

Dear Reader,



We are pleased to send you the 37th edition of our newsletter, which is sent to 3910 subscribers for the English version and 260 subscribers for the [French version](#). In this newsletter, we have introduced a new category called "publications on health and sanitation" in order to strengthen our links with, and understanding of, the health sector. At the end of the day, it is not important how many toilets we have built but how many lives of children we have saved in the process! I believe that we need to learn better how we can monitor and demonstrate the health impacts of sustainable sanitation projects - which will also serve to strengthen the economic arguments for improved and sustainable sanitation.

If you would like regular, short news updates (about 3 times per week), then please join our [Facebook page for the Sustainable Sanitation Alliance](#) (now 540 fans) by clicking on "like" (note: this will not reveal your personal information and photos from your personal facebook account). Sadly, some countries have banned facebook and YouTube (such as China, and Pakistan was thinking about it) - this in itself indicates the power that these social media tools have for spreading information!

If you see this newsletter in a messy-looking text-only format, please adjust your e-mail program to display e-mails in HTML-format. Note: the abbreviation UDDT stands for urine diversion dehydration toilet (sometimes simplistically called "ecosan toilet").

Best wishes from Germany,

Elisabeth von Muench (ecosan@gtz.de)
(Leader GTZ program "Sustainable sanitation - ecosan")

News

Sweden, worldwide

Launch of "Guideline on the use of urine in crop production" – Sept. 2010



In 2004 the EcoSanRes program released the "Guideline for the use of urine in crop production". This document has now been updated with new knowledge and perspectives (as a collaborative effort within the SuSanA working group 5 on Food Security and Productive Sanitation). The book gives practical guidance on the use of urine in crop production as a vital component of sustainable crop production and sanitation systems. The handbook should help in establishing links between researchers and professionals interested in implementation of sustainable sanitation systems and the links between sustainable sanitation and agriculture.

• [Publication by SEI/EcoSanRes: Practical Guidance on the Use of Urine in Crop Production \(PDF; 1.7 MB\)](#)

Germany

Weekend seminar for German NGOs: School toilets in developing countries – Oct. 2010



Many German NGOs are becoming increasingly interested in implementing sustainable sanitation projects, and in particular in building school toilets. In order to support these efforts, the German Toilet Organization (GTO) and GTZ will be offering a weekend seminar on 23/24 October 2010 at the GTZ headquarters in Eschborn,

Germany (in German language). A repeat seminar - financially supported by LEZ Berlin - will be offered in Berlin on 27/28 November 2010. The aim of the seminar is to discuss how specific technological solutions and sociological approaches can be applied, as well as giving an insight into the particular problems that may hinder successful project implementation. The focus will be on sanitation systems for schools and public facilities in developing countries.

• [Further information about the seminar on website of German Toilet Organization](#)

Breaking News

The [12th SuSanA meeting](#) took place at SEI, in Stockholm, Sweden on 4 Sept 2010. Minutes, presentations and photos are now available on the website.

[Video clips](#) from important people making statements about sanitation in the "Watercube" at Stockholm World Water Week.

Links

[Struvite production from urine](#) with a full-scale MAP reactor began in Eschborn, Germany in July 2010, and struvite is being harvested ever since.

[Novel emergency sanitation concepts](#) (with urine diversion) proposed by Norwegian NGO SuSan Design.

[Report of activities](#) of Ecosan Services Foundation in Pune, India for the period of June 2009 to March 2010 (supported by GTZ).

[Update on the "Ecosan and Water Project"](#) at Vankwad, Gujarat (India) by NGO "Wherever The Need".

[Prototype engineering design](#) of Eco-Toilet by UNICEF Bangladesh and partners.

[Guideline on urine reuse in Niger](#) - by Barag  Moussa at the University of Niamey in collaboration with CREPA, SEI and PPILDA (in French).

[Kenya Ecosan blog](#) and "[ecosan network Kenya](#)" facebook page are now online, helping the ecosan community in the region to stay connected and exchange ideas.

