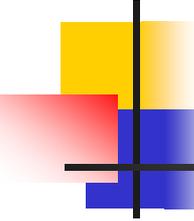




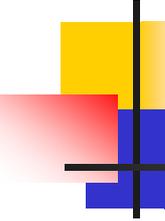
Welcome



New Countryside Ecosan Construction in Nanning City

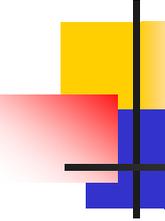
New Model

Since the opening of the 1st International Ecosan Conference was held in Nanning, Guangxi in year 2001, Nanning has been continually innovating in the content and form of ecosan construction, and developed the following 10 innovation models.



10 new models for ecosan construction

- 1. Develop from dry toilet to the methane-generating pit**
- 2. Develop from the small-sized methane-generating pit to the large- and medium-sized methane project**
- 3. Develop from the toilet sanitation to "ecological civilization town"**
- 4. Promote the construction mode of refuse classification, collection in villages and centralized treatment in the town**
- 5. Promote the artificial wetland technique and handle the sewage in small towns**



10 new models for ecosan construction

- 6. Pay close attention to foodstuff safety and promote physical and biological insect control**
- 7. Propel city & town cleaning project**
- 8. Propel new countryside construction in an all-around way and satisfy higher requirements on the living environment**
- 9. Support ecosan construction in multiple ways**
- 10. Taking the construction of the ecological demonstration area as the key**

1. Develop from dry toilet to the methane-generating pit

The model is represented by the dry toilet used in Changtang Village of Yongning. With a long history of application, the dry toilet is yet to improve to meet sanitary requirements. In some rural areas where the problem of water supply has been well addressed, the methane-generating pit has become a popular choice. Now, the methane deployment rate in the city has reached 45%, and 60% for Wuming County, ranking top in Guangxi.

Apparently, methane-generating pit has more merits than the traditional dry toilet in terms of ecosan considerations:

1. Develop from dry toilet to the methane-generating pit

- ❖ **1. The sanitary condition is well improved after the animal and human excreta are treated in the methane-generating pit;**
- ❖ **2. As an energy source, the methane helps protect the ecological environment and ease the labor intensity of peasants by reducing firewood cutting.**
- ❖ **3. Methane fluid is still the organic fertilizer boasting greater manuring effect, and is capable of driving the development of ecological agriculture.**

All classes of methane-generating pits

- There are different kinds of methane-generating pits (as shown on the right side), and generally each household has at least one similar methane-generating pit.



2. Develop from the small-sized methane-generating pit to the large- and medium-sized methane project

Besides developing the household methane-generating pit, Nanning is also making efforts to develop the large- and medium-sized centralized methane projects in accordance with local conditions, while model projects have been constructed.



(1) The methane project of Changtang High School, Yongning District

- ◆ **The methane project has well improve the school environment;**
- ◆ **Address the cooking energy needs of over 1,000 teachers and students in the school;**
- ◆ **The methane fluid, as an organic fertilizer, provides green vegetables for the school.**

This project has been rated as the demonstration project of rural high/primary schools in Gangxi.



(2) The centralized methane project of Qixingtun, Wuming County

This centralized methane project has addressed the problem of short raw material supply for the methane-generating pit owing to a small household population; The crop straw is also well utilized.



(2) The centralized methane project of Qixingtun, Wuming County

- ❖ The centralized methane-generating pit of Qixingtun ←



- ❖ Straw processing →





(3) The methane power generation project of Mingying Cultivation Farm of Hengxian County

By utilizing the methane for power generation and fish-breeding, this methane power generation project help save energy sources, reduce dirty discharge and cut the cost of fish culture.



3. Develop from the toilet sanitation to "ecological civilization town"

Starting from toilet sanitation, Yongning District is also taking the lead to initiate the new model of "ecological civilization town", covering: methane-generating pit construction, toilet retrofitting, kitchen retrofitting, road hardening, greening, beautification, TV and electric power. This model has well enriched and extended the content and form of ecosan construction in rural areas.

Currently, the "ecological civilization town" has become the promoted model for new countryside construction in Guangxi Province.

