



ecosan – newsletter - no. 8 - 05/2003 - 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 in English, French, Spanish and German; issue no. 8!

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 and English versions as easy-to-read pdf files from our website.

!!! Downloads:

English: <http://www.gtz.de/ecosan/download/nl8eng.pdf>
German: <http://www.gtz.de/ecosan/download/nl8dt.pdf>
Spanish: <http://www.gtz.de/ecosan/download/nl8esp.pdf>
French: <http://www.gtz.de/ecosan/download/nl8fr.pdf>

Your ecosan team hopes you enjoy our current issue!

Your contribution

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 for any contribution!

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- China: 6th China International Exhibition on Water and Wastewater Treatment Technology & Equipment, 16 – 19 September 2003, Peking
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Reminder of upcoming events

- Germany: Wastewater Hygienisation in Constructed Wetlands, Ponds and Related Systems, 6 - 7 November, Leipzig
- Mexico: 4th International Symposium on Wastewater Reclamation and Reuse, 12 – 14 November, Mexico City
- Finland: Dry Toilet Conference 2003, 20 – 23 August 2003, Tampere
- Mexico: 11th International Conference on Rainwater Catchment Systems, 25 - 29 August 2003, Mexico City
- South Africa: 3 IWA Conferences, 14 - 19 September 2003, Cape Town

In-house news

2nd International Symposium on Ecological Sanitation

– including the IWA Specialist Group Conference on Sustainable Sanitation,

7 - 11 April 2003, Lübeck, Germany

From the 7th to the 11th of April, following many months of hard work and intensive e-mail communication here at the GTZ-ecosan offices, the 2nd International Symposium on ecological sanitation was held in Lübeck, Germany. For us in the ecosan team, the conference was very much the highlight of the year and we would like to thank all of you who managed to attend for contributing so patiently and positively to its success. The main results of the symposium, including the conference proceedings, will be made available for download from the GTZ-ecosan homepage as soon as possible. The draft pdf-version of the proceedings and of the 10 Lübeck ecosan Recommendations for Action is already available (see below).

In all around 350 experts from a wide range of disciplines gathered from 60 countries to discuss recent developments in ecological sanitation and to explore ways forward for the dissemination of the ecosan philosophy. The participants included politicians, executives, planners, engineers, environmentalists, renowned academics and representatives of NGOs, all actively engaging and exchanging with one another during plenary sessions, excursions and several side events. It wasn't all work however, and there was plenty of opportunity for the participants to come together on a social level – such as during the memorable candle-lit conference dinner on the last night. We would like to sincerely thank everyone who attended the symposium for helping to make it such a productive, memorable and positive week. It made all the hard work of the preparation more than worthwhile.

Presentations and Discussions in Plenum

In the opening session of the conference, the **Honourable Minister of State for Water Maria Mutagamba from Uganda** and **Sunita Narain, Director of the Centre for Science and Environment in India** encouraged the participants to continue their positive engagement in facing the threats posed to both public health and the environment caused by the international sanitation crisis. They also drew attention to the role current approaches to sanitation are contributing to this crisis through environmental pollution, and the wastage of resources they encourage. As **Roland Schertenleib**, director of the Swiss EAWAG/SANDEC and chairman of the WSSCC working group on environmental sanitation said with regard to providing conventional sanitation “we are still optimising the wrong solution”.

During the **nine thematic blocks** of presentations and discussions, which comprehensively addressed the major issues facing ecosan promoters and practitioners, the conference strongly expressed the need for a new sanitation paradigm. Many participants expressed concern that if current sanitary practices are pursued in order to meet the Millennium Development Goals and those set at the Johannesburg Summit on Sustainable Development, it may even have disastrous consequences for public health and the environment. “What if everyone in India had a car?” quoted Sunita Narain, a question often posed by environmental activists, before adding, “What could be worse for the environment is if every Indian had a flush toilet”. Sunita Narain also informed the participants of the CSEs opinion that world-wide, current waste disposal systems are resulting in the “deliberate murder of water bodies”

The discussions resulted in the recommendation, that if the Millenium Development Goals for sanitation are to be met, ecosan must be widely recognised as the new sanitation paradigm, and should be vigorously promoted for all new construction of buildings and the refurbishment of older structures.