[Proceedings of policy workshop](#) on "Sanitation Policies and Regulatory Frameworks for Reuse of Nutrients in Wastewater, Human Excreta and Greywater" from SEI/EcoSanRes2.

[Short report on biogas sanitation pilot projects](#) in Afghanistan by Mission East, [GTZ](#) and other organisations.

[Restricted Call for Proposals](#) for Partnerships for Capacity Development in the ACP Water & Sanitation Sector by European Commission. Deadline 6 Oct.

Grand Challenge of Bill and Melinda Gates Foundation: [Submit a 2-page proposal](#) for a decentralised, non-waterborne sanitation technology and get a chance to win US\$ 100,000 to develop the idea further. Deadline: 2 Nov. 2010.

Sweden, Kenya, Haiti

Peepoo bags: Semi-manual production started in Kenya, and trials in Haiti after earthquake (Oxfam) – Aug. 2010

A semi manual production of Peepoo bags is currently being set up in Nairobi, Kenya with the aim to provide Peepoo toilets for field tests and pilots. The company Peepoople is now ready to start taking orders (send e-mail to order@peepoople.com) from the small scale production unit until the high speed production plant is up and running in mid 2011. The Peepoo is a single use, self-sanitising bio-degradable toilet in the form of a bag that after use turns the human waste into valuable fertiliser in 2-4 weeks. The Peepoo toilet has been tested in Kenya, Bangladesh, India and Haiti since 2008 with very positive user results.

- [Website of the Swedish company Peepoople](#)
- [Article in German newspaper DIE ZEIT on peepoo bags, with 12 readers' comments \(in German\)](#)
- [Haiti: Oxfam is piloting a new and improved "flying toilet" after the earthquake \(news from IRIN\)](#)
- [Video clip on the use of peepoo bags in Haiti after the earthquake \(Oxfam\)](#)
- [Peepoo bags chosen as one of "Ten Innovations in Global Health"](#)

Mongolia

Urine diversion toilets in summer camps – Aug. 2010



In Northern Mongolia, the Boojum Charitable Fund, associated with Boojum Expeditions has built a locally inspired variation on the UDD toilet. The local builder who has by now built four variations on urine diversion dry toilets in Mongolia decided to create a hybrid where the faeces go into a pit, but the urine is diverted off into a separate drainfield. Support is being provided by Boojum in

building two toilets initially with a separate urinal block for boys. In future, the urinal will be plumbed to collect the urine or send it to the drain field to encourage experimentation with urine as fertilizer on local plants.

- [Short report on urine diversion toilets in summer camp in Mongolia \(PDF; 0.1 MB\)](#)

USA, worldwide

UN declares access to clean drinking water and sanitation as human right! – Aug. 2010

The UN General Assembly has adopted a historic resolution on July 28 recognizing "the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of the right to life". Besides recognizing the right to water and sanitation the resolution also calls upon states and international organizations to "provide financial resources, capacity-building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all".

- [Press release of the UN with statements from different countries](#)
- [Vote on Human Right to Water and Sanitation Resolution \(PDF; 0.01 MB\)](#)
- [GTZ publication: Human right to water and sanitation \(with examples from Kenya\) \(PDF; 0.5 MB\)](#)
- [FAQs for Human Right to Water and Sanitation \(PDF; 0.6 MB\)](#)
- [Report of the independent expert \(PDF; 0.2 MB\)](#)
- [AquaFed: Private Water Operators celebrate the recognition of the Human Right to water and sanitation \(PDF; 0.04 MB\)](#)

Nepal

Darechowk is the open-defecation-free village in Nepal with the highest number of UDD toilets – July 2010

The residents of Darechowk proudly declared themselves as the 18th "Open Defecation Free" (ODF) Village Development Committee in Chitwan amidst a grand function organized at Kurintaar. Altogether there are 1665 households and a population of 10,712. Among these households, 901 have Sulabh toilets and 733 have Urine Diversion Dehydration (UDD) toilets while the rest have pit latrines. This makes Darechowk the village with the highest number of UDD toilets in Nepal.

