Chapter 2
Exploration and Practices of China’s Urban Development Models

2.1 Evolution of China’s Urban Development Model During the Last 30 Years

Since the 1980s, the Chinese government or related sectors and management institutions have discussed and explored many aspects of urban construction, including the “civilized city” which emphasized social culture, “environmental protection model city,” “garden city,” “ecological garden city,” and “eco-city” which focused on protecting the urban ecological environment, “hygienic city” and “healthy city” which stressed caring for residents’ health, as well as the “livable city” focusing on residents’ living comfort. Various urban models have their own implementation focuses and the establishment goals continue to evolve and innovate along with the national urbanization process to ensure, promote, and adapt to the healthy and rapid development of China’s urbanization.

The National Civilized City is an integrated honorable title reflecting the overall degree of urban civilization and harmony. It was created with the goal of achieving coordinated development among material, political, and spiritual civilization while at the same time achieving economic growth, so as to enhance the overall citizen’s ideological quality.

The National Hygienic City title aims to raise the level of urban hygiene, improve urban hygienic appearance, enhance people’s health, and thus enable people to enjoy a clean, beautiful, tidy, and comfortable living and working environment.

A “healthy city” is also an embodiment of an improved healthy urban environment and aims to improve environmental and sanitary conditions to provide a better health service, thus achieving health status improvements through the uses of a variety of resources.

The National Garden City represents the enhancement of urban greening and environmental awareness, taking the core idea of garden greening to stimulate all aspects involved in urban construction. The fundamental goal is to promote the overall perfection of urban function, to effectively improve the living environment, and to promote sustainable urban development.

The Ecological Garden City further focuses on using ecological principles in urban and urban greenland system planning, construction and management,
effectively controlling and reducing various pollutants and wastes, implementing clean production, green transportation, and buildings, with the goal of promoting harmony between human and nature in cities, thus making the environment cleaner, safer, more beautiful, and more comfortable.

The National Environmental Protection Model City is a concrete embodiment of implementing an urban sustainable development strategy and aims to establish a number of environmental protection demonstration cities with coordinated environmental, social, and economic development, thereby achieving coordination between economic growth and ecological environment and promoting sustainable development of both the socioeconomic system and the natural ecosystem.

The Ecological Demonstration Zone and Ecological City, based on the requirements of ecological concepts and sustainable development, are the in-depth embodiment of the ecological environmental campaign. Its focus is on the coordinated development of the urban economy, society, and natural complex ecosystem to realize the rational exploitation of natural resources and ecological environmental improvement, while at the same time ensuring socioeconomic development and meeting increasing mass material and cultural life needs.

The title of Livable City, proposed in the twenty-first century, focuses on overall urban development and a people-oriented philosophy. Its comprehensive target is to build a livable city with fresh air, a beautiful environment, and healthy ecology and to realize the suitability of a natural living and cultural environment, reflecting the fundamental essence of urban planning and construction.

From the perspective of urban construction development, proposals for the urban development and construction model have been influenced by a number of aspects. The theoretical preparation is the foundation. Firstly, the urban development model must be based on the relevant theories or disciplines which are comparatively mature (such as the eco-city theory proposal and the development of the human settlement environment discipline); secondly, the government’s guidance of urban development orientation and effective solutions to problems faced with urban development in different historical periods, put forward a corresponding urban development orientation and policy control system.

**Box 2.1 National Civilized City**

【Creation Date】1980  
【Implementation Department】Spiritual Civilization Development Steering Commission  
【Target】National Civilized City refers to the cities which are at the new development stage of building a moderately prosperous society accelerating the development of socialist modernization. They persist under the guidance of the theories of Deng Xiaoping and the “Three Represents” by thoroughly implementing the scientific concepts of development, making

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comprehensive progress of economic, political, and cultural construction and notable achievements in spiritual civilization, finally realizing a high citizen’s ideological quality and a high degree of social civilization. National Civilized City is a comprehensive honorary title reflecting overall urban civilization and degree of harmony, targeted at achieving coordinated development of material, political, and spiritual civilization to enhance the overall citizen’s ideological quality at the same time as ensuring economic growth.

【Background】Activities which aimed to build National Civilized City started from 1980 (People.com 2005). After the reform and opening-up, strengthening the building of a socialist spiritual civilization was gradually put on the Party and country’s main agenda, steadily promoting the construction activities from “civilized window” and “civilized service” to “civilized city” (Shanghang County Government Website 2008). In 1996, the Party’s fourth session of the Sixth Plenary Session issued the “the Resolution of Several Big Issues regarding Strengthening the Socialist Spiritual Civilization Construction,” and explicitly proposed to carry out the civilized cities construction activity and building a batch of demonstration model civilized cities and districts by targeting improvements in citizen’s ideological quality and degree of urban civilization. In May 1997, the Central Spiritual Civilization Steering Committee was established, which was an important measure taken by the Party in comprehensively strengthening socialist spiritual civilization. The criteria, application and assessment scope, guidance, and supervision methods of the National Civilized City were not confirmed until the Central Civilization Committee issued the “Provisional Measures on Selecting and Praising National Civilized City, Civilized Town and Village, and Civilized Unit” in August 2003. The Central Civilization Committee (2003) Document No. 9 stipulated that the National Civilized City would be evaluated and praised every 3 years. In September 2005, the Spiritual Civilization Development Steering Commission publicized the candidate list of the first batch of National Civilized Cities, Towns and Villages, and Civilized Units, including ten National Civilization Cities (Xiamen, Qingdao, Dalian, Ningbo, Shenzhen, Baotou, Zhongshan, Yantai, Langfang, and Zhangjiagang), three National Civilized Districts (Tianjin Heping District, Shanghai Pudong New District, and Beijing Xicheng District), and in the same year the “National Civilized City Assessment System” officially came into effect. In 2008, the honorary title of the first batch of civilized cities was retained after the reexamination by the Spiritual Civilization Development Steering Commission. In December 2008, the proposed list of second batch of National Civilized Cities (or Districts) was publicized on major central news websites. In January 2009, Chengdu,
Box 2.1 (continued)

