Shanghai Urban Environment Program

An Innovative Partnership with the World Bank through an Adaptable Program Loan (APL)

Background on Shanghai and its Partnership with the World Bank for Infrastructure Development

With a population of more than 18 million, Shanghai is the third largest city in Asia, and the largest in developing East Asia. The area within a 250 km radius of Shanghai is home to more than 100 million people. Shanghai is a key metropolitan area in the rapidly urbanizing and industrializing economic corridor, stretching from Ningbo through Hangzhou in Zhejiang Province to Shanghai, and then northwest through Suzhou to Nanjing in Jiangsu Province. This corridor – which is 250 km long but less than 50 km wide – constitutes China’s largest megalopolis. With 1.4% of China’s population, Shanghai municipality generates more than 5% of the country’s GDP and is the gateway for 25% of China’s exports. This ‘gateway’ function is increasingly defining Shanghai’s role in the region.

Shanghai’s economy has gone through many changes over the past 10-15 years. The most significant shift in Shanghai’s economy has been from traditional manufacturing, which accounted for 64% of GDP in 1990, to a more services-based economy (50% of GDP is now from the tertiary sector). There has also been a dramatic shift to higher value-added manufacturing, partly triggered through foreign direct investment (FDI); output values and employment shares in lower and medium value-added manufacturing have declined during the last decade. The third major change has been the ballooning of international trade: imports have more than tripled during the period, and exports have grown by more than fifteen times. Diversification in export markets helped Shanghai weather the downturn in intra-Asian trade during the financial crisis in the late 1990s.

The World Bank has had a long and productive partnership with Shanghai (to a great extent in infrastructure), a relationship focused on sector strategies and related policy issues and investments. Since the 1980s, the Bank has supported more than 30 investment projects and contributed more than $2 billion in finance. Infrastructure projects since then have included: port projects, two urban transport projects, a highway project, three large water, sewage, and urban environment projects, and financing for a major power plant. This partnership has been very successful, with the city, in some cases, becoming a trendsetter in China, e.g., for wastewater tariffs, establishing an integrated Water Authority.

APL Wastewater Investment Project (Photo: Geoffrey Read, World Bank)

Contents:

Shanghai Urban Environment Program ................................................................. 1
Urban Planning News in China ........................................................................... 4
Urban Events .................................................................................................... 6
Preservation and Development of the Old Ceramics Town of Chenlu .................. 8
Striving to Construct a Safe and Reliable Urban Water Supply System: Tianjin’s Practice ................................................................. 10
Overview of the E-Governance Development in the Beijing Municipality ............. 11
World Exposition Shanghai 2010 Calling for Proposals of Urban Best Practices .... 13
Approaches to Urban Slums: A Multimedia Sourcebook on Adaptive and Proactive Strategies ............................................................... 14
traffic management, generating clean and efficient power, and separating government policy and planning functions from investment management and operational functions, which for the urban environment sector are carried out through a strong Urban Development Investment Corporation, Shanghai Chengtou. In the energy sector, the Bank is currently engaged with developing wind power in Shanghai as part of a China Renewable Energy Development Project, and with various technical assistance activities for renewable energy development and energy efficiency improvements. Following earlier investment projects in the transport sector, the Bank has continued offering assistance to improve air quality and transport indicators. Of the Bank’s lending to Shanghai to date, almost 50% (about $1 billion) has been for urban environmental programs.

The Shanghai Urban Environment Program, supported by an Adaptable Program Loan (APL)

Shanghai faces continued challenges of coping with rapid urbanization, preventing environmental degradation, and above all sustaining economic growth. Through an ongoing programmatic Urban Environment APL, the Shanghai Municipal Government is pursuing more innovative ways of financing sector projects and providing urban services, including extending services to the less affluent, rapidly growing areas outside the core city. The APL is based on Shanghai’s long-term environmental improvement strategy and is supported by a sequence of three loans from the World Bank, to date focused on wastewater management, solid waste management, water supply, integrated urban upgrading, and related infrastructure finance.

The Government of China’s vision highlights the importance of further metropolitan and regional development and multi-source development financing. Supporting this vision, the APL includes various innovative infrastructure management and finance initiatives, such as: (a) a municipal enterprise bond issue in 2006 by the water/wastewater utility arm of Chengtou; (b) an established innovative District Financing Vehicle (DFV), a subsidiary of Chengtou, to facilitate effective environmental infrastructure development, financing, and public-private partnerships for suburban districts and county governments (an approach to enhance metropolitan-wide management and support); and (c) domestic and foreign private sector participation through Build-Operate-Transfer (BOT) contracts and Operations and Maintenance (O&M) concessions for wastewater plants and a landfill, financed partly by the Bank and partly by the private sector.

These financial architecture approaches are providing significant examples for China, supporting the evolution of development finance for greater metropolitan authorities. Given the rapid economic development in China’s
cities, with related internal migration and spatial expansion, the city-regional management approaches applied in the program are also of broad national significance.

Through this first programmatic APL in China (with phases implemented partly in parallel), Shanghai and the World Bank are pursuing more innovative ways of providing public services to Shanghai’s residents, and of extending such services to less affluent areas outside the city core (home to about 50% of Shanghai’s population), in particular for water supply, sewerage, and solid waste management.