During the four main presentation days of the conference, the issues of: policy and legislation; social and economic aspects; rural and peri-urban case studies; hygiene and environmental assessments; new technological developments; hygienic agro-reuse; feasibility studies; decision making tools and urban case studies were addressed, with **more than 115 speakers addressing the plenum, and over 40 posters** on display. The commitment of the participants to follow all these presentations and to actively contribute to the discussions was remarkable. Throughout the sessions, several very important aspects were raised which have come about as a result of recent experiences of ecosan systems. For example, it was noted that ecosan systems have been adopted for a variety of reasons, such as their relatively low cost, the reduction of the total volume of "waste" to be handled, or their convenience for the users. The valorisation of the recovered nutrients however often still needs to be improved. Other contributions highlighted the range of experience that has already been obtained within in a rural context and stressed that today a range of practicable ecosan-solutions is available for these conditions and large-scale dissemination therefore has to be the next step. On the other hand, there is still an urgent need for research and development for ecosan systems in urban areas, where the need for sustainable sanitation systems is greatest. There is also a need for economic studies of ecosan systems, along with large-scale studies of the agricultural reuse of the products. The necessity of hygienic and environmental assessments of different ecosan approaches within different social, cultural and environmental contexts was also emphasised.

The conference proceedings will be published as a hardcopy and made available for downloading from the internet as soon as possible after the peer review process has been finished. In the meantime, the draft proceedings are available and can be found under:

!!! Download:

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-proceedings-draft.pdf>

Technical Excursions

In holding the conference in Lübeck, it was possible to offer a range of technical excursions to the participants to visit closed loop oriented sanitary systems in a German context. Several good examples have been installed in the surrounding region, which were visited, providing conference participants with insights into a range of ecosan systems including e.g. ecological settlements with composting toilets, separate blackwater collection by vacuum sewers and anaerobic treatment, constructed wetlands for greywater treatment, agricultural biogas plants and installations for the soilisation of sludge. The technical excursions also introduced many of the participants to the joys of April in Europe, with temperatures below zero and snow.

!!! Downloads:

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-Excursions.pdf>

Side Events

After long hours of presentations and discussions during the day it came as quite a surprise to see so many people attending and contributing to the side events which took place in the evenings during the conference. The GTZ-ecosan team organised two of these events, both of which produced very significant results.

The first event aimed to stimulate the **formulation of priority actions for the further promotion of ecosan and for up-scaling its implementation**. During this evening, the very positive and constructive contributions of all involved provided a solid foundation for an intensive debate that continued right up to the closing session of the conference, when the resulting **10 Luebeck ecosan Recommendations** were finally presented and adopted by the plenary. The Luebeck recommendations represent an

attempt to embrace the experience of an international range of experts and to produce a catalogue of political recommendations for the future of ecosan. The adoption of the recommendations can be seen as one of the significant results to come out of the symposium.

The second side event focussed on **awareness, participation and acceptance in ecosan projects**. The starting point for this event was the current lack of information and tools regarding these issues, and the realisation that while many of the approaches used in "classical" sanitation projects could be adapted to some degree for ecosan projects, the interdisciplinary nature of ecosan, the reuse aspects and the intended application of the Bellagio-Principles and the HCES of the WSSCC require a wider range and a more specific set of tools. As a result of this side-event, an international working group to address these issues was founded. The group will work via internet with ideas being exchanged to help in outlining a guideline and establishing a box of tools which ecosan practitioners will be able to draw upon. If you are interested in participating in the work of this group, please contact the ecosan team at ecosan@gtz.de.

Another significant result was obtained during a third side event organised by the IWA (International Water Association) where the organisation officially renamed the specialist group for sustainable sanitation to the specialist group for ecological sanitation.

New Partners and Increased Commitments

The conference offered us all the opportunity to make new contacts. It also offered the opportunity for new organisations to express their commitment to ecosan, while others either reaffirmed, or increased their support.

