

Publications on Water Resources: No 9

ECOLOGICAL ALTERNATIVES IN SANITATION

Proceedings from Sida Sanitation Workshop
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Publications on Water Resources

This series covers issues on water resources from a development cooperation perspective. Sida's Department for Natural Resources and the Environment believes that the publications will be of interest to those involved in this field of work.

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Foreword

Most cities in the world are short of water and many are subject to critical environmental degradation. Their peri-urban areas are among the worst polluted and disease ridden habitats of the world. Sewage discharges from centralised water-borne collection systems pollute surface waters and seepage from sewers, septic tanks and pit toilets pollute groundwater.

It is quite clear that conventional sanitation technology based on flush toilets, sewers, treatment and discharge cannot solve these problems in urban areas lacking the necessary resources in terms of water, money and institutional capacity.

The main purpose of the Sida Sanitation Workshop, held in Stockholm 6-9 August 1997, was to widen the range of policy options in sanitation by presenting and discussing ecological alternatives in urban sanitation with special reference to the possibility of reusing human excreta, particularly urine, for agricultural purposes.

The 50 participants from 22 countries analysed the basic problems of urban sanitation, discussed a variety of possible solutions, presented case studies from around the world and visited ecological sanitation project in the vicinity of Stockholm. The main papers from the Workshop are presented in this report. Other case studies are summarised here but can be made available in full upon request to Sida.

The preparations for the Workshop received strong support from a group of Swedish experts: Uno Winblad from the Sanres project, Thor-Axel Stenström from the National Institute for Infectious Disease Control, Jan-Olof Drangert from the University of Linköping and Håkan Jönsson from the Swedish University of Agricultural Sciences, Uppsala.

The findings of the Workshop were presented at the Stockholm Water Symposium the following week and are included in these Proceedings. The most important outcome of the Workshop is, however, the process which has been initiated in terms of stimulating a broader co-operation between professionals committed to new thinking in sanitation.

Stockholm in October 1997



Ingvar Andersson
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INTRODUCTORY SPEECH

*Bo Göransson,
Director General, Sida*

Introduction - the problem

In an era when we put people on the moon, transplant hearts and communicate instantly around the world, we are still unable to manage our own waste. At least half the population of the world has no access to proper sanitation. The present trend is that the number of unserved people is increasing. What we are doing today does not even keep up with the population increase. This indicates that there is something seriously wrong with our present approaches.

For the past 100 years the sewerred WC has been regarded as the ideal. But it is not:

- It uses a lot of water. Each one of us is flushing away something like 15,000 litres per year.
- It pollutes our groundwater, streams, lakes and coastal seas.
- It is extremely costly both to install and to run.
- It wastes valuable nutrients that we need in agriculture to secure our food supply.

We all know this; why then do we continue to plan for more and larger sewage systems? In water- and money-poor countries as well as in better-off countries? Because we have no alternatives! At least that is what many people think, professionals as well as politicians and the general public. Fortunately alternatives are emerging, and for several years it has been part of Sida policy to support the development of such alternatives.

In Sweden more and more citizens are questioning the sustainability of present technologies. Alternative systems based on ecological principles are developed and tested. You will visit some of these projects during this workshop and I hope this will challenge and stimulate sanitation development in your own countries.

Sida's views on poverty and the environment

Ever since 1962 the prime goal of Swedish development assistance has been to improve the living conditions of poor people. One of the six overall development cooperation goals laid down by the Swedish Parliament is the sustainable use of natural resources and the protection of the environment.

Sida's Policy on Sustainable Development gives priority to eight specific areas for support, of which five are very relevant to sanitation: the urban environment, water resources, sustainable use of land, capacity development, NGOs and civil society. In Sida's perspective lack of sanitation is one of the major environmental problems especially in poor rural and urban areas.

Long-term food security is another issue of prime concern to Sida. There is an urgent need for improved productivity in agriculture to cater for an ever-increasing population. From a sustainability point of view we more and more question 'modern' farming systems based on chemical fertilisers and pesticides. We also see a decline in soil fertility in some parts of the world, especially Africa. Today nutrients are transported from agricultural land to towns and cities and never recycled. Alternative sanitation methods, based on the 'don't mix' principle, could provide an answer.

Why Sida is arranging this Sanitation Workshop

Sweden has for the past 30 years given high priority to water supply projects in development cooperation. Improved sanitation and hygiene education has gradually been integrated into these projects and sanitation is now seen as a component as important as water. But the success of sanitation has been very limited, with few exceptions. There is a need for a rethink, a need to raise the status of sanitation and a need for new approaches, techniques and methods. The Stockholm Water Symposia have, over the past six years, touched on the problem of sanitation, but it has always been a minor issue. Sida last year therefore decided to arrange a workshop entirely devoted to new ideas in sanitation. That is why we are gathered here today: 50 carefully selected professionals from 22 countries.

What Sida expects from the Workshop

The theme of this workshop is 'Ecological alternatives in urban sanitation'. We expect this workshop:

- ◆ to take a holistic view of sanitation, including its relation to the health of the environment, to human wellbeing, to food production, to employment and to economic development;
- ◆ to explore the concept of ecological sanitation;
- ◆ to turn its findings into a statement that can serve as an input to next week's Water Symposium.

I wish you an interesting workshop during these three intensive days and hope you bring new knowledge back to colleagues, decision-makers and mass media in your respective countries.