Toilet retrofitting project

- The new flush toilet after retrofitting



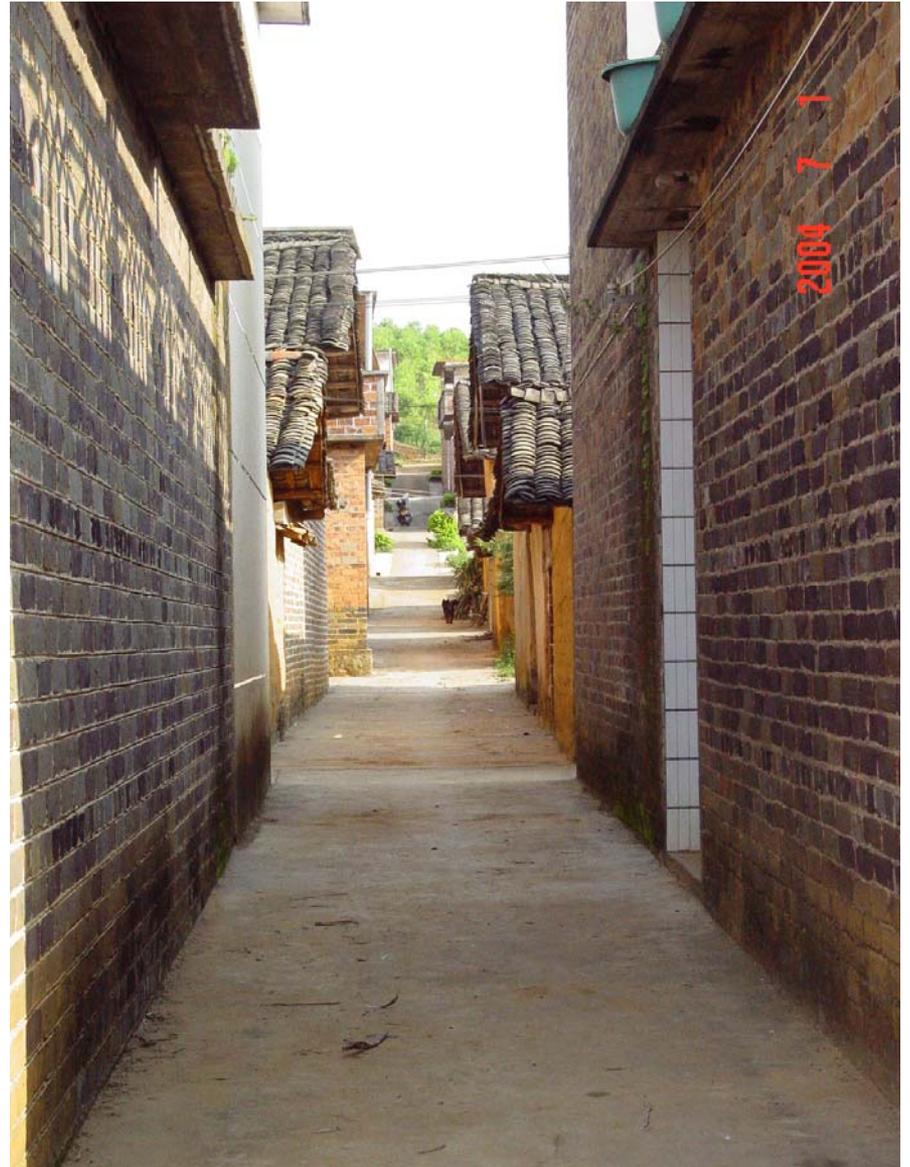
Kitchen retrofitting project

- The new kitchen after retrofitting

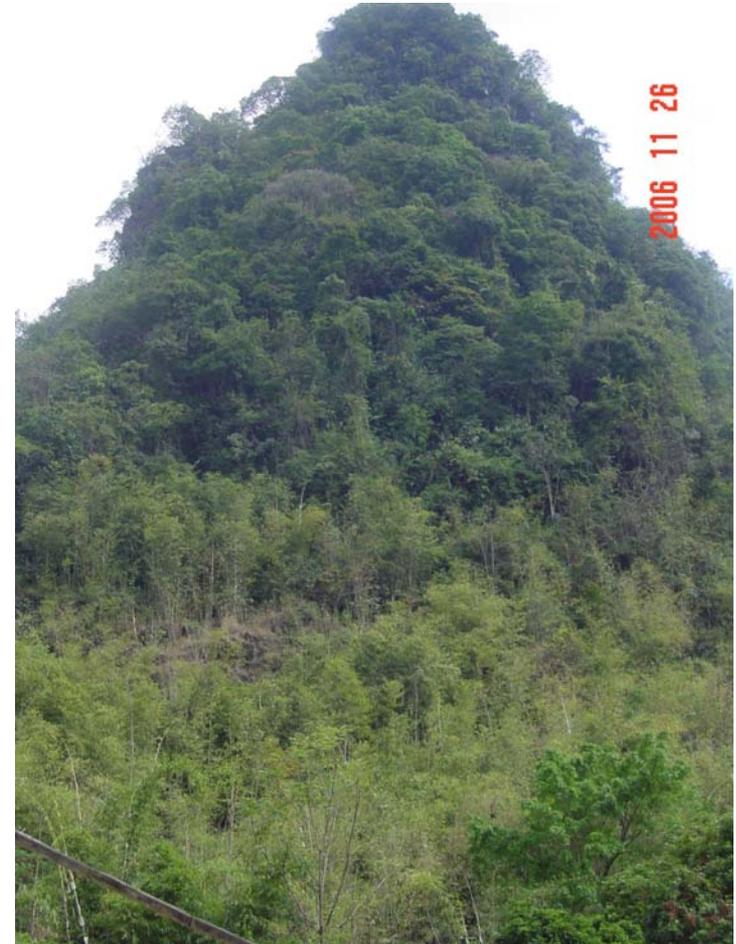


Road hardening project

- The village alley after road hardening



Greening project



- Both pictures indicate the new appearance of stony-desert areas after forest reservation in the ecological restoration project.



Construction of the ecological civilization town



General situation of the ecological civilization town construction in Hengxian County



Strategic diagram of the construction project

4. Promote the construction model of refuse classification, collection in villages and centralized treatment in the town

In order to address the refuse treatment problem faced by small towns and rural areas, Nanning City has developed its innovative treatment approaches:

- * Refuse classification: After implementing refuse classification in Hengzhou Town of Hengxian County, the treatment cost is well reduced and the reclaimable waste resources can be fully utilized.
- * Establish waste reclamation stations in villages and towns: facilitating the centralized storage, collection and transportation of domestic wastes in rural areas.
- * Unified treatment by town or county: addressing the problem of small quantity of wastes and high costs of treatment.

Refuse classification

- Classified reclamation of all manner of wastes ↓



- Refuse classification bin ↑



Establish waste reclamation stations in villages and towns



- **The waste reclamation & storage station**



Unified treatment by town or county



