

# Financing Urban Development in Shanghai

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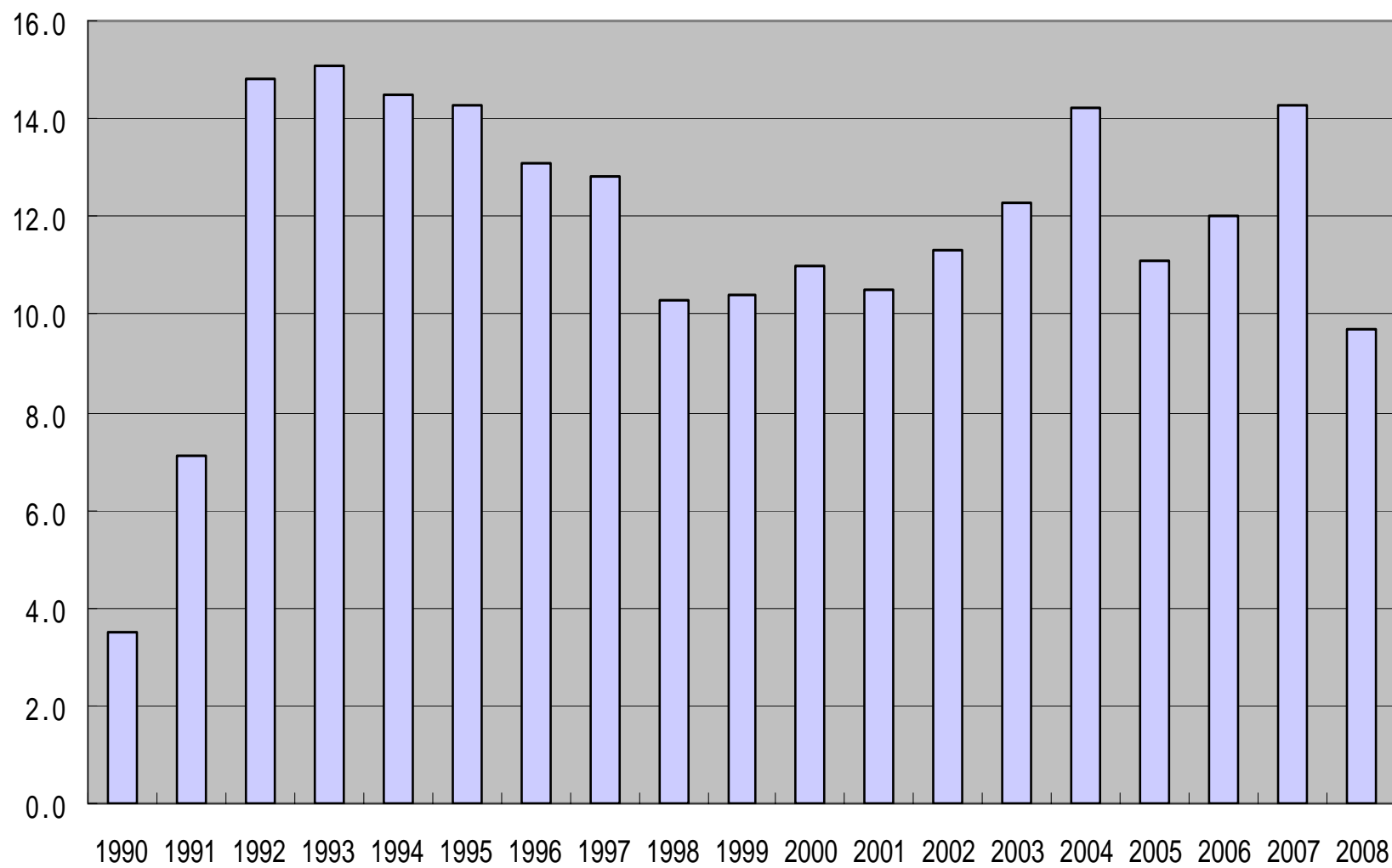
# 1. Basic Data (1)

- ❖ Area: 6340 km<sup>2</sup>; 18 districts (9 suburban districts);
- ❖ Population: 18.9m, the most densely populated in China;
- ❖ Status: China's premier economic, financial, trading and shipping center;
- ❖ Economy: maintained double-digit economic growth over the past 16 consecutive years; GDP growth was 9.7% in 2008 and reached RMB 1,398 billion (US\$ 201 billion);