The objective of the ongoing Phase I of the APL project (APL1) is to put in place underpinnings and enabling conditions for Shanghai Municipal Government to pursue an integrated, metropolitan-wide approach. The project has financed sewerage networks, wastewater treatment plants, a landfill, and upgrading of services in underserved historic areas in the city. Progress has been made on various innovative financial architecture initiatives mentioned above and on private-public partnerships for environmental facility management. During recent years, for example, Shanghai has established a joint venture with a foreign firm with a concession to manage a large landfill for twenty years and built a wastewater treatment plant under a BOT arrangement with a Chinese firm.

The ongoing Phase II of the APL project (APL2) deepens the urban environmental agenda through further investments and policy/ institutional reform initiatives, having the surrounding districts participate increasingly in measures to improve water quality and solid waste management. These investments are positioned in Shanghai’s strategic plans for short-term benefits as well as longer-term investment effectiveness. APL2 aims to enhance Shanghai’s institutional and policy agenda to: (a) optimize water/ wastewater and solid waste sector strategies; (b) extend the agenda to the greater metropolitan area, where economic and urban population growth are most rapid, and the environmental service levels are lagging; and (c) deepen reform initiatives supported by the APL1, including heritage protection. The Bank’s support to Shanghai is a collaborative effort across the World Bank Group, with the World Bank Institute (WBI) supporting training, liaison being maintained between this project and the Bank’s support of capital market developments in China, and the International Finance Corporation (IFC) assisting in exploring future collaboration opportunities for sub-national lending without sovereign guarantees.

Shanghai is now expanding its partnership with the Bank through Phase III of the APL project (APL3) with

strategic water investments to support the city’s initiative to use the Yangtze River as an additional water source by the time it hosts the World Expo 2010, and to improve the quality of the city’s drinking water. In addition, the metropolitan-wide DFV initiative will be expanded, and the wastewater management facilities further enhanced.

Given Shanghai’s rapid economic development and high institutional capacity, this APL program has the potential to serve as a model for urban management policies for large municipalities across China and the East Asia Region.

(By Mats Andersson, Task Team Leader of the Shanghai APL projects, Senior Municipal Management Specialist, the Urban Development Unit of World Bank’s East Asia and Pacific Region. For more information of the project, please visit http://www.worldbank.org.cn/Chinese/content/691x1248272.shtml)
Urban Planning News In China

Editor’s Note: This new regular feature is in collaboration with the Urban Planning Society of China. The editing team thanks the Society for its contribution.

The Standing Committee of China’s National People’s Congress (NPC) Deliberating the Law on Urban and Rural Planning (Draft)

In its 27th session, the Standing Committee of the 10th National People’s Congress deliberated the Law of the People’s Republic of China on Urban and Rural Planning (Draft) for the first time. The Draft Law consists of 73 articles in 7 chapters, covering multiple aspects such as formulating, implementing, and modifying urban and rural planning, as well as supervision, inspection and legal obligations. The Draft Law has impressively broken the urban and rural duality by integrating consideration of urban and rural spatial patterns.

Low-rent Housing Construction in China in 2006

Of 657 Chinese cities, 512 (77.9%) had established a low-rent housing system by the end of 2006, according to China’s Ministry of Construction. In Zhejiang, Guangdong, Hebei, Jiangxi, Gansu, Shaanxi, Jiangsu and Hubei provinces, over 90% of all cities have established a low-rent housing system. A system has not yet been set up in 4 prefecture-level cities (Xinyang, Zunyi, Baoshan and Guyuan) or in 141 county-level cities, mainly in the provinces of Liaoning, Fujian, Heilongjiang, Inner Mongolia, He’nan and Xinjiang.

First Batch of Priority National Parks of China Announced

Recently, China’s Ministry of Construction announced the first 30 priority national parks, including: Beijing: Summer Palace, Temple of Heaven, Beihai Park, the Zoo, and the Botanical Garden; Suzhou: Humble Administrator’s Garden (Zhuozhengyuan), Lingering Garden (Liuyuan), Master-of-the-Nets Garden (Wangshiyuan), Mountain Villa With Embracing Beauty (Huanxiushanzhuang), Lion Grove (Shizilin), Garden of Cultivation (Yipu), Couple Garden (Ouyuan), Retreat Reflection Garden (Tuisiyuan), and Surging Waves Pavilion (Canglangting); Shenyang: East Tomb Park and North Tomb Park; Jinan: Baotu Spring Park; Yangzhou: Ge Garden and He Garden; and Changchun: World Sculpture Park.

Number of National Famous Cities of History and Culture Reaches 107

In March 2007, the State Council formally approved Tai’an City (Shandong Province), Haikou City (Hainan Province), Jinhua City (Zhejiang Province) and Jixi County (Anhui Province) as national famous cities of history and culture, pushing the total number of such cities up to 107.