Among our **new partners**, we were extremely pleased to see **UNEP** (the United Nations Environment Programme) stressing the important role a holistic ecosan approach could play in reaching the sanitation goals set at the Johannesburg summit and the role ecosan could play in the UNEPs programme for action for the protection of the marine environment from land based activities. **The European Commission** was also represented and confirmed their support for ecosan and their interest in funding ecosan-related projects.

The UNDP (United Nations Development Programme) expressed their full commitment to increase their support to ecosan development, while the German Development Bank (KfW) pledged their continued support for ecosan and the GTZ-ecosan sectoral project.

Post Conference Study Tour

Following the conference some of the participants had the chance to visit interesting ecosan projects in Sweden and Denmark, during a one-week study tour organised by the Technical University Hamburg-Harburg. Further details of this tour are available on the homepage of the TUHH <http://www.tu-harburg.de/susan/1conference/index.html>.

A full report of this excursion, prepared by some of the participants, will also soon be available from the TUHHs homepage.

Luebeck-Recommendations for action and further crucial points

As already stated, 10 recommendations for action were formulated by the participants of the Luebeck-Symposium and adopted by them during the closing session of the conference. The accompanying discussion also raised a range of points, which, while not being directly addressed in the 10 Luebeck Recommendations, were also considered as crucial points to be addressed in the future. These points were noted during the discussion and are also available for download.

!!! Download:

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-recommendations-for-action-eng.pdf>
<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-recommendations-for-action-dt.pdf>
<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-recommendations-for-action-fr.pdf>
<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-recommendations-for-action-esp.pdf>

!!! Download:

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-Crucial-points-to-be-addressed-in-the-future.pdf>

Once again the ecosan team would like to thank everyone who participated in the 2nd International Symposium on ecological sanitation for contributing to the positive atmosphere and the extremely significant results

New members of the ecosan team

We are pleased to welcome three new trainees to the ecosan team:

Simone Kraus, process engineer (Technical University Hamburg-Harburg/Germany),

Viviana Avendaño, Microbiologist currently doing a Masters in Tropical Technology (FH Cologne/Germany) and

Irmir Eicher, studying environmental safety (FH Weihenstephan/Germany)

Recent News

Japan: 3. World Water Forum 16. - 23. März, Kyoto

Around 24 000 participants from 180 countries took part in the 3rd World Water Forum in Kyoto. From our point of view the highlights of the forum were three very well attended events on the theme of ecosan, organised by the Swedish EcoSanRes programme and the IWA. An ecosan-exhibition stand, which was also organised by EcoSanRes, and maintained by the GTZ and other members of the ecosan network attracted a huge amount of interest, with the stand at times almost being completely overwhelmed by visitors.

The three ecosan events, at which a range of outstanding international presenters spoke, addressed the advances made on an international level in disseminating the ecosan concept, methods for affordable and environmentally friendly communal waste water management and the closing of the nutrient cycle through ecosan in rural and urban areas. In all the events a central theme was also how ecosan can contribute to achieving the Millennium Development Goal of halving the number of people without access to adequate sanitary systems by 2015. A summary of the discussions and results of the workshops can be found under:

!!! Download: <http://www.gtz.de/ecosan/download/Kyoto03-ecosan-SideEvents.pdf>

We were particularly pleased to see Walter Stottman, director of the World Bank "Water and Sanitation Programme", address one of the ecosan events. In his speech he presented the WB-WSP and expressed his interest in ecosan. In the podium discussion that followed, he also made a commitment to strengthen the ecosan team of the WSP in Nairobi.

As a result of the discussions that occurred within the framework of the ecosan events, a common "Kyoto Statement on EcoSan" was formulated:

- Ecological sanitation (ecosan) is an environment-friendly and safe approach to sanitation.
- Ecosan is holistic in that it saves water, prevents water pollution, sanitizes and recycles the nutrients and organics to restore soil and soil fertility.
- Ecosan includes low as well as high-cost solutions for rural and urban settings. Ecosan can be more cost-effective than conventional sanitation and thereby offering a greater chance of meeting the Millennium Development Goals and the Johannesburg Commitments on Sanitation.