Nanjing, Nanning, Huizhou, Nantong, Dongguan, Maanshan, Suzhou, Daqing, Beijing Dongcheng District, Shanghai Jing’ an District, Chongqing Yubei District, Xinjiang Kuerle (county-level city), and Inner Mongolia Manzhouli (county-level cities) were awarded the title of Civilized Cities (or Districts) (Xinhua.net 2009).

【Assessment System】 The “National Civilized City Assessment System,” published in 2005, is the first national indicator system to evaluate and assess the effect of mass spiritual civilization building activities and was revised in 2008. The 2008 version had 111 indicators, targeting at provincial capital/subprovincial cities, prefecture-level cities, county-level cities and districts. It comprehensively surveys the development level of economy, politics, culture, and social construction as well as the level of spiritual and material civilization construction. The assessment system mainly uses six data acquisition methods, namely, report hearing, material review, questionnaire, online survey, field visiting, and overall observation and puts forward concrete requirements and assessment criteria in five categories, including the level of economic development, public infrastructure and public transport, medical and public sanitation, population and life quality, and social security, mainly composed of two parts: “basic indicators” and “characteristics indicators.” The basic indicators reflect the basic conditions of civilized city building, including seven assessment items, namely a clean and efficient administrative environment, a fair and just legal environment, a normative and trustworthy market environment, a healthy vigorous human environment, a comfortable living environment, a sustainable ecological environment, and solid and effective building activities. The characteristic indicators reflect the working characteristics of urban spiritual civilization building and the overall city or district image, including focused publicity of building work, honorary titles, hosting of large-scale activities, and overall city image (Qingshanghu Administrative Information net 2008).

Sources

Box 2.2 National Hygienic City

【Creation Time】1990
【Implementation Department】National Patriotic Health Campaign Committee

【Target】In the very beginning, the objective of the National Hygienic City assessment was to strengthen patriotic health work and to improve the urban hygienic environment. During the urbanization process, the criteria of hygienic city assessment have gradually shifted to the concerns about the influence of urbanization on urban hygiene, highlighting sociability and public participation. It stresses the establishment of a long-term effective management mechanism while focusing on infrastructure construction and considering the governance of weak links such as the urban villages in cities, the urban and rural fringe, trade markets, and the “five smalls” (small restaurants, small beauty salons, small dancing halls, small shower rooms, and small hotels) to solve the hygienic problems closely related to residents’ living. Building a hygienic city aims at improving the urban hygiene level to provide the residents with a clean, beautiful, tidy, and comfortable living and working environment. Creating a hygienic city is a necessary to strengthen the socialist spiritual civilization and material civilization and is also an important work by which all levels of government benefit residents, by placing great significance on persisting in reform and opening up, promoting stability and unity, developing production, economic prosperity, and protecting people’s health (People.com 2009).

【Background】To fully integrate the “Decision on Strengthening the National Patriotic Health Work” issued by State Council and the spirit of eighth enlarged committee meeting of National Patriotic Health Campaign Committee, to improve urban health conditions and enhance people’s health, the Patriotic Health Campaign Committee issued a “Notice on Carrying out Building National Hygienic City Activity,” and at the end of the year issued the “Trial Draft of Building Hygienic City Criteria” to organize hygienic city selecting and praising nationwide for the first time. In June 1990, Weihai, a city in Shandong Province, won the first title of National Hygienic City [WAWF (1990) No. 30 document]. Until July 2009, the National Patriotic Health Campaign Committee had named 108 National Hygienic Cities, 28 National Hygienic Districts, and 377 National Hygienic Counties or Towns, accounting for about 1/6 of Chinese cities (Xinhua.net 2009).

【Assessment System】In 1999, the relevant sectors and experts of the National Patriotic Health Campaign Committee Office revised the “National Urban Health Standards” and “National Hygienic City Assessment and Naming Methods.” Later, the “National Urban Health Standards” were amended in 2005 and 2009. On January 1, 2009, the revised “National Hygienic City Assessment and Naming, Supervision and Management Methods” was implemented. The assessment criteria have gradually included livelihood-related

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aspects in urban and peri-urbanization areas including health, hygiene, environmental protection, and disease prevention and control, mainly in the following nine aspects: (1) patriotic health organization and management, (2) health education, (3) urban appearance and environmental sanitation, (4) environmental protection, (5) public and domestic drinking water sanitation, (6) food hygiene, (7) infectious disease prevention and control, (8) control of four urban pests, and (9) unit and residential zone sanitation (National Patriotic Health Campaign Committee Office Website 2008).

