

## **ECOSAN DEVELOPMENT IN GUANGXI, CHINA**

Lin Jiang, Guangxi Committee of the Jiu San Society, Nanning

With financial assistance from the Sida-funded SanRes programme and in cooperation with NPHCCO and Unicef in Beijing a pilot ecological sanitation project was introduced in 1998. The project was well received by villagers as well as by government and over the past few years ecological sanitation has been introduced in a large number of villages.

The original pilot project covered 70 households, the following year 2,000 households were provided with ecosan systems, in year 2000 another 8,000 households. By the end of 2001 a total of 30,000 households in Guangxi are expected to have ecosan toilets with urine diversion. Many of the toilets are built inside the dwelling, and often upstairs. Apart from toilets for individual households a total of 7 ecosan school toilets have been built.

**To develop ecosan in Guangxi the following steps have been taken:**

### **1. Model households**

Ecological sanitation is for most households in Guangxi a totally unknown concept. As conventional toilets are often dirty and smelly it's difficult for people to imagine that a toilet can actually be placed inside the home. The first task is therefore to find a family that will agree to have a demonstration toilet built in its house. Without a practical demonstration people will not believe that ecosan toilets is something for them.

What needs to be emphasized is that a demonstration toilet must be constructed inside the home. If the demo unit is built outside all other toilets will also be built outside. This will increase the cost (there are great cost savings in locating a toilet in the house), it becomes less convenient to use and difficult to maintain.

### **2. Training the core team**

Although ecosan technology is simple, we could not promote ecosan without effective management. In order to guarantee quality we need a good team to direct the villagers in construction technology and proper use. There are core teams at both county and village level. The county level office coordinates all ecosan work including monitoring the speed and quality of the constructing work. The members come from the county government's departments of sanitation, construction, education, information, and from the women's union.

### **3. Comprehensive approach**

When building ecosan toilets we cooperate with departments concerned with the wider issues of improvements in the village: biogas plants, improved power supply, improved roads, drainage, cable TV, telephones, planned green etc. We also separate the animals from people, setting up animal corrals at the edge of the village. After finishing these projects, the village takes on the appearance of an entirely new village without old buildings being demolished.

In a short period the living conditions in these villages has been considerably improved. This approach has now been adopted by all towns and villages in Yongning county, and has attracted the attention of the Guangxi government and some international organizations.

#### **4. Technology development**

When we adopted the ecosan approach we adjusted it to the local conditions, developing new low cost, good quality products. The urine-diversion squatting pan we designed has been patented in China. We have completed experiments with mechanical ash dispensers for which we are now applying for patent. The cost of an ecosan toilet is only one-third or half of the cost of a three-chamber toilet or a biogas toilet. The output of the ecosan toilets have been tested for pathogens and the results are satisfactory.