- [Short report on Darechowk, the ODF village with highest number of UDD toilets \(PDF; 5.0 MB\)](#)

Philippines

SuSan Center launched – June 2010

[Kamal Kar's presentation and video](#) on Community Led Total Sanitation (CLTS) in Bangladesh and worldwide.

In Bolivia the sustainable sanitation knowledge node has announced the inauguration of the [first demonstration UDDT in the Amazonian](#) (in Spanish).

The SuSanA website has been revamped and upgraded; it now includes an ever growing [database of resource materials](#) (please [send us](#) additional materials you would like to see included).

We have updated our worldwide [list of ecosan courses](#) (stand-alone courses or courses which are part of a degree course). Please [e-mail us](#) with your additions.

The number of fans of the SuSanA facebook page is now over 540! So far, most of the fans are from Germany, USA, Sweden and India. To join, just click on "like" [here](#).

Videos and photos

Excellent, very short video clip from students in Sydney explaining to the layperson what the problem is with the [upcoming phosphorus shortage](#).

Informative documentary on [ecosan projects in Kenya](#) (broadcast by Kenyan national TV stations about EU/SIDA/GTZ project).

Videos from villages in Niger by the project "[Productive Sanitation in Aguié](#)" funded by IFAD and implemented by CREPA in collaboration with SEI.

Radioshow ([MP3](#); 12.1 MB) on Radio France International on "[Productive sanitation in Aguié in southern Niger](#)", May 2010 (in French).

Video of [sanitation marketing in Cambodia](#) and stopping open defecation in rural Ethiopia by WSP.

Photo sets from CLTS Foundation, showing [CLTS triggering events](#) in Africa.

Photos from ecosan projects ([UDDTs and biogas sanitation in Kenya, Peru and Afghanistan](#)). We now have 3000 ecosan photos in our flickr database.

[Harvest of urine-fertilised wheat](#) on fields near Bonn (Germany) has taken place in July (as part of German SANIRESCH project).

If you have good videos about sustainable sanitation projects, please alert the [SuSanA secretariat](#) so that they can be linked from the [SuSanA web page](#). See also [SuSanA's YouTube channel](#).

Upcoming events



Xavier University (Cagayan de Oro, Philippines) launched its new Sustainable Sanitation Center on June 15, 2010, manifesting the continuous interdisciplinary cooperation on sustainable sanitation issues between the Colleges of Engineering, Agriculture and the School of Medicine. The Sustainable Sanitation Center of Xavier University in collaboration with the

Sustainable Sanitation and Water Resources Management Network Asia (SSWRMNA) conducted a 2-week expert training course (June 15-25) on Sustainable Sanitation and Water Management (SSWM). The courses were targeted at local government units, NGOs, the academe, civil society groups etc.

- [Launching of SuSan Center \(PDF; 0.1 MB\)](#)
- [SSWM training course report \(PDF; 0.6 MB\)](#)
- [Sustainable Sanitation and Water Management Toolbox \(SSWM Toolbox\) by seecon and partners \(presentation; PDF; 1.5 MB\)](#)
- [Sustainable Sanitation and Water Management Toolbox \(website access information\)](#)

India and the Philippines

Project Update: ACCESSanitation (Accelerating City-to-City Exchange for Sustainable Sanitation) – May 2010

Ten cities in India and the Philippines have committed themselves to provide access to more sustainable sanitation for their poorer communities. Improved facilities and systems will also be embedded more closely into the cities' overall water management, urban planning and development activities. Furthermore the project will allow for a South-South transfer of approaches and experiences from and to cities in Southern Africa.

ACCESSanitation is part-financed by EuropeAid and led by the European Secretariat of ICLEI - Local Governments for Sustainability. Local partners are ICLEI's regional secretariats for South and Southeast Asia and Africa, Xavier University and Ecosan Services Foundation, with support from seecon GmbH.

- [Information leaflet \(PDF; 1.1 MB\)](#)
- [ACCESSanitation website](#)

India

Government includes ecosan in national sanitation campaign – May 2010

Over half the world's open defecators are found in India. One of the key efforts by the Indian government to curb this alarming situation is the Total Sanitation Campaign (TSC), a comprehensive programme to ensure proper sanitation facilities in rural areas and ultimately eradicate the practice of open defecation. In May 2010 the Ministry of Rural Development amended the TSC Guidelines and incorporated ecosan as a component of the implementation plan.