Sources

National Patriotic Health Campaign Committee Office Website. On the Notice of the National Patriotic Health Campaign Committee’s Issuing “National Hygienic City Assessment and Naming, Supervision and Management Methods” and “National Hygienic Town (County) Assessment and Naming, Supervision and Management Methods.” [2008-12-29]. http://www.moh.gov.cn/publicfiles/business/htmlfiles/mohjbyfkzj/s5899/200812/38609.htm


Box 2.3  National Garden City and Ecological Garden City

【Creation Time】1992 (National Garden City); 2004 (Ecological Garden City)

【Implementation Department】Ministry of Housing and Urban–Rural Development

【Target】The original intention of building garden cities was to change the dirty and disorderly urban environment. As the urbanization process continues, higher objectives continue to be set. Today, building National Garden Cities has become an effective pathway of building an urban ecological civilization; its focus is not just on garden greening, but taking it as the core idea to drive all aspects involved in urban construction, including urban environmental sanitation, road transport, housing security, ecological environment, and urban management. From the start of building a National Garden City, the aim is to improve overall urban functioning, enhance the comprehensive quality, and effectively improve the living environment and promote urban sustainable development.

In 2004, based on a review of carrying out garden city building activities, the Ministry of Construction proposed the new target of building “Ecological Garden Cities,” which aimed to use ecological principles in urban planning,
Box 2.3 (continued)

construction, and management to further improve the system of urban green areas, effectively control and reduce air pollution, water pollution, soil pollution, noise pollution, and various wastes, implement clean production, green transportation, and green buildings, and promote harmony between humans and nature in cities, thus, making the environment cleaner, safer, more beautiful, and more comfortable (Ministry of Housing and Urban–Rural Development 2004a).

**[Background]** In 1992, the former Ministry of Construction began to select and praise the National Garden Cities (or Districts) nationwide every 2 years. Beijing, Hefei, and Zhuhai received the title of the first batch of National Garden Cities. By the end of 2009, the Ministry of Construction had named 11 batches of National Garden Cities (or Districts), including 139 National Garden Cities and 7 National Garden Districts. These cities and districts have provided a good model and played a leading role in city garden greening nationwide.

To promote the building of the Ecological Garden Cities, the Ministry of Construction in June 2004 announced the “Notice on the Issuance of Building “Ecological Garden City” Implementation Opinions” and proposed the provisional guidelines, assessment methods, and standards for building an ecological garden city: the assessment of the Ecological Garden City will be held once a year; the applicant must be a city that has already held the title of National Garden City; the construction should adhere to five principles, including being people-oriented, prioritizing environmental aspects, systematic, engineering projects driving and adapting to local conditions. In addition, feasible targets and plans for building an Ecological Garden City should be prepared according to the different levels of urban socioeconomic development, so as to promote coordinated economic, social, and environmental development. The assessment would be made by means of cities’ voluntary application, recommendation by the provincial construction administrative departments, consultation with the experts invited by the Ministry of Construction, and checking and approval by the department executive council (Ministry of Housing and Urban–Rural Development 2004b). In June 2007, the Ministry of Construction formally confirmed 11 cities as National Ecological Garden Pilot Cities, including Qingdao, Nanjing, Hangzhou, Weihai, Yangzhou, Suzhou, Shaoxing, Guilin, Changshu, Kunshan, and Zhangjiagang (Ministry of Housing and Urban–Rural Development 2007).

**[Assessment System]** In 1997, the Ministry of Construction named the fourth batch of National Garden City while at the same time putting forward 12 standards for National Garden City Assessment. The assessment indicators were mainly based on answering the questions of how to build a garden city; the major concerns included urban landscape and greening, parks, ecological environment, and municipal infrastructure (Wenming.cn 2008).

After 2000, with the increasing number of applicant cities and to regulate the building of the Garden Cities, the Ministry of Construction developed the “Implementation Plan of Building National Garden City” and “National
Box 2.3 (continued)

Garden City Standard” to put forward normative requirements on application scope and procedures, and this standard was later revised in 2005. The new standard is composed of qualitative and quantitative criteria, and the assessment indicators include: organizational leadership, management system, landscape protection, green construction, park construction, ecological environment, and municipal facilities. The application scope for the Garden City District has extended, and the people’s government in all cities can apply for the National Garden City and the municipality people’s government can apply for the National Garden District. The applicants must fulfill the following criteria: (1) the city government has proposed the plan of building a National Garden City and has been implemented for 3 years; (2) the people’s government of the city deems that it has meet the national garden city standards after organizing a self-examination; (3) Provincial Garden City building activities have been carried out and the title of Provincial Garden City has been awarded. In addition, a review of the named “National Garden Cities (or Districts)” is conducted every 5 years.

In 2004, the provisional “National Ecological Garden City Assessment Standard” was proposed based on the building of National Garden City; it is composed of qualitative and quantitative criteria. The qualitative criteria mainly include the compilation of the scientific planning for the urban green space system which is integrated into the comprehensive plan for the city; coordinated urban and regional development, with a good city-wide ecological environment; keeping the city terrain features; inheriting historical culture; having formed a unique urban natural and cultural landscape; complete and efficient urban infrastructure facilities; effective disposal of industrial and domestic pollutants, clean and safe urban environment; complete public sanitary facilities, high level of pollution control and the establishment of corresponding crisis disposal management; a variety of cultural and sports recreational and leisure facilities, complete residential community functions, a high degree of residents’ satisfaction with the urban living environment; and so on. There are three quantitative criteria, namely, an urban ecological environmental indicator, an urban living environment indicator, and an urban infrastructure indicator. The urban ecological environmental indicator includes a comprehensive species index, an index of local plants, the proportion of water permeable area in roads and squares in built-up areas, urban heat island effect level, built-up area green coverage, and per capita public greenland and greenland rate. The urban environment indicator involves five aspects: air pollution, urban water environment, water quality in drinking water distribution system, environmental noise, and degree of public satisfaction with the ecological environment. The infrastructure indicator considers livelihood issues such as the complete rate of infrastructure, percentage of households with access to

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tap water, urban sewage treatment rate, utilization rate of recycled water, innocuous treatment rate of domestic garbage, hospital beds per 10,000 people, average speed on primary and secondary roads, and so on.

