

# **Sanitation: a Global Issue**

## **Ecosan Development Experience from China**

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## Outline

- 1. Current Sanitation Coverage and the Progress of Ecological Sanitation**
- 2. Factors of Success**
- 3. How the experience scaled-up?**

# Rural Sanitation Coverage by end of 2003

(source: Ministry of Public Health, China)

- 50.92% of rural households had access to improved sanitation
  - Total of 248 million households
    - 126 million households by household toilets
    - 10.82 million households by public toilets

# Ecosan toilets, 2003

(Source: Ministry of Public Health, China)

- 685,000 ecosan toilets
- 17 provinces
- 0.54% of total sanitary toilets in the country

# Eco-san: Development & Progress in Guangxi

## - From a moderate start:

- In 1997, the pilot project funded by SIDA/Unicef  
70 eco-san toilets were built in the pilot village, Dalu Village
- the model of urine-diverting toilet was used

## - To large application

- In 1998, 10,000 urine-diverting toilets were built in 200 ecosan villages in Guangxi
- By 2002, 100,000 ecosan toilets in Guangxi

# Factors of Success

## 1. Culture acceptance

- Thousands years of recycling human and animal excreta as fertilizers
- People are willing to pay higher price for vegetables and fruits grown by organic fertilizers

But, the real problem is human excreta is applied in agriculture before properly treated

Hygiene and health education is crucial to change people behavior and protect their health

# Factors of Success

## 2. Political commitment

- Ecological sanitation is an integral part of rural development and poverty reduction plan
- Government subsidies are provided in the pilot projects (but only small proportion of total cost/several bags of cement, a toilet pan)

# Factors of Success

## 3. Technical: flexibility

- most are installed inside the houses
- easy to handle, no need to empty the toilet frequently

Ex. for a household toilet of 4 people family, empty the toilet every 6 months

## 4. Low cost

### some comparison

Ecosan	500-800 RMB/USD60-90
3-compartment septic tank	1000 RMB/USD120
biogas	2000-3000 RMB/USD240

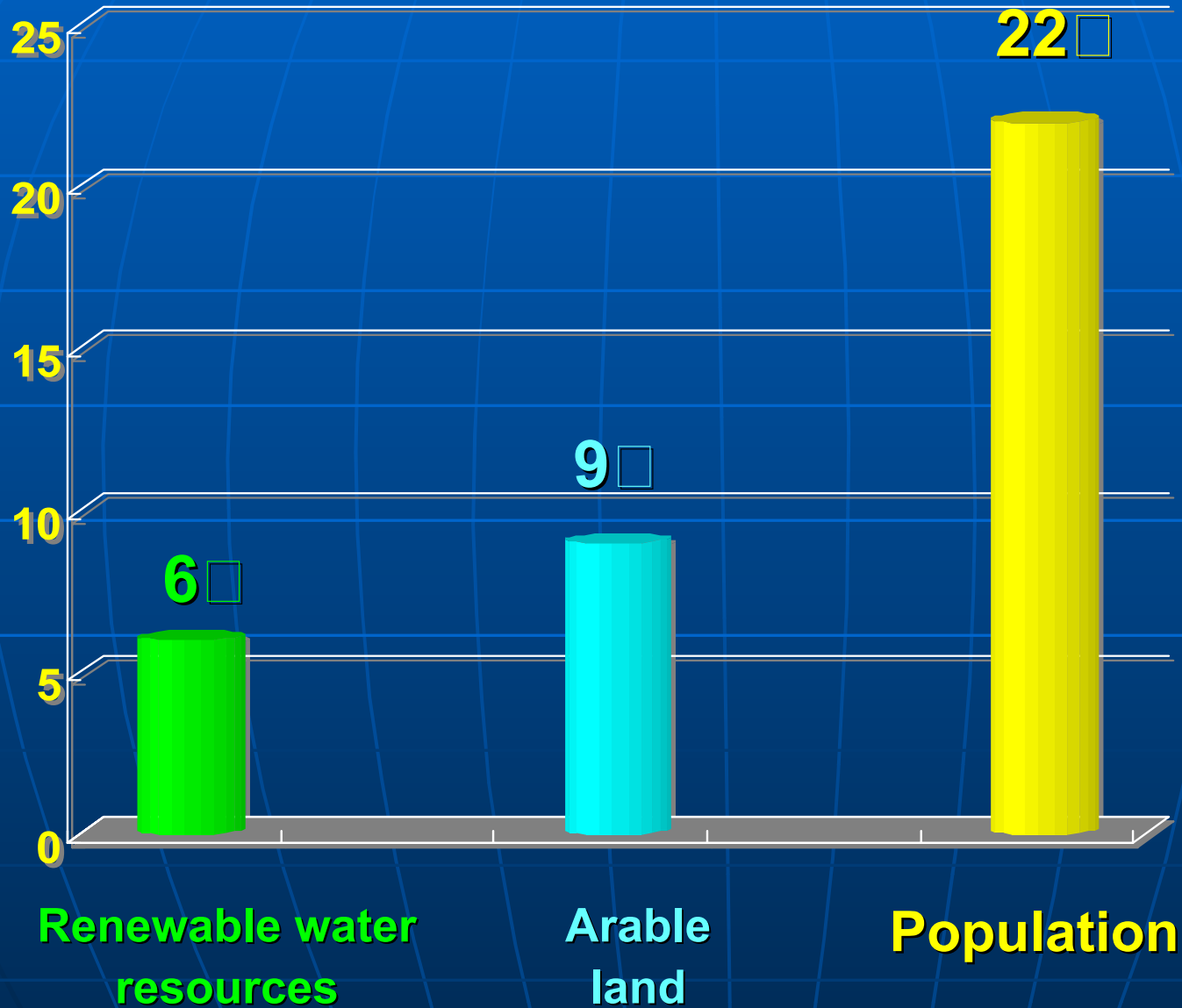
# Factors of Success

## 5. Ecosan technology is required by the current situation:

- Water shortage is a serious problem in many areas, people simple don't have the luxury to use water to flush toilets
- In 2000, only 66% rural population had access to improved water supply

Water shortage forces people to look for alternative

# China Vs. the World



# Factors of Success

## 6. Promotion and social marketing

- local television, radio, news papers used a vehicle in the promotion
- Model village concept for demonstration effect
- Support policy and cross visits between villages and counties, learn from each
- women and children actively participated

# Factors of Success

## 7. Income generation

- Fertilizers are needed for the all-year long agriculture production
- people are willing to pay higher price to buy the vegetables and fruits grown by organic fertilizers
- Toilet construction teams were set up, this has created job opportunities for local people

# Scaled-up issues

- Continuous government support
- Set up a market mechanism
- Include all stakeholders
- both bottom up and top down approach

The biggest challenge upfront will be to introduce ecosan to the newly emerged small towns and the peri-urban areas

# Thank you!

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