- [Contributions of SEI \(Sweden\) to this process](#)
- [Total Sanitation Campaign \(TSC\) in India](#)
- [Special amendment to TSC \(PDF; 0.1 MB\)](#)
- [Guidelines of the Total Sanitation Campaign \(PDF; 0.4 MB\)](#)

Egypt

New project: Egyptian-Swiss Research on Innovations in Sustainable Sanitation: ESRISS – May 2010



ESRISS is a 5-year applied research project aiming to validate cost-effective and reuse-oriented sanitation systems for small and mid-sized settlements in the Nile delta. Started in May 2010, it is led in partnership with the Egyptian Holding Company for Water and Wastewater (HCWW), the German Development Agency (GTZ) and an open platform of sanitation experts from Egyptian Universities and Research Institutions.

- [Information flyer about this project \(PDF; 0.1 MB\)](#)
- [Short project description on Sandec website](#)

Cambodia

Meeting a surprising demand for toilets in Cambodia – May 2010



The World Toilet Organization team had spent almost two years in the project's target area Kampong Speu with months of hygiene awareness-raising activities to lay the groundwork for a market for household latrines. The project now impacts over 200,000 people (55,000 households) in 571 villages. While featuring an affordable latrine

that can be purchased as a single, upgradeable unit and easily installed, the WTO and LienAid team faced a new challenge that they are grateful to take on – helping to develop the capacity of local suppliers to meet the growing demand

CDD Society's Training Calendar (various events in 2010)
[Consortium for DEWATS Dissemination](#)
Bangalore, India

15 – 17 Sept. 2010
[International Conference on Sustainable Water Management](#)
Jamshoro, Pakistan

19 – 24 Sept. 2010
[IWA World Water Congress](#) (specialist group meeting on 20 Sept. for "resources oriented sanitation")
[IWA Development corner](#)
Montreal, Canada

20 – 22 Sept. 2010
[High-Level Meeting to Review Progress on the MDGs](#)
New York City, USA

27 – 30 Sept. 2010
[1st Workshop on "Terra Preta Sanitation"](#): organised by TU Hamburg-Harburg, Gross Ippener (near Bremen), Germany
Contact: [Christopher Buzie](#) or [Horacio Factura](#)

1 Oct. 2010
[Potenzial Terra Preta | Von vergangenen Kulturen lernen | Ein Beitrag zum Klimaschutz](#)
organised by Hamburg Wasser and TU-Hamburg-Harburg, Rathaus Altona in Hamburg, Germany
Contact: [Ulf Rakelmann](#)

4 – 7 Oct. 2010
[12th IWA International Conference on Wetland Systems for Water Pollution Control](#)
Venice, Italy

23 – 24 Oct. 2010
[Weekend seminar on school toilets for German NGOs](#)
Eschborn, Germany

25 – 26 Oct. 2010
[Water and Health: Where Science Meets Policy Symposium](#)
Chapel Hill, USA

29 Oct. 2010
PhD defence "Ammonia Sanitization of Human Excreta - Treatment Technology for Fertilizer Production" by [Annika Nordin](#), Department of Energy and Technology, SLU Uppsala, Sweden

31 Oct. – 3 Nov. 2010
[World Toilet Summit and Expo](#) (by World Toilet Organization)
Philadelphia, USA

31 Oct. – 4 Nov. 2010
[IWA specialist congress: the 12th world congress on Anaerobic Digestion \(AD12\)](#)
Guadalajara, Jalisco - Mexico

2 – 5 Nov. 2010
[Ecosanlima 2010](#) (ecosan conference)
Lima, Peru

16 Nov. 2010
[Fachtagung Wasserautarkes Grundstück](#) (in German) by fbr (seminar on water-independent properties)
Frankfurt am Main, Germany

for safe, economical latrines (pour flush pit toilet with one or two pits, depending on the clients' preferences).