The construction of an ecological garden city requires higher standards and wider scopes than that of a garden city. It focuses city’s green environment and infrastructure and inherits the central idea of the Garden City on urban greening, ecological landscape, and infrastructure building. However, it is not a simple assessment indicator upgrade, but is an enrichment and expansion of the connotation of garden city and involves innovations in urban planning, construction, and management system. In all, it is one of the stages of building an ecological city (Nanyang.net 2009).

Sources

Wenming.cn. “National Garden Cities (Districts)” Assessment [2008-12-12]. http://hxd.wenming.cn/hxd/content/2008-12/12/content_10707.htm

Box 2.4  Healthy City

【Creation Time】1994  
【Implementation Department】National Patriotic Health Campaign Committee  
【Target】The goal of building a Healthy City is to form an effective environmental support and health service, so as to improve the environment and health status of citizens. The principle of the Healthy City project is to fully activate the local government in public sanitation and health and encourage local government to fulfill the policy proceeding from public health objectives. It aims to achieve the objective of health improvement through raising people’s awareness, mobilizing the cooperation between citizens and local government as well as social institutions, to form an effective supporting environment and (continued)
Box 2.4 (continued)

provide a better health service. It uses a variety of resources to improve environmental and sanitary conditions by enhancing residents’ awareness of participation and mobilizing them to participate in various health activities (Yuan et al. 2008, Xinhua.net 2005, Zhou et al. 2000).

【Background】 In 1978, the World Health Organization (WHO) held the International Conference on Primary Health Care in Alma-Ata and proposed the global strategic objective of “Health for All by the Year 2000,” launching a grand public health campaign. To achieve this strategy, in October 1984, WHO held the first Global Health Conference in Ottawa, Canada, putting forward the concept of the Healthy City. The “Ottawa Health Promotion Charter” developed in the conference explained the five health promotion strategies in detail, including: building healthy public policy, creating supportive environments, strengthening community actions, developing personal skills, and reorienting health services. In the same year, WHO held a meeting in Lisbon, formally launching the Healthy City Project. The participating city must follow the formal application process and be accepted as a network member by the WHO European headquarters. In 1993, WHO convened the First International Healthy Cities Conference in San Francisco, and then offices of the Healthy City Project were set up in many parts of the world. By 2007, more than 4,000 cities had joined in the Healthy City Project, including 100 cities in developing countries (WHO/Europe 2005).

China’s Healthy City Project began in August 1994, when WHO cooperated with the Ministry of Health and took Dongcheng District of Beijing and Jiading District of Shanghai as pilot districts to pioneer the building of healthy cities. Jiading District focused on waste disposal, including environmental hygiene, environmental protection, health education, disease prevention, urban health services, health guidance, etc., while Dongcheng District focused on health education, sewage treatment, city greening, etc. By 1996, there were seven WHO Healthy City Projects including the newly added Chongqing Yuzhong District, Suzhou, Haikou, Baoding, and Dalian, of which Suzhou has become one of the steering committee cities of the WHO Alliance for Healthy Cities in Western Pacific Region. In 1997, the Ministry of Health jointly decided with the National Patriotic Health Campaign Committee to coordinate the building of the Healthy City and National Hygienic City. With the growing healthy city building work, cities such as Suzhou, Zhangjiagang, and Shanghai successively proposed to build healthy cities and started implementation with local government commitment. After receiving the title of National Hygienic City in 1998, Suzhou actively carried out the building of a healthy city. In 2001, the National Patriotic Health Campaign Committee Office made a formal declaration to WHO Western Pacific Region by taking Suzhou as the Pilot Healthy City. In 2003, Shanghai launched comprehensive healthy city building, becoming the first mega city proposing the building of a healthy city. In October 2006, the

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Box 2.4 (continued)

Second General Assembly and Conference of Alliance for Healthy Cities (AFHC) was held in Suzhou and 16 cities and two individuals were awarded for their efforts in healthy cities movement, in which Suzhou won the Award for Progress of Healthy Cities with Good Performance, Changshu won the Award for Progress of Healthy Cities with Great Potential, and Wujiang won the Award for Good Practices of Healthy Cities. Kunshan, Jiangsu won the Good Practice of Healthy Cities Awards for its gender-based violation reduction and improving the quality of care through mother-friendly hospital initiative in WHO Awards for Healthy Cities 2006. At the end of 2007, based on the national hygienic city building and achievements made by WHO Healthy City in recent years, the National Patriotic Health Campaign Committee Office (PHCCO) officially launched the nationwide construction of Healthy Cities, Healthy Districts (or Towns) activities and approved the pilot work of Shanghai, Hangzhou in Zhejiang Province, Dalian in Liaoning Province, Suzhou in Jiangsu Province, Zhangjiagang, Kelamayi in Xinjiang Uygur Autonomous Region, Dongcheng District and Xicheng District of Beijing, Qibao town in Minhang District, and Zhangyan Town in Jinshan District, Shanghai (Qiao 2010).

