The EcoSanRes Programme for Improved Livelihoods Around the World

What initiatives could contribute to meeting several of the Millennium Development Goals? Putting ecological sanitation into operation offers some advantages. Therefore, we here address a wide range of professionals, academics, teachers/trainers and decision-makers, who also work with water provision, agriculture, poverty alleviation, human health, environmental protection, human rights, the child's perspective, gender aspects, participatory processes, issues related to democracy, income generation, financing and societal planning. Thus, we aspire to foster a viable worldwide debate on the important services of eco-system based sanitation and the multi-facetted benefits to be derived from it.

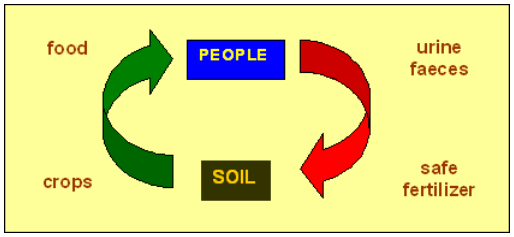
How important is sanitation? What impact does lack of or access to sanitation have on human health and environmental safety? How does sanitation or lack thereof affect individuals in regard to nutritional requirements, resilience to disease, family income opportunities, self-esteem, human rights, participatory rights, women's conditions and personal security? Sanitation provision has, indeed, considerable impact. Enhanced opportunities of improved livelihoods can be achieved through ecological sanitation with radical perspectives on societal development and sustainability.

Ecological Sanitation for Eco-system-based Societies

Ecological Sanitation (ecosan) is an approach that offers many advantages over and above sanitation provision, an otherwise much neglected issue. Ecological sanitation is aimed at closing the nutrient and water cycles. Ecosan prescribes that human excreta along with household organics are sanitised and the resulting plant nutrients are reused in agricultural production in the proximity of human settlements. Water from the households' showers/baths and kitchen, i.e. greywater, undergoes treatment and can subsequently safely be re-cycled. Ecosan proposes sanitation that limits the use of water as a means of disposal. This is a particular advantage since water shortage affects more than 80 countries and 40% of humanity. In contrast, water-based sanitation discharges of untreated sewage into rivers and other bodies of water represent a severe problem around the world with 90% of towns and cities in developing countries lacking sewage treatment. In 2001 only 80 out of 550 large European Union cities had advanced/tertiary treatment. Another acute problem is contaminated sludge from conventional treatment facilities making it impossible to reuse.

Focus on *Closing the Loop on Sanitation*

Ecological sanitation includes source-separation of human excreta into urine and faeces fractions, recovering the nutrients for reuse in local cultivation. Human urine contains about 75% of the nutrients excreted by the body and represents about 80% of the total excreta volume. Sanitized faecal matter, composted with household organics, is an excellent soil conditioner. Using these approaches, ecosan enables environment-friendly recovery in contrast to many conventional waste-based sanitation systems that mix human excreta with storm water runoff and industrial effluents creating a mega-sized water treatment problem, which is difficult for most cities around the world to cope with. Most of the world's sewage treatment plants produce effluents containing human pathogens, nutrients and toxic compounds. Pit latrines, septic tanks and cess pits often contaminate the ground water, the largest source of freshwater on the planet. Ecological sanitation represents a new approach to sanitation, whereby human excreta is recovered to soil systems and kept away from surface and ground water systems.



Sanitation in a Global Perspective

Today, at least 2.4 billion individuals in the world live without sanitation. Another 2.8 billion individuals have access to some type of sanitation, mostly pit latrines of different types, of which many are unhygienic, foul smelling and contaminate the human and natural environments. About 1 billion have flush toilets and of these app. 30% are connected to secondary stage or better sewage treatment facilities and the rest are sources of contamination downstream. Ecosan is an approach that can be the remedy to the lack of and inadequacy of sanitation services. Sanitation provision is becoming part of the international development agenda and along with water supply and human settlements it is the current focus of the UN Commission on Sustainable Development, in 2004 and 2005. Ecological sanitation will play an important role in helping to meet the ***Millennium Development Goals*** and the ***Johannesburg Plan of Implementation*** on poverty reduction and improved access to sanitation and water in a gender-responsive manner.

Ecological sanitation initiatives are found in developing and developed countries, e.g. in China, Vietnam, Uganda, India, Sri Lanka, Mozambique, South Africa, Zimbabwe, Ethiopia, Burkina Faso, Mali, Mexico, El Salvador, Germany, Norway, Denmark, Sweden and Switzerland. Evaluations indicate considerable achievements and demonstrate that ecosan is applicable in all socio-economic contexts.

The EcoSanRes Programme

Sweden - through Sida and the SEI-administered EcoSanRes Programme - is one of the major international actors in addition to GTZ, UNICEF, UNDP, Water and Sanitation Programme of the World Bank, WHO, EU, CREPA (West Africa), and the Norwegian, Austrian and Swiss bilateral agencies. The inter-related cornerstones of the EcoSanRes Programme include:

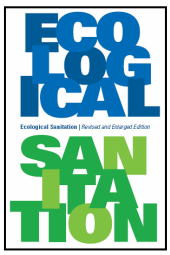
- **Outreach:** Promotion, Networking and Dissemination
- **Capacity:** Methods, Development, Studies and Training
- **Pilot Projects:** Asia, Africa and Latin America

As part of the EcoSanRes Programme five reports have recently been produced, namely:

- *Guidelines for the Safe Use of Urine and Faeces in Ecological Sanitation Systems*
- *Guidelines on the Use of Urine and Faeces in Crop Production*
- *Open Planning of Sanitation Systems*
- *Introduction to Greywater Management*
- *Norms and Attitudes Towards Ecosan and Other Sanitation Systems*

The worldwide EcoSanRes network of experts apply research conducted in developed and developing countries to the pilot projects. The current urban ecosan pilot projects are the **Erdos Eco-town,** Inner Mongolia, China, **Tepoztlán,** Morelos, México, and **Kimberly** and **Buffalo City,** South Africa. Projects are being developed in India and Bolivia.

Part of the Programme is the international discussion group, where scientific, technical and socio-economic ecosan-related issues are debated. You can participate at: http://groups.yahoo.com/group/ecosanres/.



The revised and enlarged edition of ***Ecological Sanitation,*** ISBN 91 88714 985, seeks new ecosan solutions and addresses those who wish to tackle peri-urban and urban sanitation and participate in an effort to achieve overall development. It can be downloaded in English and soon in Chinese at: www.ecosanres.org/.

For references, research findings, links and debate in regard to the EcoSanRes Programme and related initiatives, please refer to www.ecosanres.org. Alternatively, for further details contact:
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