• [Short report by World Toilet Organization on their project in cooperation with LienAid in Cambodia \(PDF; 0.1 MB\)](#)

• [Further information about this project on WTO's website](#)

Nepal

Nepal's first human urine bank inaugurated – May 2010



The urine bank, which is a spin-off from the project "Struvite recovery from Urine in Nepal" (STUN), is a pilot project aimed at increasing the reuse of nutrients from human urine. Source-separated urine is collected from households which do not have a use for it and is sold for 1 Nepalese Rupee (or 1 Euro-cent) per litre to farmers who use it to fertilise their crops. The entire urine of one adult would therefore fetch a price of about EUR 5.5 per year. The urine bank is a project supported by EAWAG (Switzerland) and UN-HABITAT.

- [Struvite recovery from urine in Nepal \(STUN\), an EAWAG project](#)
- [Urine bank overview \(short description in May in Sanitation Updates\)](#)
- [Photos of urine bank and UDDTs in Nepal \(by ENPHO\)](#)
- [Newspaper article about urine bank in Kathmandu Post in June 2010](#)

Netherlands

New UNESCO-IHE ecosan online course uses Moodle (March to June 2011)

The 2010 UNESCO-IHE ecosan online course was completed successfully. The next UNESCO-IHE online course in ecosan will be held from March to June 2011. It is now offered in a new platform called Moodle, with material adapted with input from several SuSanA partners, such as SEI. A new demo version will also become available by the end of 2010. Additionally, UNESCO-IHE is developing five new online sanitation modules together with partners from the [ASKNET network](#). Case studies that can be incorporated in these courses are still welcome; please contact [Jan Willem Foppen](#) or [Mariska Ronteltap](#).

- [A new demo version will become available end 2010](#)
- [Registration for online course and application for NFP scholarship](#)

Worldwide

New partners of Sustainable Sanitation Alliance

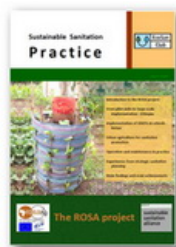
The following four organisations recently joined the SuSanA network as partners, bringing the total number to 129:

- [PHLUSH](#) - Public Hygiene Lets Us Stay Human (USA)
- [Peepoople](#) (Sweden)
- [CLTS Foundation](#) (UK)
- [Bioforsk](#) (Norway)

Publications on ecosan and sustainable sanitation

EcoSan Club, Austria

Journal Sustainable Sanitation Practice on "The ROSA Project" – July 2010



The fourth issue of the Sustainable Sanitation Practice (SSP) Journal with the title "The ROSA project" is now available online (free of charge). The ROSA project proposed resources-oriented sanitation concepts as a route to sustainable sanitation and was funded within the EU 6th Framework Programme, Sub-priority "Global Change and Ecosystems". The project duration was from October 2006 to March 2010 and it was implemented in four pilot cities: Arba Minch in Ethiopia, Nakuru in Kenya, Arusha in Tanzania and Kitgum in Uganda. The seven papers included in this special issue show specific aspects of the ROSA project as well as an outlook on future activities.

- [Issue 4 "The ROSA Project"](#)

Sustainable Sanitation Alliance

New on SuSanA website

Several of the SuSanA documents have recently been translated into Spanish and Portuguese: A case study from Lima (Peru) on "Blackwater and greywater reuse system Chorrillos", the factsheet of working group on cities "Planning for sustainable development" and "Key messages of sustainable sanitation". Also available are 2 new factsheets (draft versions) from the working groups for school sanitation and for emergency and reconstruction situations.