- Ecosan is applicable to a wide array of local physical, cultural and economic conditions providing permanent installations.
- Ecosan concepts and techniques can also be used to upgrade conventional pit latrines and flush systems.
- Ecosan is being applied successfully in many locations in Africa, Asia, Europe, the Americas, and Oceania.
- At the Kyoto 3rd WWF, ecosan emerged as a significant option in meeting the Millennium Development Goals and the Johannesburg Commitments on Sanitation and is supported *inter alia* by UNDP, UNEP, UNICEF, Water and Sanitation Programme (World Bank), EU, Government of Uganda, GTZ (Germany), Sida (Sweden), Austrian Aid, SDC (Switzerland), IWA, CREPA, Mvula Trust, the City of Kyoto and the Japan Toilet Association.

!!! **Download:** <http://www.gtz.de/ecosan/download/Kyoto03-ecosan-Statement.pdf>

Formation of the „International Society of Inorganic Phosphates e.V.” (SIP)

From 26 – 28 June in Jena, the official inauguration of the „International Society of Inorganic Phosphates“ will take place, instigated by the Otto Scholl Institute of the Universität Jena/Germany. The group aims to unite professionals, researchers and teachers currently working with inorganic phosphates, substances containing phosphorous and associated fields of work into one organisation.

The activities and interests of the group will address three areas:

- 1) Analysis (chemical and structural analysis),
- 2) Materials and Technologies (from raw material extraction, through processing, application and eventual recycling) and
- 3) Environment:
 - a) Earth (mining and agriculture),
 - b) Water (water supply and wastewater) and
 - c) Air (contamination/protection due to extraction and recycling)

!!! **Further Information:** <http://www.gtz.de/ecosan/download/Society-InorgP.pdf>

!!! **Contact:** Prof. Dr. Dörte Stachel, Otto Schott Institute, Friedrich Schiller University of Jena, Fraunhoferstrasse 6, 07743 JENA, Germany, Tel: +49(0)3641 9 485 36/10, Fax:+49(0)3641 9 485 02, e-mail: [cgs@rz.uni-jena.de](mailto:cds@rz.uni-jena.de)

Survey on “constructed wetlands”

The Institute for Soil Science of the University of Hamburg will be carrying out a survey on the application of constructed wetlands in developing countries. The survey intends to identify the potentials for the use and possible problems during the implementation of this technology. With this survey the institute aims to gather the available experience in developing countries and subsequently develop a strategy paper for the dissemination of this technology.

The University of Hamburg has asked for practitioners to support this survey by completing a questionnaire (see link below). In order to obtain a complete overview of the situation in developing countries the university would like the participation of a large number of experts.

If you would like to participate in this action send your completed questionnaire to the Institute for Soil Science before the **20.05.2003**.

Institut für Bodenkunde, Universität Hamburg, Allende-Platz 2, 20146 Hamburg/Germany, Tel: +49-40 - 42838 4041, Fax: +49-40 – 42838 2024, e-mail: ifb@ifb.uni-hamburg.de

!!! **Download Questionnaire:**

<http://www.gtz.de/ecosan/download/Quest-CWetlands.pdf>

Job Vacancy

Job Vacancy of WSP at Senegal - Senior Sanitary Specialist

The Water and Sanitation Program, managed by the World Bank and financed by a partnership of bilateral donors, promotes approaches to helping the poor gain access to improved water and sanitation services.

A leading sanitation professional is being recruited to co-ordinate its operations across Africa, and to manage work in the West and Central African hub, working from Dakar, Senegal. Requirements include a master's or higher-level degree(s) in a relevant field such as social science, institutional development, economics, finance, engineering, or other field relevant to public health and sanitation, and at least 10 years' experience.

!!! Further Info: <http://lnweb28.worldbank.org/HRS/Careers.nsf/postings/>

!!! Contact: The Regional Team Leader, WSP-AF - World Bank, P.O. Box 30577, Nairobi/Kenya or e-mail: wspaf@worldbank.org stating: "Application for Senior Sanitation Specialist" clearly in the subject line.

