



DETAIL PROGRAMME

SUNDAY 22 MAY 2005

14:00 – 17:00 **Registration**

MONDAY 23 MAY 2005

08:00 – 10:00 **Registration**

10:00 – 10:50 **Opening session** **Chair: Aussie Austin**

- Opening
- Welcome: Councillor Obed Mlaba: Mayor of eThekweni
- Keynote address: The Hon. Mr Derek Hanekom: Deputy Minister of Science and Technology
- Announcements

10:50 – 12:30 **Session 1:** **Chair: Cyprian Mazubane**

Christine Werner (Germany). *From Lübeck to Durban – international progress on the 10 Recommendations for Action from the 2nd International Symposium for Ecological Sanitation.*

Susmita Shekhar (India). *Ecological sanitation in India.*

Yadira Cordero (Ecuador). *Various aspects of ecological sanitation in El Salvador and several countries in Latin America.*

12:30 – 13:45 **Lunch**

13:45 – 15:25 **Session 2:** **Chair: David Gadd**

Dr Peter Morgan (Zimbabwe). *Ecological sanitation in Southern Africa: Many approaches to a varied need.*

Almaz Terrefe (Ethiopia). *Empowerment of women and combating poverty through recycling.*

Neil Macleod (South Africa). *The provision of sustainable sanitation services to peri-urban and rural communities in the eThekweni municipality.*

15:25 – 15:40 **Street theatre: eThekweni Water Services drama group**

15:40 – 16:10 **Tea**

16:10 – 17:50 **Session 3:** **Chair: Jay Bhagwan**

Dr Thor- Axel Stenström (Sweden). *Breaking the sanitation barriers: WHO guidelines for excreta use as a baseline for environmental health.*

Dr Arno Rosemarin (Sweden). *Putting sanitation on the sustainable development agenda.*

Gert de Bruijne (Netherlands). Preview of the documentary “*The human excreta index*” by filmmaker Mattias Ylstra.

18:30 – 20:00 **Welcome cocktail at uShaka Marine World**

**TUESDAY 24 MAY 2005****08:30 – 10:45 Parallel sessions 4A and 4B****Parallel session 4A:****Chair: Dr Arno Rosemarin**

Shrestha RR, Shrestha P, Shakya SK, Paudel U, Pant RB & Manandhar A. *Implementation of ecosan: Challenges and opportunities in Nepal.*

Klutse A & Ahlgren K. *Interdisciplinary research on ecological sanitation in seven West African countries.*

Scheinberg A & de Bruijne G. *The ISSUE Programme: Pushing the paradigm shift in the urban environment.*

Garduño F. *In search of ecosan architecture.*

Jackson B & Knapp A. *Lessons from a multi-country review of ecosan experience in East and Southern Africa.*

Parallel session 4B:**Chair: Edward Guzha**

Richert Stintzing A, Kvarnström E & Johansson M. *Urine reuse in agriculture: Organizational issues on municipal level.*

Ysunza-Ogazon A. *Environmental alternatives to sanitation and food sovereignty.*

Bocoum F & Kabre D. *Effects of hygienised human urine on the productivity of sorghum (sorghum bicolor) in the agro-ecologic conditions of Sabtenga, Burkina Faso.*

Keraita B, Danso G, Amoah P & Obuobie E. *Extending the “ecosan loop” to address health concerns from wastewater irrigation in urban and peri-urban areas.*

Windberg C. *Linking ecological sanitation and urban agriculture in sub-Saharan Africa.*

10:45 – 11:15 Tea**11:15 – 13:05 Parallel sessions 5A and 5B****Parallel session 5A:****Chair: Ron Sawyer**

Bolaane B & Tiroyamodimo T. *Public acceptability of ecosanitation: Experience from Botswana.*

Matsebe G. *Urine diversion sanitation in South Africa: Is this a solution?*

Koirala HR, Lamichhane K & Sharma M. *Advancement of ecological sanitation (ecotoilet) in Nepalese context.*

Mülegger E & Lechner M. *Sanitation for a rural school in Uganda – a successful implementation process.*

Nakambo S. *How to overcome barriers to the promotion of ecological sanitation.*

**Parallel session 5B:****Chair: Melanie Wilkinson**

Guzha E. *An assessment of the effect of human excreta on maize production and water productivity.*

Kvarnström E & Richert Stintzing A. *Swedish farmers' attitudes to reuse of urine and residues from anaerobic digestion.*

Bartels H, Goel SK & Wafler M. *Ecosan and agriculture, Maharashtra, India.*

Jönsson H, Richert Stintzing A, Vinnerås B & Salomon E. *Guidelines on use of urine and faeces in crop production.*

