# THE STATE OF CHINA'S CITIES

## **Global Action&China Practice: Together for a Better Future**

## 2018/2019



CHINA ARCHITECTURE & BUILDING PRESS

# 2018/2019 The State of China's Cities

Global Action & China Practice: Together for a Better Future



#### 审图号: GS(2020)2613号 图书在版编目(CIP)数据

中国城市状况报告 2018/2019: 全球行动与中国实践:共创人类 美好未来 = The State of China's Cities 2018/2019 Global Action & China Practice: Together for a Better Future:英文/国际欧亚科学院中国科学 中心,中国市长协会,中国城市规划学会编著.一北京:中国建筑工 业出版社,2020.1

ISBN 978-7-112-24814-8

I. ①中… Ⅱ. ①国… Ⅲ. ①城市建设一研究报告—中国— 2018-2019—英文 Ⅳ. ① TU984.2

中国版本图书馆CIP数据核字(2020)第022550号

#### The State of China's Cities 2018/2019

Global Action & China Practice: Together for a Better Future

EDITED BY China Science Center of International Eurasian Academy of Sciences China Association of Mayors Urban Planning Society of China \* 中国建筑工业出版社出版、发行(北京海淀三里河路9号) 各地新华书店、建筑书店经销 北京雅盈中佳图文设计公司制版 印刷厂印刷 \* 开本: 787 × 1092毫米 1/16 印张: 字数: 千字 年 月第1版 年 月第1次印刷 定价: 108.00元 ISBN 978-7-112-24814-8 (35378) 版权所有 翻印必究 如有印装质量问题,可寄本社退换 (邮政编码 100037)

EDITED BY



China Science Center of International Eurasian Academy of Sciences



China Association of Mayors



Urban Planning Society of China

#### **EDITOR-IN-CHIEF**

Wang Guangtao, Vice President, China Science Center of International Eurasian Academy of Sciences

#### HONORARY EDITOR-IN-CHIEF

Huang Yan, Vice Minister of Housing and Urban-rural Development of The People's Republic of China

#### **EXECUTIVE EDITOR-IN-CHIEF**

Mao Qizhi, Academician, International Eurasian Academy of Sciences, Professor, School of Architecture, Tsinghua University Shao Yisheng, Academician, International Eurasian Academy of Sciences, Research Fellow, China Academy of Urban Planning and Design

Shi Nan, Executive Vice Chairman, Secretary-General, Professorate Senior Engineer, Urban Planning Society of China

#### **COORDINATORS**

Liu Honghai, Secretary-General, China Science Center of International Eurasian Academy of Sciences Wang Changyuan, Secretary-General, China Association of Mayors Qu Changhong, Deputy Secretary-General, Senior Engineer, Urban Planning Society of China Yang Rong, Inter-Regional Advisor, United Nations Human Settlements Programme (UN-HABITAT) Zhang Zhenshan, Programme Manager for China, UN-HABITAT

#### **AUTHOR'S TEAM**

Mao Qizhi, Academician, International Eurasian Academy of Sciences, Professor, School of Architecture, Tsinghua University Shao Yisheng, Academician, International Eurasian Academy of Sciences, Research Fellow, China Academy of Urban Planning and Design

Shi Nan, Executive Vice Chairman, Secretary-General, Professorate Senior Engineer, Urban Planning Society of China

Yin Zhi, Vice Chairman, Urban Planning Society of China, Executive Vice President, Professor, Institute for China Sustainable Urbanization Research, Tsinghua University

Lin Jian, Dean, Professor, Department of Urban and Regional Planning, College of Urban and Environmental Sciences, Peking University

Zhang Quan, Vice Chairman, Research Fellow-level Senior Engineer, Urban Planning Society of China

- Shi Weiliang, Vice Chairman, Urban Planning Society of China, President, Professorate Senior Engineer, Beijing Municipal Institute of City Planning & Design
- Zhang Shangwu, Director, Urban Planning Society of China, Vice Dean, Professor, College of Architectural and Urban Planning, Tongji University
- Qu Changhong, Deputy Secretary-General, Senior Engineer, Urban Planning Society of China
- Lu Qingqiang, Deputy Chief Planner, Director of Research Center for Master Planning, Senior Engineer, Beijing Tsinghua Tongheng Urban Planning and Design Institute

Liu Shiyi, Postdoctoral Research Fellow, College of Urban and Environmental Sciences, Peking University

- Zhang Zhiguo, Vice President, Research Associate, Urban & Rural Water Research Institute, China Academy of Urban Planning and Design
- Ye Xingping, Deputy Chief Engineer, Research Fellow-level Senior Engineer, Urbanization and Urban Rural Planning Research Center of Jiangsu
- Shi Xiaodong, President, Professorate Senior Engineer, Beijing Municipal Institute of City Planning & Design
- Xi Hui, Senior Researcher, Senior Engineer, China Rural Planning and Development Research Center, Shanghai Tongji Urban Planning and Design Institute Co., Ltd.

Zhang Guobiao, Senior Planner, Urban Planning Society of China

## Foreword I



### Wang Guangtao

Vice President, China Science Center of International Eurasian Academy of Sciences (CSC-IEAS) Member of the Standing Committee and Chairman of the Environment Protection and Resources Conservation Committee of the Eleventh National People's Congress, China Former Minister of the Ministry of Construction, China City is the common home of human beings, and bright future of the city needs our creation together.

From 2018 to 2019, with the 40th anniversary of reform and opening up and the 70th anniversary of the people's Republic of China as the time node, that China have gone through a few decades in developed countries after centuries of industrialization and urbanization road, creating Chinese miracle.

From 2018 to 2019, China's gross domestic product (GDP) has grown from over 90 trillion yuan to nearly 100 trillion yuan, and the per capita GDP will reach a new level of 10000 US dollars. The unemployment rate of urban survey is stable at a low level of about 5%. More than 10 million rural poor people have been lifted out of poverty. With the rapid development of urban and rural public service facilities and the cause of benefiting people, the living environment and standards of residents have been improved continuously.

The spatial structure of China's economic development is undergoing profound changes. Taking Beijing and Tianjin as the center to lead the development of Beijing-Tianjin-Hebei city cluster, promote the Xiong'an New Area, and drive the coordinated development of Bohai Rim. Taking Shanghai as the center to lead the development of the Yangtze River Delta urban agglomeration, focusing on the overall protection and non-development, relying on the Yangtze River golden waterway and giving priority to ecology, we will promote the coordinated development of the upper, middle and lower reaches of the Yangtze River and the high-quality development of the riverside areas. With Hong Kong, Macao, Guangzhou and Shenzhen as the center to lead the construction of Guangdong-Hong Kong-Macao Bay Area and drive the innovation and green development of the Pearl River-Xijiang River Economic Belt. Focusing on Chongging, Chengdu, Wuhan, Zhengzhou, Xi'an, etc., it leads the development of Chengdu-Chongging, the middle reaches of the Yangtze River, the Central Plains, Guanzhong Plain and other city clusters, and promotes the ecological protection and high-quality development of the Yellow River Basin. The comprehensive carrying capacity of central cities and city clusters has been continuously improved, and the functions of megacities and other densely populated economic areas have been orderly decentralized, and the development mode of effective treating of "city diseases" has been continuously optimized. With the construction of "one belt and one road", we will promote the coordinated opening of the coastal, inland and border areas, strengthen the interconnection of major infrastructures with the framework of the international economic cooperation corridor, and build a new pattern of coordinating regional and international development in China.

China's urbanization is in a critical stage. The level of urbanization has exceeded 60%. The main focus in Chinese society has been transformed into the contradiction between the people's growing needs for a better life and the unbalanced and inadequate development. Socialism with Chinese characteristics has entered a new era. The country will build a moderately prosperous society in an all-round way after solving the problem of food and clothing for 1.4 billion people and realizing a moderately prosperous society in general. The people's pursuit of a better life is becoming more and more extensive, which not only puts forward higher requirements for material and cultural life, but also increases requirements in democracy, rule of law, fairness, justice, security, environment and others. This is a new historical orientation of national development, and many problems need to be actively explored in practice. "People oriented new urbanization" will be an important development direction.

The State of China's Cities, which is jointly by the China Science Center of the International Eurasian Academy of Sciences, the China Association of mayors, the Urban Planning Society of China and UN Habitat, includes Chinese and English versions, has been published since 2010, and exerting great influence at home and abroad. *The State of China's Cities 2018/2019*, with the theme of "Global action and China practice: together for a better future", echoes the theme of "Urban opportunity: connecting culture and innovation" of the 10th World Urban Forum to be held in Abu Dhabi, United Arab Emirates, in 2020, reflecting the common concern for human care and innovative development. It is hoped that the international community will work together to meet the challenges in the process of global urbanization, scientifically plan the blueprint of urban and rural development, exchange and learn from each other, and explore the road of sustainable development of cities in line with their own characteristics.

It is hoped that the publication of *The State of China's Cities 2018/2019* will help the international community to have an objective and comprehensive understanding of China's urbanization. Adhering to the urban work should take the creation of good living environment as the central goal, strive to build the city into a beautiful home where people and nature live in harmony, and continue to make due contributions to the sustainable development of cities around the world.

January 2020

## Abstract

### Shi Nan

Executive Vice President and Secretary General of Urban Planning Society of China (UPSC), professorate senior engineer The term "transition" probably offers the most appropriate description of the current China's cities: the world's most populous country is entering the "urban era". The urbanization rate of China's permanent population has increased from 17.9% at the beginning of Reform and Opening Up in 1978 to 60.6% in 2019. More than half of the population lives in urban nowadays. In this huge change involving the migration of population, alternation of the social structure, and the renewal of urban and rural living environment, China has ensured 40 years of rapid economic growth while lifting 740 million Chinese citizens out of poverty. These outstanding achievements have never been made by any other country in the world at the same speed or scale. In addressing the common challenges of urbanization, China's cities have adopted many innovative explorations and attempts, which highlights the unprecedented significance of the choice of "Global Action and China Practice" as the theme of *The State of China's Cities 2018/2019* (hereinafter referred to as the "Report").

The ultra-large-scale high-speed urbanization has prospered China's economy, triggered urban transformation, also brought unprecedented challenges. In recent years, topics such as the prevention and control of water, soil, atmospheric pollution, the supporting security measures for migrant workers in cities, the protection and inheritance of historical culture, and the management of housing prices, have received widespread attention from the general public in China. The central government of China has responded to these topics with positive feedback. The report to the 19th National Congress of the Communist Party of China issued in 2017 proposed that the principal contradiction facing Chinese society in the new period has evolved to become the problem of unbalanced and inadequate development, and China will pay more attention to the issues of balanced development and fair development and will take a series of specific actions in preventing and defusing major risks, targeted poverty alleviation and pollution prevention and control, among others, to meet the current challenges.

In early 2018, China undertook drastic institutional reforms and promulgated a series of important policies intensively within the two years of 2018 and 2019 to make major adjustments to the national governance system, aiming to seek a balanced development model for economic development and resource consumption through comprehensively deepening our commitment to reforms, and transform China's existing development path. Among them, the reform of the spatial planning system is particularly important as planning spearheads China's urban development. As China's planning concepts and practices have always kept pace with the times and ensured the stable development of cities for decades, serious urban problems and large-scale urban decline have never appeared in China; instead, the quality of life of urban residents has continued to improve. It is foreseeable that in the future, China's planning will pay more attention to regional balance, urban-rural balance, and spatial balance, enable all citizens to access the same public services and the same quality of life, live in decency and dignity, and meet the people's pursuit of better quality of life. China's various practices will be reflected in this book, and we are also open to share and communicate with the world with an open attitude.

