Research on source-control sanitation in the

Institute of Wastewater Management and Water Protection

at Hamburg University of Technology director

Holger Gulyas







Source-control sanitation research within

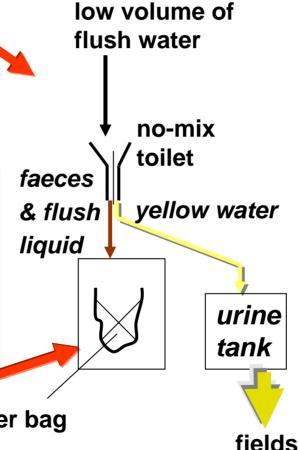
the TUHH Institute of Wastewater Management and Water Protection:

Stefan Deegener: implementation of demonstration no-mix toilets in schools (RO, UA, UZ, ARM)

Franziska Meinzinger,
Sarah C. Schreiner,
Aleksandra Drewko:
planning, integration and
costing of EcoSan in
East African countries

Moataz Shalabi: vermi-composting

posting Filter bag







Shalabi (2006):







Source-control sanitation research within

yellow water

urine

tank

fields

the TUHH Institute of Wastewater

no-mix

faeces

& flush

liquid

toilet`

Management and Water Protection:

Stefan Deegener: implementation of demonstration no-mix toilets in schools (RO, UA, UZ, ARM)

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Moataz Shalabi: vermi-composting

Filter bag

low volume of flush water

Deepak R. Gajurel: behavior of pharmaceuticals during urine storage

Joachim Behrendt, Felix Tettenborn, Holger Gulyas: different technologies for yellow water treatment

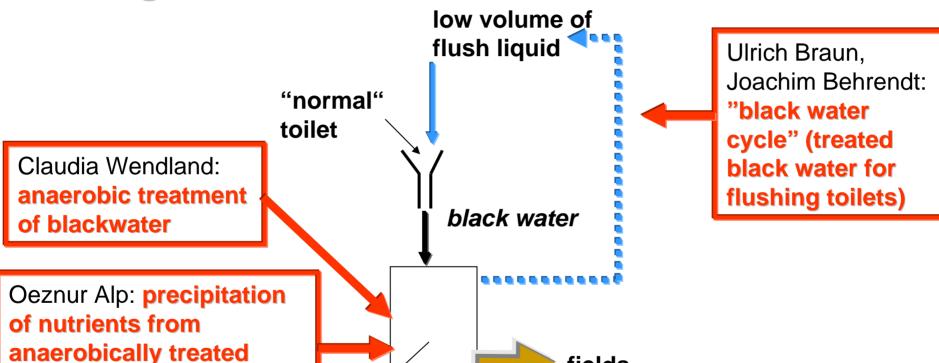
Martina Winker: uptake of pharmaceuticals by crops from urine

Jean E. Ndzana: urine as fertilizer for bamboo fields

Christopher Buzie: development of continuous vermi-composting

Source-control sanitation research within the TUHH Institute of Wastewater

Management and Water Protection:



fields

Black water treatment



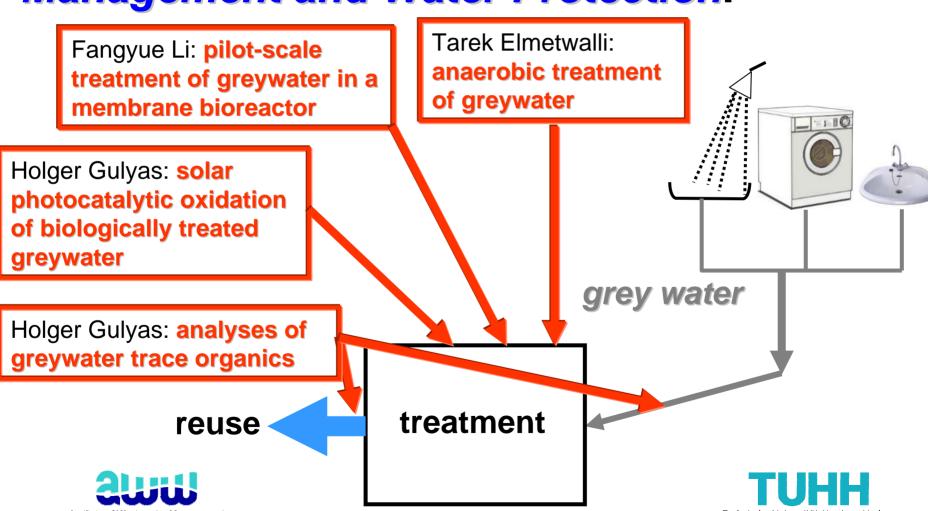
black water



Source-control sanitation research within

the TUHH Institute of Wastewater Management and Water Protection:

and Water Protection



Funded EcoSan projects at the institute...



EU ASIALINK ("Development of training material on low-cost and sustainable sanitation"; 15.04.2003 – 14.04.2005; Holger Gulyas, Felix Tettenborn, Ralf Otterpohl)

EU Life and **Berlin Centre of Competence for Water**, Kompetenzzentrum Wasser Berlin, KWB ("Industrial style urine treatment for utilization"; 01.09.2004 – 30.06.2006; Felix Tettenborn, Joachim Behrendt, Ralf Otterpohl)

EU 6th Framework ("Resource-oriented sanitation concepts for peri-urban areas in Africa, ROSA"; 01.10.2006 – 30.09.2009; Franziska Meinzinger, Ralf Otterpohl)

EU 6th Framework ("Sustainable water management improves tomorrow's cities' health, SWITCH"; 01.06.2006 – 31.05.2009; Felix Tettenborn, Joachim Behrendt, Ralf Otterpohl)

EU 6th Framework ("Network for the development of sustainable approaches for large scale implementation of sanitation in Africa, NETSSAF"; 01.06.2006 – 30.11.2008; Christopher Buzie, Franziska Meinzinger, Ralf Otterpohl)





Funded EcoSan projects at the institute...

Rosa Luxemburg Foundation ("Potentials and constraints of the link of agriculture and ecological sanitation"; 01.04.2004 – 31.03.2006; Constanze Windberg, Ralf Otterpohl)

Alexander von Humboldt Foundation ("Grey water treatment in upflow anaerobic sludge blanket (UASB) reactor"; 01.09.2004 – 31.07.2006; Tarek Elmetwalli, Ralf Otterpohl)

Women in Europe for a Common Future, WECF ("Case study in Garla Mare, Romania: Ecological sanitation (EcoSan) toilet house in a primary school"; 15.04.2003 – 14.04.2005; Claudia Wendland, Stefan Deegener, Ralf Otterpohl)

WECF and **MAMA-86** ("Co-operation for sustainable rural development - improvement of sanitation in rural Ukraine"; 01.11.2003 – 28.02.2006; Stefan Deegener, Franziska Meinzinger, Ralf Otterpohl)

Deutsche Bundesstiftung Umwelt, German Federal Environmental Foundation ("Anaerobic digestion of black water and bio waste in laboratory-scale"; 01.03.2002 – 30.04.2005; Claudia Wendland, Joachim Behrendt, Ralf Otterpohl)

Deutsche Bundesstiftung Umwelt and **Linz AG** ("Source-control treatment and utilization of urine with respect to pharmaceutical residues"; 01.12.2004 – 30.11.2007; Martina Hammer, Joachim Behrendt, Holger Gulyas, Ralf Otterpohl)





Funded EcoSan projects at the institute...

German Research Foundation, DFG ("Investigation on the elimination of selected pharmaceuticals during storage, UV irradiation and ozonation of urine"; 01.06.2005 – 31.05.2007; Deepak R. Gajurel)

... and several scholarships of the **German Research and Education Ministry** (**BMBF**) for PhD students in the IPSWat program ("International Postgraduate Studies

in Water Technologies")

The Institute of Wastewater
Management and Water
Protection as a TUHH institute is
belonging to the Free and
Hanseatic City of Hamburg...





Thank you!