Per Capita Urban Green Space in China Registering 7.89 m²

Established urban areas have greenery coverage of
32.54%, a public green area ratio of 28.51% and per capita public green space of 7.89 m², according to the 2006 Report on China’s National Forestation released by the Office of National Forestation Commission on March 11th. China will vigorously promote coordinated greening development between cities and rural areas during the eleventh five-year period, aiming to achieve forestry coverage of 20% nationally, build 2,800 forest parks, and reach forestry coverage of 30% in 70% of cities.

**Per Capita Water Resources down by over 400 m³ by 2030**

On March 22, the 15th World Water Day, an official from China’s Ministry of Water Resources said that per capita water resources in China will drop from 2,200 m³ at present to less than 1,800 m³ by 2030 due to population growth. The official said that China is still facing many challenges, such as expanding population, limited water resources, and polluted or unclean water, despite considerable achievements made in the water resources field. A comprehensive system on flood control and disaster prevention has not yet been established. Middle and small-sized rivers and reservoirs are particularly endangered by flooding, with annual flood-induced losses in such rivers contributing from 60% to 80% of the national total in recent years. Drought-related water scarcity, heavy water pollution, and a deteriorating water environment are all threatening people’s lives and production. Many people in the cities and countryside do not have access to safe drinking water, which threatens their health, and underdeveloped water resources infrastructure in rural China presents a bottleneck to improving comprehensive agricultural productivity.

**Rapid Transportation between Beijing and Tianjin to be Available by 2020**

China’s State Development and Reform Committee revealed in the Direction of Transport Infrastructure Development in the Beijing-Tianjin-Hebei Metropolitan Area that, by 2020 Beijing, Tianjin, and Hebei will complete a sound transport infrastructure network. 80% of cities and towns, 80% people and 95% industries will benefit from the expressway, which will reduce commuting time between the cities to one hour. In terms of railway, an intercity express train between Beijing and Tianjin will be built and promoted to ensure high use by travelers between the cities.

---

2nd Group of Planners Mutually Recognized by Mainland China and Hong Kong Receive Certificates in Hong Kong

The 2nd Certificate Awarding Ceremony for Hong Kong and Mainland China Planners under the Mutual Recognition Agreement was held in Hong Kong on April 2, 2007, at the international conference “When Creative Industries Crossover with Cities”. Fourteen Mainland planners and 10 Hong Kong planners obtained mutually recognized certificates. To date, 24 Hong Kong planners have been registered as mainland urban planners, and 27 mainland urban planners are now members of the Hong Kong Institute of Planners. This mutual recognition is in accordance with the agreement between the two sides. Planners have to pass a written examination and a technical interview to get the certificate from the other side. Hong Kong’s written examination includes planning affairs and the administration of Hong Kong, as well as

(Photo: Curt Carnemark, World Bank)

Hong Kong’s planning laws, practices and professional codes. Mainland China’s written examination covers urban planning legislation and practices.
International Conference on Urban Culture


The Beijing Declaration on Urban Culture was issued at the conclusion of the conference, summarizing the consensus reached at the conference:

- Urban culture in the new century should reflect the characteristics of an eco-civilization;
- Urban culture should reflect the interests and pursuits of average citizens;
- Cultural development is a key element in urban development;
- Urban planning and construction should strengthen the characteristics of a city; and
- Urban cultural development is charged with the important mission of both inheriting traditions and pioneering innovations.

(For more information on the conference, please visit the web site of China’s Ministry of Construction, http://www.cin.gov.cn/hybd/07hybd/cswghjyjthjt/)

Fourth Urban Research Symposium on “Urban Land Use and Land Markets”

The Fourth Urban Research Symposium, organized by the World Bank in conjunction with Swedish International Development Authority, Lincoln Institute of Land Policy, and GTZ, focused on “Urban Land Use and Land Markets”, including implications for city spatial growth, efficiency and equity. This symposium featured presentations on topics relevant to World Bank urban development operations. The ongoing debates on the links between urban land management and its impact on welfare, the implications of commonly used urban land policies, and priority policy and program design/implementation questions were all discussed.

More than 200 representatives of governments, NGOs, research institutes and the private sector from 20 countries participated in the Symposium. Urbanization challenges in China received much attention at this Symposium. Researchers from the U.S., U.K., and Singapore shared their findings on issues related to land markets, property-led growth, rural migration to cities, and social welfare in China.

(All papers and presentations of the research symposium can be found at http://www.worldbank.org/urban/symposium2007/. We also welcome your participation in the debate of related topics at the Urban Research Network web site, www.urbanres.net.)
Editor's Note: The text below is based on the Concept Design of Tang-Dynasty Daming Palace Heritage Park, coauthored by Liu Kecheng and Chang Haiqing of Xi’an University of Architecture and Technology. Please visit www.ChinaUrbanQuarterly.org for the full text of the original article.

Xi’an, one of the 4 ancient capitals in the world with fame equivalent to Cairo, Athens, and Rome, was the eastern origin of the Silk Road and ancient capital of 13 Chinese dynasties. It is known worldwide for its splendid history and diverse cultural heritage. One such treasure, Daming Palace, reached its pinnacle during the Tang Dynasty, the most prosperous and open time in feudalist China. Presently the Daming Palace site covers 3.5 km², around 5 times that of Beijing’s Forbidden City in Beijing, 20 times that of Athens’ Acropolis, 4 times that of the Rome’s Historic Center, and 2 times of the Pompeii’s Archeological Areas. It is one of the largest scale and most intact palace sites in the world.