- **Garbage composting**



5. Promote the artificial wetland technique and handle the sewage in small towns

- ⊙ In consideration of the problems and unique features for sewage treatment in small towns, Nanning has taken the lead in introducing the technology of artificial wetland sewage treatment for Longan County and constructed the sewage treatment demonstration project with a daily processing capacity of 12,000 tons.
- ⊙ In accordance with the planning of the ecological demonstration area, Nanning City has planned to promote the artificial wetland technology to completely treat the sewage in small towns and villages and control valley pollution within three or five years, so as to ensure the safety of rural drinking water.



6. Pay close attention to foodstuff safety and promote physical and biological insect control



- **Farmers have already realized the significance and necessity of controlling the use of fertilizers and pesticides when planting crops. The organic agriculture has been well promoted.**
- **The trap lamp and yellow sticky board have been widely implemented in the city, while biological insect control approaches have also been applied in some vegetable base.**
- **Nanning has established a full range of pesticide residue detection system and agricultural products market access system, allowing it to become the advanced city in vegetable pesticide residue control and in casual inspections.**

Promotion of organic agriculture

■ Organic jasmine base ↓



■ Organic tea field ↑



Trap lamp



- ◆ Trap lamp in the mulberry field ↑
- ◆ Trap lamp in the banana plantation ↗
- ◆ Trap lamp in the nuisance free cornfield →

