





ecosan – newsletter no. 15 2/2005 english -

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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. 15!

The latest editions of the English version are distributed directly via e-mail in the globallyreadable, 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:

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English:	http://www2.gtz.de/ecosan/download/nl15eng.pdf
Chinese*:	http://www2.gtz.de/ecosan/download/nl15cn.pdf [from April 2005]
* For organisational reasons, the Chinese version is published later than the others.	

Your ecosan team hopes you enjoy the 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 below of this issue. Thank you for any contribution!

ecosan sector project

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eutsche Gesellschaft für Ichnische Zusammenarbeit (GTZ) GmbH

commissioned by:







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General information		cosan newsletter information
In-house news	We are please - Jean Em the interna Harburg.	ers of the GTZ ecosan team ed to welcome the following new interns to the GTZ ecosan team: manuel Ndzana from Cameroon, a civil engineer and M.Sc. graduate from ational Masters Programme "Environmental Engineering" at the TU Hamburg- He is currently carrying out an internship with the ecosan team in Eschborn – April 2005).
	- Abir Moh from the Semi Ario Syrian sta	amed from Syria, a mechanical engineering from Alleppo (Syria) with a Phd University of Flensburg on the Effectivity of Plants Wastewater Treatment in d Climates. She works for the Syrian Ministry and was the director of the and at the Expo 2000 in Hannover. She will be carrying out an internship with n team in Eschborn (March – May 2005).
	He carried working a	afler from Austria, studied rural engineering and water resources in Vienna. d out an internship at GTZ Eschborn from 7-9/2003 und 5/2004. He has been is a trainee for a pilot project in India since 6/2004. His time here has been I for a further 6 months.
	with the G From Jan	allinat from Germany, studied geography in Frankfurt. She did an internship GTZ-ecosan project and in a pilot project in China from May-September 2002. uary to June 2005 she will be working in a pilot project in the Philippines.
	Managem from Sept	Tietzsch from Germany, graduated in Environmental and Resources tent from the BTU Cottbus. She carried out the internship at GTZ-Ecosan tember to December 2004. She is now working as a trainee in a pilot project in (from January-June 2005).
	carried ou	osel from Germany, student of water resources at the TU Dresden. She at an internship with the GTZ-ecosan team from October to December 2004 w working on her thesis in an ecosan pilot project in Pune, India.





ecosan at the ...

WSSCC WASH Forum

"WSSCC - Global WASH Forum" 2004, Dakar, Senegal

As highlighted in our last newsletter No. 14 the 1st Global Water, Sanitation and Hygiene (WASH) Forum took place in Dakar, Senegal from the 29th November to the 3rd December, 2004. The Forum, organised by the Water Supply and Sanitation Collaborative Council, was attended by approximately 500 participants including Ministers, NGO, UN agencies, academic and research institutions, and private sectors from nearly 75 countries around the world. The Forum had set itself two main aims:

(a) to draw lessons on how successful water, sanitation and hygiene programs, sector reforms and development partnerships are in leading to the eradication of poverty, and

(b) to strengthen regional and national partnership initiatives aimed at attaining the goals of the World Summit on Sustainable Development.

The landmark forum ended by reiterating the unswerving commitment of the participants and organisers alike to water, sanitation and hygiene as human rights, people-centred, gender-focused approaches and drawing up practical action plans to attain the global targets on water and sanitation.

The Dakar Statement was adopted by acclamation by the participants, and spells out 16 practical actions that are already being done at the household, local and national levels that need scaling up to attain the Millennium Development Goals (MDGs) for water and sanitation by 2015. The statement expressly called for a continuation of the innovative work being carried out in ecological sanitation, recognising the holistic environmentally sustainable approach to sanitation as being a way to accelerate action towards achieving the MDGs.

!!! More information for the Dakar Statement (available in English, French, or Spanish): http://www.wsscc.org/home.cfm

Another key outcome of the forum was a roadmap which will lead the way forward from Dakar to the 13th session of the Commission on Sustainable Development to be held in New York in April 2005, the "International Decade "Water for Life' 2005-2015", the UN review of the MDG progress in September 2005 and the 4th World Water Forum in Mexico City in 2006. The roadmap is seen as a tool to assess if a country is on track and moving in the right direction to achieve the MDGs, and is based on the best practices that emerged from the Forum and the regional consultations preceding it.

!!! More Information for the Dakar Roadmap (currently only in English): http://www.wsscc.org/home.cfm

Partner-event on ecological sanitation at the "WSSCC - Global WASH Forum" 2004, Senegal

A partner event on ecological sanitation was organised by the GTZ at the forum on Monday 01.12. The event, "Closing the loop and breaking the cycle – ecological sanitation and hygiene promotion", aimed to highlight the importance of hygiene promotion and hygiene promotion practitioners to learn from each other and to integrate best practices from both fields into their own work. Presenters from the GTZ, the WHO, the London School of Hygiene and Tropical Medicine and the Mexican NGO, TepozEco, provided insights into different aspects of the issue. The moderation of the event, by Martin Strauss of EAWAG/SANDEC, ensured that discussions remained focussed on the issues, and Elke Muellegger of the EcoSan Club provided both organisational assistance and the reporting.

The event reinforced the importance of hygiene in sanitation systems which seek to safely collect, treat and reuse the resources represented by wastewater and excreta. It hopefully also marked the beginning of an increased exchange of information and ideas between hygiene promoters and ecological sanitation practitioners.





The short one page report event "Closing the loop and breaking the cycle" summarising the main findings of the event, which was submitted as a contribution to the Dakar Statement and Roadmap is now available for downloaded.

III Download: http://www2.gtz.de/ecosan/download/Wash04-report-sideevent.pdf

The presentations from the partner event of the representatives of the WHO, GTZ and TepozEco are also available for download:

 Image: Image:

!!! Contact: patrick.bracken@gtz.de

Partner-event on "Breaking the barriers to sanitation" at the "WSSCC - Global WASH Forum"

The WHO hosted a partner event of their own, "Breaking the barriers to sanitation: communicating policy and norms for better health". This event served in part to introduce the upcoming WHO guidelines for the safe use of wastewater in agriculture, the safe use of wastewater in aquaculture, and the safe use of excreta and greywater.

