



ecosan – newsletter - no. 13 - 8/2004 - 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, German and Chinese; issue no. 13!

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

!!! Downloads:

- German:** <http://www.gtz.de/ecosan/download/nl13dt.pdf>
English: <http://www.gtz.de/ecosan/download/nl13eng.pdf>
Spanish: <http://www.gtz.de/ecosan/download/nl13esp.pdf>
French: <http://www.gtz.de/ecosan/download/nl13fr.pdf>
Chinese:* <http://www.gtz.de/ecosan/download/nl13cn.pdf> (available in October 2004)

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

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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| 06-09 / 10 / 2004 | 11th International Conference of the FAO ESCORENA Network on Recycling of Agricultural, Municipal and Industrial Residues in Agriculture, Murcia, Spain |
| 12-14 / 10 / 2004 | GTZ / WB WSP EA / WSSPMO Symposium Low Cost Technology Options for Water Supply and Sanitation , Bohol, Philippines |
| 25-29 / 10 / 2004 | 30th WEDC Conference - People-centred Approaches to Water and Environmental Sanitation , Vientiane, Lao PDR |
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13-15 / 09 / 2004 **Water Middle East**, Bahrain
28/9 - 1/10 /2004 **Aquatech Amsterdam 2004, Amsterdam**, the Netherlands
29/9 - 1/10 /2004 **Waste Management 2004**, Rhodes, Greece
01-05 / 12 / 2004 **Global WASH Forum**; Dakar, Senegal
25-29 / 04 / 2005 **IFAT 2005 / 13. Europ. Wasser Symp.**, Munich, Germany
10-15 / 07 / 2005 **1st IWA-ASPIRE** (Asia Pacific Regional Group), Singapur
08-11 / 11 / 2005 **5th IWA Wastewater Reclamation and Reuse**, Jeju, Corea
16-22 / 03 / 2006 **1st IWA-ASPIRE** (Asia Pacific Regional Group), Singapur

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In-house news

Workshops on "Situation analysis and the inception phase in ecosan projects" at the GTZ in Eschborn, Germany

Two workshops on "Baseline studies and the inception phase in ecosan projects" were held on the 16-17 June and 26 July at the GTZ headquarters in Eschborn, Germany. The workshop aimed to profit from experiences made in the last year in the course of numerous international projects and to use these to adapt and improve the approaches and instruments used when beginning ecosan projects.

To enable the development of sustainable, integrated sanitary solutions many activities are essential at the very beginning project, including awareness raising and an analysis of the existing situation and needs of the different stakeholders in order to incorporate them into planning and decision making process.

Team members of the GTZ ecosan project, former and current interns and representatives of EAWAG/Sandec (Switzerland), WASTE (the Netherlands), and the consulting company CONSULAQUA (Germany), reported on their work in pilot projects in Botswana, Chile's Easter Island, China, Cuba, Egypt, Germany, Mali and Namibia. Along with the results of their work, the methodology and instruments used were presented and discussed in light of the planning methodology currently being developed by the GTZ ecosan team as part of an ecosan source book.

The workshop participants emphasized the importance of a wide reaching preparatory phase for ecosan projects. This preparatory phase, or inception phase, should lead up to the feasibility study.

The GTZ ecosan team will include a detailed description of what such an inception phase could entail for ecosan projects, along with a collection of suitable methodologies and tools in the "ecosan source book", which is planned for publication at the end of 2004.

!!! Download the Workshop material at:

<http://www.gtz.de/ecosan/english/publications-GTZ.htm>

!!! Info: christine.werner@gtz.de

Help us establish an overview of needs for ecosan in formal and continuing education, and praxis oriented research!

UNESCO-IHP and GTZ ecosan are currently compiling a publication on "Concepts for ecologically sustainable sanitation in formal and continuing education" for the UNESCO-IHP series "Technical Documents in Hydrology". In this publication an overview of the range of ecosan themes to be considered in different training programmes is to be presented in an appendix, along with current practically oriented research.

Please help us with the compilation of the information by sending us details of (1) Curricula of ecosan courses or training programmes and (2) Practice orientated ecosan research topics or projects that you might be working on. Please let us know whether you would agree to publish your contribution as background information on the CD that will accompany the publication. Along with specific contributions, suggestions would also be greatly welcomed, as the text and background material in the publication should give broad recommendations for educational and international research on ecosan.

!!! **Contact:** Arne Panesar panesar@vauban.de

New staff at the GTZ-ecosan project

We are very pleased to welcome the following new interns to the GTZ-ecosan team:

- **Anne Kleyböcker** from Germany, civil engineer student at Technical University Berlin has from May to July been an intern with the ecosan team in Eschborn. She is now beginning an international internship in the Philippines (August 2004 - March 2005).
- **Dinesh Rajouria** from Nepal is a student of M.Sc. water resources management at the University of Applied Sciences, Nordostniedersachsen. He is a permanent employee of HMG/ Nepal Ministry of Water Resources, presently on educational leave, and will be working at our Eschborn office for 3 months (August – October 2004)
- **Thilo Panzerbieter** from Germany, a civil engineer from the Technical University Berlin completed an internship in Eschborn from March to May 2004. He will be continuing his contacts with the project with international internship in China (October 2004 - March 2005)
- **Tong Boitin** from China graduated in bio-chemistry from Sichang University. She has carried out a short preparatory internship at our Eschborn office (1st August to 20th august) before leaving for China to join BRTC in October to work on a joint venture (GTZ and BRTC) biogas project in China.
- **Varinia Günther** from Germany, a sociology student at the University of Giessen, will carry out a one month internship with us in Eschborn in September 2004.
- **Martin Wafler** from Austria got his degree in "Land and Water Management and Engineering" at the University of Natural Resources and Applied Life Sciences, Vienna. He is currently engaged in an international internship in India. (June-December 2004)

Further staff news / strengthening of ecological sanitation in China

The implementation of ecosan concepts, in conjunction with the use of energy produced from biogas is to be particularly strengthened in China, where several members of the ecosan team will be resettling on a long term basis.

A team of three specialists in ecological sanitation and biogas will be supporting different Chinese institutions as "integrated experts" through GTZ/CIM (Centre for International Migration and Development) by the end of 2004:

- Mrs. **Tong Boitin** (biogas expert and currently carrying out her preparation with the GTZ ecosan team) will be with the biogas institute of the Ministry of Agriculture (BIOMA)/ Asia-Pacific Biogas Research and Training Centre (BRTC) from October 2004
- **Heinz-Peter Mang** (ecosan / biogas expert and currently with the GTZ ecosan project) will begin working at the Institute of Energy and Environment Protection (IEEP) of the Chinese Academy of Agriculture Engineering (CAAE) at the end of December 2004.
- Mrs. **Ina Jurga** will also join the IEEP/CAAE team as an integrated junior expert with CIM from December 2004.
- **Thilo Panzerbieter** will carry out a 6 month internship with BIOMA/BRTC beginning at the end of October 2004. He along with Tong Boitin and other Chinese colleagues from Chengdu Energy-Environment International Corporation (CEEIC) will form an international team who will test the methodology for the project inception phase described in the ecosan source book, and will co-operate with BORDA to optimise their "Decentralised Water and Sanitation Systems".

Heinz-Peter Mang's move from the GTZ ecosan core team to strengthen the Chinese-German co-operation in ecosan will result in a redistribution of responsibilities in the GTZ team from October 2004. Florian Klingel will assume the responsibility for activities in Latin and Central America, and will continue to accompany projects in Eastern Europe, Vietnam and Nepal. Patrick Bracken will be responsible for all ecosan activities in Africa and Arabic countries. Christine Werner, along with her responsibilities as team leader, will be responsible for Asia, particularly India, the Philippines and China (co-operating with Heinz-Peter Mang), as well as for international co-operation projects. From the beginning of 2005 the resources available to the ecosan team will be increased, and the activities broadened. New positions with the team will be advertised soon.