【Assessment System】 The WHO Healthy City is defined as follows: A healthy city is defined by a process, not an outcome; not one that has achieved a particular health status; one that is continually creating and improving the physical and social environments and expanding the community resources that enable people to mutually support each other in performing all the functions of life and in developing to their maximum potential. It is conscious of health and striving to improve it. Therefore, any city, regardless of its current health status, can be a “healthy” city. What is required is a commitment to health and a process and structure to achieve it. The indicators differ in regions: for example, there are 32 healthy cities indicators for the WHO European Region, involving health indicators, healthy service indicators, environmental and socioeconomic indicators, focusing on the health of residents as well as the basic conditions of health services. The medium-term indicators of WHO Regional Office for the Western Pacific Healthy Cities address health literacy, social action and influence, healthy public policy and organizational practices, healthy lifestyles, healthy environments, and effective health services. The preparation of China’s healthy city standard system and assessment system started in April 2009 and is currently in the preassessment phase (Health Department of Zhejiang Province 2004).

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**Box 2.4** (continued)

**Box 2.5** National Model City for Environmental Protection

**【Creation Time】**1997

**【Implementation Department】**Ministry of Environmental Protection

**【Target】**National Model City for Environmental Protection is the concrete embodiment of implementing a urban sustainable development strategy. It takes sustainable urban development as the principle to set up models of coordinating social and economic development with good environment quality, complete urban infrastructure, clean urban appearance, and ecological virtuous for steering cities to route of sustainable urban development. It symbolizes a social civilization and prosperity, rapid economic growth, good environmental quality, rational resources utilization, an ecological virtuous circle, a beautiful and clean city, complete infrastructure, and a comfortable and convenient lifestyle (Liaoning Provincial Environmental Protection Department 2009, China’s Ministry of Environmental Protection 2009).

**【Background】**In May 1997, to implement the objective of “Setting up a Number of Model Cities with Rapid Economic Growth, Clean and Beautiful Environment and Virtuous Ecological Circle in Urban Environmental Protection,” proposed by the “National ‘Ninth 5-Year’ Plan for Environmental Protection and the Outline of the Long-Term Target for the Year 2010,” the State Environmental Protection Administration (now the Ministry of Environmental Protection) decided to carry out nationwide National Model Cities for Environmental Protection building activities. Through these activities, a number of National Model Cities for Environmental Protection were established with coordinated environmental, social, and economic development, to promote the national environmental protection process. In November 1997, the Medal Awarding Meeting of the National Model Cities for Environmental Protection convened in the Great Hall of the People and granted medals to six cities, namely, Zhangjiagang, Shenzhen, Dalian, Xiamen, Weihai, and Zhuhai. By the end of 2008, 67 cities and 5 municipality districts have been awarded the title of National Model Cities (or Districts) for Environmental Protection, and 128 cities have been actively carrying out “model (continued)
creation” activities. After 10 years efforts, “model creation” has become an important carrier and driving force for governments at all levels to implement scientific development concepts and green political performance, making a new path of urban environmental protection with Chinese characteristics. Through “model creation,” urban environmental protection work has been upgraded comprehensively and the environmental quality has also been significantly improved. “Blue sky, clear water, green space, serenity, and cleanliness” have become important symbols for model cities (China’s Ministry of Environmental Protection 1997).

**Assessment System** In 1997, the assessment indicators and creation activities for the National Model Cities for Environmental Protection were proposed simultaneously, aiming to reflect the contents of urban sustainable development and competitiveness, socioeconomic development level, and the degree of coordination with environmental protection. Before the implementation of the latest revised version of the “‘Eleventh 5-Year’ National Model Cities for Environmental Protection Assessment Indicator and Implementing Detailed Rules (Revised)” on January 1, 2010, four amendments were made in 1998, 2002, 2006, and 2008, respectively. In that revised version, the assessment indicator system was composed of basic conditions and specific assessment indicators, among which the basic conditions include the following three indicators: the quantitative examination of environmental comprehensive treatment ranks in the national or provincial leading position in 3 consecutive years; the National Hygienic Cities assessment has been passed and accepted; and the environmental protection investment indicator is greater than 1.5%. One of the basic conditions of the National Environmental Protection Model Cities is to pass the assessment of the National Hygienic Cities. However, besides the important socioeconomic aspect, the urban assessment indicator lays greater emphasis on environmental quality, construction, and management. Specific assessment indicators include 26 indicators which carry out assessment on four aspects, namely, economy and society, environmental quality, environmental construction, and environmental management, covering key environmental protection work aspects such as total emission reduction, water, air, noise, solid waste pollution prevention and control, environmental impact assessment, urban environmental infrastructure construction, and environmental protection capability building (China’s Ministry of Environmental Protection 2008).

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Box 2.5 (continued)


Box 2.6 Ecological Demonstration Zone and Ecological City

**[Creation Time]** 1994 (Ecological Demonstration Zone); 2003 (Ecological City)

**[Implementation Department]** Ministry of Environmental Protection

**[Target]** The construction of Ecological Demonstration Zones and Ecological Cities (Counties and Zones) is a major revolution in promoting regional sustainable development of the social economy. The fundamental objective is to rationally organize and actively promote the coordinated development of the regional social economy and environmental protection, thus setting up a virtuous circle of the economic–social–natural complex ecosystem to achieve rational exploitation of natural resources and improvements of the ecological environment at the same time as ensuring socioeconomic development and meeting the growing material and cultural needs of the people.