- [Case study in Spanish: Blackwater and greywater reuse system, Chorrillos,](#)

19 Nov. 2010

[World Toilet Day](#)

27 – 28 Nov. 2010

[Weekend seminar on school toilets for German NGOs \(repeat\)](#)
Berlin, Germany

29 Nov. – 10 Dec. 2010

[Annual Latin America Region Ecosan Course](#) (by Sarar Transformacion SC)
Tepoztlan, Mexico

5 – 9 Dec. 2010

[Arab Water Week](#)
Amman, Jordan

2 – 5 Feb. 2011

[International Conference on Integrated Water Management](#)
Perth, Australia

4 – 8 Apr. 2011

[SACOSAN IV](#)
Colombo, Sri Lanka

18 – 22 April, 2011

[International conference on Small Sustainable Solutions for Water \(SSS 4 WATER\)](#)

Deadline for papers: 15 Nov. 2010
In cooperation with the IWA specialist groups: Resources Oriented Sanitation; Small Systems; Decentralized water and wastewater international network
Venice, Italy

6 – 8 July 2011

[WEDC Conference](#)
Deadline for papers: 1 Dec. 2010
Loughborough, UK

Mar. 2012

[World Water Council](#)
Marseille, France

2012

3rd East Asian Ministerial Conference on Hygiene and Sanitation
Bali, Indonesia

Jobs

Applications are [invited](#) from international MSc students currently studying in Germany wanting to do a 3-months internship with the GTZ ecosan team in Eschborn, Germany.

[CIM: Ecosan expert to China \(in German\)](#)

[IWMI: Post Doctoral Fellow: Microeconomics of Sanitation and wastewater reuse in agriculture, Ghana](#)

[Lima, Peru \(PDF; 1.6 MB\)](#)

• [Case study in Portuguese: Blackwater and greywater reuse system, Chorrillos, Lima, Peru \(PDF; 0.9 MB\)](#)

• [Fact sheet of working group 6 \(in Spanish\): Planning for sustainable development \(PDF; 0.6 MB\)](#)

• [Fact sheet of working group 6 \(in Portuguese\): Planning for sustainable development \(PDF; 1.9 MB\)](#)

• [Key messages of sustainable sanitation \(in Spanish\) \(PDF; 1.1 MB\)](#)

• [Key messages of sustainable sanitation \(in Portuguese\) \(PDF; 1.2 MB\)](#)

• [Factsheet of working group 7: Sustainable sanitation for schools \(draft\) \(PDF; 0.3 MB\)](#)

• [Factsheet of working group 8: Sustainable sanitation for emergency and reconstruction situations \(draft\) \(PDF; 1.9 MB\)](#)

GTZ

Three new draft technology reviews for sustainable sanitation technologies (composting toilets; biogas sanitation; constructed wetlands)

GTZ has published draft versions of three more technology reviews: "Composting toilets", "Biogas sanitation for black water or brown water, or excreta treatment and reuse in developing countries" and "Constructed wetlands for greywater and domestic wastewater treatment in developing countries". Please [contact us](#) if you can contribute your knowledge to these documents (finalised versions will be available by early 2011).

• [Three new draft technology reviews by GTZ \(composting toilets; biogas sanitation; constructed wetlands\)](#)

Various universities

PhD, MSc and research studies



An interesting collection of PhD theses, MSc theses as well as student studies are shown below. This list suggests that ecosan is becoming more and more interesting as a research topic at many universities in the North and South.

PhD theses

• [PhD thesis of Dana Cordell from the University of Linköping, Sweden "The Story of Phosphorus: Sustainability implications of global phosphorus scarcity for food security", 2010 \(PDF; 7.4 MB\)](#)

• [PhD thesis of Christian Remy from Technical University of Berlin "Life Cycle Assessment of conventional and source-separation systems for urban wastewater management", Jan. 2010](#)

• [PhD thesis of Surendra K. Pradhan from the University of Eastern Finland "Yield and quality of vegetables fertilized with human urine and wood ash", March 2010 \(PDF; 0.3 MB\)](#)

• [PhD thesis \(about Terra Preta in the Amazon region\) Fabiana de Souza Cannavan from Universidade de Sao Paulo, Brazil \(in Portuguese\) "Diversidade das comunidades bacterianas em solos de terra preta antropogenica da Amazonia central e oriental", 2007 \(PDF; 1.3 MB\)](#)

MSc theses

• [MSc thesis of Naishin Fu from Harvard School of Public Health Massachusetts, USA "User Experience and Drivers for Adoption of Ecological Sanitation Toilets in Kisoro and Kabale, Uganda", May 2010 \(PDF; 1.3 MB\)](#)

