

Closing the Sanitation Loop:

Innovative Approaches and Operational Strategies for a Systems Approach to Sustainable Sanitation

Convenors: Stockholm Environment Institute (SEI), Stockholm International Water Institute (SIWI), Linköping University and Stockholm Water Company

The seminar will address management, policy and institutional dimensions of the water, sanitation and food nexus. The seminar aim is to:

- Promote the vital role of sustainable sanitation to deliver nutrients to secure food production and conserve water, and
- Diagnose ecological potentials to plan sustainable habitations for the next generations

The seminar will set the scene for the coming 50 years and the anticipated need to rethink links between sanitation, water and food security. The green revolution has provided enough food for the growing world population since the 1950s. This achievement has required massive inputs of fertilisers and water. The looming shortage of water, fertilisers and suitable land combined with increasing pollution of water sources open up the need for new strategies. It is increasingly difficult to maintain the present idea of linear flows of resources for a variety of technical, economic and other reasons. Influences from what is being done in other sectors such as energy and manufacturing may assist in guiding the way forward. A leading idea is to trap valuable ingredients in discharges directly after use, and treat and return them to the production/manufacturing

processes. Sustainable sanitation strategies aim at reducing the mixing of flows of materials in order to contain, treat and reuse the water and nutrients. Such a holistic approach is just starting to be applied to water and nutrient flows to enhance sustainable practices.

The seminar will bank on these experiences, not the least for urban sanitation to be part of the global nutrient and water cycles. The World Health Organization (WHO) is active in rethinking sanitation and has recently issued guidelines for reuse of greywater, urine and faecal matter. These map out ways that nutrients and water can be recovered, treated and reused. Effective technologies are being developed which take into account local contexts (economic, physical, social etc.). Other management measures relate to selection criteria and processes for sanitation arrangements. The keynote and ensuing speakers will elaborate on this intriguing puzzle to make pieces fit reasonably well to sustainable sanitation requirements.

Recommendations from this seminar will be forwarded to the World Water Week Scientific Programme Committee for consideration in the week's overarching conclusions.possibilities for effective partnership.

Programme

- 09:00 Registration and Coffee/Tea
- 09:30 Welcome to the Seminar. *Dr. Johan Rockström*, Executive Director, SEI
- 09:45 Reuse: Making an Asset Out of Wastewater.

 Prof. Frank Rijsberman, Director General, International Water Management Institute, Sri Lanka
- 10:30 Safe and Sustainable Sanitation in Tamil Nadu: A Case Study. Mrs. Shantha Sheila Nair, Former Principal Secretary Rural Development, Tamil Nadu, India
- II:00 The Sanitation Challenge in Policy Making. Hon. Derek Hanekom, Deputy Minister for Science and Technology, South Africa
- II:30 Water Shortage and the Need for Sustainable Sanitation in Northern China. Mr. Hao Yidong, Vice Chairman, People's Government of Inner Mongolia Autonomous Region, China
- 11:40 Panel Discussion with the Speakers
- 12:30 Lunch

Sunday 20 August, 09:00-17:00 Folkets Hus, Hall B

- 13:45 The New Sanitation: A Basis for the Safe Use of Excreta and Greywater in Agriculture. Prof. Thor-Axel Stenström, Swedish Institute for Infectious Disease Control and WHO Consultant
- 14:15 Securing Sustainable Recirculation for Food Security and Improved Health. *Ms. Margaret A. Mukulo*, Rural Outreach Program (ROP), Nairobi, Kenya
- 14:40 Institutional and Management Dimensions of Urban Ecological Sanitation. Ms. Ana Cordova, Director General of Research on Ecological Landscape Planning and Ecosystem Conservation, National Institute of Ecology, Mexico
- 15:00 Coffee/Tea
- 15:30 Food Security More Crop Per Drop and Dropping. Dr. Jan-Olof Drangert, Linköping University, Sweden
- 15:40 Plenary Discussion and Recommendations to the World Water Week
- 16:30 Closing Remarks. Dr. Johan Rockström, SEI