!! For further information on the upcoming guidelines contact: <u>patrick.bracken@gtz.de</u>

Partner-event on "how to close the faecal sludge loop" at the "WSSCC - Global WASH Forum"

An event looking at how to close the faecal sludge loop from existing on-site sanitation facilities was organised by EAWAG/SANDEC. The event, titled "Enhancing urban livelihood through proper management of faecal sludge's from on-site-sanitation" presented ways in which faecal sludge management, often neglected in sanitation systems in many developing countries, can be achieved in a way that recovers the resources within the sludge and contributes to the local economy. The event served to bring this urgent issue on to the forum agenda and offered an ideal opportunity to close the information loop between those working in this field and others working in ecological sanitation. During the event an action plan for sustainable faecal sludge management was discussed with recommendations being formulated.

!!! For more information on faecal sludge management: http://www.sandec.ch/FaecalSludge/index.htm

!!! Contact: Martina Strauss <u>martin.strauss@eawag.ch</u> or Doulaye Kone <u>daoulaye.kone@eawag.ch</u>

The ecological sanitation information stand, jointly run by the GTZ ecosan team, EcoSan Club and WASTE also proved to be quite an attraction. Along with providing information and publications concerning ecological sanitation the stand also previewed parts of the upcoming documentary, "The Human Excreta Index", which takes a world-wide view of sanitation problems and how ecological approaches to sanitation are serving to solve these. The Dutch film maker, Mattias Ylstra, was also on hand to answer questions from visitors to the stand.

!!! For more information on the film "The Human Excreta Index" contact: **Gert de Bruijne of WASTE <u>gdebruijne@waste.nl</u>**





News from the 3 rd	Review process and paper selection for presentation has begun
International ecosan Conference	This is the last issue of the GTZ ecosan Newsletter before this years International ecosan conference planned from the $23 - 27$ May 2005. The process of evaluating and selecting the papers for presentation has begun, and we are all looking forward to having the opportunity to hear and see what advances have been made in ecological sanitation since the last major conference in Lübeck, Germany in 2002.
	Looking forward to seeing you all there!!
	International Conference on Ecological Sanitation visit: <u>http://www.buildnet.co.za/ecosan/index.shtml</u>
	<pre>!!! Contact: cdejager@saice.org.za or Laustin@csir.co.za</pre>
News from	Support for communal wastewater management in Austria
EcoSan Club	From 1st January 2005 an amendment has been made to the Austrian Support Guidelines 1999 for communal water management. The guidelines now include an article that supports measures to implement closed-loop oriented wastewater systems for individual treatment plants. This includes sanitary systems that aim to close material and water cycles with little effort by separating the wastewater flow. The extra costs resulting from the necessary interior installations for different variants that separate black water and grey water and their subsequent treatment are now legible for support.
	<pre>!!! Info: <u>http://www.kommunalkredit.at/view.php3?f_id=2234&LNG=DE</u></pre>
	<pre>!!! Info: <u>http://www.kommunalkredit.at/up-media/1291_infoblatt_kreislauf_awsys.doc</u></pre>
News from WASTE	Public debate about developments in sanitation Additionally to the in 5 regions Central America, West Africa, East Africa, India and the Philippines, WASTE is as well active in the Netherlands, informing decision makers and
	planners on alternative solutions for sanitation.
	This year WASTE has organised in the Netherlands in collaboration with Habitat Platform, Dutch Water Partnership (NWP) Partners for Water and the University of Twente a series of discussions on sanitation and integrated sustainable urban planning.
	The series concludes on 3 March with a public debate on whether the current sanitation system(s) are sustainable and whether there are new developments and other approaches that may offer feasible alternatives, now and in the future.
	 The outcomes of the three earlier discussions will form the agenda of the public debate. So far, two meetings have been held some key-points are listed hereunder: Public awareness, communication and a demand responsive approach are very important aspects of how to the start the discussion about developments in sanitation. The reason is that people don't actually want to discuss 'toilet' issues. Sanitation systems are complex and several organisations share a joint responsibility for its functioning. Intersectorial cooperation for managing the water and sanitation cycle is needed. There is a shift needed in the paradigm of sanitation. It will take several steps in order to get more open minded, and more stakeholders involved. Technical solutions for integrated sanitation options are (becoming) available. The main bottle-neck for innovation is formed by the existing organisational structures. Therefore, pilot projects should focus on those aspects rather than only on technical aspects.

These are only a couple of the discussion points. The public debate is intended for all organisations and people in someway involved in sanitation issues.

!!! Contact and more information: Mirjam Geurts: mgeurts@waste.nl





News - general

Final report of the Millennium Task Force pushes sanitation crisis to top of agenda

The UN Millennium Project Task Force on Water and Sanitation's Final Report, published on 17 January, urges governments and stakeholders to move the sanitation crisis to the top of the international agenda. The report "Health, dignity, and development: what will it take?" is the result of a three-year study on how best to achieve the Millennium Development Goals (MDGs). This study, Investing in development: a practical plan to achieve the Millennium Development Goals, was presented to UN Secretary General Kofi Annan just two weeks before. The Water and Sanitation Task Force's report presents an operational plan for achieving the MDGs related to water and sanitation, especially the goal of "halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation". The Task Force highlights the need, among others, to focus on the global sanitation crisis, which contributes to the death of 3,900 children each day, and to increase access to domestic water supply.

Some 1.1 billion people do not have access to improved water supply, and some 2.6 billion to adequate sanitation. According to the report, tackling the sanitation crisis would go a long way to moving the MDG agenda forward in many other areas, including child and maternal mortality, gender equality in education, poverty reduction and hunger. The study further states that the MDGs can be achieved with an investment of just one half of one percent of the incomes of the industrialized countries - well within the international aid targets wealthy countries have already promised to meet.

The UN Millennium Project was launched to recommend the best strategies for achieving the MDGs, with the bulk of the analytical work being done by the ten selected Task Forces.

!!! Information on the full study: <u>http://unmp.forumone.com/</u>

!!! Download the full report - PDF format, 8 MB http://unmp.forumone.com/eng_task_force/WaterEbook.pdf

Sunita Narain awarded Padma Shri

Sunita Narain, director of the Centre for Science and Environment in India, has been awarded the Padma Shri by the Government of India for her commitment to environment protection. The Padma awards - the highest civilian honours - are given every year to eminent citizens for their exceptional contribution to various fields. Reacting to the news, Narain said: "This award in 2005 rewards the growth of the environmental movement, which shows that to bring in change, it is sometimes necessary to push the system to demand more. This award is for all of us in the environmental movement and for all the protests and fights that need to be won." In a career as an environmental campaigner Sunita Narain has campaigned actively for reviving India's tradition of water harvesting. She is also a campaigner for a Southern agenda on global warming and environmental issues and is also supporting the ecosan approach to sanitation.