We would like to wish Heinz-Peter Mang, and the other "ecosannies" who will be travelling to China, all the very best in their new positions, and hope that their arrival will bring even more momentum into the extremely active Chinese ecosan movement. We're looking forward to a continued close co-operation with our new regional team.

**News from the ...
... Stockholm
Water Week**

The Stockholm Water Week took place from the 16th to the 20th of August under the title "**Drainage Basin Management – Regional Approaches for Food and Urban Security**". Although being mainly focused directly on water issues, sanitation, and in particular ecosan, was on the programme of this internationally renowned symposium and was discussed in several workshops and seminars. The Water Week also presented the opportunity for smaller working meetings parallel to the main event, the exchange of many good ideas, and for old and new ecosan friends to catch up with one another. The information stand organised by EcoSanRes, and used commonly by several organisations, proved particularly popular, and the publications on offer, particular the new series from EcoSanRes on different aspects of ecological sanitation (see below), were extremely sought after. The following events were particular highlights of the week:

Meeting of the working group for the new WHO Guidelines on the Safe Use of Excreta (and Greywater)

Taking advantage of the Water Week, the working group currently drafting the new WHO Guidelines on the Safe Use of Excreta (and Greywater) met to discuss progress on the guidelines, which is due to be published next year together with new Guidelines for the Safe Use of Wastewater in Agriculture and Guidelines for the Safe Use of Wastewater in Aquaculture. The finished draft is planned for the end of the year, and will then be discussed at various international and regional events with experts in the field and the public.

“The challenge of Providing Sustainable Sanitation”

The all day seminar **“The challenge of Providing Sustainable Sanitation”** was organised by the “Stockholm Environment Institute” (SEI), the “Swedish International Development Cooperation Agency (Sida), the “International Water Association” (IWA) and the “World Bank - Water and Sanitation Programme-Africa” (WSP-Africa), took place on Sunday the 15 August, and was attended by 130 people.

The seminar began with Albert Wright (from the Water and Sanitation team of the UN Millennium Task Force) and Sumita Ganguly (UNICEF) providing an overview of the progress made so far and the work which remains to be done to achieve the Millennium Development Goals. Elisabeth Kvarnström (EcoSanRes) and Patrick Bracken (GTZ-ecosan) delivered an extremely interesting presentation on “Criteria for Sustainability in Relation to Sanitation”, which reflected the work they have carried out in co-operation with other organisations and institutions in recent months to develop multi-dimensional sustainability criteria to enable a well founded comparison of different sanitary systems, and ultimately the choice of the most sustainable solution for a particular context (see download). The presentation of three urban ecosan projects from Mexico (Ron Sawyer, TepozEco), China (Zhao Wenjiang and Xiao Yu, Erdos EcoTown Project) and South Africa (Shirley Fergus, Buffalo City Ecosan Project), highlighted that ecosan concepts are increasingly being used in urban areas. Pete Kolsky and Ousseynou Diop (from the World Bank and the World Bank Water and Sanitation Programme) presented their reflections on up-scaling and financing sanitary services in light of the MDG’s. Finally, in a podium discussion based on the sanitary situation in Jakarta, the criteria presented earlier were used to evaluate a conventional and an ecosystem based sanitary solution for a developing city.

!!! Download:

<http://www.gtz.de/ecosan/download/Crit-for-SusSan-Presentation.pdf>

“Systems for Sustainable Urban Water Services”

Workshop Nr. 1 “Systems for sustainable urban water services” took place on Tuesday 17 August, convened by the “Commonwealth Scientific & Industrial Research Organisation” (CSIRO), the “International Water Association” (IWA), and the “United Nations Environment Programme – International Environment Technology Centre” (UNEP-IETC).

Piers Cross and Alain Morel (World Bank – Water and Sanitation Programme) set the scene for the morning session by presenting strategies that could serve to provide urban water and sanitation services to the poorest of the urban population throughout Africa. Case studies from India, Morocco, Bolivia, and Colombia followed in a series of presentations from the first panel, with different approaches to provide more sustainable access to services being presented. Criteria based decision support tools to provide services in urban areas were then presented by Per Arne Malmqvist (Chalmers University of Technology, Sweden). The situation in industrialised nations came under examination in the presentations of the second panel, with presentations from different climate zones in the USA, Saudi Arabia, Canada and Sweden. Issues of planning, financing and health protection were presented and discussed by the different speakers. The final panel of the day considered decision making processes and principles in water resources management, with Allerd Stikker presenting his views on alternative water resources, particularly from desalination, and Sunita Chakravarty presenting his work on rainwater harvesting. Discussions concluded with a dialogue based on the main entry points of local suitability, local solutions, people’s ability to participate in the process and their ability to pay for the system.

“Recycling of water and nutrients in the urban / rural context”

Workshop Nr. 3 “Recycling of water and nutrients in the urban / rural context” was convened on Wednesday 18 August by the “Deutsche Gesellschaft für Technische Zusammenarbeit” (GTZ), the “International Water Association” (IWA), the “Stockholm Environment Institute” (SEI) and the “United Nations Environment Programme – International Environment Technology Centre” (UNEP-IETC).

The workshop was based on the recognition of the urgent need for the recycling and reuse of water and nutrients to help address problems with water shortages, health, the environment and food security. The importance of the issue was underlined by the presentations of two Stockholm Water Prize Laureates (Prof. Takashi Asano and Prof. Peter Wilderer) and representatives from academia, industry and practice.

The progress being made in this field was presented and discussed, along with innovative technologies, reuse guidelines and case studies from around the world.

Presentation of the Stockholm Water Prize to Professor Sven Erik Jørgensen and Professor William J. Mitsch

This years prestigious Stockholm Water Prize was awarded to Professor Sven Erik Jørgensen, Danish University of Pharmaceutical Sciences, Copenhagen, Denmark, and Professor William J. Mitsch, Olentangy River Wetland Research Park at The Ohio State University in Columbus, United States, for their pioneering development and global dissemination of ecological models of lakes and wetlands, widely applied as effective tools in sustainable water resource management.

!!! Complete Laudatio can be downloaded under:

http://www.siwi.org/press/presrel_04_SWP_Winner_Eng.htm

Further News

Other side events also provided an excellent platform to discuss sanitation issues and ways forward to reach the sanitation Millennium Development Target. One event in particular, organised by the World Bank – Water and Sanitation Programme, Africa, was dedicated to “Red Hot Issues in Sanitation” and despite being at the end of a long day of workshops, was extremely well attended and provided a lively discussion. One of the main topics addressed in this session was the case for marketing sanitation, and enabling local private service providers in developing countries, currently the main provider of sanitation, to increase their activities.

Some of the information distributed at this event can be found under:

!!! Download: http://www.wsp.org/publications/af_marketing.pdf

News from the... ... 3rd International ecosan Conference

The Provisional Programme for the 3rd International ecosan Conference in Durban, South Africa is now available - Abstracts are requested

The date has been set: the next international conference on ecological sanitation is scheduled to take place from **23. - 27 May 2005** in international Convention Centre in Durban, South Africa, under the motto “ecological sanitation, a sustainable, integrated solution”. The CSIR (<http://www.csir.co.za/> Council for Scientific and Industrial Research); is co-ordinating the preparation, with Aussie Austin the Conference Chairperson.

The conference is being organised under the patronage of the South African Ministry for Water and Forestry with the support and co-operation of the Water Research Commission, the South African Institution of Civil Engineering, the Institution of Municipal Engineering of South Africa, Rand Water, Umgeni Water, Thekwini Municipality (Durban), the Water Institute of South Africa and Mvula Trust. Along with GTZ many other international organisations will support the conference.

Why Durban, South Africa?