In 2005, International Council on Monuments and Sites (ICOMOS) held its 15th General Assembly in Xi’an, and adopted the Xi’an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, integrating the Chinese philosophical thinking and historical conservation concepts as well as protection experiences of Xi’an into international protection rules. In 2007, Tang-Dynasty Daming Palace Heritage Park (Daming Park) was included in the priority list of the eleventh national five-year program on cultural development. In the same year, the Xi’an Municipal Cultural Relic Bureau, Architecture School of Xi’an University of Architecture and Technology, the Xi’an Center for Urban Heritage Protection and Research and the Shaanxi Provincial Technical Research Center for Historical Sites Protection were contracted to undertake a feasibility study and concept design of the Daming Park.

Value Assessment and the Current Status

With enormous scale and mighty grandeur, Daming Palace is highly valued in its general setting, architecture, and construction techniques. The palace architecture setting model initiated by Daming Palace laid the foundation for later palaces in China and in East Asia, and had significant impact on China’s Forbidden City, built in Ming and Qing Dynasty, and East Asia palaces, such as those in Japan and Korea. Sound conservation of the site with its intact general setting and key foundations makes Daming Palace the best preserved medieval palace site in China. Extensive research was carried out on Daming Palace in all dynasties after Tang, and modern archeological excavation was kicked off in the 1950s. In all its urban master plans and cultural relic preservation plans, Xi’an paid particular attention to the Daming Palace and adopted relevant protection measures. Protective land acquisition for the historical site had reached only 33 ha by August 2005, and the protection zone covers a land area of more than 3,900 mu of rural collective ownership. The historical site’s southern part was occupied by one-, or multi-story residential buildings, mostly of poor quality. The transport network through the site was composed of urban branch roads and dirt roads, mostly appearing naturally with low range. In such a context, development of the surrounding land would not incur much damage on the historical site, thus enabling an ideal conservation status; however, land acquisition and resettlement remain challenging tasks.

Construction Goals of Daming Heritage Park

In view of the immeasurable value and sound conservation of the site, building a heritage park for comprehensive protection and display complies with international best practices. Daming Park will become a
protection zone and a demonstration base for historical sites. Furthermore, it will serve as an international example platform on historical site protection. It will not only host relevant research, protection experiments and demonstration activities, but also set an example of integrating itself into modern urban life.

Upon completion, Daming Park will consist of: 1) a Daming Palace Museum, an international platform for the protection and management of historical sites; 2) Institute of Daming Palace Heritage Protection, a leading international technical platform for the protection of historical sites; and 3) International Forum on Cultural and Tourism Development of Daming Palace, a platform for international cultural exchange to explore new ways of utilization and tourism.

Daming Park will not only serve as research base for archeology and site protection, but also provide a wonderful space for local people. It is expected to take shape within 3 years and open to the general public. According to the estimate, the project will cost RMB 13.5 billion for land acquisition and resettlement, and RMB 4 billion on Phase I construction of Daming Park.

Summary

The innovative and revolutionary preservation efforts for Daming Park set an example of cultural heritage conservation and utilization in China in the 21st century. With a concept of global vision, openness, top-class startup and high-caliber practices, such efforts will make important contributions to transforming the Xi’an Declaration from words to deeds, and therefore facilitating the Silk Road (Daming Palace Heritage) to apply for designation as a world cultural heritage site, promoting cultural spirit in the city, releasing modern dynamism in Xi’an and fostering a harmonious society.

Preservation and Development of the Old Ceramics Town of Chenlu

The town of Chenlu is located on Mount Lushan, 20 kilometers away in the southeast of Tongchuan City in Shaanxi Province. Chenlu is an important ceramics production town known throughout Chinese history, and is extolled as “old ceramics town in the orient”. It is also regarded as living fossil and specimen of ancient ceramics production, because of its most original and traditional handicraft techniques in the world. However, as years passed by, and with many social, economic, and cultural changes, traditional family workshops in Chenlu Town have been gradually shut down, talented artisans have shifted to other industries, and traditional techniques of family workshops are facing great challenges. In order to better protect and store excavations and specimen from Chenlu ceramics production site, to provide rehabilitation, research, and experiment facilities, Xi’an University of Architecture and Technology will assist Yaozhou Ceramics Kiln Museum in establishing special projects with State Administration of Cultural Heritage and Ministry of Finance, and plan and design Chenlu Site specimen exhibition hall and Chenlu site preservation and display hall within Yaozhou Ceramics Kiln Museum.

Historic and Cultural Heritage Resources of Chenlu Town

Chenlu Kiln is an important part of Yaozhou Kiln and became its central kiln factory in the late stage. Yaozhou kiln site is currently the best-preserved ceramics making site in China, which has the richest content, and the
Chenlu had established 7 cooperatives of ceramics production and 2 worker-farmer cooperatives. In 1958, the 7 ceramics production cooperatives merged as a big collective enterprise. In the past 20 years of opening up and reform, China has enjoyed rapid economic development. However, the ceramics making techniques of Chenlu have not developed, the sales of the products have been going down quickly, and the factories have partially closed. In order to keep the historical memory of the ceramics industry of Chenlu Town, it is necessary to preserve, renovate and reuse its deserted 8-sides kilns, workshops, factories, and use them as a display of the ceramics industry in Chenlu's history.