**[Background]** The construction of National Ecological Demonstration Zones generally went through three stages, from pilot projects to the current situation:

1. Early preparation. In 1994, the State Environmental Protection Administration formulated the “National Ecological Demonstration Zone Construction Planning,” and in March 1995, a workshop of ecological demonstration zones in some provinces, cities, and counties was held in Beijing. Later, the “National Ecological Demonstration Zone Construction Planning Outlines” was published, which defined the objectives and tasks of building ecological demonstration zones and proposed relevant goals in the “Ninth 5-Year” environmental protection plan.

2. Pilot organization. From 1996 to 1999, the country carried out 154 National Ecological Demonstration Zone Pilot Projects in four batches, among which were 2 Ecological Provinces (Hainan Province and Jilin Province), 16 Ecological Regions and Ecological Cities, 129 Ecological Counties (or County-level cities), and 7 others. At the same time, Sichuan,
Henan, Zhejiang, Jiangsu, Heilongjiang, Liaoning, Hebei, Inner Mongolia, Fujian, and Guangdong provinces (or regions) also carried out Provincial Ecological Demonstration Zones Pilot Projects.

3. The first batch of accepted cities. At the implementation of the Ecological Demonstration Zone, many pilot units began from a high starting point and acted decisively to ensure the smooth progress of pilot work. Therefore, in 1998, the State Environmental Protection Administration decided to organize the acceptance of ecological demonstration zones in advance, and in 1999, the acceptance of 33 pilot units was completed. By June 2004, the State Environmental Protection Administration has approved nine batches of National Ecological Demonstration Pilot Zones, with a total of 528. There are thus 528 regions and units which have carried out ecological demonstration zone construction, and 166 of them have been accepted and officially named as National Ecological Demonstration Zones.

The construction of national ecological demonstration zones has developed rapidly due to the concerns of party committees and governments at all levels, having a good influence on the surrounding areas and making ecological demonstration zone construction become an ideal carrier and form of regional social organization and sustainable economic development. In May 2003, to further deepen the construction of ecological demonstration zones and to promote the realization of the strategic task and objective of building a well-off society in an All-round Way, the State Environmental Protection Administration issued the “Construction Indicators of Ecological County, Municipality, and Province (Trial Implementation).” In 2006, national ecological city building achieved interim progress when Zhangjiagang, Changshu, Kunshan, Jiangyin, Shanghai Minhang District, and Anji County in Zhejiang Province were the first batch named as National Ecological Cities, Districts, or Counties. In 2007, Liaoning convened a mobilization meeting for building an ecological province, and Shanxi started to work toward building an ecological province. So far, there are 14 provinces which have carried out ecological province construction, namely, Hainan, Jilin, Heilongjiang, Fujian, Zhejiang, Shandong, Anhui, Jiangsu, Hebei, Tianjin, Sichuan, Guangxi, Liaoning, and Shanxi (People and ecology net 2010).

**Assessment System** In 2003, the State Environmental Protection Administration issued the Construction indicators of Ecological County, Municipality, and Province, strengthening its relevance and pointing and fine-tuning part of the indicators. The State Environmental Protection Administration also issued “Guiding Opinions on Strengthening the Ecological Demonstration Construction Work” in the beginning of 2007. On December 26, 2007, the Ministry of Environmental Protection enacted “Construction indicators of Ecological County, Municipality, and Province (Revised)” to further investigate economic, social, and population growth and degree of public satisfaction, at the same time
Box 2.6 (continued)

as investigating traditional ecological problems such as water, air, noise, and waste, and the integrity of ecological structure and function.

The construction indicators of the Ecological County, Municipality, and Province are composed of economic growth indicators, ecological environment protection indicators, and social progress indicators. Targeting the assessment indicators differing applicability in various regions, the indicator system was divided into constraining indicators and reference indicators, and refining the indicators requirements in different regions. The basic requirements of ecological city (including the municipal administrative area) construction indicators are as follows:

1. The development of “Ecological City Construction Planning” has been deliberated, promulgated, and implemented with the approval of the Municipal People’s Congress. The relevant state laws, regulations, and institutions of environmental protection, as well as various local environmental regulations and institutions, have been effectively implemented.

2. Governments above and including the county level (including various economic development zones) have independent environmental protection institutions. Environmental protection work shall be included in the performance assessment contents of the Party committee and governmental leadership, and a corresponding assessment mechanism has been set up.

3. Have completed the tasks of energy saving and emission reduction assigned by the upper-level government. Without major environmental incidents in 3 years, various environmental problems put forward by residents have been effectively solved. There is no significant effect on the ecological environment caused by invasive alien species.

4. The ecological environmental quality assessment indicator ranks in the leading position in the province.

5. At least 80% of the counties in the city (including county-level cities) meet the requirements of the National Ecological County construction indicators and win the honorary title; the central city shall pass the assessment of the National Environmental Protection Model Cities and win the honorary title (Tao 2008).

Sources


**Box 2.7 Livable City**

**[Creation Time]** 2005

**[Implementation Department]** Ministry of Housing and Urban–Rural Development

**[Target]** To build livable cities with fresh air, beautiful environment, and healthy ecology.

**[Background]** Since the 1990s, with the continuation of reform and open-up policy, the enhancement of the urbanization level and achievements made toward building a well-off society have meant that the requirements which urban residents make on livability have gradually increased. In 1989, the United Nations Habitat Center set up the “Habitat Scroll of Honour Awards” and China strengthened international cooperation in human habitation. In June 1991, the UN-Habitat Beijing Information Office was established, and some domestic cities participated in the UN-Habitat Best Practices and won awards. In 1997, the International Federation of Park and Recreation Administration (IFPRA) launched an international nonprofit “International Awards for Livable Communities.” In 2001, China’s Ministry of Construction (now Ministry of Housing and Urban–Rural Development) set up its own livable settlement awards, “China Habitat Award” and “China’s Model City For Livable Environment,” to enable urban development in China to be in line with international standards. The award-winning cities of Zhuhai, Dalian, Zhongshan, Xiamen, Qingdao, and Weihai have become stars and models in Chinese cities, being regarded as the most livable cities by the public and provoking people to think about and pursue the concept of livability. In 2005, in the “Overall Beijing Urban Plan” approved by the State Council, the concept of “livable city” appeared for the first time. Later, in many national urban working sessions, building a livable city became an important part of urban planning (Dong and Yang 2008).