South Africa is committed to eradicating its water supply and sanitation backlogs by 2008 and 2010 respectively. The country has also firmly grasped the ecosan challenge, with tremendous advances being made in this field. Since 1997, when the first projects were initiated, approximately 20 000 ecological sanitation toilets have been implemented, with Thekwini Municipality (Durban) accounting for the largest number.

Delegates will be afforded the opportunity to visit some of these projects in the area. A further attraction, of course, is the country's rich diversity of cultures, geography and wildlife, as well as its wonderful climate.

The Programme

The South African Minister for Water and Forestry Ronnie Kasrill will be giving the inaugural address on Monday 23 May. Invited speakers are expected to analyse the progress made towards achieving the Millennium Development Goals and evaluate the achievements made in different countries in light of the recommendations for action made during the Luebeck symposium.

On Tuesday excursions are offered to different water, wastewater and environmental projects in the region. On Wednesday and Thursday presentations and case studies on the themes of "Optimising choices for urban and rural settings, including design, promotion, education, finance, O&M etc." and "Health issues for urban and rural settings, including O&M, reuse, environmental conservation etc." will be presented and discussed. On Friday the key recommendations made during the conference will be presented to the participants for discussion and approval.

Abstracts are invited!

Abstracts are already welcome on the topics specified in the program! The provisional programme and the format for the submission of abstracts can be downloaded from GTZ ecosan website.

The deadline for abstract submissions is currently set for the 15th October 2004

Technical and poster exhibition

Various manufacturers and developers will exhibit their ecosan-related products and systems. Authors not making oral presentations will also be afforded the opportunity to display poster papers.

Further information

Further information will be provided in the 2nd conference announcement in September 2004, which will include the call for registration. A special conference web site, which will be used for online registration and notification of the latest conference details, is currently in the process of being set up. An announcement will be made as soon as it goes live (expected during September 2004).

!!! Download preliminary program under

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Durban-1stannouncement.pdf>

!!! Download abstracts templates

<http://www.gtz.de/ecosan/download/ecosan-Symposium-Durban-abstracttemplate.pdf>

!!! Further Information: cdejager@saice.org.za or Laustin@csir.co.za

News - general

Poo Power - The London Science museum plans to produce energy from visitor's excrement

The Lord Mayor of London Ken Livingstone spectacularly won the mayoral election and guaranteed the public free entry to state museums. As a result the museums of London are now full, and in order to help face the increasing running costs, John Tucker of The Science Museum in central London has put forward a proposal of producing energy from the visitor's excrement.

After the publication of news by REUTERS and the German news magazine SPIEGEL under the title "Poo power" and "Electricity is brown" it has become a hot topic of discussion in different internet chat groups. We hope that the museum's head Jon Tucker will be able to realise idea. The publicity raised has put the idea of wastewater as a resource on the public agenda.

!!! Links to the press articles:

<http://www.spiegel.de/wissenschaft/mensch/0,1518,309542,00.html>

<http://www.reuters.co.uk/newsArticle.jhtml?type=oddlyEnoughNews&storyID=5673572§ion=news>

Investment in sanitation yield largest benefits

Improving sanitation gives even better value for money than improving the delivery of water, says Frank Rijsberman, director-general of the International Water Management Institute in Colombo, Sri Lanka, in his paper [1] commissioned as part of the Copenhagen Consensus project [2]. Analysis based on disability-adjusted life years (or DALYs [3]), reveals that sanitation investments in sub-Saharan Africa suggest a conservatively estimated ratio of benefits to costs of eight. For all developing countries the ratio is five. When talking of the global "water crisis", Rijsberman points out that the burden lies with the poor. They lack access to safe water and will also suffer first when supplies for productive water use, especially in agriculture, cannot meet the growing demand.

[1] Rijsberman, F. (2004). The water challenge. (Copenhagen Consensus challenge paper). 37 p. : 6 tab. 66 ref.

<http://www.copenhagenconsensus.com/Default.asp?ID=228>

[2] The Copenhagen Consensus project, organised by Denmark's Environmental Assessment Institute with the co-operation of The Economist, aims to consider, and to establish priorities among, a series of proposals for advancing global welfare. See: Copenhagen Consensus: sanitation and water among ten global challenges, Source, 24 Mar 2004, <http://www.irc.nl/page/8681>

[3] DALY is the standard measure of the burden of disease: in effect, the number of years of healthy life lost to illness, weighted by the severity of the disease and other factors

!!! **Contact:** Frank Rijsberman, Director General, International Water Management Institute (IWMI), Sri Lanka, iwmi@cgiar.org, <http://www.iwmi.cgiar.org/>

Quoted from: IRC Source Weekly <http://www.irc.nl/content/view/full/9528>

Grey becomes clear: Hamburg, Germany, promotes greywater recycling

"Greywater" is water from showers, washbasins and bathtubs. New recycling technology for this water is not larger than a wardrobe. Water consumption can be reduced by approximately 30% and resulting water quality allows using this water for swimming, bathing, flushing toilets, watering gardens and for washing clothes.

The Hamburg Administration now gives subsidises of 1500 Euro per treatment plant, and can subsidise 30 plants. "We are doing this for two reasons: (1) Drinkingwater in Hamburg is of excellent quality and too precious to use it as transport medium for excreta, and (2) Greywater-Recycling is an innovative technology which could become an important export technology, e.g. for water scarce regions in the south." said member of the Hamburg parliament Dr. Herlind Gundelach during the presentation of this new environmental programme – the first one of its kind in Germany.

Source: PR 29.06.04; Behörde für Stadtentwicklung und Umwelt der Stadt Hamburg

Huber-Technology-Award: Winners-2004 und Registration date for 2005

On the occasion of the DeSa/R®-Symposium that took place on 14th July 2004 the Huber Technology Prize 2003/2004 was awarded for the best proposals submitted on the subject of "Nature-orientated wastewater treatment technology for developing countries". The first prize endowed with 4,000 Euro was awarded to Thoralf Schlüter of Hamburg University of Technology, TUHH. Nathasith Chiarawatchi of the same university and former trainee in the GTZ ecosan programme followed in second place receiving 3,000 Euro. Due to the equally high quality the third prize endowed with 2,000 Euro was awarded twice, to a group of students of FH Amberg-Weiden and a group of students of FH Potsdam.

The requirement was to present a new concept for wastewater disposal and water reuse that allows people in developing and threshold countries to plan, build and operate the systems to the greatest possible extent on their own. The concept was to be presented for an area in an arid temperature zone with nutrient-poor and humus-poor agricultural areas.

Now Students at German Universities can register to take part in the competition for the Huber-Technology-Award 2005. **The Deadline for the submission of proposals is 15.02.2005.** This time the prizes will be handed over during the IFAT Fare 2005 in Munich and the topic for the proposals is „Drinkwater supply from alternative water-resources “.

!!! **Participation requirements:** Prof. Bischof Tel. 08462-201-730; bf@huber.de

!!! **General Information:** <http://www.huber.de>

Job Vacancies

Egypt, Cairo: GTZ team leader for the project "Participation-oriented development programme in densely populated urban areas"

The participation-oriented development program in urban population centres is a contributes for poverty reduction. The programme should connect local development impulses to national political counselling, and technical co-operation to financial co-operation through trials and the local introduction of participatory innovations and procedures which address the needs of and capacities of the poor urban population, the local administration, civil society and the private sector and contribute to synergies at the macro, meso and micro level.

your task: you will advise the decision makers (city director, vice-governor) of two local administrations (Cairo and Giza) in developing and introducing the new locally developed tools for participatory development.

your qualification: you have completed tertiary education with a qualification in economics, sociology, oriental science or similar, as well as having many years professional experience, also including time spent in the Arabic culture.

Assignment duration: December 2004 until December 2006.