The preparation of this Report coincides with the start of the global implementation of the *New Urban Agenda*. Therefore, the Report puts an emphasis on the global perspective: it analyzes the common challenges facing global cities, actively integrates into the international context, and describes China's practical explorations in these fields. The Report is divided into six chapters, which are the urbanization process in China, spatial planning and urban governance, urban infrastructure, ecological civilization and urban environment, culture city, rural revitalization, and rural living environment.

The Report starts with an introduction to the top-level design of the future development of Chinese cities, i.e. the overall plan for the reform of the ecological civilization system, and offers an objective description of fundamental information on China's urbanization level, quality, and spatial pattern, etc., as well as a review of China's various measures aimed at continuously deepening the commitment to reform in such fields as land system, housing security system, The population policy and household registration system, urban investment and financing systems, and public services. The second chapter focuses on the major transformations of China's spatial planning and urban governance and gives the readers a panoramic view of the basic situation of China's urban development. In terms of urban infrastructure construction, the Report elaborates on the situation of urban transportation systems, water systems, energy systems, and environmental sanitation systems. In terms of urban environment governance, the Report introduces China's environmental governance in various fields such as the atmosphere, water, and soil. In terms of urban culture, the Report introduces China's practices in historical and cultural heritage, people-oriented urban design, and industrial heritage protection. At the end of the Report, five parts introduced the rural rejuvenation and rural human settlements environment in China, including rural revitalization strategy, improvement of rural living environment, poverty alleviation, small cities and towns construction and characteristic towns.

It is noteworthy that at the end of each chapter of the Report, we have selected the most representative cases of Chinese practice in recent years, which are diverse in type, rich in content, prominent in features, and highly valuable for reference. The appendixes to the Report are the industrial heritage protection lists published by China in the past two years, and the basic data of all 297 prefecture-level cities in China, including land, population, area of built-up district, economic indicators, and urban development-related indicators, which are one of the most authoritative urban development database for China.

With the use of a large number of data and cases, this Report depicts various aspects of China's urban development from policy guidance to project implementation, from urban and rural dilemmas to improvement measures, from international integration to local practice, and aims to enhance readers' understanding of Chinese cities, improve our consensus and contribute to the due strength of Chinese cities in order to make cities around the world more livable and sustainable.

## CONTENTS

## Chapter 1 Urbanization Process in China

- 1.1 Top-down Design of Urbanization / 003
- 1.1.1 Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era Becomes Guide to China's Urban Development / 003
- 1.1.2 Overall Plan for Reform of Ecological Civilization
  System Becomes Top-down Design of China's
  Urban Development / 003
- 1.1.3 Adhering to New Urbanization as Important as Rural Revitalization / 003
- 1.2 Urbanization Level and Quality / 005
- 1.2.1 China's Urbanization Rate Reaches Average Level of Middle-income Countries / 005
- 1.2.2 Living Quality and Standards of Urban and Rural Residents in China Improves Significantly / 005
- 1.2.3 China Adopted Human–centered Transformation Practices to Improve Livability Level of Cities / 006
- 1.3 Overall Pattern of Urbanization / 008
- 1.3.1 Influence of Chinese Cities in the World Urban System Continues to Rise / 008
- 1.3.2 Three Major Urban Agglomerations Lead with Regional Cooperative Development Promoted In-depth / 008

- 1.3.3 Metropolitan Areas Become New Entry Point for Improving Quality and Upgrading China's Urbanization / 012
- 1.4 Approach to Urbanization Development / 014
- 1.4.1 Development of Secondary and Tertiary Industries Creates More Job Opportunities; Development of Industry–city Integration Greatly Promoted /014
- 1.4.2 Innovation and Entrepreneurship PromotesEmployment Growth; Opening to the OutsideWorld Enhances Development Momentum / 015
- 1.4.3 Explorations in Green Development Go Deeper; Green Ways of Working and Living Gradually Popularized / 017
- 1.5 Urbanization Supporting Systems Reformed / 018
- 1.5.1 Full Implementation of Residence Permit System Promotes Settlement of Floating Population in Urban Areas / 018
- 1.5.2 Reform of Three Types of Lands in Rural Areas Grants Farmers More Property Rights / 018
- 1.5.3 Housing Security System Improves to Meet Housing Needs of Low- and Middle-income Families / 019

## Chapter 2 Spatial Planning and Urban Governance

- 2.1 The Process of Spatial Planning Reform / 023
- 2.1.1 Reasons for Reform: Fragmentation of Spatial Governance / 023
- 2.1.2 Exploration of Reform: the Practice of Multiple Plans Integration / 023
- 2.1.3 Direction of Reform: Unified Utilization Control / 025
- 2.2 Territorial Spatial Planning System / 026
- 2.2.1 Overall framework of the territorial spatial planning system / 026
- 2.2.2 Objectives of Building the Territorial Spatial Planning System / 026
- 2.2.3 Governance Improvement of Territorial Spatial Planning System / 027

- 2.3 Urban Governance / 028
- 2.3.1 Public Participation in Urban Governance / 028
- 2.3.2 Grassroots Community Governance / 029
- 2.3.3 Smart City Governance / 031
- 2.4 China Practice: Redevelopment of Underused Urban Land / 033
- 2.4.1 Concept of Underused Urban Land Redevelopment / 033
- 2.4.2 Effectiveness of underused urban land redevelopment / 034
- 2.4.3 Patterns of underused urban land redevelopment / 035

## Chapter 3 Urban Infrastructure

- 3.1 Relevant National Plans and Policies / 041
- 3.1.1 Comprehensive Plan for Municipal Infrastructure / 041
- 3.1.2 Plan for Sewage Treatment and Recycling Facilities / 041
- 3.1.3 Plan for Environmental Sanitation Facilities / 043
- 3.1.4 Planning for Transport Facilities / 043
- 3.1.5 Plan for Communication Facilities / 043
- 3.1.6 Renovation of Old Communities / 044
- 3.2 Urban Transport System / 044
- 3.2.1 Regional Transport / 044
- 3.2.2 Public Transport / 046
- 3.2.3 Shared Mobility / 048
- 3.2.4 New Energy Transportation / 048
- 3.3 Urban Water System / 049
- 3.3.1 Water Supply Security / 049
- 3.3.2 Sewage collection and treatment / 051

- 3.3.3 Drainage and Local Flooding Prevention and Control / 052
- 3.4 Urban Energy System / 053
- 3.4.1 Heating Supply / 053
- 3.4.2 Gas / 054
- 3.5 Urban Sanitation System / 055
- 3.5.1 Municipal Solid Waste (MSW) Treatment Facilities / 055
- 3.5.2 MSW Sorting Pilot Project / 057
- 3.6 Urban Communication System / 058
- 3.6.1 Overall Situation / 058
- 3.6.2 Boosting broadband speeds and lowering rates for internet services / 058
- 3.6.3 5G Technology / 059
- 3.7 China Practice: Smart City / 060
- 3.7.1 National Smart City Pilot Project / 060
- 3.7.2 Local Practice Cases / 060

### Chapter 4 Ecological Civilization and the Urban Environment

- 4.1 Ecological progress / 065
- 4.1.1 Status of Ecological Progress in the Past 40 Years of Reform and Opening Up / 065
- 4.1.2 Characteristics of Ecological Progress in the New Era: the Report of the 19th CPC National Congress, and the Concept that Lucid Waters and Lush Mountains are Invaluable Assets / 067
- 4.1.3 Ecological Environment Improvement and Management: National Park System, and National Environmental Protection Inspection / 067
- 4.1.4 Ecological Security: Biodiversity, and Vegetation Protection / 071
- 4.1.5 Resource Security: Resource Protection and Energy Utilization / 072
- 4.2 Optimization of Ambient Air Quality / 074
- 4.2.1 Overall Condition of the Atmospheric Environment / 074
- 4.2.2 Distribution and Characteristics of Haze / 075
- 4.2.3 Haze Management—Implementation of National 10–chapter Air Pollution Prevention and Control Action Plan and the Blue Sky Defense War / 076

- 4.3 Optimization of Water Environment Quality / 076
- 4.3.1 Overall Status of Water Environment Quality / 076
- 4.3.2 Major Water Pollution Accidents and Pollution Control and Treatment / 078
- 4.3.3 Water Environment Control: Target Requirements of the 10–Chapter Water Pollution Prevention and Control Plan, River Chief System / 079
- 4.3.4 Urban water ecological environment construction / 079
- 4.4 Soil Environmental Quality Remediation / 081
- 4.4.1 Overall status of soil environmental quality / 081
- 4.4.2 Soil pollution accidents and pollution control treatment / 082
- 4.4.3 Improvement of Soil Environment: Target Requirements of the 10–Chapter Soil Pollution Action Plan / 083
- 4.5 China Program: Ecological Restoration and City Betterment / 083
- 4.5.1 Local practice / 083
- 4.5.2 Green Eco-district / 086

## Chapter 5 Culture City

- 5.1 Cultural Heritage Deeply Rooted in History / 091
- 5.1.1 Overall Protection and Passing Down Civilization / 091
- 5.1.2 Upholding Ancient and Modern Glory and the Continuation of Context / 096
- 5.2 People-oriented Public Space / 099
- 5.2.1 Comprehensive Management of Street Space / 099
- 5.2.2 Open Regeneration Waterfront Space / 100
- 5.2.3 Space-building for Specific Population Groups / 102
- 5.2.4 Activation and Utilization of Vacant Spaces / 105

- 5.3 China Program: Industrial Heritage Protection and Reuse / 107
- 5.3.1 National Measures and Lists Promulgated: China Industrial Heritage Protection List (First Batch & Second Batch) / 107
- 5.3.2 Local Practice: Overall Protection and Renewal of Beijing Shougang Industrial Heritage Sites / 109
- 5.3.3 Local Practice: Comprehensive Protection and Development of Modern Ceramic Industrial Heritage in Jingdezhen / 110
- 5.3.4 Local Practice: Reopening and Utilization of Columbia Circle, Shanghai / 112

## Chapter 6 Rural Revitalization and Poverty Alleviation

6.1 Rural Revitalization Strategy / 1	17
---------------------------------------	----

6.1.1 Rural Revitalization Strategy and Implementation Path / 117

- 6.1.2 Policy Promotes the Integrated Development of Urban and Rural Areas / 119
- 6.1.3 Planning Leads the Rural Revitalization and Development / 120
- 6.2 Poverty Alleviation / 123
- 6.2.1 From Poverty Alleviation Through Regional Development to Targeted Poverty Alleviation / 123
- National Poverty Alleviation Plan / 125 6.2.2
- 6.2.3 Targeted Poverty Alleviation / 126
- 6.3 Improving Rural Living Environment / 126
- 6.3.1 Improving Rural Housing Conditions / 129
- 6.3.2 Improving Rural Infrastructure Levels / 130
- 6.3.3 Protecting Rural Historical and Cultural Heritage / 133

6.4 Small Cities and Towns Construction and Characteristic Development / 136 6.4.1 Development History and Roles of Small Cities and Towns / 136 6.4.2 Characteristic Development of Small Cities and Towns / 138 6.5 China's Rural Practice 141 6.5.1 Beautiful Villages: Local Practice for Improvement of Human Settlement Environment 141 6.5.2 Industrial Revitalization: New Practice of Comprehensive Development of Rural Industry 144 6.5.3 Cultural Protection: The Practice of Social Forces Intervening in Rural Heritage Protection 147 6.5.4 Joint Creation: Rural Governance and Construction 149

- Appendix I China Industrial Heritage Protection List / 152
- Basic Data of China's 297 Cities at and above Perfecture Level (2016) / 158 Appendix II

Notes to the Basic Data of China's 297 Cities at and above Prefecture Level (2016) / 168







Chapter 1

## Urbanization Process in China

Top-down Design of Urbanization Urbanization Level and Quality Overall Pattern of Urbanization Approach to Urbanization Development Urbanization Supporting Systems Reformed

## Urbanization Process in China

Since the founding of the People's Republic of China 70 years ago, China has promoted the largest urbanization process in human history and profoundly changed the global landscape. At the same time, many outstanding contradictions and problems have emerged during this rapid urbanization. Since its urbanization rate exceeded the world average in 2013, China's urbanization has entered a period of adjustment and transformation.