• [MSc thesis of Yahaya Iliassou from Université Abdou Moumouni de Niamey in Niger "Evaluation de l'effet de l'application periodique de l'urine hygiénisée sur la culture de mil", 2009 \(in French\) \(PDF; 0.5 MB\)](#)

• [MSc thesis of Moussa Ibrahim Bouzou from Université Moumouni de Niamey in Niger "Evaluation de l'effet du compost enrichi avec des urines hygiénisées sur la culture du mil", 2009 \(in French\) \(PDF; 0.7 MB\)](#)

other student reports

• [Study by Enno Schröder from the University of Kiel, Germany "Marketing Human Excreta - A study of possible ways to dispose of urine and faeces from slum settlements in Kampala, Uganda", June 2010 \(PDF; 1.7 MB\)](#)

• [Internship report by Pierrick Trioulayre about a French company offering hire service of dry toilets to outdoor events \(2009\) \(PDF; 2.8 MB\)](#)

USAID, Uganda, worldwide

Sanitation Marketing for managers: Guidance and tools for program development – July 2010



Developed through HIP's program in Uganda (HIP is Hygiene Improvement Project), this manual provides guidance and tools for designing a



sanitation marketing program. It guides professionals in the fields of sanitation and marketing to comprehensively assess the current market for sanitation products and services and use the results of this assessment to design a multi-pronged sanitation marketing strategy.

- [Sanitation Marketing for managers: Guidance and tools for program development \(PDF; 1.8 MB\)](#)

Publications on health and sanitation

Various organisations

Videos and tools for health impacts from lack of sanitation

In this section we highlight videos, tools and publications which analyse the health impacts from either lack of sanitation or from improved sanitation. Health outcomes are an important impact of improved sanitation, and should be well monitored and documented.

- [Short video clip about diarrheal disease in children: causes and cures \("lets talk about it"\) by PATH](#)
- [The Global Atlas of Helminth Infections \(an open-access information resource\)](#)
- [Making the case for sanitation and hygiene: opening doors in health \(ODI Background Notes, June 2010\)](#)
- [Impact of a City-Wide Sanitation Programme in Northeast Brazil on Intestinal Parasites Infection in Young Children \(Lancet, 2007\)](#)

World Bank

Water, sanitation and children's health

This paper combines 172 Demography and Health Survey (DHS) data sets from 70 countries to estimate the effect of water and sanitation on child mortality and morbidity. The point estimates imply, depending on the technology level and the sub-region chosen, that water and sanitation infrastructure lowers the odds of children suffering from diarrhoea by 7–17 percent, and reduces the mortality risk for children under the age of five by about 5-20 percent.

- [World Bank Policy Research Working Paper: Water, sanitation and children's health: evidence from 172 DHS surveys – Apr. 2010 \(PDF; 0.7 MB\)](#)

Imprint

Deutsche Gesellschaft für
Technische Zusammenarbeit (GTZ) GmbH
- German Technical Cooperation -
Dag-Hammarskjöld-Weg 1-5, 65760 Eschborn, Germany
Chairperson of the Supervisory Board:
State Secretary Hans-Juergen Beerfeltz
Managing Directors: Dr Bernd Eisenblaetter (Chairman),
Dr Christoph Beier, Dr Hans-Joachim Preuss
Turnover Tax ID No.: DE 113891176
Commercial Register: HRB 12394



To subscribe to this newsletter (free of charge):
<http://www.gtz.de/en/25939.htm>

If you no longer wish to receive this newsletter, please click [here](#).

In charge of this newsletter:

Dr. Elisabeth von Münch (elisabeth.muench@gtz.de)

Editor(s):

Newsletter compiled by Rahul Ingle with support by the team of GTZ program "Sustainable sanitation - ecosan" (ecosan@gtz.de)

Our website: <http://www.gtz.de/ecosan>

Technical implementation:

Juergen Eichholz (juergen.eichholz@saniblog.org)

[Unsubscribe](#) | [Disclaimer](#) | [Contact](#) | [Recommend this newsletter](#) | www.gtz.de