!!! **Complete job description:**

<http://www4.gtz.de/personal/jAutoriX/HTML-GUI/pool.jsp?idoc=RRUTRLRSKM>

!!! **Further information:** Frau Seynsche Birgit.Seynsche@gtz.de

Jemen, Sanaa: GTZ-Sector spokesperson in the field of water resources planning / sanitary engineering

Yemen receives extensive support in the field of city water supply and wastewater management. In one programme, the projects "Technical secretariat for reform of the water sector" and "Advice in the water and waste water sector" as well as "Personnel development in the water sector" and "Introduction of GIS supported organisation systems in urban water supply and disposal enterprises" particularly promote reform in city water supply and wastewater management sectors and promote decentralisation and commercialisation. German contributions will soon be expanded to also cover providing advice the integrated management of national water resources.

your task: you have two main tasks. You are responsible for the sector and represent the entire German Technical co-operation in organisational and technical water matters for the Yemeni partner organisations. You will also fulfil the role of adviser consultant and contact person for most of the aforementioned projects.

your qualification: As a water management engineer, natural scientist or an economist with emphasis on water management and water supply and waste water management you have many years of relevant professional experience (ideally also in an Arab country) in depth knowledge to provide sector-political advice in the management of water resources and regarding issues of commercialisation and decentralisation.

Assignment period: As soon as possible and until December 2005

!!! Complete job description:

<http://www4.gtz.de/personal/jAutoriX/HTML-GUI/pool.jsp?idoc=NQRSSRSTSS#>

!!! Further information and contact: Mrs. Ramp anne.ramp@gtz.de

News from the projects ...
... German co-operation's

Botswana: The CBNRM Missing-Link Project prepares for Phase 3

The Community Based Natural Resources Management-(CBNRM)-Missing Link project Phase 2, which started in Botswana in June 2001 will end on December 31st 2004. In order to assess its status, performance, successes and failures as well as to plan for its continuation into Phase 3 a final project evaluation has started in the beginning of July and will last until mid-September.

The evaluation team is composed of four team members: IUCN-ROSA (M.Gomera, socio-economist from "The World Conservation Union"), GTZ (H-P. Mang, ecosan expert), DED-Lesotho (C. Kellner, ecosan expert from the "German Development Service") and Peer Consultant (M. Byram, socio-economist and local consultant). The evaluation process is made up of desktop study and fieldwork activities. Fieldwork in Botswana will be undertaken from the 18th to the 27th of August and will be concluded through an extended reference group meeting (debriefing meeting) where main findings and recommendations will be presented and discussed.

It is the thrust of the project and of the evaluation process that it will contribute to the definition of a sustainable way forward for the "Ecological Sanitation - Closed-Loop approach" in Botswana and that the recommendations will positively contribute to the further development of the ecosan programme that IUCN Botswana is establishing.

Available for download is now a general report on the project titled "Natural Resources-Based Livelihood - Strategies in the Villages of East Hanahai, Paje and West Hanahai".

!!! Download:

<http://www.gtz.de/ecosan/download/Botswana-CBNRM-Phase2Report.pdf>

!!! Contact: cathrine.wirbelauer@iucn.org

Cuba: Baseline-study on agricultural use of urine finalised

The Baseline Study the two students and GTZ trainees Viviana Avendaño and Christiane Jung started in autumn 2003 was finalized recently. The study concentrated on the agricultural sector, where there could be shown a great potential for fertilization with pre-treated human urine or "natural urea" in Cuba. Field experiments with different plants were undertaken. The combined fertilization with organic matter and "urea natural" on ornamental plants and lettuce brought good results. Results were presented and discussed during an agricultural meeting at the Asociación Cubana de Técnicos Forestales y Agrícolas (ACTAF) a local NGO in March 2004.

Both the Baseline Study report in Spanish and the summarized version in English are available for download.

!!! Download baselinestudy (English):

<http://www.gtz.de/ecosan/download/Baselinestudy-Cuba-R.pdf>

!!! Contact: Florian Klingel Florian.Klingel@gtz.de

Ecosan for 100 new urban houses in southern Germany

In a new construction of around 100 residential plots in Römerhof, near Knittlingen, Germany, a unique form of community water management will be implemented. Here advanced technologies will be used, which should ensure a sustainable and affordable operation of the entire water infrastructure, supported by 2 Million Euro from the German Federal Ministry for Education and Research.

The project led by the Stuttgart Fraunhofer Institute for Interfacial Engineering and Biotechnology (IGB), plans to recycle rainwater and the nutrient content from the household wastewater. The black water will be collected by vacuum sewer and transported to a central wastewater treatment reactor and is treated in a biological wastewater treatment reactor with integrated membrane technology. In this process the organic part will be fermented to produce bio gas and phosphorus and nitrogen salts will be converted into agricultural fertilizer. The biogas generated will be used to provide the plant with electricity and heating facility with any surplus electricity being fed into the national grid. The treatment technique of the plant is designed so as to produce minimal volumes of sludge and after treatment the water can simply be infiltrated into the ground

(Source: Press release of the Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik IGB, 02.06.2004)

!!! Further information under:

http://www.igb.fhg.de/WWW/GF/Wasser/dt/GFWM_215_DEUS_KN.dt.html

http://www.igb.fhg.de/WWW/GF/Wasser/dt/GFWM_13_ModAbwRein.dt.html

http://www.igb.fhg.de/WWW/Presse/Jahr/2004/dt/PI_Spatenstich-Knittlingen.html

!!! Download:

<http://www.gtz.de/ecosan/download/ecosan-Knittlingen-Frauenhofer.pdf>

!!! Contact: Claudia Vorbeck vor@igb.fhg.de

Germany: Research on treatment and usage of source separated urine

A PhD project for research on risks and consequences for an application of urine is developed at TUHH with the title: "Treatment and usage of source separated urine with a focus on medicinal residues - proposal". Starting point is a screening of the pharmaceutical residues existing in wastewater to collect and summarize information already available on types and amounts of pharmaceutical residues, their ways of degradation, etc. Afterwards, experiments with agricultural plants shall prove the first theoretical findings. Martina Hammer, Agroecology M.Sc., will be working on this topic at TUHH. She and Ralf Otterpohl are looking for project partners for both the thematic as well as financial support.

!!! Information: <http://www.tu-harburg.de/aww/projects.htm>

!!! Contact: Prof. Ralf Otterpohl otterpohl@tuhh.de or
Martina Hammer m.hammer@tuhh.de

India: Indian Innovative Ecological Sanitation Network (IIESN) established

The Indian Innovative Ecological Sanitation Network (IIESN), established through a joint initiative of GTZ and local as well as international partners (among others: ACTS India, Navsarjan Trust India, Indian Water Works Association, WOTR India, SDC Switzerland, NLH Norway, Waste Netherlands, BORDA Germany) in April 2004, aims to promote innovative ecological sanitation approaches for India. (The initiative was launched by the Indo-German Bilateral Project Capacity Building and Training (IGBP-CB&T), which aims at capacity building and training in the field of natural resources management, based in Maharashtra. It is supported and coordinated by Mr. Hinnerk Bartels, who is responsible for the IGBP-CB&T and some more projects in other Indian states.

In the context of this given structure, Martin Wafler, a young professional in ecological sanitation from the supra-regional GTZ-ecosan-Project, is supporting local organisations in the development and implementation of socially and culturally acceptable, sustainable and hygienic safe ecological sanitation concepts during a six months internship, from July to December 2004.