In order to meet the challenges presented by urbanization, China has followed sustainable development concepts and goals advocated by the international community, and has regarded thoughts of ecological civilization as the guiding ideology and action model for urban and rural development. It has further strengthened the people-centered governance concept; and established new development concepts in innovation, coordination, ecology, openness, and sharing; has transformed urban development patterns, optimized the overall pattern of urbanization, and also adhered to the 'two-wheel drive engine' approach, i.e. rural revitalization and urbanization while simultaneously reconstructing the governance system for territorial space.

In this process, China has actively explored the key tasks and themes, including the mutual promotion of urbanization and industrial development, the development model of green urbanization, the integration of innovative open platforms into global urban networks, and the convergent urban and rural development. Among others, "green, open, innovative and convergent development, humanistic care, and high quality" have all become new key words for urbanization development in China.

While respecting the law of urbanization development, the Chinese government has adhered to the ruling style of "bold actions, reform and innovation", and conducted in-depth explorations on urbanization supporting system reform as well as local pilot practice in response to real life problems and institutional bottlenecks.

The practice and explorations of China's urbanization will remain an important part of the world's urbanization process, and will continue to contribute to the wisdom that China and its programs can offer the world.





Chapter 2

## Spatial Planning and Urban Governance

The Process of Spatial Planning Reform Territorial Spatial Planning System Urban Governance China Practice: Redevelopment of Underused Urban Land



## Spatial Planning and Urban Governance

Promoting the integration for urban planning, land use planning and other types of planning and also building a spatial-planning system is an important agenda of reform for the Chinese government in recent years. It's aimed to unify the spatial boundaries of various types of planning and build both an efficient geographic information platform and public management platform in order to serve sustainable development. In March 2018, the first session of the 13th National People's Congress passed the Institutional Reform Plan of the State Council, decided to set up the Ministry of Natural Resources, and demanded to terminate the previous coexistence and conflict pattern of various former planning versions and establish a unified territorial spatial planning system. The new spatial planning system is aimed at building a beautiful China, achieving high-quality development and high-quality life, and promoting governance capacity and the modernization of the national governance system. Future urban planning will continue to exert its governance effectiveness as part of this territorial spatial planning, and likewise, spatial planning will also become an important tool for the spatial governance as well as urban governance.



# >> 3

Chapter 3

# **Urban Infrastructure**

Relevant National Plans and Policies Urban Transport System Urban Water System Urban Energy System Urban Sanitation System Urban Communication System China Practice: Smart City



## Urban Infrastructure

Urban infrastructure is the material basis for new urbanization, the basic guarantee for urban social and economic development, and also the basic guarantee for the improvement of human settlements, public services and safe operation of cities. Finally, urban infrastructure is the skeleton and lifeline of urban development. In order to promote the development of urban infrastructure, China persists in planning and guidance, and thus compiled relevant plans including the *13th Five-Year Plan for National Urban Municipal Infrastructure Development*, which lays out plans for infrastructure development. This directive promotes high-quality development of transport facilities, water facilities, energy facilities and environmental sanitation facilities through a series of measures to better meet the needs of the people in the pursuit of a better life and, therefore, supports the development of new urbanization. The rapid development of such technologies as new communication technologies, Internet of Things, big data, cloud computing (among others), has promoted the construction and management of smart cities, and further improved the level of urban operational management and security.





Chapter 4

# Ecological Civilization and the Urban Environment

Ecological progress Optimization of Ambient Air Quality Optimization of Water Environment Quality Soil Environmental Quality Remediation China Program: Ecological Restoration and City Betterment

# >> 4

## Ecological Civilization and the Urban Environment

With the continuous social and economic development of China in the past decades, Chinese cities have witnessed earth-shaking changes, the material and cultural needs of the public have been greatly satisfied, and increasingly strict requirements have been imposed on the promotion of ecological progress. The environmental quality of Chinese cities has undergone wave-like changes with the reform and opening up, and displayed an evolution from good to deterioration to overall improvement. Guided by Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, China has continuously promoted the ecological progress, established and practiced the concept that lucid waters and lush mountains are invaluable assets, created a national park system, promoted the central inspections on environmental protection, maintained the ecological security by efforts in biodiversity conservation and vegetation and forest protection, and rationally utilized the clean energy to respond to climate change and carbon emission reduction. The atmospheric, water and soil environment has been gradually improved; the number of days with the urban air quality meeting the environmental standards has risen; the water quality of major rivers and lakes has improved; the urban black and odorous water has been gradually treated, and soil pollution accidents have been effectively controlled and handled. At the same time, in order to deal with "urban diseases", the Chinese government has proposed an "ecological restoration and city betterment" program, and actively promoted the program in 58 pilot cities by three batches nationwide in order to explore more replicable and scalable experience and better improve the living environment from the perspective of comprehensively improving the quality of the urban ecological environment. In short, at present, China has now entered a stage in which the concepts of environmental protection have been more clearly stated, policies and regulations have been continuously improved, and environmental quality is continuously improved, laying a good foundation for building a beautiful China.





Chapter 5

## **Culture City**

Cultural Heritage Deeply Rooted in History People-oriented Public Space China Program: Industrial Heritage Protection and Reuse



## Culture City

Culture is the soul of a country and a nation. A rising culture rejuvenates a country and a strong culture creates a strong nation. Without a high degree of cultural self-confidence or cultural prosperity, there would be no great rejuvenation of the Chinese nation. In the process of rapid urbanization, the development and construction of China's cities are faced with the threat of the homogenized image of cities, and the decline of memories and culture. The protection of human cultural heritage and urban cultural characteristics has entered the most urgent and crucial historical stage. In December 2018, the National Working Conference on Housing and Urban-Rural Development was held in Beijing, proposing to promote the construction of cultural cities, further strengthen the protection of famous towns in famous historical and cultural cities, promote the preservation, utilization, renewal and renovation of existing buildings, improve the urban design system, and strengthen the management of architectural design.

In the globalized landscape, history and culture are an important part of urban soft power, and cultural innovation is an important driving force for urban transformation and sustainable development. In the period of transformation development, each city must be examined from the perspective of cultural strategy; protection and development of cities must be promoted on a reciprocal basis; and efforts must be made to promote the cultural heritage that is deeply rooted in history in the overall development of the cities.

Urban culture is closely related to people's lives, so we must focus on the important shifting of cultural development and urban construction from "material-centered" to a "people-centered" approach. Therefore, promoting the construction of "culture cities" is not only an inheritance and perpetuation of urban culture, but also an important measure to implement these people-oriented construction concepts. On the occasion of the 40th anniversary of reform and opening up, the concepts of planning and construction of cultural cities have taken deep roots in the hearts of the public and inspiring achievements have been achieved nationwide.





Chapter 6

## Rural Revitalization and Poverty Alleviation

Rural Revitalization Strategy Poverty Alleviation Improving Rural Living Environment Small Cities and Towns Construction and Characteristic Development China's Rural Practice

# >>6

## Rural Revitalization and Poverty Alleviation

China's rapid urbanization process has played an important role in social and economic development, but some problems have accumulated. In response to new problems and challenges, the 18th National Congress of the Communist Party of China proposed a new-type urbanization strategy in 2012, emphasizing a shift of the development mode from focusing on quantity to focusing on quality. The social and economic development of rural areas in China is the basis of urbanization. However, some remaining issues have exposed the weak links of modernization such as needing to improve the quality of agricultural supply, the insufficient ability of farmers to adapt to productivity development and market competition, the prominent issues in the rural ecological environment, and the incomplete mechanism for reasonable flow of factors between urban and rural areas. In 2017, the 19th National Congress of the Communist Party of China proposed a strategy for rural revitalization, giving priority to promoting rural social and economic development by mobilizing resources throughout China. The development of China in the new era will feature the mutual reinforcement and double-track approach using these two strategies. New-type urbanization is the only way towards modernization and an important way to solve the problems facing agriculture, farmers and rural areas. The rural revitalization strategy opened up a new situation necessitating urban-rural integration and modernization, and is the cornerstone for promoting new-type urbanization.

## Appendix I

## China Industrial Heritage Protection List (First Batch) Appendix 1-1

No.	Name	Province and city (county)
001	Couper Dock (now factory area of Guangzhou Huangpu Shipyard)	Guangzhou
002	Jiangnan Machinery Manufacturing Bureau (including Qiuxin Shipyard)	Shanghai
003	Fuzhou Ship-building Bureau (now factory area of Mawei Shipbuilding and within Ship- building Culture Park)	Fuzhou
004	Dagu Dockyard (now the Memorial Hall of Beiyang Navy's Dagu Dockyard Site)	Tianjin
005	Lushun Dock (now factory area of the Liaonan Shipyard [People's Liberation Army Navy 4810 Factory])	Dalian
006	Jinling Machinery Manufacturing Bureau (now Chenguang 1865 Creative Park)	Nanjing
007	Northeast Three Provinces Arsenal (The former site of Shenyang is now Shenyang Liming Aero- Engine Group; the gun office moved to Bei'an to establish Qinghua Tools Factory [626 Factory], now the Qinghua Military Engineering Site Museum)	Shenyang
800	Chongqing Anti-Japanese Warfare Weapon Industrial Site (partially now Chongqing Anti-Japanese Warfare Industrial Site Park)	Chongqing
009	Huangyadong Arsenal (now Huangyadong Arsenal Exhibition Hall)	Licheng County
010	Kailuan Coal Mine (now Kailuan Museum, Kailuan National Mine Park)	Tangshan
011	Zhongxing Coal Mine (now Zhongxing Coal Mine National Mine Park)	Zaozhuang
012	Daye Iron Mine (now Huangshi National Mine Park)	Huangshi
013	Shuikoushan Lead-Zinc mine	Changning
014	Pingxiang Coal Mine (now Memorial Hall of Railway Workers' and Coal Miners' Movement in Anyuan)	Pingxiang
015	Fangzi Coal Mine (Fangzi Coal Mine Heritage Park)	Weifang
016	Fushun Coal Mine (now Fushun Coal Mine Museum)	Fushun City
017	Zhongfu Coal Mine	Jiaozuo
018	Benxi Lake Coal and Iron Company (Fiber Benxi [Xihu] Coal and Iron Industry Site Expo Park)	Benxi
019	Datong Coal Mine (now Jinhuagong Mine National Mine Park)	Datong
020	Fuxin Coal Mine (Haizhou Open-pit Coal Mine National Mine Park)	Fuxin
021	Hanyang Iron Works (Zhang Zhidong and Hanyang Iron Works Museum under construction)	Wuhan
022	Daye Iron Works	Huangshi
023	Anshan Iron and Steel Company	Anshan
024	Capital Steel Corporation (now Shougang Industrial Site Park)	Beijing
025	Changsha Zinc Factory	Changsha
026	Chongqing Steel Works	Chongqing
027	Tangshan Railway Site (proposed China Railway Origin Museum)	Tangshan
028	Chinese Eastern Railway	Heilongjiang Province, Jilin Province, Liaoning Province, Inner Mongolia Autonomous Region
029	Qingdao-Jinan Railway (Qingdao-Jinan Railway Museum [Qingdao-Jinan Railway Jinan Station])	Shandong Province
030	Yunnan-Vietnam Railway (with Yunnan Railway Museum)	Yunnan Province