Natural and human environmental resources of Chenlu Town

Chenlu has a naturally rugged topography. Terrace fields close to the town are just like a drawing from the heaven, which carves the land with many beautiful waves. Traditional houses are mostly caves built along the slopes of mountains with ceramic breaks, or they are built on top of slopes, with a yard surrounded by of a fence made of ceramic pots. Following the traditional life style of over one hundred years' history, people have been utilizing land, energy, water and other resources in the most efficient way, and it is reflected in every aspect of the local life. In the past several hundred years, the scraps and wastes of ceramics production have become the most accessible construction materials. With their rich experiences and creativity, Chenlu residents incorporate those scraps and waste into building a special, rich, and functional environment, which is a unique and splendid natural and human environmental resources of Chenlu Town.

Heritage of the ceramics industry of Chenlu

In the 1950s, in responding to the government's call, to keep the historical memory of the ceramics industry of Chenlu Town, it is necessary to preserve, renovate and reuse its deserted 8-sides kilns, workshops, factories, and use them as a display of the ceramics industry in Chenlu's history.

Handicraft Heritage of Chenlu Town

According to 1941 statistics, there were over 40 ceramic kilns, and 121 workshops in Chenlu. Over 3,000 residents of the town worked primarily on ceramics production, and diversified in agriculture, which generates a special agricultural-industrial mode of operation, as well as self-employment business model. There were four types of business actors, “ceramics families” “baking families” “trading families” and “sales families”, and four types of kilns: “black kilns”, “jar kilns”, “bowl kilns” and “small kilns”. There was a clear division of work, ensuring all could coordinate and cooperate. Sons took over fathers’ work, and the production traditions had been passed down from generation to generation. However, traditional containers, once necessities in life, such as jars, vats, carboys, pots, and coarse porcelain bowls are no longer in demand in modern life. “Black kilns”, “jar kilns”, and “bowl kilns” have all been shut down in Chenlu Town, and only a limited number of families are still working with “small kilns”.

A sons takes over his father’s job in a family workshop (Photo: Xi’an University of Architecture and Technology)
coordinated, and simple living environment. With the test of fire, time, and atheistic, Chenlu people have demonstrated their ability of creating a unique and picturesque scene of the village and town.

Challenges Facing the Preservation and Development of Chenlu

Currently Chenlu are facing many urgent challenges including the following:

- Many old kilns have collapsed or are very vulnerable. The protection, strengthening, and rehabilitation needs to be done as soon as possible.
- New construction has very negative impact and is damaging the environment. There is a lack of understanding of preservation the traditional environment of the old town, and protection measures need to be taken immediately. It is very necessary to conduct preservation planning and design, manage and control new construction in Chenlu, raise awareness of the public on the beauty and value of traditional Chenlu environment, in order to guide the new construction of Chenlu to continue the historic tradition, and rebuild existing buildings that do not coordinate with the environment.
- Many of the cave houses need to be rehabilitated. Currently 1/4 of the houses are left empty. It is necessary to improve the living conditions of local residents, and through policy guidance and other available measures to protect the residential caves, and revive the communities.
- Chenlu is in great shortage of water. Residents have little access to water for daily life, and there is so far no running water in the town. Local residents rely on three wells in a low-lying area for drinking water. Those families which have labors shoulder water bottles or use cart to fetch water, while those with no labors have to buy water, and the living conditions are extremely poor. In 2007, the government plans to extend the water pipes from Tongchuan City to Chenlu Town, in order to solve the problem of water use for life. It also plans to establish international cooperation in water efficiency system.

Preservation and research projects

In 2007, Xi’an University of Architecture and Technology, Shaanxi Provincial Research Center of Historic Heritage Preservation, and Norwegian University of Science and Technology have jointly established an international research project on preservation of Chenlu Town. The project will use a multi-disciplinary approach of cultural heritage protection, architecture, sociology, anthropology, environmental science and archeology to examine many topics such as preservation of Chenlu historic and cultural heritage; kilns, workshops, houses and living style; special resources for environment preservation; and reuse of ceramics waste. Other planned or ongoing preservation and development projects of Chenlu include the preservation project submitted to State Administration of Cultural Heritage by Yaozhou Kiln Museum, cultural heritage preservation planning by district Cultural Heritage and Tourism Administration, and Chenlu Township Government’s construction plan of the Chenlu scenic area.