The IIESN pilot project sites had not only, but also been identified according to their dissemination effect:

- VANAMATI (Vasantrao Naik Agricultural Management Training Centre) in Nagpur, Maharashtra
- RAMETI (Regional Agriculture Extension Management Training Institute) in Khopoli, Maharashtra
- ACTS-Public Toilet Centre and ACTS-Academy for Higher Education in Banglore, Karnataka
- DSK (Dalit Shakti Kendra) Campus in Sanand, Gujarat State, run by Navsarjan Trust

!!! Contact: Mr. Hinnerk Bartels hinnerk.bartels@gtz.de
and Mr. Martin Wafler martin.wafler@gmx.at

The Philippines: Workshop for national and regional decision makers

In the Philippines the "DILG-GTZ Water Program towards and integrated Water Resources Management" will intensify its activities in the field of ecosan. Building on the results of the study made by Claudia Früh (see NL 11), pilot projects are to be carried out on the islands Bohol and Negros in the near future. In addition to that an Advocacy Workshop for national and regional decision makers is planned for that will consider ecosan, biogas, rainwater management and constructed wetlands. The program leader Andreas Kanzler and the Filipino project team will be supported in their efforts by intern Anne Kleyboecker from August 2004 until February 2005 who, after having spent 3 months at our offices in Eschborn, will write her thesis on the topic ecosan in Philippines.

!!! Information on the DILG-GTZ-Water Programme:

<http://www.gtz.de/philippines/projects/rwsp.html>

!!! Download:

<http://www.gtz.de/ecosan/download/ecosan-introduction-philippines.pdf>

!!! Contact: Andreas Kanzler gtzwater@info.com.ph

**News from the
projects ...
... other organisations**

Kenya: News from the 15th NETWAS Regional Water and Sanitation Seminar „Household Centered Approach und Environmental Sanitation“

NETWAS (Network for Water and Sanitation) is a capacity building and information network for Africa focusing on water, sanitation and environment sector. It is comprised of resource centres in Eastern Africa (Kenia, Uganda Tanzania) implementing capacity building activities on training of professionals, applied research, networking and information sharing, advocacy, advisory and consultancy services. Between 8 and 12 September 2003, NETWAS held a workshop in Kisumu, Kenya, on the theme "Water, Sanitation and Hygiene: Household Centred Approaches. In the Netwas Newsletter from January 2004 an extensive coverage of the workshop results is given. In the section „lessons learnt“ Gilbert Muhanji states, that „the combination of HCA with EcoSan onsite sanitation systems holds a great deal of potential in terms of sustainable solutions that can be scaled up. However, it was also felt that there need to be further research - to make systems more user friendly and to make associated waste management procedures failsafe at domestic level, simpler to carry out and also to disseminate.“

!!! Visit: <http://www.netwasgroup.com/newsletter/articles/2004/01>

The 16. Regional Water and Sanitation Seminar will take place in **Mombasa, Kenya, 6 - 10 September 2004**. For more information visit the link below.

!!! Visit: http://www.netwasgroup.com/regional_seminar/2004/16rwss04_1

India: Report from Cap-net Meeting in Bangalore from 27th to 29th March 2004

The global initiative of Cap-net, a UNDP programme is an Associated Program (AP) of Global Water Partnership (GWP). Although initiated from the 'top' - the approach is committed to establishing mechanisms and governance structures that facilitate the issues, requirements and problems relating to capacity building for IWRM that are 'thrown up' from 'below'. SaciWATERS has been identified as the nodal organization to coordinate the CapNet activities in South Asia. Ecosan is seen as important part of Trainings of Trainers (ToT) which will be organised by Cap-net SA.

!!! Further information: <http://www.saciwaters.org/executive.htm>

!!! Contact: Parminder Chhatwal saciwaters@rediffmail.com

Uganda: Schools urged to use ecosan latrines

Authorities of educational institutions have been advised to avoid pit-latrines in favour of ecological sanitation (ecosan) toilets by the Apac district assistant water development officer, Gregory Ocen. According to Ocen some schools had dug most parts of their school compounds and lacked sites for new latrines, while ecosan has got a permanent construction, suitable for educational institutions and public places. "One of the important features of ecosan toilet is dehydration" says Ocen. The toilet has a urine-diverting squat pan where urine was diverted into a container and later could also be used as fertiliser. He adds that faeces are made hygienic and later used as soil conditioner. "There is no water for flushing, hence reduced sewerage costs. It is a permanent construction suitable for educational institutions and public places," he said.

The district considers constructing ecosan at populated landing sites, trading centres and schools as a preventive measure against cholera, typhoid, dysentery, among other diseases.

Sources:

- IRC Source Weekly: <http://www.irc.nl/page/9512>
- New Vision: <http://allafrica.com> 4. May 2004

EU-SWAMP: Sustainable water management and waste water purification in tourism facilities

SWAMP is a project under the “Energy, Environment and Sustainable Development Programme” of the European Commissions 5th Framework Programme.

The project aims at developing economically feasible and technically satisfying wastewater treatment for tourism facilities with seasonal fluctuation using an integrated approach comprising sustainable water management, constructed wetlands for wastewater treatment and reclamation of the treated effluent.

It is intended to develop sustainable water management concepts and test them at 13 selected sites in four European countries: Italy, Austria, Germany and Latvia. This allows to run tests at different types of sites (camping sites, tourist farms, mountain shelters etc.) in different climate zones (Atlantic, continental, Mediterranean and mountainous). At these sites, pilot constructed wetlands shall be built to adjust the system to the special requirements of each tourism facilities. Tests on the pilot plants will be run and monitored to develop guidelines for the design, construction and operation of such plants in the future. The tests will also be used to check the hygienic efficiency of constructed wetlands. The design principles to be developed will take into consideration further disposal or reuse of the treated effluent, especially irrigation.

The results shall be compiled into design and operation guidelines, which will initially be prepared at the European level and then adapted for each participating country.

!!! Further Information: <http://www.swamp-eu.org/>

Products

High-end Composting Toilet from Japan

The Japanese Company, Seiwa Denko Co., Ltd. has developed an improved composting toilet and has gone into the mass production of different models of the “Eco-Bio-Toilet” units, suitable for different locations, particularly useful for the places where no sewage system is installed or desired. These new models of Eco-Bio-Toilet units work on the principle of decomposition of organic material, accelerated with extra heat and oxygen supply. The manufacturer claims that the obtained end product through the decomposition process running with heating and agitating (supplying oxygen) process in the presence of normal sawdust in the collection chamber is odourless, non-sticky and safe compost, free from any harmful bacteria. The units are available in different types and options. The units are most suitable for developed countries where energy requirements can be fulfilled. The company has also developed models where power supply for agitation and heating could be provided by solar and wind power, or even with mechanical hand paddle.

(During a personal visit to Japan on the occasion of an invitation to a sanitation seminar of the Japanese International Cooperation Agency JICA in 2003, Christine Werner could visit the factory of Seiwa Denko and some of the installed Eco-Bio-Toilets which indeed were performing excellently. Further information may also be given by Prof. Naoyuki Funamitsu from the University of Hokaido in Japan, who has supported the development of the Toilet through his research)

!!! Information: <http://www.seiwa-denko.co.jp/biolux/>

!!! Contact: Prof. Naoyuki Funamitsu funamizu@eng.hokudai.ac.jp

Publications

... Books

Liquid Gold - The lore and logic of using urine to grow plants

Liquid Gold: The Lore and Logic of Using Urine to Grow Plants. By Carol Steinfeld. Illustrations by Malcolm Wells. 96 pages, many illustrations and photographs. ISBN: 0-9666783-1-1

The excellent book "Liquid Gold: The Lore and Logic of Using Urine to Grow Plants" is described by its author Carol Steinfeld (2004) as follows: "Every day, we urinate nutrients that can fertilize plants that could be used for beautiful landscapes, food, fuel, and fiber. Instead, these nutrients are flushed away, either to be treated at high cost or discharged to waters where they overfertilize and choke off aquatic life. Liquid Gold shows how urine is used worldwide to grow food and landscapes while protecting the environment, saving its users the cost of fertilizer, and reconnecting people to the land and the nutrient cycles that sustain them. That's real flower power! Liquid Gold features three ways to use urine hygienically and productively for plant growth, with studies that show the science behind this practice. Several advocates of urine diversion and their gardens are profiled, demonstrating that using urine for fertilizer is a feasible, safe, and cost-saving way to prevent pollution and save on fertilizer costs. Note: This book is a fun book designed for a general audience and less a technical book for sanitation planners."