Recent Publications

Water Reuse: Understanding Public Perception and Participation

Books

IWA (2003): Water Reuse: Understanding Public Perception and Participation - WERF Report (Project 00-PUM-1), 172 Pages, ISBN: 1843396696, English, US\$+€ 124/165 (IWA members/non members)

Non-potable and potable (principally in-direct potable) water reuse initiatives in the United States have faced increasing public opposition. Several high-profile initiatives have been halted after several years of planning and tremendous expenditure. To understand why the public holds the perceptions they do and what public participation options exist to address water reuse more constructively, a multidisciplinary analysis was undertaken by a team of social scientists, engineers, and water professionals.

Through a comprehensive literature review, three in-depth case studies, and a 2-day interactive symposium this framework was developed for water professionals. The framework summarises five underlying principles that contribute to shaping public perception and acts as a guide for water professionals in their selection of public outreach, education, and participation activities.

!!! Further Info: <http://www.iwapublishing.com/template.cfm?name=isbn1843396696>

Recent publications

Co-composting of Faecal Sludge and Municipal Organic Waste in Kumasi, Ghana

Studies, reports, etc.

SANDEC (2003) Pilot project "Co-composting of Faecal Sludge and Municipal Organic Waste in Kumasi, Ghana" Online Publication.

The Ghanaian city of Kumasi has around 1 million inhabitants producing 860 tonnes of municipal organic waste and 500 m³ of faecal sludge per day. The possibilities to introduce a treatment system for this volume and to make the produce available for agricultural use are currently being examined in a pilot project, co-composting faecal sludge and municipal organic waste.

First results from this project can be found under:

!!! Infos: http://www.sandec.ch/swm/Co-comp_faec_sludge_Kumasi.html

Doctoral Thesis on the Health Risks posed by the reuse of Urine

C. Schönning (2002): Evaluation of microbial health risk associated with the use of human urine" Swedish Institute for Infectious Disease Control (SMI) Department of Water and Environmental Microbiology Stockholm, Sweden, 29 Pages, ISBN 91-7283-039-5, English.

Unsatisfactory water supply and sanitation remains the primary cause for many illnesses and deaths in developing countries. All new and future developments in water and wastewater systems should be based on the view that human excreta represent a valuable resource that should be recycled, and should not be considered as a waste.

The aim of this doctoral thesis was to examine and evaluate the health risks associated with urine separation in order to develop guidelines for the safe reuse of human urine in agriculture. This could thus contribute to sustainable development in both developing and industrialised nations, in rural and urban areas.

A summary of this doctoral thesis is available under:

!!! **Download:** <http://www.gtz.de/ecosan/download/Schönning-PhDThesis.pdf>

!!! **Contact:** Caroline Schönning, Department of Biotechnology, Applied Microbiology, Royal Institute of Technology, SCFAB, 106 82 Stockholm/Schweden, e-mail: caroline.schonning@smi.ki.se

Recent publications

New IWA Journal "Journal of Water and Health" appears online

The IWA (International Water Association), in co-operation with the WHO (World Health Organisation), have issued the new periodical, "Journal of Water and Health".

Journals

The journal aims to promote valuable qualitative research and applications in the area of water for health in both developing and industrial nations.

The first issue can be seen at:

<http://www.iwapublishing.com/template.cfm?name=iwapwaterhealth>

Recent publications

Conference proceedings from the 5th EUROSOLAR Conference "Der Landwirt als Energie- und Rohstoffwirt" (The Cultivator as an Energy and Raw Material Manager) , 30. /31.01.2003, Bonn

Conferences

For the 5th consecutive year EUROSOLAR has organised the conference "Der Landwirt als Energie- und Rohstoffwirt" (The Cultivator as an Energy and Raw Material Manager). This year the conference addressed the increasing change in the role played by farmers in the production of renewable energy, for example through the co-fermentation of silage, wastewater and organic solid waste for the production of biogas for energy production.