See also: Sunita Narain's profile http://www.cseindia.org/aboutus/sn_biodata.htm

III Download articles on ecosan from Sunita Narain: http://www2.gtz.de/ecosan/download/ecosan-Symposium-Luebeck-opening-session.pdf or http://www2.gtz.de/ecosan/download/SNarain-FlushToilet.pdf

Source: Adapted from CSE news bulletin, 27 Jan 2005





African ministers launch WASH initiative

Directly following the Global WASH Forum, the African Ministerial Council on Water (AMCOW) inaugurated AMIWASH at an African Ministers Day and emphasised the need for campaign to sensitise the world about water, sanitation and hygiene.

According to a draft concept paper, AMIWASH, which is a voluntary initiative, will recruit local young professionals to support the chair of AMCOW, Ms. Maria Mutagamba, Uganda's minister of water, lands and the environment.

AMIWASH came into operation in February 2005, and will be followed by a joint review of its operations during the next AMCOW meeting scheduled in May 2006 in Kampala, Uganda or Nairobi, Kenya. AMCOW formally endorsed the Initiative after the Water Supply and Sanitation Collaborative Council (WSSCC) agreed to mobilise US\$500,000 for 2005-2006 to launch it in collaboration with AMCOW.

AMCOW and WSSCC appealed to donors, development partners and other private sector groups for further support. They urged other countries to follow the example of Senegal, which has become the first and only country in the world create a WASH ministry.

Meanwhile, AMCOW closed with a decision to launch African Sanitation Week throughout the continent 15-21 March 2005 under the theme, "Sanitation Is Everybody's Business". The focus of the week would be to clean up the environment where sanitation and hygiene should be practised.

Source : WSSCC, 6 Nov 2004 <u>http://www.wsscc.org/dataweb.cfm?code=545</u> or Panapress, [in english], 4 december 2004 http://www.panapress.com/newslatf.asp?code=eng065079&dte=04/12/2004

Job Vacancies Jobs for Integrated Experts (CIM) in India and the Philippines

The German Centre for International Migration and Development (CIM), a joint venture of the GTZ and the German employment agency. The Integrated Experts programme provides a wage "top-up" subsidy for qualified European specialists who obtain a contract with local institutions in developing countries.

Who can apply?

Applicants must retain German or European citizenship with many years relevant work experience, (except for applicants to junior positions), be articulate in German, not be based on a long-term basis outside of the EU.

India: "Adviser for decentralised wastewater systems" with the International Office – Agenda 21 in Pune

The International Office – Agenda 21 (IOA – 21), with headquarters in Pune, is one of several Local Agenda 21, with one of its main exercises being to implement the "International Agenda 21" as defined in Rio. Founded in October 2000, it is a non-profit organisation that has set itself the goal of implementing and supporting innovative environmental programmes and to strengthen network of "Agenda 21 Cities" in India. The IOA-21 raises awareness on water protection questions and sustainable development with regard to water and other issues.

The integrated expert will have the duties:

- Promotion, planning, elaboration and realisation of more effective and better functioning systems for decentralised wastewater management and community sanitation projects
- Contact management to goverment, stakeholders and other involved organisations to lokal the Agenda 21
- Planning and realisation of workshopd and seminars





Under "Qualifications" is written:

"You have completed a degree in environmental engineering (or similar discipline). You have many years of experience working as an adviser in the area of Decentralised Wastewater Treatment Systems (DEWATS). Ideally you also have experience with "Agenda-21" work. Overseas experience and excellent English complete your profile."

Duration: 2 years (prolongation possible)

!!! Complete Job Description: <u>http://www.cimonline.de</u>

!!! Further information and contact : Frau Heckmann lieselotte.heckmann@gtz.de

The Philippines: Adviser for raw water management" with the National Water Resource Board (NWRB) in Manila

The NWRB was founded in 1974 as a reguzlating and coordinating institution and today has 126 employees. Its duties are to address the poltical formulation and development of questions concerning water use and water rights, to control and supervise the water supply and distribution and to regulate and rationalise raw water management.

The integrated expert will be engaged in the framework of the decision making process of a raw water management system and will have the following duties:

- To support decision makers in the development of raw water tariff models and its implementation in selected provinces
- To identify deficits in the organisational development and to develop concepts for structural improvement
- To make suggestions to improve existing water rights
- Close cooperation with GTZ within the project Raw Water Pricing

The following qualifications are required:

"You have a wide range of experiences at the interface between water related, business economics and legal questions, with particular experience in raw water pricing sturctures. You have acquired leadership, representational or cooperational abilities with a public or private water supply companies. Great demand will be made on your communication and advisory abilities in this position, requiring excellent knowledge of the English language."

Duration: 2 years

!!! Complete Job Description: http://www.cimonline.de

!!! Further information and contact: Frau Beck susanne.beck@gtz.de

News from the projects ...

... German co-operation

Bénin: ecosan demonstration latrine in training centre

In the Rural Water Management Project PADEAR, supported by GTZ and KfW, an ecosan demonstartion latrine was built in June 2004 in the Département of (near the coast in the border region with Togo). The location chosen was the local agricultural education centre "Centre de Promotion Rurale D'Agnavo"near the town Lokossa.

Urine and faeces are collected separately in the latrine and will be used in the fields as fertiliser. The faeces are collected in a dehydration chamber. The greywater from the accompanying shower and from washing is filtered on-site and also reused. The pilot toilet location, in a relatively humid climate in west Africa, is of particular interest and highlights how ecological sanitation can be implemented under these conditions. Through the incorporation of the facility into the training centre and the possibility to integrate the system into the practice oriented agricultural course at the centre, a rapid acceptance and dissemination of ecological sanitation concepts amongst the broader population is expected. The installations are being used by the pupils and staff since June 2004. The local hygiene authorities are monitoring and accompanying the activity. Initial results have now been obtained and can be accessed.





Following the evaluation of this data it is foreseen to construct further pilot installations in the area of the lagoons in Benin and close to the border with Burkina Faso to the north.

