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\*This paper has been peer reviewed by the symposium scientific committee

**Session A:  
progress, policies and legislation**

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### Chairpersons

*Jan Olof Drangert* (Linköping University, Sweden)

*Katarzyna Kujawa-Roeleveld* (Wageningen University, The Netherlands)

*Richard Holden* (The Mvula Trust, South Africa)

*Judith Lienert* (EAWAG, Switzerland)

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*Grietje Zeeman (Wageningen University, The Netherlands)*

*Paul Calvert (EcoSolutions, India)*

*Håkan Jönsson (Swedish University of Agricultural Sciences, Sweden)*

*Rose Kagwa (National Water and Sewerage Cooperation, Uganda)*

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*Christine L. Moe* (Rollins School of Public Health of Emory University, USA)

*Thor-Axel Stenström* (Swedish Institute for Infectious Disease Control, Sweden)

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*Roland Schertenleib (EAWAG/SANDEC, Switzerland)*

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<i>Klaus Bahlo, Susanne Lehwald (Ingenieurbüro AWA, Germany)</i>	
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<i>Shinji Miura, Masaya Kobayashi, Katsuyoshi Ishizaki (Nagasaki University, Japan), Naoko Nakagawa, Zhen Liu</i>	

## Session H: decision making tools

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### Chairpersons

*Jes La Cour Jansen (Lund Institute of Technology, Sweden)*  
*Ralf Otterpohl (Technical University Hamburg-Harburg, Germany)*

### Lectures

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<i>Ralf Mühleck, Andreas Grangler, Martin Jekel (Technical University Berlin, Germany)</i>	
<b>The phosphorus calculator: A planning tool for closing nutrient cycles in urban eco-systems*</b>	741
<i>Bekithemba Gumbo (University of Zimbabwe, Zimbabwe), Hubert Savenije, Peter Keldermann</i>	
<b>Assessment method for evaluating existing and alternative measures of urban water management*</b>	749
<i>Dongbin Huang, Roland Schertenleib, Hansruedi Siegrist, Tove A. Larsen, Willi Gujer (EAWAG, Switzerland)</i>	

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\*This paper has been peer reviewed by the symposium scientific committee

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<i>Harald Hiessl, Dominik Toussaint (Fraunhofer Institute Systems and Innovation Research, Germany)</i>	
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<i>Per-Arne Malmqvist (Chalmers University of Technology, Sweden)</i>	
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<i>Li Xianghong (Guangxi Medical University, China), Lin Jiang</i>	
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<i>Gudrun Beneke, Hille v. Seggern (University of Hannover, Germany)</i>	
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<i>Tarek Elmitwalli (Benha High Institute of Technology, Egypt), Harmed Elmashad, Adriaan Mels, Grietje Zeeman</i>	
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<i>Denis van Moeffaert (Scandiaconsult Sweden)</i>	
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<i>Annelies J. Balkema, Heinz A. Preisig, Ralf Otterpohl, Fred. J. D. Lambert (Eindhoven University of Technology, The Netherlands)</i>	

\* This paper has been peer reviewed by the symposium scientific committee

## Session I: urban case studies

### Chairpersons

*Ron Sawyer* (Sara Transformación SC, Mexico)

*Heinz-Peter Mang* (GTZ, Germany)

### Lectures

**Operation experiences with a source-separating project\*** 825

*Claudia Wendland* (Technical University Hamburg-Harburg, Germany), *Martin Oldenburg*

**Urine harvesting through institutional participation: a Nigerian experiment** 829

*M.K.C. Sridhar, O. Odusan* (University of Ibadan, Nigeria), *A. O. Coker, I.O. Akinjogbin, G.O. Adeoye*

**Further development of urban wastewater disposal systems in conurbations** 835

*Ulf Volker Rakelmann* (Hamburger Stadtentwässerung, Germany)

**Implementation of a closed-loop sanitation concept in Yang Song township, China** 843

*Ina Jurga, Bianca Gallinat, Heinz-Peter Mang* (GTZ, Germany)

**Implementing large-scale and urban dry sanitation: an agenda for research and action\*** 849

*Ana Cordova, Barbara A. Knuth* (Cornell University, USA)

**Innovative sanitation concept shows way towards sustainable urban development. Experiences from the model project "Wohnen & Arbeiten" in Freiburg, Germany** 857

*Arne Panesar, Jörg Lange* (ATURUS, Germany)

**Wet or dry ecological sanitation in periurban areas** 863

*Bjorn Brandberg* (SBI Consulting & Supplies (PTY) Ltd, Swaziland)

**Subterra – constructed wetlands for wastewater treatment (examples and experiences)** 869

*Joachim Krüger* (Pflanzenkläranlagen GmbH, Germany)

**Greywater treatment in combined biofilter/ constructed wetlands in cold climate** 875

*Petter D. Jenssen, Lasse Vråle* (Agricultural University of Norway, Norway)

**Community based sanitation program in Tangerang and Surabaya, Indonesia** 883

*Stefan Reuter, Andreas Ulrich* (Bremen Overseas Research and Development Association, BORDA, Germany)

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*Judit Lienert, Tove A. Larsen* (EAWAG, Switzerland)

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**Practical examples of DESAR concepts in urban areas in the Netherlands** 901

*Adriaan R. Mels* (Lettinga Associates Foundation, The Netherlands), *Grietje Zeeman*

**The Skogaberg Project - a black water system with waste disposers under development in Göteborg, Sweden** 905

*Kristina Fermskog* (City of Göteborg, Sweden)

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**Low flush toilet systems for water saving, nutrient recovery and soil improvement in Hamburg and Berlin** 909

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*Wolfgang Berger* (Berger Biotechnik GmbH, Germany)

**Local recycling of wastewater and organic waste - a step towards the zero emission community** 911

*Petter D. Jenssen, Petter H. Heyerdahl, William W. Warner* (Agricultural University of Norway, Norway)

**Ecosan - options for single households** 913

*Markus Lechner* (TBL / EcoSan Club, Austria)

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*S. Vishwanath* (Rainwater Club, India)

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*Peter Gichohi* (Pemagi Energy Ltd., Kenya)

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*Musa Khan* (Institute for Environment and Development Studies, Bangladesh)

**The impact of urbanization on sanitary conveyances and sewage treatment facilities in the city Lusaka, Zambia** 927

*Obed C. Kawanga* (Central Statistical Office, Zambia)

**Study on ecological sanitation and anaerobic digestion process models in China (2000-2003)** 935

*Wu Libin* (Research and Training Center BRTC, China)

**Sewerage management at Delhi, India** 939

*Anwar Ali Khan* (Indian Institute of Technology, India)

**Decentralized wastewater treatment in Lesotho** 943

*Christopher Kellner, Alice Leuta* (DED, Lesotho)

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