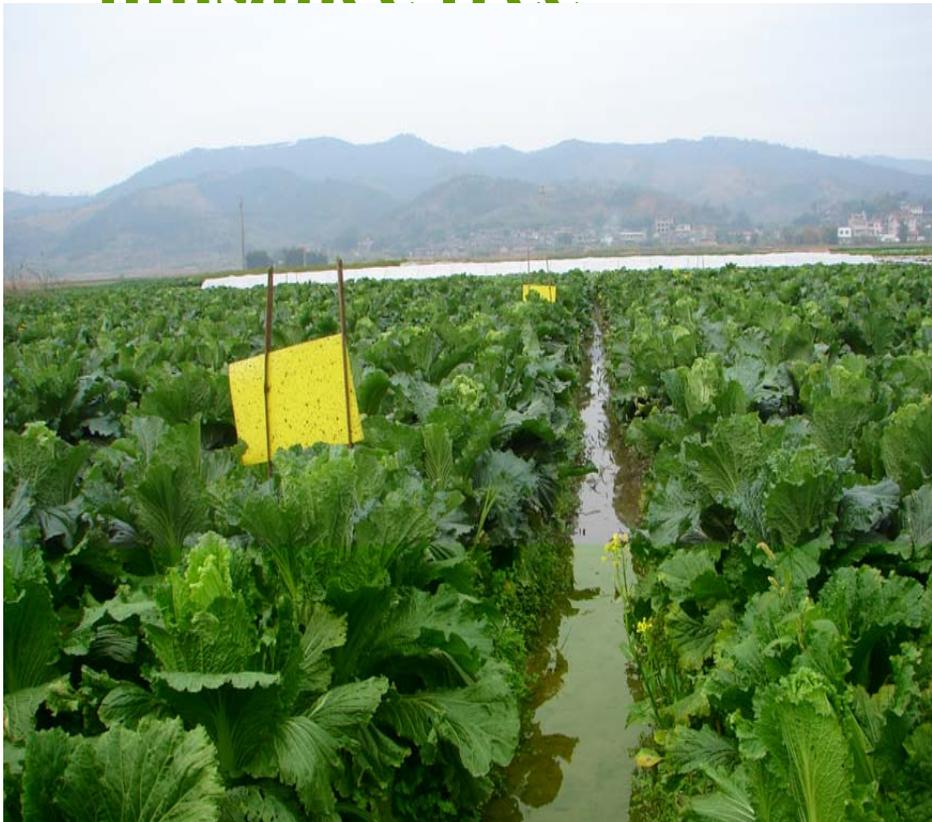


Yellow sticky board--in the greenhouse



Yellow sticky board

- Yellow sticky board in the nuisance free



- Yellow sticky board in the potato field ↑



7. Propel city & town cleaning project



- & The city & town cleaning movement was risen in Guangxi in 2006 with an aim to clean sanitation dead spots in cities, towns and villages, waste and to address the problem of throwing about garbage everywhere, spitting everywhere and dumping sewage everywhere by residents.**
- & This project has greatly improved the sanitation status of towns and villages**
- & And raised the sanitation consciousness of people.**
- & Unsanitary bad habits have been fundamentally improved.**
This movement has become a regular activity being carried out widely.



7. Propel city & town cleaning project

§ The village road and stream after implementing the city & town cleaning project



8. Propel new countryside construction in an all-around way and satisfy higher requirements on the living environment



- ◆ **Driven by new countryside construction, rural areas with stronger economic strength are implementing the new countryside construction program under the brand-new planning, which covers the following:**
 - **Provision of cultural and recreational facilities**
 - **Planning of village road**
 - **Improvement of water supply and drainage**
 - **Villa-type houses with unique features of the Chuang folk houses**
 - **Construction of methane pipeline gas-supply project**
- ◆ **New countryside construction has completely improved the ecosan conditions in rural areas, offering peasants the feeling of being living in the city.**

New countryside construction -- Hengxian County



Villa-type houses with unique features of the Chuang folk houses



Methane pipeline gas supply project

& Officials from State Environmental Protection Administration visiting the methane pipeline gas supply condition in villager's house →



← & The associated meter for centralized methane supply



Peasants having the feeling of being living in the city



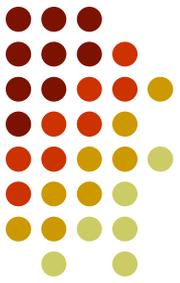
*An easy life in the new village:
The old resting under the tree
in the afternoon*



*An elegant living
environment*



9. Support ecosan construction in multiple ways



- & Besides the exemption of agricultural taxes, the government is also financing the "three agriculture" construction from its financial incomes.**
- & The countryside construction is widely supported by organs, public institutions and individuals.**
- & Seek for the external support. For instance, World Vision, a Hong Kong charitable organization, has been donating funds to support the ecological restoration project carried out in stony-desert areas of Lidangyaozu Village, Mashan County. After years' efforts, with the vigorous growth of bamboo tress, Zeniainsignis trees and Chinese toon trees in Dashi Mountain, the ecological environment has been greatly improved.**



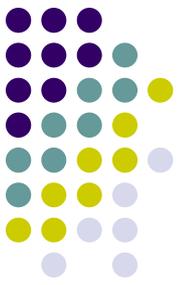
**Ecological trees of
economic values
planted under the
support of foreign
funds**