No.	Name	Province and city (county)
031	Beijing-Zhangjiakou Railway (with Zhan Tianyou Memorial Hall)	Beijing, Zhangjiakou
032	Train Ferry at Xiaguan, Nanjing	Nanjing
033	Baoji-Chengdu Railway	Shaanxi Province, Sichuan Province
034	Bajiaogou-Shibanxi Railway (Jiayang Small Train) (now Jiayang National Mine Park)	Qianwei County
035	Luanhe Iron Bridge	Luanxian County
036	Zhengzhou Yellow River Railway Bridge	Zhengzhou
037	Tianjin Jintang Bridge	Tianjin
038	Shanghai Waibaidu Bridge	Shanghai
039	Jinan Luokou Yellow River Railway Bridge	Jinan
040	Qiantang River Bridge	Hangzhou
041	Wuhan Yangtze River Bridge	Wuhan
042	Nanjing Yangtze River Bridge	Nanjing
043	Chi Hsin Cement Plant (now China Cement Industry Museum)	Tangshan
044	Huaxin Cement Co., Ltd.	Huangshi
045	Conch China Cement	Nanjing
046	Yaohua Glass Factory (now Qinhuangdao Glass Museum)	Qinhuangdao
047	Jiangnan Cement Factory	Nanjing
048	Miaoli Oil Mine (now Taiwan Oil Mine Exhibition Hall)	Miaoli County
049	Yanchang Oilfield	Yanchang County
050	Dushanzi Oilfield, Karamay Oilfield	Karamay
051	Yumen Oilfield (with Yumen Petroleum Museum)	Yumen
052	Daqing Oilfield (with Daqing Oilfield History Exhibition Hall)	Daqing
053	Tangxu Railway Repair Factory (now Tangshan Earthquake Memorial Park, Earthquake Memorial Hall)	Tangshan
054	Dongqing Railway Locomotive Works (Dalian Locomotive Works)	Dalian
055	Feb. 7th Locomotive Works	Beijing
056	Puzhen Rolling Stock Works	Nanjing
057	Tientsin-Pukow Railway Bureau Jinan Machinery Works	Jinan
058	Hip Tung Wo Engineering Works (now Hip Tung Wo Engine Museum)	Guangzhou
059	Zhuzhou Locomotive & Rolling Stock Works	Zhuzhou
060	First Aero-Engine Works of China	Bijie
061	First Auto Works	Changchun
062	First Tractor Works	Luoyang
063	Tianjin Soda Plant (Tianjin Soda Plant Factory History Hall)	Tianjin
064	Yongli Ammonium Sulfate Plant	Nanjing
065	Beijing Coking Plant (Beijing East Industrial Sites Cultural Park)	Beijing
066	Huafeng Paper Mill (Huayuan Idea Factory)	Hangzhou

No.	Name	Province and city (county)
067	Dasheng Cotton Mill (Dasheng Cotton Mill Exhibition Hall)	Nantong
068	Yongtai Silk Factory (China Silk Industry Museum)	Wuxi
069	Yuxiang Cotton Mill	Changsha
070	Dahua Cotton Mill (Dahua 1949, Dahua Industrial heritage Museum)	Xi'an
071	Hangzhou Silk Printing and Dying United Factory (Silian 166 Creative Industrial Park)	Hangzhou
072	Tangshan Ceramic Factory	Tangshan
073	Yuzhou Ceramics Factory (Taoxichuan Cultural and Creative Block)	Jingdezhen
074	Foo Fong Flour Mill	Shanghai
075	Foo Sing No.3 Flour Mill	Shanghai
076	Maoxin Flour Mill	Wuxi
077	Changyu Pioneer Wine Company	Yantai
078	Tsingtao Brewery (Qingdao Beer Museum)	Qingdao
079	Tonghua Wine Co., Ltd.	Tonghua
080	Boyd & Company	Nanjing
081	Shunde Sugar Refinery	Foshan
082	Shanghai Yangshupu Waterworks (Shanghai Waterworks Science & Technology Museum)	Shanghai
083	Hankou Jiji Hydropower Company Zongguan Waterworks	Wuhan
084	Jingshi Tap Water Company Dongzhimen Waterworks (Beijing Tap Water Museum)	Beijing
085	Shanghai East Sewage Treatment Plant	Shanghai
086	Republic of China Capital City Waterworks (Nanjing Tap Water History Exhibition Hall)	Nanjing
087	Shilongba Hydroelectric Power Station	Kunming
088	Xiaguan Power Station (Xiaguan Power Station Site Park)	Nanjing
089	Fengman Hydropower Station	Jilin
090	Shuifeng Hydropower Station	Kuandian County
091	Foziling Reservoir Dam	Huoshan County
092	Sanmenxia Water Control Project	Sanmenxia
093	Chinese Navy Central Radio Station (491 Radio Station)	Beijing
094	Nanjing National Government Central Broadcasting Station	Nanjing
095	Beijing Banknote Printing Plant (541 Plant)	Beijing
096	718 Joint Factory (North China Wireless Joint Equipment Factory) (798 Art Zone)	Beijing
097	Factory 404 (Gansu Mining Area)	Yumen
098	Factory 221 (Qinghai Mining Area) (Nuclear City Memorial Hall)	Haibei Prefecture
099	816 Underground Nuclear Project (816 Underground Nuclear Project Scenic Spot)	Chongqing
100		

## China Industrial Heritage Protection List (Second Batch) Appendix 1-2

No.	Name	Province and city (county)
001	Tung-Ka-doo Dock	Shanghai
002	Shanghai Shipyard	Shanghai
003	Dalian Shipyard	Dalian
004	Guangnan Dockyard	Guangzhou
005	China Merchants Steam Navigation Company	Shanghai, Qingdao, Nanjing
006	Qingdao Landing Stage	Qingdao
007	Qinhuangdao Port	Qinhuangdao
800	Dalian Port	Dalian
009	Guangzhou Taigucang Terminal (Baixianke Terminal)	Guangzhou
010	Shanghai Dredging Bureau	Shanghai
011	Dalian Ganjingzi Coal Terminal	Dalian
012	Guia Lighthouse	Macao Special Administrative Region
013	Huaniao Mountain Lighthouse	Shengsi County
014	Eluanbi Lighthouse	Taiwan Province
015	Laotieshan Lighthouse	Dalian
016	Lingao Lighthouse	Lingao County
017	Waglan Lighthouse	Hong Kong Special Administrative Region
018	Naozhou Lighthouse	Zhanjiang
019	Gutzlaff Signal Tower	Shanghai
020	Lanzhou Yellow River Iron Bridge (Zhongshan Bridge)	Lanzhou
021	Tianjin Jiefang Bridge	Tianjin
022	Haizhu Bridge	Guangzhou
023	Imperial Railways of North China (Beijing-Fengtain (Shenyang) Railway)	Beijing, Tianjin, Hebei Province, Liaoning Province
024	Beijing-Hankou Railway	Beijing, Hebei, Henan, Hubei Province
025	Guangzhou-Wuhan Railway	Guangdong Province, Hunan Province, Hubei Province
026	Shijiazhuang-Taiyuan Railway	Hebei Province, Shanxi Province
027	Lanzhou- Shaanxi- Henan- Lianyungang Railway (Lanzhou-Lianyungang Railway)	Jiangsu Province, Anhui Province, Henan Province, Shaanxi Province, Gansu Province
028	Tientsin-Pukow Railway	Tianjin, Hebei Province, Shandong Province, Anhui Province, Jiangsu Province
029	Guangzhou-Kowloon Railway	Guangdong Province, Hong Kong Special Administrative Region
030	Dalian Metropolitan Transportation Co., Ltd.	Dalian
031	Post Office of Qing Dynasty	Tianjin
		5

No.	Name	Province and city (county)
032	Great Northern Telegraph Company	Shanghai, Xiamen
033	Fengtian Machinery Bureau (Shenyang Mint)	Shenyang
034	Central Mint Shanghai, China (State-run 614 Factory)	Shanghai
035	Taiyuan Machinery Bureau (Taiyuan Arsenal)	Taiyuan
036	Gongxian Arsenaol	Gongyi
037	Guantian Central Military Committee Arsenal	Ganzhou
038	State-run 523 Factory (Dalian Jianxin Company)	Dalian
039	Fenxi Machinery Plant	Taiyuan
040	Xikuangshan Mining Administration	Lengshuijiang
041	Guizhou Mercury Mines	Tongren
042	Xihuashan Tungsten Mine	Dayu County
043	Jingxing Mining Bureau (including Jingxing Mine and Zhengfeng Mine)	Shijiazhuang
044	Xiangtan Manganese Mine	Xiangtan
045	Dajishan Tungsten Mine	Quannan County
046	Jinping Phosphate Mine	Lianyungang
047	Shilu Iron Mine	Changjiang County
048	Wenzhou Alum Mine	Cangnan County
049	Keketuohai Mining Bureau (111 Mine)	Fuyun County
050	Jinyinzhai Uranium Mine (711 Mine)	Chenzhou
051	Wangshi'ao Coal Mine	Tongchuan
052	Huili Nickel Mine (901 Mine)	Liangshan Prefecture
053	Qinghai Oilfield	Haixi Prefecture
054	Northwest Steel Works(Taiyuan Iron and Steel Company )	Taiyuan
055	Ma'anshan Iron and Steel Company	Ma'anshan
056	Baotou Iron and Steel Company	Baotou
057	Baiyin Nonferrous Metals Company	Baiyin
058	Panzhihua Iron & Steel Company	Panzhihua
059	Shuicheng Iron and Steel Plant	Liupanshui
060	Shanhaiguan Bridge Factory	Qinhuangdao
061	Shenyang Foundry	Shenyang
062	Taiyuan Heavy Machinery Plant	Taiyuan
063	State-run 331 Factory	Zhuzhou
064	Compagnie de Tramways & D'eclairage de Tientsin	Tianjin
065	Electrical Department of Shanghai Municipal Council (Yangshupu Power Plant)	Shanghai
066	Kailuan Coal Mining Administration Qinghuangdao Power Generation Plant	Qinhuangdao
067	503 Combat-ready Underground Power Generation Plant	Panzhihua

