

Management Options for Public Toilets in Liuzhou, China

#5 February 2006

China at a glance



Population: 1.3 billion;
38% urban,; 62% rural,
0.6% annual growth rate
Surface area: 9,598,000
Km2
Life Expectancy: 70.8
years
GNI per Capita: 1,290
USD
Human Development
Index ranking: 85 out of
177 countries
% below the basic needs
poverty line: 4.6%
% with improved water
access: 77%
% with improved
sanitation access: 92%

Liuzhou at a Glance

- 1.3 million residents, but projected to grow to 1.5 million by 2010
- About 250 Public Toilets at present: 420 Public Toilets required to cater to demand for public toilets by 2010
- Capital Cost per toilet seat: about 32,000 RMB (USD 4,000)
- Annual maintenance cost per toilet seat: 1,400 – 2,000 RMB (USD 175-250).
- User Fee per use : 0.2 RMB (USD 0.025)_for about 60 public toilets

In China, about 40 percent of the country's population resides in its 660 cities, generating 60 percent of its GDP. 15 years from now, more than half of China will live in cities, generating tremendous demand for urban infrastructure. This includes not only conventional water supply and sanitation services, but also the frequently used (and oft-neglected) public toilet facilities. The World Bank is assisting Liuzhou, a booming city in Southwest China, with the implementation of the Liuzhou Environment Management Project (LZEMP), comprising USD 205.60 million of investments. The program has a component that addresses municipal sanitation, which includes \$8.82 million for public toilets. In addition, LZEMP is also investing in institutional development and capacity building, including technical assistance to promote public-private partnerships for public toilets. The World Bank assistance builds on experience in Kenya and India.

Liuzhou rises to the Challenge

Liuzhou's present population of 1.3 million is expected to grow to 1.5 million by 2010. It is the largest industrial center of Guanxi Province, and a major regional hub for trade, and transport. Rapid urban population growth and industrial and economic development have strained Liuzhou's already burdened sanitation infrastructure. Citizens have also demanded adequate, well-dispersed and well-maintained toilets in the city.

The World Bank is assisting Liuzhou address a number of these sanitation challenges. 75% of the city's population uses public toilets, and about 15% do so on a daily basis. The 7% of residents who are entirely dependant on these community toilets are primarily from poor households without toilets in their homes. Unfortunately, Liuzhou faces an absolute shortage of toilets – in order to match growth projections, Liuzhou will

need to expand from 250 to 420 public toilet facilities, (each containing from 4 to 15 seats) by 2010. These need to be properly distributed across the city. In addition, three fourths of the existing toilets are more than a decade old, and need to be replaced.

What is a Public Toilet?



In Liuzhou "public toilets" includes a range of facilities, with anywhere from 4 to 15 separate seats, with varying degrees of quality. The term encompasses smaller portable toilets, large community toilets, and everything else in between.

Existing Public Toilet Management in Liuzhou

Currently, there are three management arrangements for public toilets in Liuzhou. The "loss-making" toilets are maintained by sub-city District Environment Sanitation Departments (ESD's) and "earning" toilets contracted out to individuals - one toilet per contractor. The management arrangements are:

ESD managed toilets: ESD workers clean these (usually twice daily), these are not manned full-time, and are free-to-use toilets. About half the public toilets in Liuzhou are managed this way.

Type 1 no-revenue toilets: individual contractors manning these toilets collect user charges (0.2 RMB or 0.025 USD per use) but do not submit any contract fees to the ESD as collections are

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estimated to just about cover the operational costs. About a fifth of the public toilets are under this arrangement.

Type II revenue toilets: individual contractors collect tariffs from users (same as above), and submit monthly contract fees to ESD's based on the auction price they quoted. These toilets are manned and make operational profits. Thirty percent of toilets are managed by this method.

Exploring Options for Public Toilet Management

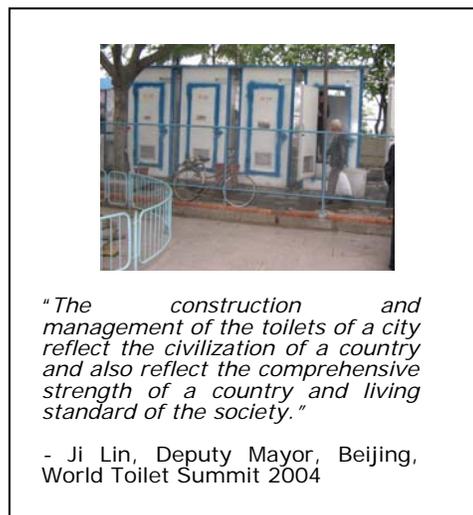
An analysis of current public toilet conditions in Liuzhou by the Sanitation, Hygiene and Wastewater Support Service of the World Bank led to the formulation of a list of options for the municipal government, each presented with their advantages and disadvantages. Many possible public-private arrangements exist, but the most promising range consist of the following:

1. **The formation of a state-owned Sanitation Management Company** to carry out the functions of ESD (either separately for public toilets or encompassing both toilets and solid waste);
2. **Contracting out toilet management** to individuals and small enterprises: an improvement over the present arrangements in that this allows clusters of public toilets to be leased.
3. **Centralized management at the city level**, with private sector agencies as delegated toilet management contractors – in one or two sets of contracts;
4. **Inclusion of solid waste management in the contracts**, to make public toilet management more financially attractive.
5. **Diverse provision and management arrangements**, selecting the best fit from the above range for the specific type and revenue potential of each public toilet, while reflecting community needs and capacities.

Beyond the definition and comparison of these options, a set of recommendations was presented to the Liuzhou Municipal Council relevant for all management systems. These include:

1. **Commit and protect more land for public toilets:** The skyrocketing real estate prices in Liuzhou threaten to crowd out any kind of sustained effort at expanding public toilets. Compensation for public toilet construction in expensive areas should be considered
2. **Identify and monitor toilet construction, operation and management costs:** This should be done for each toilet type as well as districts, on a "per toilet seat" basis. If well-executed, this will serve as a sound basis to determine financial viability.
3. **Recover operational and management costs:** Full recovery of operational costs improves the odds of sustained public toilet management. Differential pricing and family passes may also be used.
4. **Put the customer at the center:** Striking a balance between improving access to a public good and providing service to a paying customer hinges on an improved ability to gauge demand, and adapt accordingly.
5. **Learn from others:** There are several models of public-private partnerships (including the aforementioned Kenyan and Indian examples). Liuzhou should pay special attention to precedents that have management arrangements with the private sector.

The Bank and client are in the process of discussing these findings, and seeing how best to apply them to the management of the \$8.82 million investment in public sanitation under LZEMP.



RELEVANT PROJECT

Liuzhou Environmental Management Project	
Country	China
Project ID	P081346
Project cost	194 million
Type	Specific Lending Instrument
Timeframe	2006-2011
Status	Open

MORE INFORMATION

Project Appraisal Document, China - Liuzhou Environment Management Project, World Bank, April 2005

China: Improvement and Maintenance Management of Public Toilets in Liuzhou: a Study, Somnath Sen, December 2005

This Publication was based on reports prepared by the Sanitation, Hygiene, and Wastewater Support Service of the World Bank, in collaboration with the government of the city of Liuzhou and funded by the Bank-Netherlands Water Partnership (BNWP)

All photographs by Somnath Sen