This new field of activity may open the possibility for farmers to once again assume a role of increasing economic importance with a central role to play in the economy following 200 years of industrial development and dominance.

The conference proceedings are available in German from:

EUROSOLAR, Kaiser-Friedrich-Str. 11, 53113 Bonn Tel. 0228 / 36 23 73

!!! **Info:** <http://www.eurosolar.org>

Events

Germany: **ACHEMA 2003, 27th International Exposition for chemical technology, environmental protection and bio-technology** **19. – 24. Mai 2003, Frankfurt am Main**

new

Organisers: DECHEMA, Gesellschaft für chemische Technik und Biotechnologie e.V.

The ACHEMA exposition serves as a platform for interdisciplinary exchange between scientists, developers, producers, and users. Current trends and new technological developments in the fields of chemical and biological technologies and environmental protection will be on display along with new scientific advances resulting from research with practical relevance – including the latest developments in wastewater treatment.

Accompanying the exhibition, a congress with over 800 expert presentations will be held. The conference will be held in English.

!!! **More Infos:** http://aurum2.dechema.de/achema2003/new/homepage/home_e.htm

The Netherlands: IWA Leading Edge Conference on Drinking Water and Wastewater Treatment Technologies
26. – 28. Mai 2003, Noordwijk/Amsterdam

This conference wants to show the progress on treatment technologies for drinking water and wastewater.

Two themes will be dealt with in parallel:

- Drinking water treatment: The use of membrane technology, drinking water disinfection, dissemination of water quality systems, endocrines in drinking water, the removal of organics from drinking water.
- Wastewater treatment: developments for the removal of biological nutrients, the use of membranes in wastewater treatment, monitoring of contaminants in wastewater, the removal of solids, sludge reduction.

The conference will be held in English.

!!! **Info:** <http://www.iwahq.org.uk/template.cfm?name=technology2003>

!!! **Contact:** Lara Changizi, Events Co-ordinator, International Water Association Alliance House, 12 Caxton Street, London SW1H 0QS, UK., Tel: +44 20 7654 5518, Fax: +44 20 7654 5555, email: technology2003@iwahq.org.uk

Norway: Appropriate Sanitation in the Developing World
2. – 6. Juni 2003, Ås/Oslo

Organiser: Agricultural University of Norway, Department of Agricultural Engineering

The two main reasons for high rates of illness and mortality among children are an unsafe water supply and an unsatisfactory disposal of faecal material. Ecological solutions are needed which pay particular attention to local boundary conditions.

The main aim of this event is to examine ecological solutions, with particular attention being given to systems for recycling and the treatment of organic waste. Waste water experts will present case studies which will be examined using a technical and social analysis.

The event will be held in English.

!!! **Contact:** Petter Jenssen, PO Box 5065, 1432 As, Norway, e-mail: sansol@nhl.no

Brasil 4. AQUATECH FITMA
3 - 5 June 2003, São Paulo

Organisers: Aquatech Business Media, The Netherlands

This annual fair addresses the themes of water, wastewater systems, water resources, organic solid waste, and environmental control and protection.

The organisers offer a meeting place particularly for experts in Latin America, with the latest developments in the fields water and the environment being presented.

200 exhibitors from South and North America, Europe and Asia are expected. Additionally Austria, Germany, Spain, Switzerland, Holland, England and the USA will also have their own country pavilions.

!!! **Info:** <http://www.aquatechtrade.com>

Additional information and reservations through „Amsterdam Rai“.

!!! **Contact:** Mrs. Heleen van der Meer, P.O. Box: 77777, 1070 MS Amsterdam, Tel: +31 20 5491212, Fax: +31 20 549 1889, e-mail: aquatech@rai.nl

Croatia: 2nd Conference on Sustainable Development of Energy, Water and Environment Systems
15. – 20. Juni 2003, Dubrovnik

Organisers: The University of Zagreb, Croatia; Instituto Superior Tecnico, Lisbon, Portugal

This conference considers the implications of the need for “sustainable resource use” if we wish to ensure a continual development of society. The follow themes will be considered during the conference week: sustainable concepts for energy, water and environmental systems; economical analysis of energy water and environmental systems; modelling, simulations and expert systems concerning sustainable development.