No.	Name	Province and city (county)
068	Riyuetan Daguan Power Station	Nantou County
069	Dongwo Hydropower Station	Luzhou
070	Tianmen River Hydropower Station	Tongzi County
071	Xin'anjiang Hydropower Station	Jiande
072	Liujiaxia Hydropower Station	Yongjing County
073	Qiantang River Seawall Project	Hangzhou, Haining, Haiyan County, Pinghu, Shanghai, Xiaoshan, Shaoxing, Yuyao, Cixi, Ningbo
074	Jinshuizha Floodgate	Wuhan
075	Longyinquan Spring	Dalian
076	Shangli Reservoir	Xiamen
077	Lanzhou Tap Water Company First Waterworks	Lanzhou
078	Yangshupu Workshop of Shanghai Gas Co., Ltd.	Shanghai
079	Acheng Sugar Factory	Harbin
080	Yidu Tea Factory	Yidu
081	A. Lopato & Sons	Harbin
082	British American Tobacco Company	Shanghai, Tianjin, Wuhan, Qingdao, Jinan, Shenyang, Weifang, Xuchang
083	Nanyang Brothers Tobacco Company Limited	Shanghai, Wuhan, Guangzhou
084	Yixin Flour Mill	Wuhu
085	New China Flour Mill (Qianyi Flour Mill Company)	Baoding
086	Shanghai Beer Brewery	Shanghai
087	Shanghai Municipal Council Abattoir	Shanghai
088	Hangzhou First Cotton Printing and Dyeing Factory	Hangzhou
089	Weihui Huaxin Cotton Mill	Weihui
090	Shanghai Boshoku Co., Ltd. Qingdao Factory (Qingdao No.5 State-owned Textile Factory)	Qingdao
091	The Commercial Press	Shanghai, Guangzhou
092	China Alcohol Distillery	Shanghai
093	Dalian Chemical Industry Company	Dalian
094	Tianli Nitrogen Products Factory	Shanghai
095	Yongli Chemical Industry Company Sichuan Factory	Leshan
096	Wuzhou Pine Chemicals Factory	Wuzhou
097	North China Pharmaceutical Factory	Shijiazhuang
098	Qinghai Potash Fertilizer Plant (Qinghai Province Qarhan Potash Fertilizer Plant)	Golmud , Dulan County
099	Central (Hangzhou) Aircraft Manufacturing Company	Hangzhou , Ruili
100	Sino-Italian National Aircraft Works	Nanchang

## Appendix II

## Basic Data of China's 297 Cities at and above Perfecture Level (2016)

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Beijing	16411	1363.0	1961.24	1420	256691300	118198	100.00	90.58	13.70	99.84
Tianjin	11917	1044.0	1293.87	1008	178853900	115053	100.00	92.08	16.01	94.16
Shanghai	6341	1450.0	2301.92	999	281786500	116562	100.00	94.29	7.83	100.00
Chongqing	82402	3392.0	2884.62	1351	177405900	57902	97.13	96.75	16.86	99.98
Hebei										
Shijiazhuang	13056	1038.0	1016.38	278	59277293	55177	100.00	96.12	15.77	100.00
Tangshan	13472	760.0	757.73	323	63548675	81239	100.00	97.60	15.28	100.00
Qinhuangdao	7802	298.0	298.76	131	13493526	45280	100.00	96.60	19.22	100.00
Handan	12065	1055.0	917.47	172	33370903	35265	100.00	97.71	18.54	100.00
Xingtai	12433	788.0	710.41	90	19757460	27038	100.00	96.36	11.57	100.00
Baoding	22185	1207.0	1119.44	187	34771269	29992	96.46	90.54	10.18	96.48
Zhangjiakou	36797	470.0	434.55	100	14659911	33142	100.00	94.67	11.93	95.54
Chengde	39493	383.0	347.32	117	14385741	40471	100.00	92.17	24.58	99.52
Cangzhou	14035	780.0	713.41	73	35446800	47425	100.00	99.91	11.00	100.00
Langfang	6382	470.0	435.88	68	27063015	58972	100.00	93.03	13.97	100.00
Hengshui	8815	455.0	434.08	76	14201825	31955	99.63	88.22	12.97	63.38
Shanxi										
Taiyuan	6988	370.0	420.16	340	29556045	68234	100.00	86.89	10.83	100.00
Datong	14176	318.0	331.81	125	10257962	30046	100.00	85.59	11.26	99.75
Yangquan	4570	133.0	136.85	56	6228625	44461	100.00	86.50	11.55	100.00
Changzhi	13896	339.0	333.46	59	12704767	37063	98.54	95.28	12.15	100.00
Jincheng	9425	220.0	227.91	46	10493400	45271	98.98	94.99	12.08	100.00
Shuozhou	10625	163.0	171.49	42	9180640	52010	99.12	97.97	14.14	100.00
Jinzhong	16444	332.0	324.94	77	10911041	32646	100.00	96.96	17.45	100.00
Yuncheng	14183	531.0	513.48	66	12223486	23106	98.49	91.05	14.26	100.00
Xinzhou	25152	308.0	306.75	37	7161357	22747	100.00	95.47	12.81	100.00
Linfen	20275	434.0	431.66	58	12051761	27102	96.62	91.38	12.10	100.00
Lvliang	21239	391.0	372.71	26	9953079	25896	97.83	94.01	13.31	100.00
Inner Mongolia										
Huhhot	17453	241.0	286.66	260	31735900	103235	99.96	94.64	19.69	100.00
Baotou	27768	224.0	265.04	201	38676300	136021	99.55	90.42	13.77	98.15

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Wuhai	1669	44.0	53.29	62	5722261	102725	100.00	96.50	20.06	98.60
Chifeng	90021	463.0	434.12	106	19332792	44936	98.60	93.78	17.37	100.00
Tongliao	59329	319.0	313.92	61	19493818	62424	97.90	98.01	21.18	100.00
Ordos	86752	159.0	194.07	117	44179341	215488	99.82	97.27	33.84	97.70
Hulunbeier	252777	259.0	254.93	93	16208500	64140	97.52	99.34	20.30	100.00
Bayannur	66277	175.0	166.99	51	9153800	54480	97.49	98.72	22.56	100.00
Ulanqab	54500	274.0	214.36	60	9388700	44517	97.42	94.68	40.49	96.63
Liaoning										
Shenyang	12860	734.0	810.62	588	55464498	66893	99.91	94.92	11.52	100.00
Dalian	12574	596.0	669.04	396	68101998	97470	99.76	94.73	11.02	100.00
Anshan	9255	346.0	364.59	172	14619713	40532	100.00	86.49	11.09	100.00
Fushun	11272	215.0	213.81	139	8650721	41741	98.62	98.21	10.71	100.00
Benxi	8411	150.0	170.95	109	7667098	44745	99.56	97.08	10.75	86.21
Dandong	14967	238.0	244.47	77	7512352	31223	100.00	87.65	11.07	100.00
Jinzhou	10047	302.0	312.65	112	10328139	33692	100.00	89.79	13.55	100.00
Yingkou	5242	233.0	242.85	189	11562477	47358	100.00	81.59	11.75	71.39
Fuxin	10355	189.0	181.93	77	4078179	22956	98.94	98.18	12.93	100.00
Liaoyang	4788	179.0	185.88	105	6541758	35476	100.00	99.68	10.90	100.00
Panjin	4065	130.0	139.25	75	10071351	70110	98.58	97.21	11.56	71.70
Tieling	12985	300.0	271.77	57	5880423	22178	99.00	99.81	11.97	100.00
Chaoyang	19698	341.0	304.46	57	7165334	24285	91.65	99.09	9.82	100.00
Huludao	10414	280.0	262.35	93	6473518	25347	100.00	89.99	14.72	100.00
Jilin										
Changchun	20594	753.0	767.44	519	59864200	79434	99.81	93.45	17.78	90.27
Jilin	27711	422.0	441.32	189	24535091	57818	98.57	96.14	12.05	100.00
Siping	14382	324.0	338.52	58	11938035	36732	72.21	97.34	8.41	91.10
Liaoyuan	5140	120.0	117.62	46	7652485	63480	95.35	93.89	9.95	100.00
Tonghua	15612	220.0	232.44	54	9475914	42979	94.06	94.73	14.14	95.48
Baishan	17505	122.0	129.61	47	6966243	56411	89.24	86.77	10.21	99.09
Songyuan	21089	278.0	288.01	51	16516898	59413	96.06	96.21	17.79	96.70
Baicheng	25759	193.0	203.24	43	7001392	35892	98.51	80.16	13.00	96.05
Heilongjiang										
Harbin	53100	962.0	1063.60	431	61016096	63445	100.00	92.20	9.21	91.80

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Qiqihar	42496	544.0	536.70	140	13253110	25690	98.99	90.93	10.06	68.32
Jixi	22531	181.0	186.22	81	5183793	28647	98.52	74.26	10.82	87.39
Hegang	14679	104.0	105.87	53	2641031	25244	95.78	72.51	14.98	100.00
Shuangyashan	22681	145.0	146.26	58	4373971	29959	98.95	88.37	14.44	86.25
Daqing	21219	276.0	290.45	245	26100031	94690	95.91	96.08	14.97	100.00
Yichun	32800	118.0	114.81	157	2512167	21043	86.38	86.38	23.74	57.38
Jiamusi	32704	238.0	255.21	97	8450332	36878	96.26	85.00	14.17	100.00
Qitaihe	6221	80.0	92.05	68	2166414	26500	98.17	60.84	12.14	98.21
Mudanjiang	38827	259.0	279.87	82	13681181	49618	93.66	100.00	10.61	100.00
Heihe	69345	163.0	167.39	20	4708056	27889	96.97	92.97	13.36	100.00
Suihua	34873	543.0	541.82	45	13163122	24109	98.64	88.90	8.53	100.00
Jiangsu										
Nanjing	6587	663.0	800.37	774	105030200	127264	100.00	95.98	15.34	100.00
Wuxi	4627	486.0	637.44	332	92100200	141258	100.00	97.13	14.91	100.00
Xuzhou	11765	1041.0	857.72	261	58085200	66845	99.81	93.60	15.74	100.00
Changzhou	4373	375.0	459.24	261	57738600	122721	100.00	96.34	14.45	100.00
Suzhou	8657	678.0	1045.99	461	154750900	145556	100.00	95.16	14.71	100.00
Nantong	10549	767.0	728.36	216	67682000	92702	100.00	94.11	18.47	100.00
Liangyungang	7615	534.0	439.35	213	23764800	52987	100.00	87.16	14.66	100.00
Huai'an	10030	568.0	480.17	179	30480000	62446	100.00	93.20	14.01	100.00
Yancheng	16931	831.0	726.22	147	45760800	63278	100.00	90.50	12.75	100.00
Yangzhou	6591	462.0	446.01	149	44493800	99151	100.00	94.42	18.58	100.00
Zhenjiang	3840	272.0	311.41	139	38338400	120603	100.00	94.51	18.97	100.00
Taizhou	5787	508.0	461.89	115	41017800	88330	100.00	91.22	10.69	100.00
Suqian	8524	592.0	471.92	86	23511200	48311	100.00	94.53	15.27	100.00
Zhejiang										
Hangzhou	16596	736.0	870.04	541	113137223	124286	100.00	95.07	14.42	100.00
Ningbo	9816	591.0	760.57	331	86864911	110656	100.00	95.41	11.40	100.00
Wenzhou	12083	818.0	912.21	241	51015586	55779	100.00	92.50	12.73	100.00
Jiaxing	4223	352.0	450.17	101	38621104	83968	99.27	88.32	13.36	100.00
Huzhou	5820	265.0	289.35	106	22843743	77110	100.00	95.43	16.61	100.00
Shaoxing	8279	445.0	491.22	204	47890304	96204	100.00	94.51	13.51	100.00
Jinhua	10942	481.0	536.16	98	36849362	67158	100.00	94.68	11.74	100.00

