

# **APPRAISAL OF DEMONSTRATION URINE-DIVERTING ECOLOGICAL DRY TOILETS IN CHINA**

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## **1. Background**

In 1997, with financial and technological assistance from Sida (Swedish International Development Cooperation Agency), UNICEF (United Nations Children's Fund) and NPHCCO (National Patriotic Health Campaign Committee Organization), a series of pilot urine-diverting ecosan projects were implemented in the south, middle and north of China: Dalu Village, Tianyang County, in Guangxi, Wu Village, Qingxu County, in Shanxi, and Dongguang Village, Wangqing County, in Jilin Province.

## **2. Appraisal**

On behalf of Sida an appraisal of the pilot projects in these three provinces was carried out in May and June 2001. We visited the project villages, observed, asked questions and carried out a questionnaire survey. We visited 52 households with ecological toilets in Dalu Village, 32 in Wu Village and 57 in Dongguang Village.

## **3. Observations**

- 3.1 The ecosan toilets in Dalu Village, Guangxi, have worked well up to now. The project has expanded and at the time of our survey there were 12,000 ecosan toilets in the province.
- 3.2 All ecosan toilets in Dongguang Village, Jilin, have functioned well till today. Farmers have realized that urine is good fertilizer and food production has increased with the help of the output from the toilets. The project has been extended to other counties in the province.
- 3.3 Because of a sudden downturn of the local economy soon after the initiation of the project there are only 16 household ecosan toilets left in Wu Village, Shanxi. (The local economy is to a large extent depending on transport for the coal and steel industry.) Many houses in the pilot village have been left unfinished. The number of toilets in use has been reduced because the households are not engaged in farming and need no fertilizers. (There are plenty of greenhouses for vegetable production in the area and with a more vigorous implementation programme it should be possible to find a market for the output from the ecosan toilets.)

## **4. Recommendations**

- 4.1 First popularize ecosan systems in rural areas and then in urban areas; first in private houses and then for public toilets and school toilets.
- 4.2 Establish long-term and stable training systems.
- 4.3 Establish long-term and stable technical service systems.
- 4.4 Establish efficient production and supply systems.
- 4.5 Pay attention to the needs of poor households.

## **5. Conclusion**

The ecosan systems introduced in the three provinces are clean and hygienic. They are able to sanitize human excreta, improve recovery and recycling of resources, prevent excreta pollution of water bodies and improve the living standard of the users. Ecological sanitation when operated properly will not cause any environmental, public health or investment risk. What's more, the pilot projects are successful. Ecological sanitation can be used on a large scale in many parts of China.