The conference will be held in English.

!!! **More Infos:** <http://www.dubrovnik2003.fsb.hr>

!!! **Contact:** Organisation secretariat, 2003 Dubrovnik Conference, FSB, Luciceva 5, HR-10000 Zagreb, Croatia, Fax: +385 (1) 6156940, e-mail: dubrovnik2003@fsb.hr

Norway: Wastewater Sludge as a Resource
23 – 25 Juni 2003, Trondheim

Organisers: Norwegian University of Science and Technology, International Water Association

Sludge from wastewater treatment plants represents an increasing challenge world-wide regarding its treatment and use. There are currently three basic methods to treat and use this sludge and its components – they are disposed of in landfills, they are used in agriculture, or they are recycled.

During this conference the different treatment and reuse strategies will be discussed along with the technologies available. The conference proceedings should thus serve as a record of the current state of the art in this field.

The conference will be held in English.

!!! **More Infos:** <http://www.ivt.ntnu.no/ivm/Biosolids2003/>

!!! **Contact:** Prof. Hallvard Ødegaard hallvard.odegaard@bygg.ntnu.no

China: 6th China International Exhibition
16. – 19. September 2003, Beijing

Organisers: China Technology Market Management & Promotion Centre, China Centre for Promoting Construction Science & Technology Developing, China Society of Environmental Sciences, China Water Supply Association, SinoTech Expo, Grand Exhibition Services

This annual event has developed into a very influential water and wastewater trade fair. More than 300 exhibitors from 10 countries and regions will be represented along with 25 of the 31 Chinese provinces.

!!! **Info:** <http://www.waterchina.net/>

**Bahamas: IDA World Congress on Desalination and Water Reuse
28. September – 3. Oktober 2003, Paradise Island**

Organisers: International Desalination Association (IDA)

The goal of this conference is the development and promotion of adequate approaches for desalination and desalination technologies around the world.

The conference will particularly consider the following themes:

Innovations with renewable resources, integrative membrane systems, water reuse, membrane bio-reactions, problems of drinking water quality in desalination, regulations and environment.

!!! Info: <http://www.idadesal.org/>

!!! Contact: Secretary General, IDA, USA, Fax: +1-978-8870411,
<http://www.irc.nl/contact.php?n=paburke%20at%20idadesal.org&u=paburke&d=idadesal.org>

**Columbia: Multiple Uses of Water for Life & Sustainable Development
29. September – 3. Oktober, Categena de Indias**

Organisers: Cinara Institut and del Valle University, Columbia

The central theme of the conference is the multiple uses of water, particularly in a domestic context and for food production.

The conference addresses experts, practitioners and managers working in water supply, wastewater systems and drainage. The first two days will be presentations in plenum followed by three days of parallel sessions.

The conference will be held in English

!!! More Infos: <http://www.cinara.org.co/agua2003en.html>

!!! Contact:, Dr. Inés Restrepo, e-mail: inrestre@univalle.edu.co,
inesrestrepo@hotmail.com or Dr. Miguel R. Peña e-mail: miguelpe@univalle.edu.co

**Germany: Wastewater Hygienisation in Constructed Wetlands, Ponds
and Related Systems,
6. - 7. November, Leipzig**

Organiser: UFZ Centre for Environmental Research Leipzig-Halle of the Helmholtz Foundation; BDZ Training and Demonstration Centre for Decentralised Sewage Treatment

The reuse of treated wastewater for agricultural uses requires a sufficient elimination of pathogens. Nature oriented waste water treatment processes, for example constructed wetlands, have displayed good elimination rates. In the course of this conference the current state of the art will be highlighted and possibilities to optimise the operation of such treatment processes will be discussed.

The conference will be held in English

!!! More information and registration: <http://www.ufz.de/spb/phyto/events.html>

**Mexico: 4th International Symposium on Wastewater Reclamation and Reuse,
12 – 14. November, Mexico City**

Organisers: National Autonomous University of Mexico, Ministry of the Environment of Mexico City, Ministry of Infrastructure of Mexico City, IWA

The main goal of this conference is to gather and discuss the experiences made by national and international institutions and specialists in the reuse of wastewater, with particular attention being given to case studies.