**[Assessment System]** In April 2006, the Ministry of Housing and Urban–Rural Development listed the “Livable City Evaluation Indicator System of Scientific Research” as a research project of 2006. In April 2007, the “Livable City Scientific Evaluation Standards” was accepted by the Ministry of Housing and Urban–Rural Development’s Science and Technology Department. It has a detailed classification with a larger concept extension compared with traditional livable cities, further innovating the concept, management mode of China’s urban planning and construction and urban spatial layout and morphology. This orientation standard uses scientific assessment criteria and implements a hundred-mark (100 points) system. Following the inspection of task group experts, cities with a livable index cumulative score being equal to or greater than 80, and without negative conditions, can be identified as a “Livable City” by the Livable City task group of the Chinese Society for Urban Studies (CSUS). Cities with a livable index between 60 and 80 are recognized as a “moderately livable city”; cities

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Box 2.7 (continued)

with the livable index below 60 or with the livable index above 80 but with two negative conditions are listed as “early warned livable cities.” In the text of the “Scientific Assessment Standards of Livable City,” the urban livable degree is evaluated in six aspects, namely, social civilization level, economic prosperity level, level of beautiful environment, resource load level, life convenience level, and public security level, and each aspect includes a number of subitems and indicators. At present, only the “Livable City Scientific Evaluation Standards” is used for scientific guidance of “Livable City” planning, building, and management, and each city can choose to apply it voluntarily (CNKI 2007).

Sources


China’s urban construction model is to promote, in a generally top-down manner, the implementation of a procedure of “practice–assessment–naming–reviewing” or “create an assessment system on a trial basis–practice–amendment–naming–reviewing.” In recent years, a bottom-up approach has also been adopted, which stresses the broad participation of the public and the incorporation of the degree of public satisfaction, gradually guiding and encouraging citizens and social organizations to join in urban construction. When compared with the building modes which focus on good results, the building of healthy city takes the WHO Healthy City Project as its starting point and focuses on the implementation process and concept of healthy urban capacity building. It prepares related healthy city planning and indicators for adjusting measures to local conditions, according to different situations and characteristics of cities and districts.

2.2 Practices of China’s Sustainable Cities

In the twenty-first century, cities in China will inevitably encounter great environmental and development challenges, including the pressure of three population peaks (total population, total employed population, and total elderly population), excessive utilization of natural resources, deteriorating ecological environment, rapid advances in industrialization, urbanization and modernization, aggravating unbalanced regional development, and so on, which will become bottleneck constraints to urban development in future. In 1986, pilot and experimental
demonstration works of “National Sustainable Communities” were launched through the guidance and support of the State Science and Technology Commission (now Ministry of Science and Technology) in conjunction with other government agencies. This initiative intended to actively explore the operating mechanisms and a new model to coordinate economic development with population, resources, and environmental development during the industrialization and urbanization of medium-sized cities and small towns, to research measures to address the bottleneck of economical and social sustainable development. Through specific guidance and planned project implementation of the Ministry of Science and the local technology sector, significant progress has been made in the sustainable development awareness of government and public, the positioning of local sustainable development, people’s living, life and overall ideological quality, effective protection and utilization of ecological environment and natural resources, and so on and has formed the initial sustainable development construction modes with various characteristics.

Proceeding from the certainty of the world’s future development trend and profound analysis of China’s national conditions, and in view of the grand background of general trends in domestic and international development, in June 1992 the Chinese government solemnly signed the Rio Declaration on Environment and Development at the United Nations Conference on Environment and Development held in Brazil; in March 1994 the Chinese government led in developing “China’s Agenda 21 – White Paper on China’s Population, Environment, and Development in the twenty-first Century,” which set out that the objectives for the development of human settlements are: to formulate and enforce policies, laws, regulations, development strategies, long-term plans, and action programs by appropriate government agencies and legislative bodies; to mobilize all social communities and people for taking an active part in the construction of human settlements, which should be rationally laid out with comprehensive facilities, which are convenient for working and living, and which have clean, quiet, and comfortable environments. It formulated an action program suitable for national development and took these as guidance for implementing sustainable development. In 1996, the Chinese government officially made sustainable development the country’s basic development strategy, and in 2003, the “comprehensive, coordinated and sustainable” scientific outlook on development was proposed, giving rise to a huge sensation in the international community.