13:05 – 14:20

Lunch

14:20 – 16:10

Parallel sessions 6A and 6B**Parallel session 6A:****Chair: Frank Stevens**

Brouckaert C, Foxon K, Ridgeway T, Rodda N & Buckley C. *A mathematical analysis of the drying of faeces in a urine diversion toilet – sensitivity analysis.*

Werner C, Bracken P & Klingel F. *The ecosan source book, toolbox and data sheets – GTZ information support for ecological sanitation.*

Hinkkanen K. *New boost for standardization of dry toilets with CE-marking.*

Von Münch E, Panesar A & Mang H-P. *Ten years of operation of the ecosan system at a family-owned farm and restaurant in Bavaria, Germany.*

Drangert J-O. *A tool for selecting sustainable sanitation arrangements.*

Parallel session 6B:**Chair: Dr Nicola Rodda**

Vinnerås B & Jönsson H. *Fate of faecal pathogens and indicator bacteria in urea treatment.*

Jimenez B, Austin A, Cloete E & Phasha C. *Microbiological effects on food crops fertilised with biosolids produced in an ecosan system.*

Schönning C & Stenström T-A. *Guidelines for the safe use of urine and faeces in ecological sanitation systems.*

Hanssen JF, Paruch A & Jenssen PD. *Composting human waste from waterless toilets.*

16:10 – 16:40

Tea

16:40 – 18:05

Parallel sessions 7A and 7B**Parallel session 7A:****Chair: Walter Johannes**

Jurga I, Panzerbieter T & Boitin T. *Mainstreaming DEWATS systems within the ecosan concept in Wenjiang, Sichuan Province, China.*

Aragundy J. *The ECOSAN toolbook: A new tool to promote ecosan.*

Jenssen PD, Magid J, Seng L, Chong B, Fevang Y & Skadberg I. *An urban ecological sanitation pilot study in humid tropical climate.*

**Parallel session 7B:****Chair: Dr Håkan Jönsson**

Ottoson J & Stenström T-A. *Managing greywater with microbial risk assessment.*

Sahlström L, de Jong B & Aspan A. *Salmonella isolated in sewage sludge traced back to human cases of salmonellosis.*

Salukazana L, Rodda N, Smith M, Gounden T, Jackson S, Macleod N & Buckley C. *Plant growth and microbiological safety of crops irrigated with greywater.*

18:30 World premiere of documentary "The Human Excreta Index".
The documentary lasts 60 minutes and there will be an opportunity for discussions with the filmmaker Mattias Ylstra and producer Gert de Bruijne of the Netherlands. Refreshments and snacks will be served.

WEDNESDAY 25 MAY 200508:30 – 10:45 **Parallel sessions 8A and 8B****Parallel session 8A:****Chair: Louiza Duncker**

Heeb J, Werner C, Bartels H, Wafler M, Gnanakan K & Mcwan M. *Innovative Ecological Sanitation Network, India.*

Project management unit members: Kampala Ecosan Project. *Introducing a closed loop option for management of human waste in Kampala, Uganda.*

Macário L & Fogde M. *Ecological sanitation in Guara-Guara.*

Ramos LE. *Developing guidelines for legal transformation to enhance ecological sanitation.*

Tsiagbey M, Danso G & Bradford A. *Perceptions and acceptability of urine-diverting toilets in low income urban community in Ghana.*

Nawab B, Esser KB & Jenssen PD. *Cultural preferences for latrines and flush toilets with wetland treatment in North West Frontier Province, Pakistan.*

Parallel session 8B:**Chair: Christine Werner**

Magid J, Eilersen AM, Wrisberg S & Henze M. *A technical theoretical framework applied to the medium sized Danish town of Hillerod.*

Vråle L, Jenssen P & Greatorex JM. *Source separated wastewater: a new resource for producing mineral fertilizer.*

Hammer M & Avendaño V. *Implementation of ecosan aspects in the urban vegetable production of Havana.*

Sridhar MKC, Coker AO, Adeoye GO & Akinjobin O. *Urine harvesting and utilization for cultivation of selected crops: Trials from Ibadan, south west Nigeria.*

Nikuru MT. *Promoting human waste technology transfer as requirements for sustainability of agriculture production in Nigeria.*



10:45 – 11:15

Tea

11:15 – 13:05

Parallel sessions 9A and 9B**Parallel session 9A:****Chair: Patrick Bracken**

Calizaya JC. *The integrated micro system of alternative sanitation ECODESS, a tool for ecological sanitation management in Lima, Peru.*

Mamit JD, Larsen I & Huong TH. *Integrating conventional and ecological sanitation in urban sanitation for the future.*

Carden KJ, Armitage NP, Sichone O, Rivett UK & Winter K. *Developing strategies for the disposal and use of greywater in the non-sewered areas of South Africa.*