Striving to Construct a Safe and Reliable Urban Water Supply System: Tianjin’s Practice

Tianjin is one of four municipalities directly administered by China’s central government. It is in the northeast of Huabei Plain, and downstream on the Haihe River. Historically, Tianjin was a port city in northern China, with abundant water resources. However, the water resources have been decreasing because of water conservation projects upstream on the Haihe River and the long drought. Currently local water resources per capita are only 160 m³, 1/15th of the national average. Combined with water transferred from outside Tianjin, water resources per capita are just 370 m³, still lower than the international water shortage alarm line. In 1982, to relieve the water shortage, Tianjin built a project.
that transferred water from the Luanhe River to the municipality, with a capacity of one billion m\(^3\)/year. At the end of 2005, Tianjin had 38 water treatment and distribution plants, with a total capacity of 3.049 million m\(^3\)/d.

In October 2003, the Central Government explicitly required localities to open the market and introduce competition in monopolized sectors, promote multi-source investment, quicken municipal public utility reforms, separate the functions of government from those of enterprises, state assets management authorities and institutions, and impose effective supervision on natural monopoly business. To follow the trend of opening markets and to strengthen government supervision, Tianjin Municipality prepared and issued Tianjin Urban Water Supply Services Management Regulation as the local standards to assess whether water supply enterprises have protected public interests and fulfilled safety obligations.

In the planned economy, all investment in Tianjin water supply facilities was from the municipal government budget. In the early 1990s, the investment mechanism was reformed, and funds were raised by enterprises themselves, supported by government’s input. In the late 1990s, investment was generally from non-governmental resources, and state-owned enterprises were guided to attract domestic and international investment and to finance in the form of cooperation, joint venture or stock sharing.

Before the reform, from 1949 to 1985, Tianjin’s tap water price had consistently been CNY 0.08/m\(^3\). Such a low price “tariff” of a subsidy nature can neither enable enterprises to expand production nor encourage water conservation. Since 1985, therefore, Tianjin has been practicing the method of “fast running in small paces” to raise the price gradually. Since 1985 the price has been raised 8 times, gradually creating conditions for the establishment of the sound pricing mechanism of “cost + profit + tax”.

Tianjin has strengthened market supervision in the reform. In 2001, in accordance with government reform, the Water Supply Administration Division of the government became independent from the Water Conservation Office. The Water Supply Association was also separated from government agencies. The Association has expanded its membership and is represented extensively throughout the sector. Major Tianjin newspapers, radio stations and TV stations publish user complaints on water supply service. Administration authorities have strengthened their supervision on enterprise reform to facilitate improvement of service method and attitude. Public participation and monitoring are other keys in the reform. There are user monitors with identity cards at various levels both in enterprises and administrations. They have regular meetings to reflect on complaints and improvements.

Water supply sector marketization reform has promoted the healthy development of the urban water supply industry. In recent years, with government concern and support, coordinated with municipal facility and housing construction and upgrading, comprehensive urban water supply facility planning has been strengthened and investment has increased. The water treatment process, distribution pipelines and operation service facilities have been constructed or upgraded, which has improved water supply environment and conditions, raised water supply service quality, and made an important contribution to social and economical development and the quality of life for Tianjin citizens. Tianjin has further increased investment, completed large scale rehabilitation of old networks with government funding and counterpart funding from enterprises, reformed the city-wide meter reading and payment mechanism in households over 3 years and has been working on refitting for secondary water supply facilities.

Tianjin has long, cooperative history with the World Bank through two World Bank lending projects. Under the project currently under implementation, a loan of about US$100 million has invested in urban drainage facility construction. The World Bank has also helped Tianjin obtain a Global Environment Facility (GEF) grant to complement the lending project. It is the strongest support from the World Bank to Tianjin. Through World Bank lending projects, advanced international concepts, technologies and management experiences are introduced, providing excellent assistance to the reform, construction and management of the Tianjin water sector.
Overview of the E-Governance Development in the Beijing Municipality

Editor’s Note: Mr. Zhu Yan, Director General of the Beijing Municipal Office of Informatization, gave a presentation on Beijing’s E-Governance development at the World Bank in Washington, DC, on October 17, 2006. The following summary is based on Mr. Zhu's presentation with updated information.

E-Governance Development was one of the key projects targeted in the 10th Five-Year Plan (2001-2005) for Informatization of the Beijing Municipality. The Beijing Informatization Office is the municipal government agency responsible for promoting development of e-governance in Beijing. With the development during the last five years, the level of Beijing’s e-governance development ranks very high nationally.

In terms of internet infrastructure, Beijing has reached a high level. Currently Beijing has nearly five million internet users, about one-third of all its residents, which is the highest ratio in China’s cities. More than 200,000 “CN” domain names have been created in Beijing, almost one-fifth of the country’s total. About 130,000 web sites are published, which is also almost one-fifth of the national total. Over 25 million users have access to broadband internet. Internet coverage includes all administrative villages and most primary and middle schools. Digital life is becoming a key element in promoting citizens’ quality of life.

The network infrastructure for e-governance has also been expanding. The e-government intranet consists of 5 core nodes and 31 sink nodes. The connection between the municipal government and districts, counties, towns, sub-districts, villages, and residential communities is basically established. The first batch of 130 base stations has been built for the wireless e-government intranet, with a capacity of 50,000 users. It is expected that its capacity will be upgraded to between 150,000 to 200,000 users before 2008, to serve the needs of the Olympics.