Subsequently, some large cities have made continuous efforts to implement “China’s Agenda 21.” In 1997, Shenyang and Wuhan joined the SCP project. In January 2005, approved by the Ministry of Science and Technology, the administrative Center for China’s Agenda 21 and UN-Habitat signed a cooperation agreement to jointly promote and implement “UN-Habitat Sustainable City Program (SCP II)” in China. Guiyang, Panzhihua, and Hailin became the second batch of SCP pilot cities. In Guiyang, the SCP II lasted 2 years, and the implementation strengthened the scientific basis and feasibility of the “Overall Construction Plan for a Pro-Ecology City,” while also promoting government, enterprises and citizens to change their views on urban development and environmental protection.
Box 2.8 Introduction to Shenyang Sustainable City Project

In 1994, the State Environmental Protection Administration Bureau recommended that the Shenyang Municipal Government sign the “Letter of Intent of Sustainable Cities Project Pilot Cooperation” with the UN Habitat Commission and UNEP. With the support of relevant UN institutions, Shenyang then began to explore how to achieve coordinated socioeconomic and environmental sustainable development. In May 1997, Shenyang municipal government signed the “Sustainable Shenyang Project” jointly with UNDP and China International Economic and Technical Exchange Center, and Shenyang was officially included in the list of the world’s “Sustainable Cities Project” pilot cities. According to the project document provisions, the implementation of Shenyang’s sustainable development is mainly composed of three phases, and each phase is established on the basis of previous stage (Shenyang Environmental Protection Bureau 2005).

**Phase I:** Project start-up phase. Strengthen the awareness and participation of relevant departments; carry out seminars and training activities; prepare an environmental program; define major urban environment problems and main related departments of urban environmental management; convene city consultation meeting; and identify priority urban environmental issues as well as major solutions.

**Phase II:** Prepare action plan. Set up “Working Group on Environmental Issues” as the main action. The working group fully analyzes, discusses, evaluates, and consults to address major environmental issues identified by a city consultation meeting and implants the specific environmental management strategy into a detailed action plan; the organizations and institutions responsible for improving environmental quality take charge of implementation to put the urban environmental management and action plan into practice.

**Phase III:** Open-style follow-up consolidation phase. A series of suggestions on investment and technical assistance projects are produced through strategic and action plans and discuss with related institutions. With the support of China’s Agenda 21 Center, the experience of Shenyang will be further summarized and promoted.

The Sustainable Shenyang Project is actually a capacity building project. Project implementation cannot immediately solve a number of Shenyang’s environmental problems; however, the project emphasizes the interaction between environment and development and brings environmental problems concerns into the urban development strategic planning and decision-making process. Project implementation provides a framework for urban environmental planning and management to facilitate a cross-sectoral decision-making mechanism, enhance information exchange, and cooperation between the major-related departments, and thus make the relevant department change its former approach of dealing with specific issue that focuses only on the interest (continued)
Box 2.8 (continued)

of inner department. It also proposes solutions from a global perspective and further institutionalizes the principals of broad participation, democratic decision making and issues settlement priority in implementation. As these practices gradually expand to other areas, the efficiency of various departments and the overall management of Shenyang will thereby be enhanced (UN-Habitat 2009).

Sources


Box 2.9 Introduction of Wuhan Sustainable City Project

In 1995, following a recommendation by the State Environmental Protection Administration, Wuhan participated in the global “Sustainable Cities Project.” In May 1997, the tripartite “Wuhan Sustainable Development Management Projects” (SWP) file was signed by the UNDP China Office, China International Center for Economic and Technical Exchanges, and Wuhan Municipal People’s Government. In the same period, the Wuhan Environmental Protection Bureau established the SWP office, organized broad local stakeholder participation, and invited international and domestic experts for consultation and guidance. They identified four priority environmental issues, namely, city ground surface water environmental protection and treatment, atmospheric environmental protection and treatment, urban solid waste management, and urban transport comprehensive treatment. In December 1999, under the guidance of UN experts, nine governmental departments and scientific research institutions of Wuhan jointly prepared and completed the “Wuhan Environmental Management Strategic Outline” (Wuhan Environmental Protection Bureau 2005).

Under the guidance of the “Wuhan Environmental Management Strategic Outline,” Wuhan has attached great importance to coordinating urban economic, social, and environmental development and included environmental management into various national economic and social development plans, especially in the “Tenth 5-Year” plan and management objectives of governments. It has implemented a people-oriented social development policy, focused on promoting disaster reduction and prevention, human habitat condition improvement, and poverty reduction by utilizing comprehensive

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environmental management. The “Clean Wuhan, Beautiful Home” activity carried out by Wuhan was a key environmental comprehensive treatment and community building program.

The “Sustainable Wuhan Project” has played a significant role in promoting Wuhan’s sustainable development. Through project implementation, governmental strategic planning and environmental management capacity have been improved, a series of urban environmental protection and construction projects have been implemented, social environmental consciousness and residents’ awareness of participation have been strengthened, and international exchanges and cooperation in the field of environmental protection have been promoted. Under the guidance of sustainable development, the economy, society, and environment of Wuhan have enjoyed coordinated development, people’s lives have been improved, and the city has a brand new appearance (UN-Habitat 2009).

Sources

China participated actively in the “Rio Declaration,” “United Nations Framework Convention on Climate Change,” “Local Agenda 21,” and a series of international conventions and related action plans, which have laid a good foundation for sustainable cities construction. However, given the complex background of urbanization, the urban ecological environment, population, economy, society, culture, and politics will inevitably be changed and sustainable cities construction will face many challenges. On one hand, the management mode and mechanism of the sustainable cities still need reform and innovation in various forms, which can be realized through the combination of top-down political guarantee and bottom-up public participation. On the other hand, further revealing the relationships between urban systematic structure, function, metabolism, and processes, as well as constructing a sound and effective assessment indicator system, will be the crucial point of scientific construction of the sustainable cities, enabling the objective of sustainable cities construction to be finally achieved.
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