Two posters, one explaining how the installation works and another how to use the installation, as well as a users manual for the installation, produced by the team in Benin, are now available for download:

!!! Download: <u>http://www2.gtz.de/ecosan/download/Benin-ecosan.pdf</u> <u>http://www2.gtz.de/ecosan/download/Benin-utiliser.pdf</u> <u>http://www2.gtz.de/ecosan/download/Benin-modedemploi.pdf</u>

!!! Informationen: padear-gtz@firstnet1.com

The Philippines: New ecosan pilot projects on the Visayas

With the arrival of Bianca Gallinat, a new trainee, the ecosan activities of the DILG-GTZ Water programme enter a new phase. Last year the activities were focussed on the wastewater and environmental situation on the islands of Negros and Bohol, and on the choice of suitable locations for ecosan pilot installations. A national ecosan working group was also founded, the PEN (Philippine ecosan Network), which now includes a large number of institutions and is working hard at integrating ecosan principals into the politics and practice of the water sector. Now, in the framework of the DILG-GTZ Water programme, work will begin on the concrete implementation of ecosan systems in several locations on the Visayas. System comprising dry toilets, constructed wetlands and the planning of an integrated wastewater concept will be introduced in Bayawan (Negros Oriental), Tagbilan (Bohol) and on Bantayan idland (Cebu), in collaboration with the Environmental Research Institute Leipzig. The co-operation and the construction of the dry toilets on Bohol has been agreedwith local NGO's.

 Image: Image Stress S

News from the projects other organisations

Burkina Faso: Report from the CREPA Network Research Forum on Community Sanitation, Hygiene and Water for Poverty Reduction in Burkina Faso

CREPA is the regional network of low-cost water supply and sanitation institutions, covering 17 countries in West and Central Africa, 16 francophone and one Portuguese-speaking. Since 1989 CREPA has been carrying out development projects, applied research, training, promotion and advocacy within the water, sanitation, hygiene and solid waste sectors.

The objective of the forum from 6 – 10 December 2004 was to share the experiences gained through CREPA's research projects on ecological sanitation, faecal sludge management, small bore sewers and micro-finance with national, regional and international actors in the sanitation and water sectors and to discuss alternative viable sanitation solutions, hygiene measures and water supply in rural, peri-urban and urban areas.

The results presented from the two year ecological sanitation programme were of great interest, with presentations from Benin, Burkina Faso, Cote d'Ivoire, Guinea, Mali, Togo and Senegal.

These presented, for the first time, results on the use of urine and excreta on a wide variety crops in a broad west and central African context with extremely impressive results on crop production. Hygienic tests on treated urine and faeces also indicated that much shorter storage times may be necessary than previously suggested.





In many of the studies presented, after an initial scepticism by many, treated urine and excreta came to be recognised as valuable agricultural inputs. In some cases, households had to invest in locks in order to prevent the theft of their urine and excreta.

The great success of this initial pilot phase was warmly welcomed by all the participants, including representatives of the World Bank Water and Sanitation Programme, EcoSanRes, IRC, and the GTZ. It was recognised that CREPA's work is of significant importance not only to ecosan promoters in French speaking areas, but also on an international level. The recommendations from this Forum are now available for download (French only):

!!! Download Recommendations (French only):

http://www.reseaucrepa.org/forum/forum.htm

CREPA have now also finalised the general report of the forum and the proceedings will also soon be made available through the CREPA web-site.

!!! Further information: http://www.reseaucrepa.org/

!!! Contact: Hervé Tiendrébéogo or Dr. Amah Klutse at crepa@fasonet.bf

Luxemburg: ecosan research project wants to implement pilot systems in Luxemburg

The research project on "New Concepts and Innovative Technologies for the Sustainable Management of the Urban Water Cycle" has been ongoing since March 2002 at the CRTE and CVT (Centre de Veille Technologique) of the CRP Henri Tudo in Luxemburg. This project aims at promoting a sustainable urban water management in Luxembourg through the sensitization of stakeholders, the provision of decision support and demonstration of the applicability of ecological sanitation concepts in Luxembourg. The overall goal is to realise pilot projects in co-operation with communities and investors

!!! Contact: Paul Schosseler paul.schosseler@tudor.lu

!!! Information:

http://www.crte.lu/mmp/online/website/content/water/76/index_DE.html

Mozambique: Fossa Alterna for less deaths and more food

An article appeared in the British daily newspaper, The Independent, in December 2004 highlighting the huge positive impact ecological sanitation has had in areas of Niassa province, Mozambique. Here, WaterAid and its partner Estamos have succeeded in implementing an affordable ecological sanitation system, based on the use of the Fossa Alterna, which has dramatically transformed agricultural practices in the region, and reduced disease incidence. Having seen the success of this system, Chief Bonoman Oman clearly stated his vision of the way forward - "Our goal is more latrine – no deaths, more food".

!!! Further information:

http://news.independent.co.uk/world/africa/story.jsp?story=593200

Rwanda: DEWATS at the Kigali College of Education

The Chengdu Energy-Environment International Corporation, China (CEEIC) carried out a DEWATS-project at the Kigali College of Education, Rwanda in 2004. Before installation of the demonstration plant waste water from the dormitory was not properly treated. The existing septic tanks didn't work and the authority had excavated open canals and wells to dispose the waste water. This caused damage to the hilly and beautiful landscape of the college as well as bad odour to the surroundings like dinnig hall, dormitory and teachers' houses.





The CEEIC designed and constructed the new biogas plant which was funded by the Chinese Government. After the completion of the plant, the produced biogas is now used for cooking and lighting of the dining room, bad odour is prevented and the former damaged land has become nice grassland. Besides two biogas training courses with DEWATS were conducted in cooperation with the Ministry of Infrastructure.

!!! Contact: Zhang Mi zhangmij@sohu.com

!!! Information: photographs are available for download under: http://www2.gtz.de/ecosan/download/Rwanda-Kigali-Biogas.pdf

Low cost sewerage systems: Experiences and potential in South Africa and Botswana

South Africa and Botswana are currently researching low cost alternative to conventional gravity sewers. In South Africa two studies looking at shallow sewers (simplified sewerage systems) were carried in poor communities in Ethekwini (Durban), whilst in Botswana investigations are looking at installing vacuum sewers and small bore sewers. In South Africa the Ethekwini Water Service (EWS) tested the systems in the communities of Emmaus and Briardale in cooperation with Water Supply and Sanitation Services and the Water Research Commission, and found that the installation costs of these systemswas around half the cost of installing a conventional gravity system. Whilst one source [1] states that the systems were generally well accepted by the participants, the summary of the research report [2] statesthat the systems were not brought entirely into service due to political interference and the lack of finances. Conventional sewerage systems in Botswana face a large number of problems, including a lack of water to transport the excreta, low population density, and a relatively flat topography. In these circumstances, small diameter have been found to be less expensive and more appropriate due to their low water consumption.