# 1. Basic Data (2)

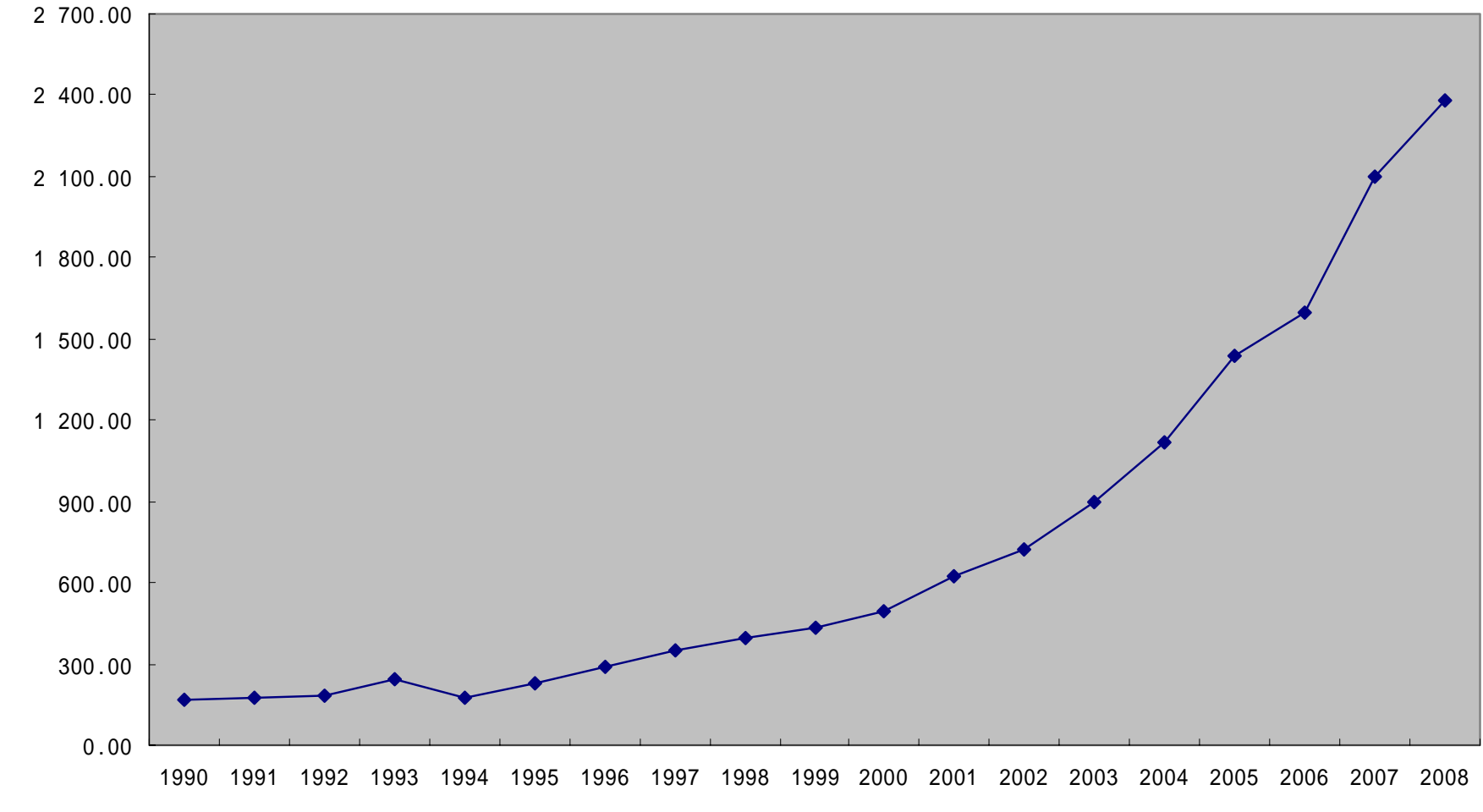
- ❖ Municipal revenues: RMB 238.2 billion (US\$ 34.3 billion), more than 14 times what they were in 1990.
- ❖ Shanghai: 1.4% of China's population  
5% of national GDP;  
10% of FDI;  
25% of China's exports

**Chart 1: GDP GROWTH RATE OF SHANGHAI (%)**



Source: Shanghai Statistic Yearbook 2009

**Chart 2: LOCAL FISCAL REVENUE(100 million yuan)**



### Table 1 : URBAN INFRASTRUCTURE INVESTMENT

100 million yuan

Year	Total	of which				
		Power Generation	Transportation	Post and Telecommunications	Public Utilities	Civil Construction
1990	47,22	17,53	7,17	2,90	10,83	8,80
1995	273,78	57,33	25,94	53,42	35,03	102,06
2000	449,90	64,61	48,83	68,69	104,43	163,34
2005	885,74	124,22	385,58	58,32	41,33	276,28
2008	1 733,18	129,53	838,91	108,59	112,81	543,34

Note: All items in this table exclude investment in Residential Housing.

