



Invitation

It is a pleasure for me to invite you on behalf of the organizing committee to the 1st International Terra Preta Conference at Hamburg University of Technology. The 1st International Terra Preta Conference aims at bringing experts and interested people from the different sectors — water/sanitation, agriculture, soil, energy, health – together to present their research results and to share their experiences in the field of Terra Preta Sanitation.

Hamburg University of Technology is proud to host this conference and wish you a fruitful conference on our campus.



Prof. Dr. Ing. Ralf Otterpohl

Background

The way to sustainable management of natural resources is one of the greatest challenges of present time. The societies' sustainability depends essentially on secured water resources, food supply and an intelligent management of wastes. Food, for example, is produced with extensive input of energy and resources. Nutrients are detracted from soils and need to be replaced. Replacement is often done by artificial fertilisers which are produced with high

energy input. The reduction of organic matter content by the degradation of humus is mostly not replaced to the required extent. This leads to a slow but steady degradation of soil and loss of fertility. Urban sanitation systems nowadays, with their sewers and treatment plants, are not designed to close material cycles and extracted nutrients are not directed back to the soil.

An analysis of a former civilisation in the Amazon, nowadays Brazil, reveals concepts which enable a highly efficient handling of organic wastes. Terra Preta do Indio is the anthropogenic black soil that was produced by ancient cultures through the conversion of biowaste and faecal matter into long-term fertile soils. These soils have maintained high amounts of organic carbon even several thousand years after they were abandoned. It was recently discovered that around 10% of the originally infertile soils in the Amazon region was converted this way from around 7,000 until 500 years ago. Due to the accumulation of charred biomass and other organic residues, terra preta subsequently formed giving it a deep, distinctly dark and highly fertile soil layer.

One of the surprising facts is that this soil is highly productive without adding fertiliser. Recent research concludes that this culture had a superior sanitation and bio-waste system that was based on source separation of faecal matter, urine and clever additives particularly charcoal dust and treatment steps for the solids resulting in high yielding gardening. Additives included ground charcoal dust while the treatment and smell prevention started with anaerobic lactic-acid fermentation followed by vermicomposting.

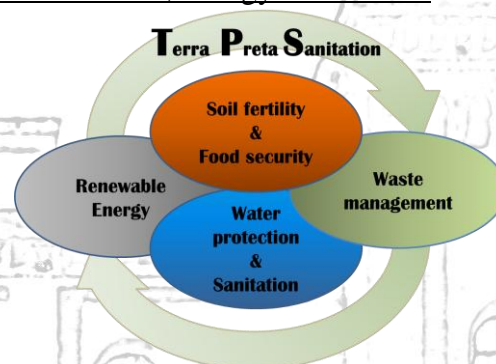
The generation of new Terra Preta ('terra preta nova') based on the safe treatment of human waste could be the basis for sustainable agriculture in the twenty-first century to produce food for billions of people, and could lead to attaining a number



of major Millennium Development Goals at the same time.

Conference Themes

Nexus around Soil, Energy and WASH



Organisation committee

- Institute of Wastewater Management at TUHH /GFEU e.V.
- WEFCF

Co-Organisers

- Institute of Environmental Technology and Energy Economics at TUHH
- German WASH Network
- UNESCO IHE
- BDZ

Scientific committee

- Ralf Otterpohl (Germany)
- Piet Lens (the Netherlands)
- Hakan Jönsson (Sweden)
- Martin Kaltschmitt (Germany)
- Kerstin Kuchta (Germany)
- Gina Ichtou (Philippines)
- Massimiliano Fabbri (Italy)
- Jutta Kerpen (Germany)
- Ina Körner (Germany)
- Boris Boinceau (Republic of Moldova)
- Vishwanath Srikantiah (India)
- Srikanth Mutnuri (India)
- Linus Dagerskog (Sweden)
- Oliver Christ (Germany)
- Günter Langergraber (Austria)
- Bruno Glaser (Germany)

The scientific committee is yet not completed. Some requests are still open.

- TP soils – historical and modern aspects
- Soil fertility and food security
- Intensification of organic farming
- New insight to plant-soil interaction (endocytosis)
- Land use, reforestation, reversing erosion
- Overall systems and system design
- Greywater in TPS – Bamboo, short rotation plantation, constructed wetlands
- Logistic and operation
- Microbiology, sanitization and lactic acid fermentation
- Carbon composting of biowaste and excreta
- Wood gas technology for energy and char coal production
- Pyrolysis vs. hydrothermal carbonization

The call is addressed to Scientists as Practitioners equally.

Abstracts should be limited to two A4 pages (including figures and tables) and must contain sufficient information to allow a proper review by the scientific committee.

The following information must be included with each submission:

- Author(s) Name and Affiliation
- Title of paper
- Type of presentation
(Oral presentation or Poster)
- Email Address, Mailing Address and Telephone and Fax numbers



[Template for abstract please download from our conference web page](#)

Abstracts must be submitted to the following address: abstracts@tps-ic.org latest the 15 February 2013. Abstracts will be reviewed by the scientific committee to select oral and poster presentations.

Authors will be notified by 5 March 2013. If selected, a full 6 or 8-page paper must be submitted by 15 May 2013.

At least one author of each selected abstract must register and attend the conference to present the paper or poster.

All papers and posters will become part of the conference proceedings which will be put on-line.

The best papers will be selected for publication in a handbook "Terra Preta Sanitation".

Key Dates for Abstract and Paper Submission

Submission of abstracts: **15 February 2013**

Notification of selection for oral and poster presentations: **5 March 2013**

Submission of full papers (in case of oral presentation): **15 May 2013**

Conference fees

The fee includes all conference material, presentations and poster sessions, meals in the conference, and a dinner.

A pre-conference dinner (not covered by the fee) will be organized for the 28 August.

Until 15 July 2013:

Delegate fee: 240 EUR

Student fee: 90 EUR

After 15 July 2013:

Delegate fee: 350 EUR

Student fee: 150 EUR

Company sponsors

Companies have a possibility to sponsor the Conference. If a company wish to have its logo to be seen in the website, in the Proceedings and an advertisement into the Conference materials, please contact us. The price is 500 EUR for one company (one conference fee is included).

Contact for submitting the abstract, the papers: abstracts@tps-ic.org

Any information around the conference: office@tps-ic.de