Information on the book is found at the website of Ecowater Projects, a US nonprofit project that informs the public about ecological wastewater recycling solutions. Other very useful books described there are "The Composting Toilet System Book" and "Reusing the Resource: Adventures in Ecological Wastewater Recycling" (second edition to be released November 2004).

!!! Information: <http://www.ecowaters.org/products.html>
and <http://www.liquidgoldbook.com>

Publications

... on the Web

A series of 5 publications on various aspects of ecosan now available for download from the EcoSanRes web-site

One of the most warmly welcomed publications announced during the Stockholm World Water Week was the series of 5 booklets published by EcoSanRes on various aspects of ecological sanitation. The booklets, of around 40 pages each, address the following topics:

Guidelines on the Safe Use of Urine and Faeces in Ecological Sanitation Systems

With the WHO guidelines for microbial exposure control and management in relation to the use of wastewater and excreta from the 1980s (WHO, 1989) currently being revised, and new guidelines anticipated in 2005, this EcoSanRes report provides an interim source of information. It focuses on the treatment and handling of faeces and urine, based on current knowledge of risk management and form a source separating perspective. Authors: Schönning, C. and Stenström, T.A., ISBN 91 88714 93 4

Guidelines on the Use of Urine and Faeces in Crop Production

These guidelines are based on current knowledge of the use of urine and faeces in small- and large-scale cultivation. Currently the agricultural use of urine and faeces worldwide is limited. Thus, these guidelines are based not only on the experiences of EcoSanRes and others as documented in scientific journals, but also on experiences with similar types of fertilizer, e.g. compost and digested sludge from solid biodegradable waste. Authors: Jönsson et al., ISBN 91 88714 94 2

Open Planning of Sanitation Systems

The objective of this capacity-building project was to produce a tentative manual for the planning and implementation of sanitation projects based on sanitation system function requirements rather than on sanitation technologies, in order to supply sustainable sanitation systems. The manual is intended to create and support an open and democratic sanitation planning process and is aimed at planners and implementers at project level. Authors: Kvarnström, E. and af Petersens, E., ISBN 91 88714 95 0

Introduction to Greywater Management

The aim of the report is to give a comprehensive description of the main components in successful greywater management. The system perspective is emphasised. Examples as well as recommendations are given for designing and dimensioning treatment systems. The report stresses that there is still little knowledge and experience of greywater treatment in urban areas and in different climates. Most experiences are from cold climate regions, but the rapid ongoing development of ecosan throughout the world will probably bring about a lot of new insights in the field in the coming years. Author: Ridderstolpe, P., ISBN 91 88714 96 9

Norms and Attitudes Towards Ecosan and Other Sanitation Systems

The aim of this interdisciplinary desk study is to gain insight and knowledge into how people perceive and understand ecosan arrangements and the recycling of nutrients. It is a pilot study to identify factors and circumstances of interest for a planned study. A second aim is to create a network with a team that can support its members in the years to come in project preparations and exchange of information. The study will benefit from close co-operation with the hygiene and agricultural desk studies conducted as part of the EcoSanRes programme. Author: Drangert, J., ISBN 91 88714 97 7

All the above publications are available from the EcoSanRes homepage:

!!! Download under: <http://www.ecosanres.org/news-publications.htm>

3 interesting documents with relation to sanitation published by the WHO

The WHO has published three new documents with relation to sanitation and the MDGs

- **Water, Sanitation and Hygiene Links to Health. Facts and figures.** This concise document presents on two pages facts and figures on access to water supply and sanitation facilities, on major water-related diseases, and regarding the global response.

!!! Download: http://www.who.int/water_sanitation_health/en/factsfigures04.pdf

- **Evaluation of the Costs and Benefits of Water and Sanitation Improvements at the Global Level. (Hutton, G. & L. Haller, 2004)** This document presents estimations of the costs, the health and additional benefits from a range of selected interventions, in view to improve water and sanitation services, for several sub-regions and at the global level.

!!! Download: http://www.who.int/water_sanitation_health/wsh0404/en/

- **Sanitation Challenge: Turning commitment into reality.** This document suggests actions that can be taken at different levels and by different actors to change the pace of sanitation improvement. [ISBN 924 159 162 5]

!!! Download:

http://www.who.int/water_sanitation_health/hygiene/envsan/sanitchallenge/en/

These and other documents are available on the WHO internet site:

!!! Information: http://www.who.int/water_sanitation_health/en/

City development strategies to reduce poverty – new ADB - publication

On-line edition: Free of Charge; Hardcopy price: \$20.00 (The book of 125 pages comes with a CD-ROM containing case studies, and CDS and CWS guidelines.)
ISBN: 971-561-503-1

The world's urban population is growing fast. In Asia, 2.2 billion people (one out of two) are expected to live in cities by 2020. Most rapidly growing Asian cities face significant challenges: amid the wealth and prosperity generated, a high incidence of urban poverty persists. This new publication by the Asian Development Bank (ADB) sets out the results of a technical assistance that has developed and introduced the concepts and techniques for preparing City Development Strategies (CDS) and Cities Without Slums (CWS) programs.

!!! Download

http://www.adb.org/Documents/Books/City_Devt_Strategies/default.asp

Urine can obtain tendentious higher yields than conventional artificial fertilizer - result of a M. Sc. thesis at the University Rostock

Title: Susann v. Wolffersdorff (2004) "Untersuchung zu Sortiertoiletten unter besonderer Berücksichtigung der Urinverwertung." - unpublished M.Sc. Thesis, University Rostock, Rostock, Germany, 92 Pages + Appendices

At the university of Rostock, BRD, Susann v. Wolffersdorff has written her M.Sc. thesis on urine diversion toilets with special consideration of the urine utilization.

In the thesis a recent ecosan-Project comprising some urine diverting toilets within of the University of Rostock is presented and it is stated that: „the fertilization comparison of urine and mineral fertilizer at the crops corn, summer barley and Weidelgras showed that the urine fertilization can obtain tendentious higher yields than conventional mineral fertilizer.“ Other results include, that „simple cuvette-tests are sufficient to give an orientation on the content of nutrients in urine samples“ and “that farmers and users of the urine-separating facilities gave a very positive resonance to this sanitation concept.”

The pH-dependent decomposition of medicines and steroids during the storage of the urine was also observed.

The thesis is available in German only, and can be down loaded from GTZ-website

!!! Download:

<http://www.gtz.de/ecosan/download/Urinverwertung-Wolffersdorf-MT04.pdf>

!!! Contact: S. v. Wolffersdorff susann.von-wolffersdorff@stud.uni-rostock.de

Information on Dalits - the documentary film: "Behind the Open Door"

The documentary film „Behind the open door“ prepared by Falko Zubari examines the current socio-political and human right aspects of an explosive issue in India - the inhuman working and living conditions of those who manually handle human excrement.

Background information on the film and the present situation of the Dalits in India, are available on the web-site for downloading. Likewise numerous links are given on the home page to human rights and national and international organisations, which are endeavouring to improve the living conditions of the Dalits

The film was produced without government funding, and the price has been set at 40,- Euro. It is directly available from the Ganesh film company.

!!! Information: <http://www.behind-the-open-door.com/>

!!! Film can be ordred through: falko.zubairi@ganeshfilm.com

**Workshops and
Training courses**

**Austria: Close loop-oriented sewage systems? Planning and execution of ecologically oriented sanitary concepts
16. September 2004, Wien**

Organizer: BOKU, Department für Wasser-Atmosphäre-Umwelt, Institut für Siedlungswasserbau, Vienna

The seminar will focus on "close loop oriented sewage systems - planning and execution of ecologically oriented sanitary concepts"

Last date for Registration: 8. September (under elke.muellegger@ecosan.at).