Mülegger E & Lechner M. *Ecological sanitation meets architecture.*

Parallel session 9B:**Chair: Prof Chris Buckley**

Guness M, Rodda N, Smith M, Trotter D, Jackson S, Macleod N & Buckley C. *Impact of buried urine diversion waste on environmental quality and plant growth.*

Mukhtar M, Amerasinghe FP, Ensink HJ & van der Hoek W. *Role of wastewater stabilization ponds in the generation of vector mosquitoes of public health importance: a case study from Faisalabad, Pakistan.*

Aragundy J. *Urine treatment and use in the Andes.*

Deegener S & Otterpohl R. *Ecosan – a step towards sustainable rural development in Eastern Europe.*

13:30 – 17:30

Excursions to projects (lunch packs on buses)

18:00 – 19:30

Mayoral cocktail at City Hall**THURSDAY 26 MAY 2005**

08:30 – 10:45

Parallel sessions 10A and 10B**Parallel session 10A:****Chair: Cecilia Ruben**

Ravenscroft P & Oppelt E. *UDS case study from Genadendal, Western Cape Province, South Africa.*

Holden RD. *A marketing approach towards meeting Millennium development targets.*

Sawyer R & TepozEco project specialists. *Harvesting human urine in the municipality of Tepoztlán, Mexico.*

Stern R, Mzamo S & de Jager T. *Acceptability of dry sanitation: a preliminary study in two informal settlements in Cape Town, South Africa.*

Maessen S & Ijgosse J. *The ISWM approach to ecosan: a research agenda.*

**Parallel session 10B:****Chair: Andreas Knapp**

Mnkeni P, Austin A & Kutu FR. *Preliminary studies on the evaluation of human urine as a source of nutrients for vegetables in the Eastern Cape Province, South Africa.*

Tidåker P & Jönsson H. *Integrating farming and wastewater management – an environmental systems analysis of barley production using human urine.*

Munir S, Mukhtar M, Jeroen EH & Mahmood S. *Assessment of wastewater production and reuse in the peri-urban areas of Faisalabad, Pakistan.*

Pillay S, Foxon K, Rodda N, Smith M & Buckley C. *The use of effluent from an anaerobic baffled reactor (ABR) for irrigation in a peri-urban community.*

10:45 – 11:15

Tea

11:15 – 13:05

Parallel sessions 11A and 11B**Parallel session 11A:****Chair: Richard Holden**

Foxon K & Buckley C. *The ABR concept: A holistic approach to managing wastewater from low-income communities and institutions.*

Lebofa, M. *Onsite sanitation in Lesotho: From an eco-idea to a business opportunity.*

Zhang Y & Mang H-P. *Biogas and ecological sanitation – combining German and Chinese know-how.*

Otieno MO, von Münch E, van de Klundert A & de Bruijne G. *Investigating the attitudes of several communities in Nakuru municipality (Kenya) towards sanitation issues and ecosan options.*

Parallel session 11B:**Chair: Dr Kevin Wall**

Kawanga OC. *Ecosan pilot project for integrated peri-urban ecosystem: case of Lusaka, Zambia.*

Bracken P, Kvarnström E, Ysunza A, Kärrman E, Finnson A & Saywell D. *Making sustainable choices – the development and use of sustainability oriented criteria in sanitary decision making.*

Jenssen P, Refsgaard K, Stenström T-A & Heyerdahl PH. *Recycling systems for wastewater treatment – a system evaluation.*

Greatorex JM, Emilsson K, Palm O, Magid J & Jenssen PD. *Experience with source separating systems for wastewater in Scandinavia.*

13:05 – 14:20

Lunch



14:20 – 16:00 **Session 12: Conference wrap-up** **Chair: Jay Bhagwan**

Ms Nomsa Mbovani: Mvula Trust
Reflections on the conference.

Arno Rosemarin: EcoSanRes:
 - Progress in China-Sweden ecosan collaboration
 - The next ecosan conference
 - Plans for the global expansion of EcoSanRes

Conference statement and discussion

Close

19:00 **Gala dinner at Sibaya Entertainment Kingdom**

FRIDAY 27 MAY 2005

Post-conference seminar on agricultural and horticultural aspects of ecological sanitation:

- 09:00 – 09:15 Opening and welcome
- 09:15 – 10:00 Keynote presentations:
- Successful agricultural/horticultural demonstration activities.
 - Strategies to overcome cultural barriers challenging the re-use of human excreta.
- 10:00 – 12:00 Demonstration trials – a tool to achieve re-use? Expert-led group discussions on challenges and possibilities (tea/coffee).
- 12:00 – 13:15 Lunch and demonstration of a pot trial using urine as fertiliser. Visit posters.
- 13:15 – 14:30 Presentation in plenum of results from group discussion and proposals for further actions.
- 14:30 – 14:45 Conclusions and closing.