Source: Sanicon – Système d'égouts à faible coût

http://www.sanicon.net/titles/topicintro.php3?topicId=8

USA: Tucson plans to reuse wastewater for drinking in Arizona

Tucson Water has unveiled a long-range plan that includes the use of treated wastewater for drinking. Pumping treated sewage into the ground so it can be reclaimed as drinking water is necessary to sustain the city's water supply, says Dr. David Modeer, director of the city's water company. Tuscon was already one of the first US cities to re-use wastewater for non-potable use. Modeer expects by the year 2014, a method will have to be found to remove contaminants from effluent, so it can be used for drinking. Although additional surface water supplies will also be required, "we have to focus on effluent" Modeer said. "It's the only thing really we control. You cannot provide for the long-term sustainability of this community without using effluent, under no scenario." Modeer's recommendations are the city's cheapest options to ensure a water supply up to 2050, he said. Even so, to finance them Tuscon Water would need 66 per cent more revenue in 2020 than it collects today, he added.

http://www.tucsonaz.gov/water/waterplan.htm under Available water resources

USA: Louisville plant transforms sewage sludge into environmental safe fertiliser pellets (Kentucky)

In the US state of Kentucky, the Louisville and Jefferson County Metropolitan Sewer District (MSD) have introduced a innovative sewage sludge treatment process at a recently-upgraded wastewater Treatment Plant. Known as Louisville Green, the product derived from sewage sludge is an environmentally safe fertilizer and a slow-release organic product, meaning it requires fewer applications because it breaks down slowly. Nutrients and moisture are held in longer, and healthier root growth results.





Initial impressions of the fertiliser pellets included concerns about dust, size, and odour, so the Louisville Green team has actively sought a product more in line with consumer demand. Bates reports, "We have made several operational changes to achieve a more marketable product." MSD now sprays pellets with a fine mist of oil to reduce dust, makes them in smaller sizes, and adds ferric chloride to reduce odor. "As a result of these changes, we have taken what historically had been a costly wastestream and turned it into a potential revenue stream," Bates adds.

!!! More information:

http://www.progressiveengineer.com/PEWebBackissues2004/PEWeb%2056%20Nov%2004-2/Louisville.htm

Products and
linksADB (2004): Model terms of reference on water supply and sanitationThe Asian Development Bank (ADB) has produced an approach and methodology for
planning urban sanitation and wastewater (WW) management improvements. The material

planning urban sanitation and wastewater (WW) management improvements. The material is in the form of a consultant Terms of Reference (TOR) for a project preparation technical assistance (PPTA). The breadth of technical and institutional options is a standout feature of the TOR.

The model Terms of Reference take the fact that Governments and city leaders tend to favor conventional sewerage systems as a starting point. But these systems are expensive, technically and organizationally difficult to operate, and they rarely benefit the poor. Poorly planned and operated conventional sewerage damages the environment and misses the opportunity to recycle valuable nutrients and organics.

The TOR for planning urban sanitation and wastewater management improvements offers a step-by-step guide for surveying the existing sanitation situation in the project city, analyzing the survey results and all the plausible technical and institutional options, formulating responsive city government policy and ordinances setting project investment priorities. The TOR includes lessons learned from ADB and the World Bank, some case studies, and urban sanitation references.

!!! Information <u>http://www.adb.org/Water/tools/Planning-US-WSS.asp</u>

Publications

..... books

Domestic wastewater treatment in developing countries by Duncan Mara

This textbook considers all aspects of design, treatment, operation and re-use of wastewater. Emphasis is on low-cost, low-energy, low-maintenance, high-performance systems that contribute to environmental sustainability by producing effluents that can be safely and profitably used in agriculture for crop irrigation and/or in aquaculture for fish and aquatic vegetable pond fertilization. Modern design methodologies, with worked design examples, are described for waste stabilization ponds (WSPs), wastewater storage and treatment reservoirs, constructed wetlands, upflow anaerobic sludge blanket reactors, biofilters, aerated lagoons and oxidation ditches.

The book is aimed at engineers, academics and upper-level and graduate students in engineering, wastewater management and public health and others interested in sustainable and cost-effective technologies for reducing wastewater-related diseases and environmental damage.

Domestic wastewater treatment in developing countries by Duncan Mara London, UK, Earthscan. - 312 p. - ISBN:184407019 Price: GBP 29.95 (EUR 44.00)



Publications ... on the web

Workshops and

An Ecological Approach to Sanitation in Africa: A Compilation of Experiences by Dr. Peter Morgan, Aquamor, Harare, Zimbabwe

This mammoth work by Peter Morgan passes on the knowledge he has gained in his work in ecological sanitation in Africa. The book presents how "eco-san" can be made simple and cost-effective for use by low income communities in Africa. The ultimate aim is to form much stronger links between sanitation, agriculture and food production that actually work in practice, and can benefit the users beyond the requirement of providing a toilet alone. It also aims to demonstrate that effective toilets for use in Africa can be built by a family with very little support from outside. No attempt has been made here to describe the full range of eco-sanitary options or programmes, which are described in detail elsewhere. This work describes personal experiences only. It has become clear that this story of eco-san is exciting and may have far reaching implications in the future.

!!! Download: http://www.ecosanres.org/PM%20Report.htm

Sanitation Challenge : turning commitment into reality by Barbara Evans

This document summarises the key thinking about how the sanitation targets set in the Millennium Development Goals can be met. It suggest actions that can be taken at different levels and by different actors to change the pace of sanitation improvement. Increasing access to sanitation and improving hygienic behaviours are key to reducing the enormous burden of diarrhoeal diseases, schistosomiasis, and helminth infections. Key areas where action can be taken today to translate global commitments on sanitation and hygiene into reality are: Making political commitments; Legislation and regulations; Building capacity to make a difference; Getting sanitation and hygiene right; Mobilising financial resources; Paying attention to gender and equity; Supporting small-scale entrepreneurs; Focusing on youth and using education; Taking responsibility for the environment; Monitoring progress; Making information flow and strengthening partnerships.

Sanitation Challenge: turning commitment into reality by Barbara Evans (2004) World Health Organization, Geneva, Switzerland, ISBN 924159162 5

!!!Download:

http://www.who.int/water_sanitation_health/hygiene/en/sanchallengecomp.pdf

Switzerland: Integrated Environmental Sanitation in Urban Areas Training Courses 14-17 June, 2005, Zurich-Duebendorf

Organiser: EAWAG

Course Direction: Roland Schertenleib, Martin Strauss, Chris Zurbrügg

The EAWAG began the own going further education programme PEAK (Practice-oriented EAWAG-Course) in 1993. The course is addressed to experts in industry, government and from academia. The course aims to transfer the latest research results and experiences from EAWAG. A further goal is to share the new, practical concepts and competences in the field of environmental sciences and technologies. Five to ten cources are held annually, and serve as part of the dialogue between researchers and practice oriented specialists.