Contribution amount for AEE and Ecosan Club member will be 45€ and 35€ respectively. (15€ for Students, Civilian and military servant)

Location: Kommunalkredit Austria AG, Türkenstr. 9, 1090 Wien

!!! Information: <http://www.ecosan.at>

!!! Download Programm

<http://www.gtz.de/ecosan/download/ecosan-club-at-Workshop04.pdf>

!!! Contact: E. Müllegger elke.muellegger@ecosan.at

**Switzerland: Integrated Environmental Sanitation in Urban Areas
26 - 29 Oktober 2004, Zürich-Dübendorf**

Organizer: EAWAG/SANDEC (Swiss Federal Institute for Environmental Science & Technology / Water & Sanitation in Developing Countries)

Course direction: Roland Schertenleib, Martin Strauss, Chris Zurbrügg

The workshop will give an overview of the 'state of knowledge' in environmental sanitation in urban areas of the developing world and will also focus on transdisciplinary non-sectorial approaches and solutions to sanitation problems. Topics covered are waste reuse, recycling in urban agriculture, planning, systems analysis, material flux analysis, institutional, and financial aspects.

The course is designed for those working in the field of "environmental sanitation" as well as for those who intend to work in this field in developing countries. The targeted professionals are from the following fields: planners, engineers, persons involved in health care, persons from developing organizations, advisory offices, administration and research institutes.

The course is held in English. Costs: Approximately 1200,- SFR (plus costs for accommodation). No scholarships are available.

Last date for registration 11.10.2004 (max. 30 participants)

!!! Info: http://www.eawag.ch/events/peak/d_peak_index.html

!!! Contact: H. Gruber, Telefon ++41 - 1 - 823 53 93, heidi.gruber@eawag.ch

Sri Lanka: Regional Training of Trainers in Integrated Water Resources Management

7. - 14. November 2004, Peradeniya

Organizer Board of study in Agricultural Engineering; Post graduate Institute of Agriculture; Univ. of Peradeniya

The main objective of the regional ToT workshop in IWRM is to strengthen the capacity of trainers in South Asia by providing them with up-to-date knowledge on the principles of IWRM and equipping them with innovative training skills in IWRM. Ecosan will be part of the programme. The workshop will be used as a platform to strategize actions for the training of decision/policy makers and water sector professionals at both the national and regional level.

A limited number of fellowships is available. For further information on the workshop and on how to apply for fellowships visit link below.

Application deadline - 30th September 2004

!!! Further information:

<http://www.gtz.de/ecosan/download/CAPNET-Brochure-SriLanka.pdf>

Sweden: Systems for biological treatment and recycling of biodegradable waste and wastewater

1st November – 19th December 2004, Uppsala

Organizer: Swedish University of Agricultural Sciences in Uppsala, Sweden. 10 credit (15 ECTS credits) post-graduate course.

Hakan Jönsson, one of the best known Swedish ecosan - researchers and - practitioners is offering an interesting training course.

The main focus of this course is on treatment and handling systems enabling safe, environmentally friendly and resource efficient recycling of plant nutrients and organic matter in organic household waste (urine, faeces, kitchen waste etc.) back to cultivation of crops. The emphasis of the course is source separating sanitation systems (Ecosan systems), composting and anaerobic digestion, but conventional handling and treatment systems (waterborne sanitation systems and processes, active sludge processes, biobeds, chemical precipitation, pond systems; incineration and land-filling of solid organic waste) are also covered. The course treats processes and systems relevant both in developed and developing countries, and the emphasis will be on the latter.

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

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

The course is given in English using PBL (problem based learning). It is given at the Swedish University of Agricultural Sciences in Uppsala, 80 km north of Stockholm. It starts Nov 1st and the lectures in Sweden ends Dec 19th and during January the project is due.

Registration deadline Oct 1st 2004

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

!!! Info: <http://slukurs.slu.se/forskarutbildning/Kurs.asp?Kurskod=PNS0001>

e-conference

"Knowledge Management: Worth the effort?!"

7. September (Workshop), Nepal

21. September (Workshop), Zimbabwe

20. September to 15 October, e-conference

Organizer: IRC and partners (see below).

IRC and partners are organising an electronic conference "Knowledge Management: Worth the effort?!" from 20 September to 15 October 2004. This will be linked to two meetings in the field organised by partners:

- **7 Sept. 2004:** Workshop: Information Management/Knowledge Management in the water supply and sanitation sector
A joint effort of IRC International Water and Sanitation Centre, The Netherlands and Nepal Water for Health (NEWAH), Nepal).
This will take place during the International Conference on Security and Sustainability in Water Resources in Kathmandu, Nepal, Organised by: Center for Sustainability, Environment, Equity and Partnership (SEEP)
http://www.seepwater.org/conference_sswr/conf_sessions_sept7.html
- **21 Sept. 2004 (afternoon):** Workshop Knowledge Management: Worth the effort?!
Prior to the 13th ITN Africa Conference - Poverty! Water, Hygiene and Sanitation, Harare, Zimbabwe, organised by: Southern Africa Development Community - Water Division (SADC - WD) and Institute of Water and Sanitation Development (IWSD), 22 - 25 Sep 2004: <http://www.iwsd.co.zw/ITN/index.html>.

Contact: Lovemore Mujuru, Coordinator, ITN Africa Conference, IWSD, Zimbabwe, mujuru@iwsd.co.zw or admin@iwsd.co.zw.

Outcomes of these offline discussions will be fed into the e-conference.

Phases:

the e-conference is planned to do in four weeks covering the following topics:

Week 1: What constraints can we identify in knowledge management?

Week 2: What are the benefits and added values of KM?

Week 3: What KM success stories are worth sharing?

Week 4: How can we scale-up, what can we do next for effective KM for water and sanitation programmes/organisations?

Pre-registration: A background paper and further details will follow. If you want to participate please

pre-register online at: <http://www.irc.nl/content/view/full/10587>

Alternatively, you can e-mail Dick de Jong, jong@irc.nl

Events...

... new

Germany: Waste to Energy

22. - 24. September 2004, Bremen

Organizer: IBBK (International Biogas and Bio-energy Competence Center)
BORDA (Bremen Overseas Research and Development Agency)

Biogas experts from all over the world are expected to meet in September 2004 in Bremen where they will exchange their experiences. In the context of the international trade fair & conference, "waste to energy" a Workshop on "anaerobic technology and Bio-gas" will take place. The main concern of this workshop will be on how biogas could be produced from the organic residues with the help of microorganisms. Likewise in the context of this conference an excursion to biogasplants in northern part of the Germany is also foreseen.

On Thursday. 23. 9.: International Workshop "anaerob technology and biogas"

On Friday. 24. 9.: Excursion to bio-gas plants

!!! Information: : <http://www.biogas-zentrum.de/bremen2004/>

!!! Contact: info@biogas-zentrum.de

**Morocco: World Water Congress and Exhibition
19th- 24th September 2004, Marrakech**

Organiser: IWA - International Water Association

Over 3,000 people are expected to participate in the congress and exhibition over five days. Leading researchers and practitioners will present the latest innovations in water management to Congress. The Congress themes cover most areas of the global water industry and there is a desire to create a programme which is relevant to both the developed and developing regions of the world.

From 21st to 23rd September ecosan topics will be covered in detail during eight Sessions and several workshops. Christine Werner from the gtz-ecosan project will give the opening presentation on 21st morning titled "Overview of worldwide ecological sanitation concepts and strategies" and a presentation in Session 2 titled "Ecological sanitation - Principles and Technologies".