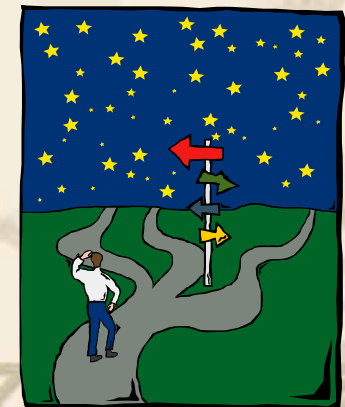
**Table 2 : LEVEL OF URBAN FACILITIES**

Table2 LEVEL OF URBAN FACILITIES IN MAIN YEARS	2000	2007	2008
Per Capita Daily Consumption of Potable Water (liter)	241	253	261
Per Capita Daily Consumption of Water (liter)	114	132	136
Percentage of Population with Access to Tap Water (%)	99,97	99,99	99,99
Per Capita Length of Roads (km)	5,84	11,21	11,39
Per Capita Area of Roads (sq.m)	7,17	16,38	16,64
Length of Sewage Pipelines Per 10 000 Persons (km)	2,86	5,89	6,72
Number of Public Transportation Vehicles Per 10 000 Persons (vehicle)	14,30	12,29	12,52
Number of Taxi Per 10 000 Persons (vehicle)	32,49	35,26	35,05
Per Capita Public Green Areas (sq.m)	4,60	12,01	12,51
Number of Public Lavatories Per 10 000 Persons (unit)	1,67	3,93	4,22

Note:Data in this table are provided by Shanghai Water Authority,Shanghai Municipal Transport and Port Authority, Shanghai Municipal Virescence and Appearance Adimistration Bureau, and others

## 2. Sector strategies for Shanghai's urban development (1)

- ❖ Water Resources and Water Supply Sector: raw water demand will increase to about 13.6 million m<sup>3</sup>/day by 2020.
- ❖ Wastewater Sector: complement physical investments with a comprehensive water conservation policy



## 2. Sector strategies for Shanghai's urban development (2)

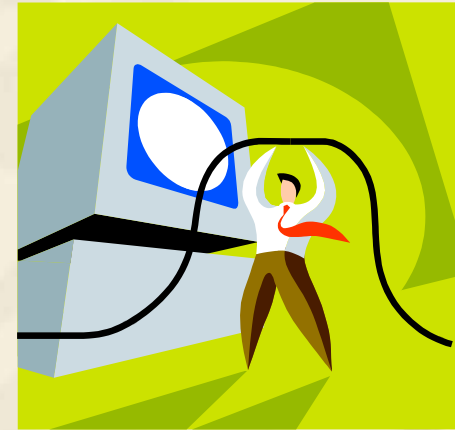
- ❖ Solid Waste Sector: waste recycling and treatment facilities enabling 85% of household waste to be hazard-free for the environment.
- ❖ Air: implement the National Automotive Phase IV Standard from 1<sup>st</sup> Nov 2009.
- ❖ Urban Livability: four million square meters of traditional alley housing estates in the inner city will have gone through renovation.

# 3. Urban Financing Sources In Shanghai (1)

- ❖ National government Grants
- ❖ National government loans raised from treasure bonds
- ❖ Municipal government funds
- ❖ Local government bonds (Municipal bonds)

### 3. Urban Financing Sources In Shanghai (2)

- ❖ International assistance
- ❖ Tariff and user charges
- ❖ Domestic loans from banks
- ❖ Corporate bonds



# 3. Urban Financing Sources In Shanghai (3)

- ❖ Capital markets
- ❖ Private sector involvement
- ❖ Other funds



# 4. Urban Financing Case Studies



# Case 1 : Shanghai Laogang Municipal Solid Waste Landfill project

# Location - Shanghai

- ❖ Laogang Phase 4 Project
- ❖ East end of Laogang Town, Nanhui, Shanghai, approx. 60 kms from Shanghai center
- ❖ Covers an area of 6.5 Km<sup>2</sup>. (4200m x 800m)