The main themes of the conference are:

Case studies; regulations; holistic management in agricultural reuse; reuse as drinking water; industrial water cycles and public services.

The conference will be held in English

!!! More Infos and Registration: <http://www.iingen.unam.mx/isw/index1.html>

Events

**Finland: Dry Toilet 2003,
20 – 23 August, 2003, Tampere**

reminders

Organisers: Global Sanitation Club of Finland – Käymäläseura Huussi ry and the Association of Ecological Information – Ekoinfo ry

The aim of the conference is to provide a platform for an exchange of views and information on world-wide wastewater issues and present dry toilets as a practicable solution, particularly for arid areas or regions with inadequate sewage systems. The main topics will be: controlled rural and urban environmental management, using human faeces as fertiliser, technical development of dry toilets and toilet culture.

The conference will be held in English.

!!! New: Detailed information is now available online with the http://www.drytoilet.org/scientific_program.php

!!! For further information, please go to: <http://www.drytoilet.org> or e-mail to: secretary@drytoilet.org

**Mexico: 11th International Conference on Rainwater Catchment Systems
25 to 29 August 2003, Mexico City**

Organiser: International Rainwater Catchment Systems Association (IRCSEA)

This conference is addressed to planners, decision-makers, etc. concerned with the direct collection and storage of rainwater for household and agricultural use. Some 800 participants are expected to attend from all over the world to discuss efficient rainwater use. The programme will also include technical and tourist excursions.

!!! For further information, please go to: <http://www.colpos.mx/ircsa/old/english.html>

South Africa: 3 IWA conferences

14 - 19 September, 2003, Cape Town

Organisers: IWA

The following events will be held jointly in Cape Town's Convention Center.

12th IWA Conference - Water microbiology and health: The one-day seminar on the WHO water quality guidelines will deal with, for example, progress in HACCP-based (Hazard Assessment and Critical Control Points) strategy and methods for assessing water quality, including indicator methods (coliform bacteria and heterotrophic plate count), pathogens (cryptosporidium, giardia, viruses, escherichia coli O157:H7, legionella) and low-cost methods such as the H₂S test.

5th IWA Conference – Biofilm systems: Biofilms play a major role in many water treatment methods. These range from water quality assurance (e.g. drinking water) to water treatment (drinking water, wastewater, utility water). The 5th IWA conference on biofilm systems will deal with current trends and developments in biofilm research and fundamentals, process management and application aspects.

Water: key to sustainable development in Africa: Water is life, and rational management of this resource is an integral component of sustainable development for an ongoing improvement in quality of life without destroying the sensitive water balance. The aim of the Cape Town conference is to bring the world's leading experts to Africa to exchange experience and information on technologies with the developing countries.

!!! For further information, please go to:

<http://www.iwaconferences.co.za/Pages/Home.html>

!!! Online registration: <http://www.iwaconferences.co.za/water/reg1.doc>

Links and tips

Links on GTZ ecosan homepage

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

<http://www.gtz.de/ecosan/links.html>

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

ecosan@gtz.de

New links (in alphabetical order)

CEHA – WHO Regional Center for Environmental Health Activities

http://62.193.78.3/ceha/clearingh_waterdemand/portals/wutiliz/municipal/greywater.asp

An interesting collection of Links to Greywaterrecycling

dex

www.expertenrat.com

German Experts Association for Environmental Technology and Infrastructure. Terms of references: base line studies, formulation of concepts, expert's reports, comments and studies.

Nature publishing group

<http://www.nature.com/nature/focus/water/>

Homepage of the journal „Nature“

<http://www.nature.com/nature/subscribe>

Free registration for the Newsletter „Nature“

SANDEC

<http://www.sandec.ch/sos/references.html>

SANDEC-Publications on faecal sludge

ESTIS

<http://www.estis.net>

Tool for the transfer of Environmentally Sound Technologies

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>

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

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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.