Toilet Organization (WTO) to cater to the specific needs of mature cities. Each of the events addresses issues that will be of particular significance to the host city.

Bangkok will host the second World Toilet Forum. With the theme, Happy Toilet, Healthy Life, the event will facilitate Thailand towards the progressive development and standardisation of public toilet service. The programme will be built around the Development Strategy which emphasizes the three major aspects of public toilets in Thailand: Healthy, Accessibility and Safety (HAS). HAS sets out guidelines on the minimum hygiene standards that a public toilet must comply with.

!!! Information: <http://www.worldtoiletexpo.com/home>

!!! Information Brochure:

http://www.worldtoiletexpo.com/uploads/images/95/WTEF_2006_Brochure.pdf

!!! Press release from the 15th November 2005:

http://www.worldtoiletexpo.com/press_release_-_15_nov_2005

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

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

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

Contact

The GTZ ecosan team:

Christine Werner, Florian Klingel, Esther Geiss, Carola Israel

GTZ, Division 44: Infrastructure and Environment
ecosan project – ecologically and economically sustainable wastewater management and sanitation systems

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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

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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