sustainable sanitation alliance

Up-date on activities of the working group sustainable sanitation for cities (includes "planning group")

Christine Werner, Arne Panesar, Robert Gensch [gtz]
Roland Schertenleib, Christoph Luethi [eawag/sandec]

(version: November 3rd 2007 – Delhi)

sustainable sanitation alliance

Partners in the cities working group

current partners

- **AEE-Intec** Institute for Sustainable Technologies (Austia)
- **BGR** Federal Institute for Geosciences and Natural Resources, Germany
- **BOKU** Bodenkunde Universität, Wien, Austria
- **EETP** China Sweden Erdos Eco-Town Project
- **EU-SWITCH** represented through Unesco-IHE and WUR
- **Eawag/Sandec** [lead] Swiss Water Research Institute / Department of Water Supply and Sanitation in Developing Countries
- **gtz** [lead] Gesellschaft für Technische Zusammenarbeit GmbH, Germany
- **IRHA** International Rainwater Harvesting Alliance
- **ITAS** Institute for Technology Assessment and System Analysis, Germany
- **IWA** International Water Association
- **IWMI** International Water Management Institute
- **IWWA** Indian Water Works Association
- **RUAF** Resource Centre on Urban Agriculture and Food Security
- **SEI** Stockholm Environmental Institute
- **SWH** Swedish Water House, Stockholm
- **TU-Delft** Technical University of Delft, The Netherlands
- **TUHH** Technical University Hamburg Harburg
- **UNDP** United Nations Development Programme
- **UNESCO-IHE** Institute for Water Education
- **UN-Habitat** United Nations Human Settlement Programme
- **Univ. Essex** University of Essex, UK
- **WSP** World Bank Water and Sanitation Programm
- **WUR** Wageningen University and Research Centre

sustainable sanitation alliance

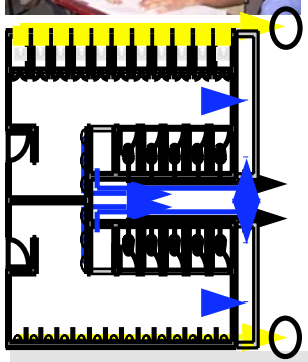
Partners in the cities working group

current partners

- **AEE-Intec** Institute for Sustainable Technologies (Austia)
- **BGR** Federal Institute for Geosciences and Natural Resources, Germany
- **BOKU** Bodenkunde Universität, Wien, Austria
- **EETP** China Sweden Erdos Eco-Town Project
- **EU-SWITCH** represented through Unesco-IHE and WUR
- **Eawag/Sandec** [lead] Swiss Water Research Institute / Department of Water Supply and Sanitation in Developing Countries
- **gtz** [lead] Gesellschaft für Technische Zusammenarbeit GmbH, Germany
- **IRHA** International Rainwater Harvesting Alliance
- **ITAS** Institute for Technology Assessment and System Analysis, Germany
- **IWA** International Water Association
- **IWMI** International Water Management Institute
- **IWWA** Indian Water Works Association
- **RUAF** Resource Centre on Urban Agriculture and Food Security
- **SEI** Stockholm Environmental Institute
- **SWH** Swedish Water House, Stockholm
- **TU-Delft** Technical University of Delft, The Netherlands
- **TUHH** Technical University Hamburg Harburg
- **UNDP** United Nations Development Programme
- **UNESCO-IHE** Institute for Water Education
- **UN-Habitat** United Nations Human Settlement Programme
- **Univ. Essex** University of Essex, UK
- **WSP** World Bank Water and Sanitation Programm
- **WUR** Wageningen University and Research Centre

sustainable sanitation alliance

Developments since Stockholm (8/2007)



Working groups "cities" and "planning" met at UNESCO, Paris, on 10th - 11th Sept. 2007 and were:

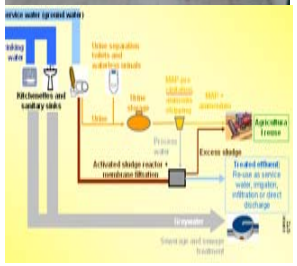
- joining the “cities”- and “planning”-group
- discussing joint TOR’s, and compatible objectives and deliverables
- discussing topics for a draft-fact sheet,
- discussing the joint case study template and the collection process
- giving commitments (fact sheet; case study collection)
- discussing of the way forward

Contribution to a gtz/switch/siaap side event
"The need for sustainable sanitation in the cities of the future“
at the UNESCO-IHP conference:
“New directions in urban water management” on 11th Sept. 2007

- brought together the “learning alliance” approach of the EU-SWITCH project with the ecosan approach
- joint discussion of urban case studies and of problems in formal and informal urban settlements

sustainable sanitation alliance

Objectives



- **Bring together relevant organisations** (…)
- Definition of **goals, indicators** and target values for sustainable sanitation systems in cities
- Identification of different **urban settings**, their general conditions and specific requirements as well as their assets and drawbacks for the introduction of sustainable sanitation solutions
- Addressing the relationship and **interconnection between urban areas and their hinterland (…)**
- **Identifying existing and innovative planning approaches**
- Selection of **case studies** and projects that cover the variety of urban settings and address a range of different sub-aspects (e.g. logistic and institutional aspects) and show the potential of sustainable sanitation systems for cities

→ **Preparation of publications (…)**


sustainable sanitation alliance

terms of reference
working group on sustainable sanitation for cities (draft)

1. Introduction

At the beginning of this new millenium, the earth has arrived on an important historical point of inflexion. For the first time in history the world is becoming predominantly urban with more people living in cities than in rural areas. This development seems to be inevitable for the time being and will most likely boost in the coming decades. Cities have the comparatively highest resource consumption and are unable to allow for the requirements of an adequate sustainable development so far.