# Project scope

- ❖ Dimension: 80 million cubic meters
- ❖ Design capacity: 4900tpd
- ❖ Guaranteed minimum waste supply: 3500tpd
- ❖ Service period: 45 years
- ❖ It is the biggest municipal waste sanitary landfill in China.
- ❖ The landfill treats the waste from 11 districts of Shanghai
- ❖ 90% waste delivered by barge; 10% by truck

# Project Investment

## Initial Phase Investment :

RMB 629 million

## Structure of Funding :

- **JV Registered Capital :** RMB 170 million
- **World Bank Loan :** US\$ 33 million
- **Local bank Loan :** RMB 231 million

# PPP Background

- ❖ One of the key projects in “Development Plan for the Solid Waste Treatment in Shanghai”
- ❖ Shanghai Sanitation Bureau held an international tender in 2003 for project’s design, construction, operation and transfer.
- ❖ A consortium led by Veolia Environment Group was awarded the project.

# JV Concession Agreement

- ❖ Shanghai Municipal Solid Waste Treatment Company is a Joint Venture Company :
  - Foreign partners: Veolia Environmental Services Asia  
*VES brings design, construction and operational expertise*
  - Local partner: Shanghai Chengtou
- ❖ Concession Period : 20 years
- ❖ Customer: Shanghai Sanitation Bureau

# Case 2: Funding in Shanghai Waste Water Sector

# Funding sources for the sector

- ❖ National government Grants, National government T-B on lending loans and Municipal government budget contributed about 30% of total capital investment
- ❖ USD 731 million loans from World Bank and the Asian Development Bank
- ❖ RMB 10.3 billion collected by wastewater tariffs
- ❖ Loans from the State Development Bank and domestic commercial banks
- ❖ RMB 1.5 billion raised from corporate bonds
- ❖ Private fund from BOT and other types of PPP models

# Suzhou Creek Rehabilitation Project

- ❖ National government Grants,  
National government T-B on lending loans  
Municipal and district government budget  
RMB 2.46 billion
  - ❖ State Development Bank  
Domestic commercial banks  
RMB 2.01 billion
  - ❖ Wastewater tariffs  
RMB 826 million
  - ❖ ADB loan  
RMB 1.29 billion
- 
- Total investment: RMB 6.59 billion

# Second Shanghai Sewerage Project

❖ National government Grants National government T-B on lending loans Municipal& district government budget	RMB 1.23 billion
❖ Domestic commercial banks	RMB 1.17billion
❖ Wastewater tariffs	RMB 758 million
❖ <u>WB loan</u>	RMB 2.08 billion
Total investment:	RMB 5.24 billion

# Shanghai Zhuyuan No.1 WWTP

- ❖ The biggest BOT wastewater project in China
- ❖ Treatment capacity of 1.7 million cubic meters per day (advanced primary treatment)
- ❖ Raised RMB 670 million from domestic investor in 2002

## 5. Lessons and Experiences in Urban Financing (1)

- ❖ Strengthening regulatory mechanisms of urban infrastructure investment
- ❖ Setting up a sustainable urban development master plan
- ❖ Diversifying financing sources

## 5. Lessons and Experiences in Urban Financing (2)

- ❖ Conciliating social acceptability and economics stability in tariffs
- ❖ Allocating reasonable risk to the appropriate parties



## 6. Conclusions (1)

- ❖ Adapted institutional, legal and financial frameworks as well as accountability and regulatory procedures are the basis of urban financing;
- ❖ Developing funding channels for worthwhile urban development master plans and projects is the key to solving the funding shortage;

## 6. Conclusions (2)

- ❖ Funding channels can be developed by strengthening existing funds such as loans and corporate bonds, and by developing new instruments such as local government bonds and infrastructure investment funds;
- ❖ Government can't fully withdraw from public service management although it can transfer responsibilities such as investment, construction, operation and management to private operators via various forms of PPP.



# Better City, Better Life



EXPO 2010 will be held in Shanghai from May 1 until October 30, 2010. The main theme of the Expo is “Better City, Better Life,” The theme “urbanization” addresses the concerns of many developed and less developed countries, given estimates that more than 55 percent of the population will be living in urban areas by 2010.

Shanghai aims to display and share information on its social, economic, cultural, scientific and technological achievements for countries around the world. The city expects 200 countries and international organizations to take part in exhibitions and 70 million people to visit. EXPO 2010 will support the vision of a “harmonious city” in China’s 11th Five-Year Plan. Shanghai intends to illustrate the harmony between men and nature, and between past and future.

(<http://en.expo2010china.com/expo/expoenglish/oe/es/index.html> )