As of June 2008, 50% of all government operations have been supported by information technology. About 1,060 operational databases with real-time updates and 301 core operational systems have been established for municipal government agencies. Fifty percent of all districts and counties have established a uniform e-governance application platform, and initial sharing of information resources has been realized within the boundary of a county or a district. Data from communities and villages is being collected. A data exchange platform for information resources on municipal services has been created. E-governance training for public servants has been completed, with a total of 93,000 trainees.

The municipal government’s web portal, Window of the Capital (http://www.beijing.gov.cn/), consists of a cluster with a main site and 164 sub-sites, a total of 129 online services, 921 form downloads, and 1,520 document downloads. The main web site receives an average of over 60 million hits every month and 120 to 200 emails every day. By publishing information on municipal
policies and regulations, government announcements, government service guides and instructions, approval procedures, and government bids, the portal provides a new communication channel between the government, enterprises and the public. The e-governance system has been playing an important role in running the city, especially on operations related to health care and insurance, taxation, transport, underground pipe networks, and crisis management. More than 600 Digital Beijing information kiosks have been set up in public areas, providing citizens with information on all aspects of life. The information kiosks receive over 14 million hits every month. Beijing Public Service Radio programs invite government officials to live shows, which is warmly welcomed by the citizens. Over 8,000 mobile televisions are installed in more than 4,000 buses. E-Beijing, the official Beijing website (http://www.ebeijing.gov.cn/) for international visitors was also launched. More than 2.5 million online transactions are processed through the local taxation information management system. “A Million Families Go Online” project has trained more than 100,000 people on internet skills. Public information service centers “IT home” have been set up in 130 residential communities and 58 villages, with more than 30,000 people trained at those centers. A new model of Urban Grid Management, based on geographic information system (GIS) technology, and an urban crisis management information system are in operation, which effectively promote the people-oriented and detail-oriented management of the city.

The main tasks for e-governance development in Beijing before the Olympic Games include: (1) sharing of information resources on population, enterprises, space, basic macroscopic information, city management and public services; 2) speeding up the completion of key e-governance projects, including projects on city management, decision making, crisis management, migrant population management, public health, public safety, transport, food safety, environment protection, information platform of municipal services, and Olympics calling centers; and (3) promoting the balanced development of all sectors, districts and counties.

As a matter of fact, e-governance is assigned the dual missions of building “online government” and at the same time leading the reform of the administrative system, and promoting the development of a law-based government. In the next five-year plan (2006-2010), in accordance with the principle of speeding up the construction of an information society, Beijing will have information technology support in 100% of government operations, and 80% of government services will be put online.

(Please visit www.Beijing.gov.cn for more information.)

World Exposition Shanghai 2010 Calling for Proposals of Urban Best Practices

The World Exposition Shanghai China 2010 (the Expo) will be held in Shanghai from May 1st to October 31st, 2010, with the theme of “Better City, Better Life”. The Expo Committee has decided to set up an Urban Best Practices Area (UBPA), which will be an extraordinary innovation in the history of world expositions, thus creating one of the most striking features of the Shanghai World Expo. Located at Zone E with the area of 15 ha., UBPA will offer a great stage for cities to propose their solutions to urban issues from different perspectives and through their best practices in different thematic fields. UBPA will be both an exhibition area and an exhibit itself, and it will constitute the largest Thematic Pavilion in the Shanghai Expo 2010. It will be a fascinating zone for a period of 6 months. With the approval of UBPA’s International Selection Committee (ISC), the Bureau of the Shanghai World Expo Coordination invites cities from all over the world to submit their proposals for UBPA. These proposals made by the cities will fall under the category of “Self-Recommended Exhibition Cases”.

UBPA is designed as one of the most important pillars for the development of the theme of “Better City, Better Life”. Four exhibition fields have been designed as
follows: Livable Cities, Sustainable Urbanization, Protection and Utilization of Historical Heritages and Technological Innovation in Built Environment. Cases should be of International Recognition, Innovation, of great replication value. They shall be significantly innovative, reflecting in the dimensions will be considered. The selection also gives balance to different regions, races, cultures, developed and developing countries will be taken into consideration. Around 30 cases will be finally chosen.

The International Selection Committee was established in Shanghai from April 25 to 26, 2007. The members’ main responsibilities of the members are to define the selection criteria and specifications, assist the Expo organizer in incorporating the selected cases / projects into the UBPA Master Plan and select the Best Exhibit(s) in the UBPA during the whole duration of the Expo. ISC members are Representatives from UN Habitat, BIE, UNDP, UNEP, UNESCO, the World Bank, OECD, the Asian Development Bank, UCLG and the mayors of Paris, Geneva and Zaragoza. Chinese relevant ministries, urban administrators and urban researchers are also members of this committee.

(Expressions of interest started on May 1, 2007, and will end on August 31, 2007. For more detailed instructions and to download the application form, please visit the Expo 2010 official website at: http://www.expo2010china.com.)

Approaches to Urban Slums: A Multimedia Sourcebook on Adaptive and Proactive Strategies

The lives of hundreds of millions of slum dwellers are threatened by the lack of access to the most basic human requirements: water, sanitation, shelter, health and education. The nature and extent of the daily challenges posed by existing slums are not just daunting, they are life threatening.