The course "Integrated Environmental Sanitation in Urban Area" offers an overview of the state of the art in sustainable sanitation system (for faecal, wastewater and solid waste management) for developing countries, with inter-disciplinary non-sectoral approaches and solutions for disposal problems. Theme such as planning approaches for a holistic waste disposal, faecal sludge management, waste valorisation and recycling in the urban landscape will be addressed. Apart from the technical aspects, the course also looks at on institutional, financial factors, and tools for system and material flow analysis. The course is held in English.

!!! Information: http://www.eawag.ch/events/peak/peak_b12_05.html !!! Contact: Mrs. Heidi Gruber heidi.gruber@eawag.ch





Sweden: Training Programme in Ecological Sanitation 15 August – 2 September 2005, Sweden

Organiser: EcoSanRes Programme at Stockholm Environment Institute (SEI)

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 the water used in households is treated and returned safely to the environment.

Target group

Professionals in selected countries in Africa and Latin America engaged 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 engaged in 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 urban sustainable sanitation especially 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 experiences of household efforts to improve well-being through safe excreta disposal and protection of well water
- Skills training in social inquiry

Dates and Practicalities

The programme has three parts: a 3-week course in Sweden 15 August – 2 September 2005; a 2-week course in South Africa for African participants (February 2006) and in Mexico for Latin American participants (March 2006). The period between courses is intended for project work back home. Language requirement is English. 32 countries have been targeted. Costs are covered by Sida (Swedish International Development Cooperation Agency; see brochure at website for more details).

Closing date for application is 1 April, 2005!!

!!! Information: <u>http://www.ecosanres.org/</u>

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

New upcoming events	Germany :	38 th Essen's Conference for Water and Waste Management, Essen,
		9. – 11 March 2005, Essen
	Organiser:	RWTH Aachen, IFWW, LUA, MUNLV NRW
		e will discuss a wide range of issues from environmental politics and opment for current problems and techical innovations in water and solid nent.
	Waterbodies M Technologies, \	e will concentrate on the following themes: EU-Water Frame Directive, lonitoring, Elimination of Trace Element from Wastewater, Wastewater Water Supply and Protection, Wastewater and Solid Waste Disposal in Sludge Disposal, Nutrient Recycling and Maintenance of the Soil.
	III Further Infe	

!!! Further Information: <u>http://www.essenertagung.de/</u>

!!! Contact: Dr. Verena Kölling et@isa.rwth-aachen.de





Germany:

Wastewater disposal in rural areas

12. – 14. October 2005, Kassel

At the conference the following aspects of wastewater disposal in rural area will be discussed:

Legal aspect conditions, Planning and Concept, Cases and Practical Examples, Wastewater Treatment Plant (SBR, Biofilm, Membrane technologies) and alternative concepts.

The course is organised by ATV-DVWK under the title "Rural Area from the WaWi Serial Course, Course Part L/6"

!!! Information: http://www.atv-dvwk.de

III Contact: Rita Bergmann <u>bergmann@atv.de</u>

Vietnam: SEAWUN convention on Water and Wastewater in SE-Asia 9 – 10 March. 2005. Hanoi

Organiser: Southeast Asian Water Utilities Network (SEAWUN)

SEAWUN was established in 2002 by 12 Water Utilities from 5 countries (Vietnam, Indonesia, Philippines, Malaysia and Thailand). The event is the inaugural conference of SEAWUN and should as well create a chance to attend for donors and international organizations who are interested in investing in the water sector.

The themes of the conference will be broad to allow participants to raise those issues they feel are important to their own organizations.

The suggested themes are so far:

Benchmarking excercises, water and wastewater management, training and human resource management, key technical issues, financial management and cost recovery.

It is expected that about 100 - 150 people from the 11 ASEAN countries will attend. This will include persons from relevant government ministries and agencies, water supply and sanitation companies, donors and foreign aid organizations, relevant persons from private sector consultancies and companies, and journalists.

!!! Information:

http://www.adb.org/Documents/Events/2005/SEAWUN/Water-Wastewater-SEA.asp

!!! Contact: Mr. Vu Kim Quyen (Exekutive Director SEAWUN) vkguyen@hn.vnn.vn





China: 1st World Toilet Expo & Public Toilet Forum 2005 11 – 13 May 2005, Shanghai

Organiser: World Toilet Organization, Singapore and Shanghai City Appearance & Environmental Sanitation Administrative Bureau

Making its debut in May 2005, the **World Toilet Expo** is a dedicated industry platform. Over 100 international and local exhibitors are expected with the their products and services to enhance the toilet environment. Some 8000 visitors from both government and commercial sectors will attend this platform.

The exhibit profile comprises: Building & Construction, Design & Systems, Fixtures, General Supplies, Maintenance, Mobile Toilets and Sewerage.

Themed "Gracious Living for a Model City", the **Public Toilet Forum** will allow some 400 delegates to engage in discussion that focus on culture, technology and the governance aspect of toilet-related issues. A panel of international experts leads the 3-day forum, which includes technical visits. The 3 key areas of importance to grow Shanghai into a model city:

- Modern Toilets for a Modern City Enabling Technology, Emerging Trends
- New Toilet Culture for a Model City Changing the Environment, Up-Lifting Lifestyles and Creating Gracious Living
- Funding, Governance and Association in Furthering the City's Efforts

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

!!! Contact: info@worldtoiletexpo.com

South Africa: Management of Residues Emanating from Water and Wastewater Treatment 9 - 12 August 2005, Johannesburg

Organiser: Water Institute of South Africa (WISA) and International Water Association (IWA)

The organizing committee in conjunction with the WISA Anaerobic and Sludge Management Division and the IWA Sludge Management Specialist Group invite you to participate in this international conference.

This conference will concentrate on the sustainable management of all residues emanating from treatment of water and wastewater, i.e. sludge emanating of the treatment of potable water, domestic wastewater and industrial effluents, and processes generating concentrates and brines. The conference will therefore focus on both organic and inorganic residues emanating from the treatment of water and wastewater (domestic and industrial).