!!! Info: <http://www.iwa2004marrakech.com/>

**Spain: Ramiran 2004 11th International Conference of the FAO
ESCORENA Network on Recycling of Agricultural,
Municipal and Industrial Residues in Agriculture
6. - 9. Oktober 2004, Murcia**

Organizer: CEBAS-CSIC; UMH

The **General Theme** of the Conference is Sustainable Organic Waste Management for Environmental Protection and Food Safety. **The conference will be of high interest for all ecosan practitioners.** The abstracts of the accepted papers can be downloaded already now to get an impression of the content of the conference. They include titles like "Ecological Sanitation and Urban Agriculture ...", "International guidelines for agricultural use of human urine and faeces" or "Human excreta - a Valuable resource".

Topics of the sessions are:

- Gaseous emissions and odours
- Waste contaminants lifecycle (metals, organic compounds, ...)
- Safety of organic waste treatments
- Nutrient recycling in plant-soil systems
- Waste management strategies

!!! Read abstracts at: http://www.ramiran.net/index.php?page=11_ramiran.php

!!! General info: <http://www.ramiran.net/>

!!! Contact: ramiran04@cebas.csic.es

Philippines: Symposium on Low Cost Technology Options for Water Supply and Sanitation

12. - 14. October 2004, Bohol

Organizer: GTZ-Rural Water Supply and Sanitation Program, World Bank Water and Sanitation Program - East Asia (WB WSP-EAP) Department of the Interior and Local Government-Water Supply and Sanitation Project Management Office (WSSPMO)

The 3-day Symposium on Low Cost Technology Options for Water Supply and Sanitation will be held on 12-14 October 2004 at the Bohol Plaza, Panglao Island, Bohol, Philippines. It is aimed at bringing together water supply and sanitation international and local experts, policy makers, planners and other stakeholders from different regions to share best practices and experiences and showcase different technology options which can be used or piloted in the Philippines. Among them are ECOSAN, Wastewater Treatment through Constructed Wetlands, Rainwater Harvesting and BIOGAS Technology.

!!! Further information and contact: DILG-GTZ WATER PROGRAM c/o Water Supply and Sanitation Program Management Office; 5th Floor, Francisco Gold II; EDSA corner Mapagmahal St.; Diliman, Quezon City; Tel. No. +63 2 927 1875; Telefax. +63 2 927 1884; gtzwater@info.com.ph

Lao PDR: 30th WEDC Conference - People-centred Approaches to Water and Environmental Sanitation

25. - 29. October 2004, Vientiane

Organizer: Water, Engineering and Development Centre (WEDC) and Water and Sanitation Program, Vientiane

This conference will focus on best practice and lessons learnt in addressing the MDGs through people centred approaches to water and environmental sanitation. **Main themes:** water resources; water supply; environmental sanitation; institutional, financial and management issues; and cross cutting issues. There is particular interest in Lao PDR in papers which address the following subjects: low-cost solutions and appropriate technology; community dialogue and informed choice; information, education and communication awareness; cost recovery and financial sustainability and partnerships. Sponsorship available, through UK Department for International Development (DFID), covering conference fees and/or subsistence for up to 30 delegates.

!!! General info: <http://wedc.lboro.ac.uk/conferences/conference1.php?ID=5>

!!! Contact: Dot Barnard, Conference Co-organizer, WEDC, mctpcwwa@laotel.com; Mr Noupheuk Virabouth, Director, Water Supply Authority, DHUP, MCTPC, Lao PDR, mctpcwwa@laotel.com

Australia: 2nd IWA Leading-Edge Conference on Sustainability: Sustainability in Water Limited Environments - LES2004

8. - 10. November 2004, Sydney

Organizer IWA (International Water Association)

M Bruce Beck, Chairman Programme Committee states that „For this, the 2nd Leading-Edge Sustainability Conference - which has as its theme, Sustainability in Water Limited Environments - we pose the question: >>How do we ensure that the systems we design meet the needs of the environments in which they are located<<?

Water limited environments demand efficiency in water provision – but do we achieve this through demand management, recycling, economic incentives, storm water reuse (to give but a few examples)? How do we take the demands of the community and investors into account and what risk factors should we consider? In short, how do we make the best decisions, recognising that probably no one decision is ‘right’ when measured against all criteria?”

As part of the follow up to recent work between the GTZ, EcosanRes, the Swedish Urban Water programme, the Stockholm Water Company and the Mexican based NGO Ceciproc and with contributions from the WSSCC, a paper on "The use of sustainability criteria for the selection and comparison of sanitation systems" will be presented during this conference as part of the session dedicated to New Approaches to Decision Making.

!!! Information: <http://www.les2004.iwa-conferences.org/>

upcoming events
... reminder

Bahrain: **Water Middle East – International Exhibition and Conferences for Water Technology**
13th –15th September 2004

Organiser: Bahrain Convention & Exhibition Bureau (BCEB) & Nürnberg Global Fairs GmbH

Water Middle East is an initiative by the Bahrain government to address all water issues and to provide a regular forum for international and regional water experts for the exchange of information on latest technological developments and new applications from around the world.

!!! Info: http://www.eventseye.com/fairs/trade_fair_event_6478.html

The Netherlands: Aquatech Amsterdam 2004 - International trade exhibition of water technology and water management
28th September – 1st October 2004, Amsterdam

Organiser: RAI Exhibitions (Netherlands) Co., Ltd
Conference & Trade Fair

!!! Info: http://www.aquatechtrade.com/events/events_detail.asp?eventid=45

Greece: **WASTE MANAGEMENT 2004 - 2nd International Conference on Waste Management and the Environment**
29th September – 1st October 2004, Rhodes

Organiser: Wessex Institute of Technology, UK

The conference will be of interest to environmental engineers, local authority representatives, waste disposal experts, research scientists in the area of waste management, civil engineers and chemical engineers.

!!! Info: <http://www.wessex.ac.uk/conferences/2004/waste04/>

**Senegal: First Global Water, Sanitation and Hygiene (WASH) Forum
1st – 5th Dec. 2004, Dakar, Senegal**

Organiser: Water Supply and Sanitation Collaborative Council (WSSCC)

Objectives: (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 Forum will be divided into three parts - Part I: Creating an enabling environment to fight poverty and promote sanitation and hygiene; Part II: Strengthening regional and national initiatives in water supply, sanitation and hygiene; and Part III: Meeting the goals of the World Summit on Sustainable Development.

Web address: http://www.wsscc.org/load.cfm?edit_id=332

**Germany: 13th European Water Symposium IFAT 2005
25. - 29. April 2005, München**

Organizer: 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/>

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

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

Call for Papers

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 worldwide especially 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.

Manuscripts in any of the following subject areas are invited. Papers on scientific, technical, practical, strategic, economic, regulatory, finance and human resource topics of water quality management are welcome:

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

Prospective authors are invited to submit abstract(s) of not more than 500 words electronically via the conference website at: <http://www.aspire2005.org/>

Important Deadlines:

Abstracts submission - 15 Jul 2004

Notification of acceptance - 15 Nov 2004

Full paper submission - 15 Mar 2005

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

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

Organizer: 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

!!! **Contact:** Prof. In S. Kim (at iskim@gist.ac.kr) and Prof. Heechul Choi (at hcchoi@gist.ac.kr)

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

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

Organizer: 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:** http://www.worldwatercouncil.org/forum_4.shtml

Links and Tips

Links on the GTZ ecosan-Homepage

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

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

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

ecosan@gtz.de

Virus information

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

We would therefore recommend that you ensure all your mails are scanned by an up-to-date virus scanner and that you do not open any obscure attachments.

Our newsletter is sent simply as text, with no attachments of any sort, instead, documents are always offered as download-links from our website. **If you do receive a mail from us with an attachment claiming to be related to the newsletter, do not open the attachment.**

Homepage

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

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

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

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.