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Quzhou	8845	257.0	212.27	71	12515883	58281	100.00	95.76	14.52	100.00
Zhoushan	1456	97.0	112.13	63	12411989	107463	100.00	95.35	13.09	100.00
Taizhou	9411	600.0	596.88	140	38986594	64287	100.00	93.40	12.88	100.00
Lishui	17298	268.0	211.70	35	12102414	56238	100.00	95.20	11.09	100.00
Anhui										
Hefei	11445	730.0	570.25	460	62743777	80138	99.25	99.71	13.50	100.00
Wuhu	6026	388.0	226.31	172	26994385	73715	100.00	93.56	13.42	100.00
Bengbu	5951	380.0	316.45	145	13858228	41855	100.00	99.51	13.03	100.00
Huainan	5532	389.0	233.39	110	9638395	27990	99.93	97.47	12.60	100.00
Maanshan	4049	229.0	136.63	95	14937617	65833	100.00	99.64	14.98	100.00
Huaibei	2741	217.0	211.43	85	7990337	36427	99.15	97.97	16.72	100.00
Tongling	2991	171.0	72.40	81	9573000	59960	100.00	93.10	17.67	100.00
Anqing	13538	529.0	531.14	90	15311776	33294	100.00	97.37	13.96	100.00
Huangshan	9678	148.0	135.90	67	5768174	41905	100.00	94.54	14.88	100.00
Chuzhou	13516	454.0	393.79	85	14228257	35301	100.00	96.71	14.48	100.00
Fuyang	10118	1062.0	759.99	124	14018589	17642	95.55	94.09	13.95	100.00
Suzhou	9939	654.0	535.29	79	13518116	24270	98.87	98.05	13.41	100.00
Lu'an	15451	587.0	561.17	77	11081469	23298	99.67	98.42	14.84	100.00
Bozhou	8521	647.0	485.07	62	10461044	20611	98.83	94.09	13.39	100.00
Chizhou	8399	162.0	140.25	37	5890196	40919	99.51	93.90	17.08	100.00
Xuancheng	12313	280.0	253.29	55	10578243	40740	99.50	93.94	14.10	100.00
Fujian										
Fuzhou	12675	687.0	711.54	265	61976395	82251	99.99	93.21	14.07	99.00
Xiamen	1699	221.0	353.13	335	37842662	97282	99.81	93.63	11.47	97.75
Putian	4131	350.0	277.85	90	18234281	63313	99.54	85.00	12.70	99.15
Sanming	23095	287.0	250.34	39	18608197	73261	99.86	87.01	14.76	98.60
Quanzhou	11015	730.0	812.85	231	66466294	77784	99.11	95.00	14.20	98.68
Zhangzhou	12554	508.0	481.00	67	31253456	62196	100.00	90.84	14.64	99.70
Nanping	26280	321.0	264.55	41	14577378	55009	100.00	86.90	13.11	95.28
Longyan	19063	314.0	255.95	62	18956670	72354	99.28	89.75	12.51	99.67
Ningde	13247	352.0	282.20	32	16231142	56358	99.22	87.49	15.64	96.49
Jiangxi										
Nanchang	7402	523.0	504.26	317	43549927	81598	98.88	93.50	11.81	99.99

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Jingdezhen	5261	169.0	158.75	79	8401484	50989	98.02	68.16	17.18	100.00
Pingxiang	3831	200.0	185.45	52	9982752	52330	100.00	90.13	10.62	100.00
Jiujiang	19798	520.0	472.88	107	20961347	43338	99.30	99.47	17.81	100.00
Xinyu	3178	124.0	113.89	78	10361912	88548	100.00	97.06	18.00	100.00
Yingtan	3560	128.0	112.52	39	6953489	60136	96.11	97.66	15.29	100.00
Ganzhou	39363	971.0	836.84	142	22071959	25761	98.38	85.29	11.45	100.00
Ji'an	25373	535.0	481.03	56	14613721	29772	94.70	91.98	17.09	100.00
Yichun	18669	602.0	541.96	70	17819520	32269	96.97	94.61	15.27	100.00
Fuzhou	18799	401.0	391.23	60	12109070	30259	99.45	93.00	14.69	100.00
Shangrao	22791	782.0	657.97	78	18177664	26996	99.76	78.75	15.49	100.00
Shandong										
Jinan	7998	633.0	681.40	448	65361165	90999	100.00	97.21	11.31	100.00
Qingdao	11282	791.0	871.51	599	100112900	109407	100.00	96.08	18.55	100.00
Zibo	5965	432.0	453.06	271	44120100	94587	100.00	96.40	18.74	100.00
Zaozhuang	4564	413.0	372.91	151	21426335	54984	99.44	95.95	14.98	100.00
Dongying	8243	193.0	203.53	151	34796000	164024	100.00	95.89	22.48	100.00
Yantai	13852	655.0	696.82	330	69256587	98388	97.75	95.84	20.68	100.00
Weifang	16143	901.0	908.62	179	51706000	59275	100.00	95.29	18.07	100.00
Jining	11311	876.0	808.19	199	43018200	51662	100.00	96.10	14.73	100.00
Tai'an	7762	569.0	549.42	155	33167900	59027	100.00	96.65	22.77	100.00
Weihai	5798	256.0	280.48	193	32122000	114220	100.00	96.08	26.09	100.00
Rizhao	5359	300.0	280.10	104	18024900	62357	100.00	95.85	21.23	100.00
Laiwu	2246	129.0	129.85	120	7027600	51533	100.00	94.18	22.59	100.00
Linyi	17191	1141.0	1003.94	208	40267500	38803	100.00	95.35	19.47	100.00
Dezhou	10358	593.0	556.82	154	29329900	50856	100.00	96.71	24.80	100.00
Liaocheng	8984	633.0	578.99	101	28591800	47624	99.42	95.19	12.96	100.00
Binzhou	9660	392.0	374.85	156	24701013	63745	100.00	95.02	19.53	100.00
Heze	12256	1015.0	828.77	125	25602400	29904	99.34	96.52	11.21	100.00
Henan										
Zhengzhou	7446	827.0	862.71	457	81139666	84114	100.00	99.82	8.43	100.00
Kaifeng	6444	559.0	467.65	129	17551002	38619	93.33	93.50	9.30	100.00
Luoyang	15236	737.0	654.99	216	38201075	56410	98.51	99.94	10.46	95.42
Pingdingshan	7882	568.0	490.47	73	18251414	36708	97.90	99.94	10.32	100.00

-

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Anyang	7384	626.0	517.32	82	20298494	39603	100.00	97.73	11.03	100.00
Hebi	2182	170.0	156.92	64	7717894	47940	96.65	92.48	14.57	100.00
Xinxiang	8666	646.0	570.82	118	21669705	37805	99.22	92.00	11.00	100.00
Jiaozuo	4071	374.0	354.01	113	20950796	59183	99.20	95.00	13.20	97.50
Puyang	4188	433.0	359.87	59	14495555	40059	98.18	93.10	14.32	99.80
Xuchang	4997	510.0	430.75	108	23777133	54522	98.16	90.53	12.84	100.00
Luohe	2617	269.0	254.43	67	10819257	41138	88.08	97.59	14.88	100.00
Sanmenxia	10496	229.0	223.40	49	13258631	58894	93.61	95.80	12.04	96.74
Nanyang	26509	1195.0	1026.37	150	31149653	31010	73.81	98.88	8.04	96.52
Shangqiu	12725	977.0	736.30	63	19891538	27332	67.10	78.79	7.33	100.00
Xinyang	18787	908.0	610.91	94	20378010	31733	98.14	90.07	14.14	100.00
Zhoukou	11961	1259.0	895.38	70	22638615	25682	100.00	93.22	13.56	99.32
Zhumadian	15087	949.0	723.12	80	19729881	28305	93.69	96.66	11.22	95.46
Hubei										
Wuhan	8569	834.0	978.54	458	119126100	111469	100.00	97.41	10.39	100.00
Huangshi	4583	270.0	242.93	79	13055500	53033	100.00	92.69	11.85	100.00
Shiyan	23680	348.0	334.08	107	14291500	42083	96.91	98.77	11.08	100.00
Yichang	21230	394.0	405.97	167	37093600	89978	100.00	93.69	14.59	100.00
Xiangyang	19728	594.0	550.03	190	36945100	65663	100.00	93.00	12.43	100.00
Ezhou	1594	111.0	104.87	64	7978200	74983	100.00	92.52	14.93	100.00
Jingmen	12404	300.0	287.37	63	15210000	52470	100.00	96.14	11.83	100.00
Xiaogan	8910	523.0	481.45	79	15766900	32236	100.00	95.90	9.60	100.00
Jingzhou	14243	646.0	569.17	86	17267500	30305	99.81	92.01	10.45	100.00
Huanggang	17457	747.0	616.21	53	17261700	27373	100.00	97.80	13.90	99.15
Xianning	9861	304.0	246.26	66	11079300	44027	98.32	94.71	14.45	51.43
Suizhou	9636	252.0	216.22	71	8521800	38801	94.27	97.92	9.49	95.79
Hunan										
Changsha	11816	696.0	704.10	375	93569088	124122	99.85	96.93	10.75	100.00
Zhuzhou	11307	404.0	385.71	142	24884543	62081	100.00	98.02	12.67	100.00
Xiangtan	5008	290.0	275.22	80	18667869	65946	96.12	95.00	9.34	100.00
Hengyang	15303	799.0	714.83	159	28530158	39020	99.82	92.80	10.17	100.00
Shaoyang	20830	830.0	707.17	72	15302577	20987	95.22	88.81	12.41	98.01
Yueyang	14858	571.0	547.61	100	31008720	54832	100.00	94.56	9.45	100.00