Conference Theme

- Sustainable Management of Residues Emanating from Water and Wastewater Treatment.
- Management aspects: including the challenge, policies, legislation and environmental management of residues.
- Minimizing water and wastewater residues.
- Characterisation of water and wastewater residues.
- Treatment technologies: including Innovation, Dewatering, Stabilisation, and Hazardous Substances.
- Reuse, Final Disposal: including Sustainable Disposal, Changing Residues into Resource, Sustainable Management, and Product Recovery.
- Sustainable sludge management in developing countries.
- Economical aspects.
- Case Studies.

!!! Information: http://www.iwa-wisa-2005.com

!!! Contact: Anne Biddlecombe wisa2005conference@golder.co.za





Sweden:

21 – 27 August, 2005, Stockholm

Organiser: Stockholm International Water Institute (SIWI)

World Water Week

Organised by the Stockholm International Water Institute, the World Water Week in Stockholm is the leading annual global meeting place for the world's diverse water community. It includes the Stockholm Water Symposium themed "Drainage Basin Management – Soft and Hard Solutions in Regional Development", topical plenary sessions and panel debates, scientific workshops, independently organised seminars and side events, exhibitions and festive prize ceremonies honouring excellence in the water field.

As in previous years, this years Stockholm Water Week offers a very interesting programme with several workshops which directly address ecological sanitation related issues. Workshop 4 "Tailoring water and sanitation solutions to reach the Milennium Development Goalds" and Workshop 5 "Strategies to increase resources efficiency in industrial and agricultural sectors" are of particular interest, as is Workshop 7 "Approaches to mitigate soil and gully erosion".

Registration period begins in April 2005

The full current programme of the World Water Week can be found under:

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

!!! Contact: sympos@siwi.org

Poland:	Nutrient Management in Wastewater Treatment Processes and Recycle Streams
	18 – 21 September , 2005, Krakow

Organiser: LEMTECH Konsulting

Auspieces: International Water Association (IWA)

There is strong need for transfer of appropriate technology to the European Union (EU) accession countries and other locations where the attempt to rapidly adjust to the advanced wastewater regulations brought about a frantic search for know-how, technology, equipment and financial instruments. Faced with pressures to privatize or to accept financing-technology packages, municipalities want to make the right technical decisions and are looking for state-of-the-art technology guidance.

The aim of the IWA Specialist Conference "Nutrient Management in Wastewater Treatment Processes and Recycle Streams" (Krakow, Poland, 18-21 September 2005) is to gather the best practitioners in the field and to present the current state of knowledge in municipal wastewater treatment and discuss design and operational upgrades to biological nutrient removal (BNR) plants, to present pre-design studies, operational control strategies, modelling, kinetics and remedial measures to offset the operational and design deficiencies. Insight into the financing of the treatment plant infrastructure and available financial aid; into operator training and plant management will also be covered.

Registration starts on 15 May, 2005

!!! Information: <u>http://www.bnr2005.krakow.pl/</u>

III Contact: Adam Kałucki adamk@lemtech.krakow.pl





Germany: Federal and State conference of the ATV-DVWK 21. – 22. September 2005, Potsdam

Organiser:

The annual conference of ATV-DVWK in Postdam will discussed the following themes:

- Small Wastewater Treatment Plant lasting solutions, but how?
- The Practice of Sewer Renovation
- Water Balance in the Landscape and the use of surfeac waters

!!! Information: <u>http://www.atv-dvwk.de</u>

III Contact: Rita Bergmann bergmann@atv.de

ATV-DVWK

Pakistan:	2nd South Asian Conference on Sanitation (SACOSAN-2)
	November 2005, Islamabad
Ormonicory	Water Supply and Capitation Callaborative Council (WCCCC) and

Organiser: Water Supply and Sanitation Collaborative Council (WSSCC) and Pakistan Institute for Environment-Development Action Research (PIEDAR).

The meeting, on sanitation, health and hygiene in South Asia, aims to:

- generate political commitments that prioritize sanitation and hygiene,
- strengthen leadership/advocacy for improved sanitation and hygiene in South Asia
- assess the state of sanitation and hygiene in South Asia.

Civil society in Pakistan is invited to actively participate in the conference event, and in pre and post SACOSAN activities.

!!! Contact: Ali Junaid, WASH Campaign Manager, PIEDAR, a.j.ahmad@piedar.org

Morocco:	Integrated Water Resources Management and Challenges of the Sustainable Development 23 –25 May, 2006, Marakech
Organiser:	The Moroccan Committee of the International Association of Hydrogeologists (IAH)

This congress will be a unique occasion for the different specialists in the field of water resources management (researchers, decision makers, planners, laboratorians, contractors, engineers and designers, etc.) to present and exchange information about the last developments in their works regarding integrated water resources management.

Topics of the conference:

- Tools and technologies applied to the integrated management of water resources
- Impact of climatic changes, new hydraulic structures and socio-economic development on water resources
- Quantitative and qualitative aspects of the integrated and sustainable water resources management

!!! Information: http://webserver.lih.rwth-aachen.de/lih/content/e1864/e1865/index_ger.html

!!! Contact: gire3d@ucam.ac.ma





Upcoming events - reminder

Water China / PVP China / AW China 2005 8 - 11 March, 2005, Canton (Guangzhou)

Organiser: China Foreign Trade Centre (Group)

The 6th Water China, an international fair for water, wastewater and water treatment takes place from 08.03 to 11.03.05 in Guangzhou (Kanton, capital of Guangzhou province). This fair is amalgamated with PVP China (5th specialist fair for Pumps, Vents and Pipes) and the AW China 2005 (2nd specialist fair for air and wastewater treatment).

!!! For further information visit: <u>http://www.waterchina.merebo.com/</u>

!!! Contact: China Foreign Trade Guangzhou Exhibition Corp. projekt3@fairwindow.com

Chile:	3rd International Conference on Efficient Use and Management of Water	
	15 - 18 March, 2005, Santiago	

Organiser:

China:

International Water Association (IWA) Efficient Operation and Management Specialist Group

Efficient 2005 will provide a forum for the exchange of the most recent ideas, techniques and experiences in all areas of water management that could contribute to more sustainable use and management of water. The Conference will be organised into sessions dealing among other interesting topics with:

- System Planning and Management
- Efficiency in Resources Management
- Water Reuse and Recycling
- Practical Experiences within the Planning and Efficient Management

!!! For the full programme and more information visit: http://www.efficient2005.com/

!!! Contact: info@efficient2005.com

Germany: 13th European Water Symposium IFAT 2005 25 - 29 April 2005, Munich

Organiser: European Water Association and ATV-DVWK

The international conference on the occasion of IFAT 2005 will take place on 25-29 April 2005 in Munich, Germany. It will include presentations on the following topics: Monitoring Plant Performance, Membrane Technology, Public-Private Partnership, Sewer Rehabilitation. The Call for Papers closed on 30 April 2004.