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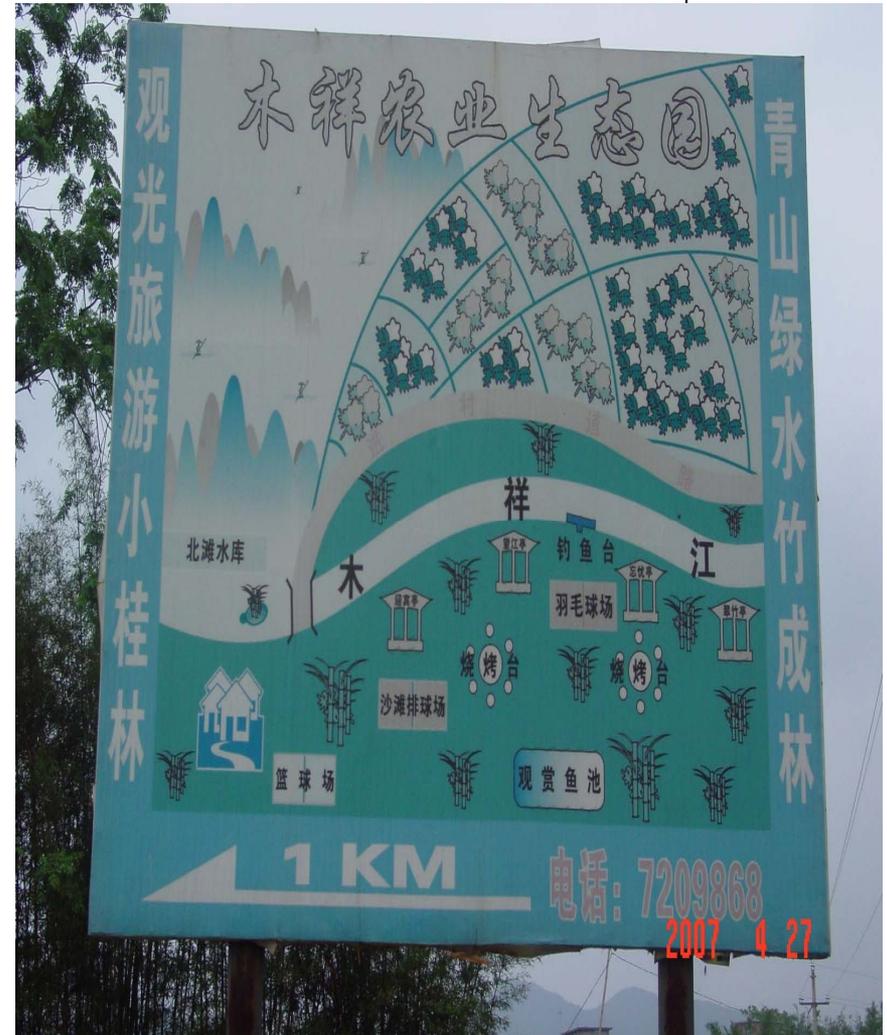
Zeniainsignis trees



10. Taking the construction of the ecological demonstration area as the key



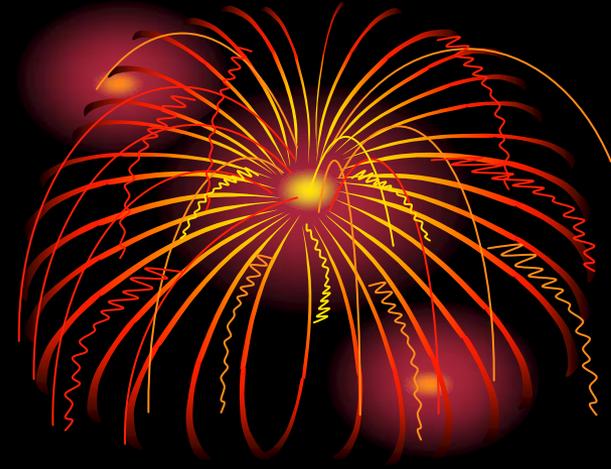
In 2003, Nanning was included in the 8th batch national ecological demonstration area by State Environmental Protection Administration. CPC Nanning Municipal Committee and Nanning Municipal Government have taken the construction of ecological demonstration area as the key and, under the call of "constructing an ecological Nanning", implemented the ecological construction of seven key areas and nine major series, so as to promote the transformation of the production system and life style and drive the development of friendly environment, efficient resources, coordinated systems and harmonious society.



Brief summary

- * Nanning has been constantly innovating in the mode and content of ecosan construction and constructed a favorable ecological foundation for socioeconomic development, promoting the coordinated and sustainable development of economy, society and environment.**
- * Up to the present, among 6 counties governed by Nanning, 4 of them has been nominated as the national ecological demonstration area, while the remaining 2 counties have passed the acceptance and are undergoing such procedures as examination, approval and notification.**





*Your comments will be
appreciated.*