Name of Cities	Total area of city's administrative (sq.km) 18190	Total population at year-end (10,000 persons) 611.0	Total residents of the Sixth Population Census (10,000 persons) 571.46	Area of Built-up district (sq.km) 93	Gross Regional Product (10,000 yuan) 29538202	Per Capita Gross Regional Product (yuan) 50543	Water Coverage Rate(%) 96.34	Wastewater Treatment Rate(%) 93.98	Per Capita Public Green Space (sq.m) 13.63	Domestic Garbage Treatment Rate(%) 100.00
Zhangjiajie	9534	171.0	147.81	34	4930990	32300	98.03	87.12	9.22	100.00
Yiyang	12320	484.0	430.79	76	14931802	33772	95.59	92.99	9.05	100.00
Chenzhou	19654	535.0	458.35	77	22041285	46691	99.22	93.50	12.12	100.00
Yongzhou	22260	645.0	519.43	64	15658072	28744	98.78	90.32	11.10	100.00
Huaihua	27758	523.0	474.17	64	14003368	28515	91.60	88.80	8.11	100.00
Loudi	8109	453.0	378.46	50	14001393	36058	99.16	91.27	9.55	100.00
Guangdong										
Guangzhou	7434	870.0	1270.19	1249	195474420	141933	100.00	94.28	22.09	100.00
Shaoguan	18413	334.0	282.62	102	12183920	41388	93.75	87.12	12.52	100.00
Shenzhen	1997	385.0	1035.84	923	194926012	167411	100.00	97.62	16.45	100.00
Zhuhai	1732	115.0	156.25	141	22263708	134546	100.00	96.29	19.70	100.00
Shantou	2199	559.0	538.93	258	20809729	37390	100.00	90.32	15.19	89.83
Foshan	3798	400.0	719.74	159	86300002	115891	98.97	96.69	13.91	100.00
Jiangmen	9509	394.0	445.07	152	24187806	53374	99.50	92.10	17.78	100.00
Zhanjiang	13263	835.0	699.48	111	25844327	35612	93.03	91.12	13.99	100.00
Maoming	11429	799.0	581.75	128	26367435	43211	100.00	94.33	16.46	100.00
Zhaoqing	14891	444.0	391.65	120	20840190	51178	98.35	89.49	20.39	100.00
Huizhou	11346	364.0	459.84	263	34121671	71605	98.52	97.02	17.85	100.00
Meizhou	15865	551.0	423.85	58	10455668	24032	92.49	96.58	17.00	100.00
Shanwei	4865	362.0	293.55	22	8284882	27351	97.81	91.21	14.08	93.75
Heyuan	15654	373.0	295.02	38	8987162	29205	100.00	92.52	12.61	100.00
Yangjiang	7956	296.0	242.17	64	12707564	50431	100.00	87.90	12.57	100.00
Qingyuan	19036	432.0	369.84	86	13877104	36136	79.98	81.45	10.00	80.60
Dongguan	2460	201.0	822.02	957	68276868	82682	100.00	93.49	22.99	100.00
Zhongshan	1784	161.0	312.13	149	32027780	99471	100.00	96.30	18.41	100.00
Chaozhou	3146	274.0	266.95	78	9768303	36956	84.89	80.96	9.70	100.00
Jieyang	5265	697.0	588.43	131	20068992	33027	86.54	78.29	12.10	96.42
Yunfu	7787	301.0	236.72	29	7783051	31502	99.81	77.87	19.22	100.00
Guangxi										
Nanning	22244	752.0	665.87	310	37033300	52723	96.14	89.51	12.07	99.04
Liuzhou	18597	386.0	375.87	188	24769396	62855	98.36	95.10	13.46	100.00
Guilin	27667	534.0	474.80	102	20548216	41216	97.17	90.05	11.91	100.00

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Wuzhou	12588	347.0	288.22	57	11756486	39072	96.17	90.24	11.14	100.00
Beihai	3337	174.0	153.93	76	10066500	61580	97.76	97.20	10.93	100.00
Fangchenggang	6238	97.0	86.69	41	6760383	73188	100.00	87.32	16.01	100.00
Qinzhou	12187	409.0	307.97	95	11020466	34160	99.92	95.88	12.75	100.00
Guigang	10602	555.0	411.88	73	9587564	22230	98.29	99.51	11.78	100.00
Yulin	12835	717.0	548.74	70	15538300	27111	100.00	99.14	10.23	100.00
Baise	36202	417.0	346.68	49	11143094	30881	100.00	87.05	12.15	100.00
Hezhou	11753	243.0	195.41	66	5181900	25499	99.00	89.16	8.54	100.00
Hechi	33476	429.0	336.93	24	6571808	18842	100.00	93.57	10.30	100.00
Laibin	13411	269.0	209.97	43	5891105	26885	99.93	87.37	10.33	100.00
Chongzuo	17332	251.0	199.43	30	7662005	37161	94.87	34.20	12.92	62.98
Hainan										
Haikou	2304	167.0	204.62	147	12576653	56315	98.46	94.99	12.10	100.00
Sanya	1921	58.0	68.54	56	4755567	63273	97.82	68.02	13.02	100.00
Sansha	13	0.0		0.32			65.00	31.43	3.25	100.00
Danzhou	3400	95.0	93.24	35	2577835	28770	99.77	93.94	13.71	100.00
Sichuan										
Chengdu	14335	1399.0	1404.76	837	121702335	76960	94.95	94.30	14.23	100.00
Zigong	4381	327.0	267.89	116	12345637	44481	77.10	94.82	10.18	100.00
Panzhihua	7401	111.0	121.41	76	10146839	82221	83.56	93.26	11.01	100.00
Luzhou	12236	508.0	421.84	136	14819105	34497	95.43	92.00	10.54	100.00
Deyang	5911	392.0	361.58	75	17524542	49835	93.65	92.01	10.70	98.14
Mianyang	20248	545.0	461.39	139	18304207	38202	93.65	92.67	11.52	100.00
Guangyuan	16319	305.0	248.41	60	6600100	25072	98.16	98.69	11.87	97.13
Suining	5322	378.0	325.26	79	10084521	30615	99.14	99.11	10.23	100.00
Neijiang	5385	420.0	370.28	76	12976712	34667	93.37	90.02	10.63	100.00
Leshan	12723	355.0	323.58	76	14065848	43110	97.10	87.77	7.33	99.53
Nanchong	12477	741.0	627.86	120	16514004	25871	98.33	88.00	12.34	100.00
Meishan	7140	350.0	295.05	64	11172317	37227	96.95	85.53	12.17	100.00
Yibin	13271	556.0	447.19	94	16530529	36735	80.98	87.79	9.93	100.00
Guang' an	6339	467.0	320.55	58	10786241	33130	95.60	96.11	21.82	100.00
Dazhou	16588	684.0	546.81	108	14470836	25921	95.39	46.23	18.69	95.53
Yaan	15046	155.0	150.73	34	5453272	35335	99.51	86.20	10.89	98.34

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Bazhong	12293	375.0	328.31	48	5446605	16415	85.59	87.23	12.08	98.00
Ziyang	5748	355.0	366.51	49	9434411	37308	99.70	88.67	15.16	100.00
Guizhou										
Guiyang	8043	401.0	432.26	249	31577001	67772	98.83	97.56	16.18	96.00
Liupanshui	9914	340.0	285.13	73	13137000	45325	90.92	72.36	11.11	95.00
Zunyi	30762	802.0	612.71	120	24039400	38709	94.30	97.13	17.41	95.26
Anshun	9267	300.0	229.76	68	7013500	30216	99.38	93.42	20.43	95.14
Bijie	26849	917.0	653.75	55	16257900	24544	97.74	98.65	21.85	95.00
Tongren	18003	441.0	309.32	48	8569700	27366	92.43	86.37	8.33	92.00
Yunnan										
Kunming	21026	560.0	643.22	436	43000780	64156	98.58	94.07	11.06	96.98
Qujing	28905	653.0	585.51	76	17751063	29266	99.53	92.22	8.93	99.96
Yuxi	15233	217.0	230.35	38	13118823	55389	93.31	93.23	11.18	100.00
Baoshan	19637	261.0	250.65	37	6133904	23692	82.64	85.71	10.07	90.08
Zhaotong	22140	609.0	521.35	42	7655307	14040	97.13	81.02	8.02	100.00
Lijiang	20680	122.0	124.48	24	3092899	24116	98.24	94.13	24.91	93.06
Pu'er	45385	251.0	254.29	27	5675443	21685	92.59	90.13	10.54	98.03
Lincang	23620	237.0	242.95	22	5508172	21906	93.50	92.04	11.91	80.00
Tibet										
Lasa	29518	54.0	55.94	72	4249500	64804	58.46	89.50	4.70	91.85
Xigaze	182000	78.0	70.33	29	1877546	23838	96.56	84.82	33.25	87.83
Changdu	110154	74.0	65.75	7			92.59	53.32	3.33	90.50
Linzhi	116175	19.0	19.51	13			100.00	91.82	9.29	91.19
Shannan	79699	35.0	32.90	15	1265300	35038	77.78	93.37	14.02	91.06
Shaanxi										
Xi'an	10106	825.0	846.78	517	62571800	71357	100.00	92.40	11.87	99.70
Tongchuan	3882	84.0	83.44	40	3116070	36803	92.94	91.45	11.84	90.44
Baoji	18117	384.0	371.67	90	19321400	51262	91.73	91.16	12.34	99.70
Xianyang	10189	530.0	509.60	92	23909700	48016	92.72	92.02	15.37	96.90
Weinan	13134	557.0	528.61	75	14886210	27743	98.62	88.96	12.77	95.00
Yan'an	37037	237.0	218.70	36	10829110	48300	84.94	90.78	10.65	96.50
Hanzhong	27246	384.0	341.62	42	11564920	33597	81.45	91.72	13.37	98.50
Yulin	42923	382.0	335.14	64	27730540	81764	86.66	89.76	12.37	93.27

Name of Cities	Total area of city's administrative (sq.km)	Total population at year-end (10,000 persons)	Total residents of the Sixth Population Census (10,000 persons)	Area of Built-up district (sq.km)	Gross Regional Product (10,000 yuan)	Per Capita Gross Regional Product (yuan)	Water Coverage Rate(%)	Wastewater Treatment Rate(%)	Per Capita Public Green Space (sq.m)	Domestic Garbage Treatment Rate(%)
Ankang	23536	304.0	262.99	45	8428616	31770	95.18	90.26	13.29	99.70
Shangluo	19292	253.0	234.17	26	6992980	29574	99.75	81.64	7.06	96.18
Gansu										
Lanzhou	13086	324.0	361.62	247	22642318	61207	97.02	95.44	12.71	100.00
Jiayuguan	2935	21.0	23.19	70	1534089	62641	100.00	91.19	36.96	100.00
Jinchang	8896	46.0	46.41	43	2078152	44202	100.00	95.17	22.86	100.00
Baiyin	21158	182.0	170.88	63	4422085	25813	100.00	94.09	9.51	95.55
Tianshui	14277	371.0	326.25	56	5905136	17800	96.77	95.71	9.89	100.00
Wuwei	33238	191.0	181.51	32	4617272	25396	97.32	99.71	14.96	99.50
Zhangye	41924	131.0	119.95	64	3999436	32729	100.00	90.61	45.17	100.00
Pingliang	11170	234.0	206.80	36	3673000	17486	99.73	90.50	8.35	100.00
Jiuquan	193974	112.0	109.59	55	5779341	51721	100.00	91.56	11.45	100.00
Qingyang	27119	270.0	221.12	25	5978324	26734	100.00	91.53	7.48	97.40
Dingxi	19609	303.0	269.86	25	3310768	11892	98.36	91.12	16.56	100.00
Longnan	27839	288.0	256.77	14	3398884	13805	95.04	74.74	5.71	100.00
Qinghai										
Xining	7660	203.0	220.87	92	12481677	53756	99.99	74.05	12.21	95.36
Haidong	13161	171.0	139.68	34	4227986	28999	99.49	78.05	5.78	98.50
Ningxia										
Yinchuan	9025	184.0	199.31	171	16177071	74288	92.22	95.21	16.64	97.00
Shizuishan	5310	75.0	72.55	103	5135744	64880	99.79	95.72	23.27	97.72
Wuzhong	16758	142.0	127.38	54	4424283	32039	95.45	90.61	20.55	100.00
Guyuan	13047	150.0	122.82	35	2398058	19720	100.00	90.14	10.06	100.00
Zhongwei	17448	121.0	108.08	54	3391289	29549	90.58	96.25	26.13	100.00
Xinjiang										
Urumqi	13788	268.0	311.26	436	24589766	69865	99.96	90.38	11.35	96.34
Karamay	7735	30.0	39.10	75	6209989	137307	100.00	95.32	11.62	99.08
Turpan	70049	63.0	62.29	19	2251000	35891	100.00	95.00	17.60	100.00
Hami	138919	56.0	57.24	41	4036800	65298	99.95	86.13	13.26	100.00

The data above don't inclucle Hong Kong, Macao or Taiwan.