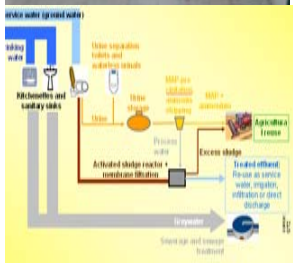
With respect to water and sanitation, the urban settlement areas themselves as well as their accelerated level of urbanisation causes serious problems. These are primarily the substantial increase in the volume of urban excreta and wastewater, often associated with low hygienic standards, potential or acute health hazards, the over-exploitation and pollution of water resources and an increase in the urban water and food demand. Beyond that, many municipalities are hardly able to keep pace with the speed of the urban growth and facing great difficulties to counteract the above-mentioned challenges. This is particularly true for mega-cities in developing countries that are most affected by these rampant urbanisation tendencies. The character of the urban growth is often informal and takes place predominantly in periurban areas and the city fringes, with a high rate of unserved people beeing expected and causing severe health and environmental risks. Currently there are already some 2.6 billion people worldwide that do not have access to adequate sanitation with a high percentage of them living in cities.

Today's conventional sanitation approaches are most often disposal or discharge oriented systems with either maintenance and cost intensive sewer systems with wastewater treatment that only cover a small percentage of the urban households (at least from a global perspective) or classical pit toilets or no toilets at all with potential risks for nearby surface water and groundwater resources, many people are dependent on. In most of the cases an effective reuse of the sanitary resources is not intended and the greater part of the urban excreta and wastewater enters surrounding rivers and lakes untreated with environmental and hygienic consequences that are becoming increasingly disastrous for the cities and their inhabitants.

To combat the worldwide sanitation crisis, it is imperatively necessary that sustainable sanitation approaches reach the cities. The cities should be re-linked with their rural surroundings and the high quantities of urban excreta and wastewater are worth to be regarded as important resources, with valuable energetic, soil-conditioning and fertilising properties as well as a high usable water fraction, particularly in the face of the high urban energy, water and food demand and increasingly scarce resources. Thus a closed loop management of natural resources should be given by simultaneously disconnected pathways for pathogens and toxic substances.

To introduce innovative and more sustainable sanitation approaches on a larger scale to cities, the special frame conditions of urban settlements compared with rural areas have to be taken into consideration. The high concentration of people in cities is not only a huge challenge but as well a big chance to ensure affordable sanitation services to a great number of people. Adequate storm-water management will be one of the main prerequisites in this context. Adapted strategies are to develop, particularly in terms of the limited space availability, high population density, service needs, logistics and management of such facilities. Until now only few good practise examples on sustainable sanitation solutions for cities exist and it will be one of the major challenges of this working group to identify the different urban intervention areas and their frame conditions and requirements, as well as good practise examples of appropriate high and low tech sustainable sanitation systems and furthermore develop strategies on how cities can start and/or intensify the process towards more sustainable sanitation solutions.

sustainable sanitation alliance



Deliverables

4a. Deliverables of the cities sub-group

- **fact-sheet (no 1)** that introduces the different problem areas within cities [GTZ + various authors]
- possible **fact-sheet (no 3)** on practices of urban sustainable sanitation [GTZ + uni wageningen]
- **brochure** / publication with more detailed information considered [TU Delft]
- a collection of **case studies** [GTZ + TU Delft]

4b. Deliverables of the planning sub-group

- **fact-sheet (2)** with basic information regarding sustainable environmental sanitation planning approaches. (HCES, Sanitation 21, “total sanitation”, other relevant approaches) [Eawag + SWH]
- **case study sheets** on existing practices of planning for sustainable sanitation using the selected approaches [Eawag + SWH]
- a **source book** featuring successful examples of sustainable sanitation approaches in urban and peri-urban areas worldwide (with wg sustainable sanitation, treatment options, hygiene and health). [TU Delft; Eawag]
- an **international conference** during IYS 2008 featuring new approaches to sustainable sanitation planning. [Eawag, (NETSAF) Possibly: WWW, Stockholm (17 – 23 Aug) seminar / side event]

sustainable sanitation alliance

Outline of a fact-sheet on "Sustainable sanitation for cities"

Chpt 1: The scale of the problem (GTZ)

Chpt 2: The need for a change in urban sanitation practices (SEI & SWH)

Chpt 3: Criteria for sustainable sanitation solutions in cities (FZ Karlsruhe)

Chpt 4: Identification of 'typical urban settings' – urban typologies (Eawag)

Chpt 5: System set-ups from cradle to grave (Uni Wageningen)

Chpt 6: Sustainable sanitation and its links to other key issues of sustainble urban development (GTZ)

Chpt 7: Services and business development (Eawag)

Chpt 8: Drawing up the way forward (Eawag)

Chpt 9: Challenges

Chpt 10: Examples (not more than 1/2 page)

Links/Bibliography

sustainable sanitation alliance

Next Steps

- further developing the fact-sheet (1) –chapters during Nov./Dez. 07
- starting the collection process for cases
- meeting of the "cities" and "planning" group on 17.-18. Jan 08 (tbc) at Eawag, Duebendorf, Switzerland

Thank you for your attention!