But consider the future challenges posed by urban expansion. Within just 30 years, cities in developing countries will triple their entire built-up urban area – generating the same amount of urban area as the entire world had cumulatively generated by the year 2000.

Projections show that if local and national policies do not change, much of the new imminent urbanization will be characterized by more slums. Hundreds of millions of new slum dwellers will suffer from the relentless inhuman conditions that affect the already very large population living in slums.

But this need not be the case. Adaptive and proactive strategies for slums have, and can, increase the wellbeing of millions of existing and potential slum dwellers, while further unlocking the ability of these citizens to strengthen both urban and national economies – thereby creating a powerful upward spiral.

“Approaches to Urban Slums” is a multimedia sourcebook with a total viewing time of over 9 hours. The sourcebook’s content builds on an extensive body of knowledge that has been accumulated over the last 35 years, and is drawn from a diverse range of sources. It is organized into the 4 broad sections of: Adaptive Approaches, Proactive Approaches, Case Profiles and Thematic Interviews. The modular structure makes it easy for users to access the content based on their own convenience, interest and requirements. It is also an open sourcebook and more cases and modules can be added. The sourcebook has two versions in English and Spanish, and will be translated into Chinese, which could assist China’s extensive cooperation with other development
countries throughout the world, making sure that the experience from the World Bank is internalized in China.

The sourcebook’s objective is to ensure that sharing knowledge and building capacity eventual for crucial real-world actions: be they policy changes, operational projects, or national investment programs. It is explores the many dimensions of what is arguably one of the most critical global challenges of this millennium.

(Barjor Mehta and Arish Dastur of the World Bank Institute’s Urban and Local Government Program are the editors of the Sourcebook. For more information, please contact Barjor Mehta at bmehta@worldbank.org, or Arish Dastur at adastur@worldbank.org)


As recently as a century ago, the vast majority of the world’s people lived in rural areas, but by 2008 more than half of all people will live in urban areas. Over 60 million people are now added to the planet’s burgeoning cities and suburbs each year, mostly in low-income urban settlements in developing countries.

State of the World 2007: Our Urban Future, released on April 22 by the Worldwatch Institute in partnership with the Institute of Global Environmental Studies, describes how community groups and local governments have emerged as pioneers of groundbreaking policies to address both poverty and environmental concerns, in some cases surpassing the efforts of their national governments. “The task of saving the world’s modern cities might seem hopeless—except that it is already happening,” said Christopher Flavin, president of the Worldwatch Institute. “Necessities from food to energy are increasingly being produced by urban pioneers inside city limits.”

Among the many examples of cities taking the lead in shaping a sustainable future cited in the report:

• In Karachi, Pakistan, the Orangi Pilot Project has linked hundreds of thousands of low-income households in informal settlements with good-quality sewers. By taking charge of the pipes connecting their houses to lane sewers, local residents cut costs to a fifth of what they would have been charged by the official water and sanitation agency.

• In Freetown, Sierra Leone, after the cessation
of a multi-year civil war, a swelling population has successfully turned to urban farming to meet much of its food demand.

- In Rizhao, China, a government program enabled 99 percent of households in the central districts to obtain solar water heaters, while most traffic signals and street and park lights are powered by solar cells, limiting the city’s carbon emissions and urban pollution.

- In Bogotá, Colombia, engineers improved upon the iconic bus rapid transit system of Curitiba, Brazil, to create the TransMilenio, which has helped decrease air pollution, increase quality of life, and inspire similar projects in Europe, North America, and Asia.

While no single set of “best practices” would enable all cities to successfully address the challenges of poverty and environmental degradation, State of the World 2007 focuses on areas where urban leadership can have huge benefits for the planet and human development. These include providing water and sanitation services to the urban poor, bolstering urban farming, and improving public transportation. Additionally, the report recommends devoting more resources to information gathering on urban issues so that city, national, and international entities can better assess development priorities.

“A city is a collective dream. To build this dream is vital,” observes Jaime Lerner, the former governor of Paraná, Brazil, and the former mayor of Curitiba, in his foreword to the report. “It is in our cities that we can make the most progress toward a more peaceful and balanced planet, so we can look at an urban world with optimism instead of fear.”

(Editors of the Quarterly based the texts on the Press Release of the Publication by the Worldwatch Institute. The Chinese version of this publication has been published in China by the China Environmental Science Press. For more information on this publication and about Worldwatch Institute, please visit www.worldwatch.org.)

Disclaimer

The findings, interpretations, and conclusions expressed herein are those of the author(s), and do not necessarily reflect the views of the International Bank for Reconstruction and Development / The World Bank and its affiliated organizations, or those of the Executive Directors of The World Bank or the governments they represent.

China Urban Development Quarterly is a joint production of World Bank East Asia and Pacific Region Urban Development Unit and Urban and Local Government Program of World Bank Institute. The Quarterly is an environment-friendly publication, printed in soy ink and on recycled paper. Please visit the Quarterly’s website www.ChinaUrbanQuarterly.org, and send your feedback to UrbanQuarterly@worldbank.org