!!! For further information visit: http://www.ifat.de/

!!! Contact: info@ifat.de





Japan: 3rd IWA Leading-Edge Conference on Water and Wastewater Treatment Technologies

6 - 8 June, 2005, Sapporo

Organiser: International Water Association (IWA)

The annual Leading-Edge Conference on Water and Wastewater Treatment Technologies is focused specifically on advances and developments in water and wastewater technologies. To keep the programme targeted and discussions meaningful, the conference consists of only two parallel sessions: one for drinking water and one for wastewater. For ecosan topics such as "Nutrient Removal and Recovery" and "Cost Effective and Efficient Technologies for Sludge Management" might be of interest.

!!! Further Information:

http://www.let2005.iwa-conferences.org/templates/Conferences/Sapporo/home.aspx?ObjectId=194589

!!! Contact: let2005@iwahq.org.uk

Greece:	International Conference on Water Economics, Statistics and Finance
	8 - 10 July, 2005, Rethymno, Crete
Organiser:	International Water Association (IWA) & Economics Specialist Group

University of Crete, Department of Economics An international conference is being arranged that will focus on economic, financial and

statistical aspects of water and sanitation. This conference is intended to make a major contribution to the transfer of knowledge from research to practice covering the entire water cycle, ultimately influencing major policy decisions. Topics at this conference are:

- Integrated water resources and wastewater asset management: full cost recovery is one of the topics
- Economics: economic evaluation of water & sanitation projects: economics of water pollution, valuing non market benefits of improved water quality
- Finance: i.a. privatisation of water utilities
- **!!!** For further information visit:

http://www.soc.uoc.gr/iwa/iwa_page.php?IWAdoc=

!!! Contact: Konstantinos P. Tsagarakis, <u>tsagarakis@econ.soc.uoc.gr</u>

Singapore:	1st IWA-ASPIRE Conference & Exhibition (Asia Pacific Regional Group)	
	10 15. July 2005, Singapore	

Organiser: Environmental Engineering Society Singapore and the Public Utilities Board, Singapore.

The 2005 IWA-ASPIRE Regional Conference and Exhibition in Singapore, is the combination of the Asian Waterqual Conference and the IWA-ASPAC Regional Conference & Exhibition.

The IWA-ASPIRE Conference and Exhibition forms a forum for academics, scientists, engineers, and practitioners world-wide, particularly from Asia, to address, discuss, and share their experiences in pursuit of the latest developments in the innovative technologies and managerial techniques governing water resource conservation, reclamation, and sustainability as well as water pollution control. Knowledge and comprehension of such matters will lead to the advancement of ecological and environmental conservation for our future generations.





The conference will deal with:

New Vision and Strategies – Financing Water/Sewerage Projects - Human Resource Development Training, Benchmarking and Skill Competency - Diffuse (non-point) source pollution - Sewage and industrial wastewater collection, treatment, and management - Drinking water quality, treatment, and distribution - Innovative treatment technology - Instrumentation and control - Environmental remediation – Environmental sanitation and health related issues - Sludge management and disposal - Water reclamation, reuse and recycle.

!!! For further information visit: <u>http://www.aspire2005.org/</u>

!!! Contact: aspire@inmeet.com.sg

Korea:	5th IWA Int. Symposium on Wastewater Reclamation and Reuse for Sustainability (WRRS)
	8. – 11. November 2005. Jeiu

Organiser: Water Reuse Technology Centre (WRTC), Kwangju Inst. of Science & Technology (K-JIST), IWA

This conference aims to bring together international experts in the field of water reclamation and sustainable reuse (...). Conference Themes include:

Sustainable Technologies for Water Reuse - Advancement in wastewater Reclamation - Agricultural, Industrial and Indirect Portable Reuse - Biotechnology for Water reuse - Microbiology, Health and Risk Assessment - (...).

Important dates to remember:

- 2-page abstracts submission:	February 28, 2005
- Notification of authors regarding acceptance:	April 30, 2005
- Receipt of full manuscript:	June 30, 2005

 Image: Second system
 Prof. In S. Kim (at iskim@gist.ac.kr) and Prof. Heechul Choi (at <a href="https://www.heechulto:h

!!! For further information visit: <u>http://env1.gist.ac.kr/~wr21/en_index.html</u>

Mexico:	4th World Water Forum	
	16 22. March 2006, Mexico	

Organiser: World Water Council

The 4th World Water Forum will take place on March 16-22, 2006, in Mexico, following the decision that was made by the Board of Governors of the Council in September 2003

The objective of the 4th Forum is to come up with concrete measures and indicators that will create the enabling environment to boost progress on the achievement of the Millennium Development Goals.

Over the years, the Forum has led the movement from the World Water Vision, a product of the 2nd Forum, to the establishment of concrete actions and commitments derived from the 3rd Forum. Now, the challenge is to establish mechanisms of cooperation and coordination to transform a global vision into local concrete actions that integrate local knowledge.

!!! Info: <u>http://www.worldwatercouncil.org/forum_4.shtml</u>





Australia: Joint 7th International Conference on Urban Drainage Modelling & 4th International Conference on Water Sensitive Urban Design

2 - 7 April, 2006, Melbourne

This conference will deal with two highly topical issues in management of Urban Water;

modelling of urban drainage systems and the interfaces to other parts of urban water cycle.

current achievements and problems in Water Sensitive Urban Design (WSUD), also known as Low Impact Development Design.

It will follow on the six past international gatherings on Urban Drainage Modelling (UDM), and highly successful international WSUD conferences traditionally held in Australia.

Important deadlines:	
Closing dates for abstracts:	26 February 2005
notification of acceptance:	29 April 2005
receipt of final papers:	05 August 2005
notification of acceptance:	14 October 2005
edited papers for publication and presentation:	23 December 2005

!!! For further information visit: http://iswr.eng.monash.edu.au/News/20040915

III Contact: Mrs Maryann Drogemuller, <u>Maryann.Drogemuller@eng.monash.edu.au</u>

Links and Tips

Links on the GTZ ecosan-Homepage

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

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

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

<u>ecosan@gtz.de</u>

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-todate 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://www2.gtz.de/ecosan/



Contact



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.

The GTZ ecosan team:

Christine Werner, Florian Klingel, Patrick Bracken

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

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christine.werner@gtz.de florian.klingel@gtz.de patrick.bracken@gtz.de

Mailing list / Newsletter - user informat

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.