## Notes to the Basic Data of China's 297 Cities at and above Prefecture Level (2016)

#### I. Data Resources

- 1. Administrative level
- 2. Total land area of city's administrative region
- 3. Total population at year-end
- 4.Area of built-up district
- 5. Gross regional product
- 6. Per capita gross regional product

Source of above data: China City Statistical Yearbook 2017. Beijing: Department of Urban Surveys, National Bureau of Statistics of China. Beijing: China Statistics Press. December 2017.

- 7. Wastewater treatment rate
- 8. Domestic garbage treatment rate
- 9. Water coverage rate
- 10. Per capita public green space

Source of above data: China Urban Construction Statistical Yearbook 2016, see on the official website of Ministry of Housing and Urban-Rural Development of the People's Republic of China, http://www.mohurd.gov.cn/xytj/ tjzljsxytjgb/jstjnj/w02018010521542516551482530.xls

### II. Data Illumination

1. As of the end of 2016, 657 Chinese cities nationwide were comprised of 4 municipalities directly under the administration of the central government, 15 sub-provincial cities, 278 prefecture-level cities, and 360 county-level cities.

- China City Statistical Yearbook 2017, p.3

2. Total land area of city's administrative region refers to the total area of the land and waters within the administrative region.

- China City Statistical Yearbook 2017, p. 397

3. Total population at year-end refers to the total population with residence registration at the public security authorities of the city concerned by 24:00PM, December 31 of each year.

- China City Statistical Yearbook 2017, p.397

4. Total Residents of the Sixth National Population Census refers to the permanent population in the Sixth National Population Census conducted at zero hour of November 1, 2010 as the reference time, including persons

living in the local townships, towns or sub-districts, with their household registration at the local townships, towns or sub-districts or with pending household registration; persons living in the local townships, towns or sub-districts and having left the local townships, towns or sub-districts of their household registration for over 6 months; and persons with household registration in the local townships, towns or sub-districts and having left the the local townships, towns or sub-districts and persons with household registration in the local townships, towns or sub-districts and having left the the local townships, towns or sub-districts for less than 6 months or studying overseas, not including overseas personnel living permanently within the provinces.

- Communiqué of the National Bureau of Statistics of the People's Republic

of China on Major Figures of the 2010 Population Census

5. Area of built-up district refers to the contiguous areas within the urban districts which have been actually developed and basically equipped with complete municipal and public facilities.

- China City Statistical Yearbook 2017, p.397

6. Gross regional product refers to the final products at market prices produced by all resident units in a region during a certain period of time.

- China City Statistical Yearbook 2017, p.398

7. Water coverage rate refers to the ratio of the urban population with access to tap water to the total urban population within the report period. The formula is:

Water Coverage Rate= urban population with access to tap water (including transient urban

population) / (urban population + transient urban population) ×100%.

- Statistical Statements of Cities (County Seats), Villages and Towns Construction (G.T.Z. [2015] 113)

8. Wastewater treatment rate refers to the ratio of the total sewage treatment volume to the total sewage discharge volume within the report period. The formula is:

Wastewater treatment rate = total sewage treatment volume / total sewage discharge volume ×100%.

— Statistical Statements of Cities (County Seats), Villages and Towns Construction (G.T.Z. [2015] 113)

9. Per capita public green space refers to the green space per capita in public space and parks within urban areas at the end of the report period. The formula is:

Per capita public green space = green space in public space and parks within urban

areas/ (urban population + transient urban population).

- Statistical Statements of Cities (County Seats), Villages and Towns Construction (G.T.Z. [2015] 113)

10. Domestic garbage treatment rate refers to the ratio of the domestic garbage treatment volume to the domestic garbage generation volume within the report period. The formula is:

Domestic garbage treatment rate = domestic garbage treatment volume / domestic garbage generation volume×100%.

- Statistical Statements of Cities (County Seats), Villages and Towns Construction (G.T.Z. [2015] 113)

#### Notes:

1. China City Statistical Yearbook 2017 does not include the land area of administrative regions of the following cities: Changdu, Linzhi and Shannan in the Tibet Autonomous Region, Turpan and Hami in the Xinjiang Uygur Autonomous Region. In the statistical preparation of Basic Data of Chinese Cities in 2016, the above data were taken from the National Administrative Division Information Inquiry Platform of the Ministry of Civil Affairs of the People's Republic of China.

2. China City Statistical Yearbook 2017 does not include the area of built-up districts of the following cities: Taiyuan of Shanxi Province, Shenyang and Dandong of Liaoning Province, Heyuan and Chaozhou of Guangdong Province, Sansha and Danzhou of Hainan Province, Shigatse, Changdu, Linzhi and Shannan of Tibet Autonomous Region, Haidong of Qinghai Province, Turpan and Hami of Xinjiang Uygur Autonomous Region. In the statistical preparation of Basic Data of Chinese Cities in 2016, the above data were taken from China Urban Construction Statistical Yearbook 2016.

3. China City Statistical Yearbook 2017 does not include the gross regional product and per capita gross regional product of the following cities: Sansha of Hainan Province, Changdu, Linzhi, and Shannan of Tibet Autonomous Region, Turpan and Hami of Xinjiang Uygur Autonomous Region. In the statistical preparation of Basic Data of Chinese Cities in 2016, the data on Shannan of the Tibet Autonomous Region were taken from the Statistical Communiqué of National Economic and Social Development of Shannan in 2016, the data on Turpan in 2016, and the data on Hami of Xinjiang Uygur Autonomous Region were taken from the Statistical Communiqué of National Economic and Social Development of Hami in 2016.

4. Due to statistical errors, the per capita gross regional product of Qinhuangdao of Hebei Province in 2016 (73,755 yuan) was higher than the per capita gross regional product of the municipal districts in that year (56,805 yuan), and was significantly higher than the city's per capita gross regional product in 2015 (40,746 yuan) according to China City Statistical Yearbook 2017. In the statistical preparation of the Basic Data of Chinese Cities in 2016, the per capita gross regional product of Qinhuangdao was obtained by dividing the gross regional product by the total population at the end of the year (45,280 yuan).

(Data collected and collated by: Mao Qizhi, Professor of Tsinghua University)

#### AUTHORS:

#### CHAPTER I (Authors):

Yin Zhi, Vice Chairman, Urban Planning Society of China, Executive Vice President, Professor, Institute for China Sustainable Urbanization Research, Tsinghua University

Lu Qinggiang, Deputy Chief Planner, Director of Research Center for Master Planning, Senior Engineer, Beijing Tsinghua Tongheng Urban Planning and Design Institute

Hu Ming, Urban Planner, Beijing Tsinghua Tongheng Urban Planning and Design Institute Long Maogian, Urban Planner, Beijing Tsinghua Tongheng Urban Planning and Design Institute Yang Gaihui, Urban Planner, Beijing Tsinghua Tongheng Urban Planning and Design Institute Liu Tingting, Urban Planner, Beijing Tsinghua Tongheng Urban Planning and Design Institute

#### CHAPTER II (Authors):

Lin Jian, Dean, Professor, Department of Urban and Regional Planning, College of Urban and Environmental Sciences, Peking University

Liu Shiyi, Postdoctoral Research Fellow, College of Urban and Environmental Sciences, Peking University

Ye Zijun, PhD candidate, College of Urban and Environmental Sciences, Peking University Wu Ting, Master's degree candidate, College of Urban and Environmental Sciences, Peking University

#### **CHAPTER III (Authors)**

Shao Yisheng, Academician, International Eurasian Academy of Sciences, Research Fellow, China Academy of Urban Planning and Design

Zhang Zhiguo, Vice President, Research Associate, Urban & Rural Water Research Institute, China Academy of Urban Planning and Design

Ma Lin, Deputy Director-General, Professorate Senior Engineer, China Academy of Urban Planning and Design

Zhou Changging, Director-General, Research Fellow, Research Institute for Water Development, Urban & Rural Water Research Institute, China Academy of Urban Planning and Design

Bai Jing, Research Associate, CAUPD Beijing Planning & Design Consultants Co.

An Yumin, Assistant Engineer, China Academy of Urban Planning and Design

#### CHAPTER IV (Authors):

Zhang Quan, Vice Chairman, Research Fellow-level Senior Engineer, Urban Planning Society of China Ye Xingping, Deputy Chief Engineer, Research Fellow-level Senior Engineer, Urbanization and Urban Rural Planning Research Center of Jiangsu

Chen Guowei, Senior Engineer, Urbanization and Urban Rural Planning Research Center of Jiangsu Wan Zhen, Assistant Engineer, Urbanization and Urban Rural Planning Research Center of Jiangsu Li Linyang, Assistant Engineer, Urbanization and Urban Rural Planning Research Center of Jiangsu

#### CHAPTER V (Authors):

Shi Weiliang, Vice Chairman, Urban Planning Society of China, President, Professorate Senior Engineer, Beijing Municipal Institute of City Planning & Design

Shi Xiaodong, Vice President, Professorate Senior Engineer, Beijing Municipal Institute of City Planning & Design

Liao Zhengxin, Deputy Director-General, Professorate Senior Engineer, Urban Design Department, Beijing Municipal Institute of City Planning & Design

Ye Nan, Deputy Director-General, Professorate Senior Engineer, Urban Design Department, Beijing Municipal Institute of City Planning & Design

Guo Jing, Senior Engineer, Beijing Municipal Institute of City Planning & Design Xin Ping, Planner, Beijing Municipal Institute of City Planning & Design

#### CHAPTER VI (Authors):

Zhang Shangwu, Director, Chairman of Rural Planning and Development Committee, Urban Planning Society of China, Vice Dean, Professor, College of Architectural and Urban Planning, Tongji University

Xi Hui, Senior Researcher, Senior Engineer, China Rural Planning and Development Research Center, Shanghai Tongji Urban Planning and Design Institute Co., Ltd.

Zhang Li, Secretary-General, Small Towns Planning Committee, Urban Planning Society of China, Associate Professor, College of Architectural and Urban Planning, Tongji University

Yang Ben, Research Fellow, China Rural Planning and Development Research Center, Shanghai Tongji Urban Planning and Design Institute Co., Ltd.

Zou Haiyan, Research Fellow, China Rural Planning and Development Research Center, Shanghai Tongji Urban Planning and Design Institute Co., Ltd.