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Better City, Better Life

SHANGHAI
MANUAL

A Guide For Sustainable Urban Development
In The 21st Century · 2017 Annual Report

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United Nations
Bureau International des Expositions
Shanghai Municipal People's Government
Supported by Ministry of Housing and Urban-Rural Development of the People's Republic of China

Within the last two years, several key global agreements for sustainable development have been reached together with a series of the *Shanghai Manual* since its first published at the Expo 2010. In September 2015, the United Nations adopted the *2030 Agenda* and the Sustainable Development Goals, a set of ambitious goals to end poverty, protect the planet, and ensure prosperity for all. Its goal number 11 calls to 'make cities inclusive, safe, resilient and sustainable'.

One year later in October 2016, the United Nations adopted the *New Urban Agenda*, a global milestone agreement to guide worldwide efforts towards sustainable urbanization. The *New Urban Agenda* was unanimously adopted at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in Quito, Ecuador on 20 October 2016. In December 2016, during the sixty-eighth plenary session of the seventy-first General Assembly, all United Nations Member States endorsed the *New Urban Agenda* and committed to work together towards a paradigm shift in the way we plan, build, and manage our cities.

The implementation of the *New Urban Agenda* is now crucial for the achievement of the Sustainable Development Goals as well as other global development agreements and frameworks. We believe that the updated version of the *Shanghai Manual* with focus of deep analysis and summary of the urban governance will complement the implementation of the *New Urban Agenda*. How we envisage and share our urban spaces with good urban governance ultimately impacts how we address global challenges, and it is in our cities, towns, andvillages where actions must be prioritized and operationalized.

The *Shanghai Manual* will be updated annually as part of the implementation of the *New Urban Agenda* and the *2030 Agenda for Sustainable Development*. This updated version of the *Shanghai Manual* will be launched to commemorate the one year after the adoption of the *New Urban Agenda* in Quito on World Cities Day, 31 October 2017.

I would like to extend my sincere congratulations for the launch of the *Shanghai Manual* 2017 and the team to make this happen. I believe that the Manual will

serve as a useful reference for other cities to realize and materialize the sustainable urbanization with a collection of case studies, experiences and expertise drawn from around the world on how we can create a sustainable urban future together.

Sincerely

Dr. Joan Clos

Executive Director

United Nations Human Settlements Programme

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Foreword[*]

The prerious two editions of *Shanghai Manual*(2011 and 2016) are an important legacy of 2010 World Expo in Shanghai. Both are collections of classic case studies of sustainable development from cities around the world. Today, it is playing an increasingly important role in supporting the efforts of mayors and urban administrators in advancing sustainable urban development. The ideas and spirit of the *2030 Agenda for Sustainable Development*(ASD) and *New Urban Agenda*(NUA) have been integrated into the *Shanghai Manual* 2016 in particular, with focuses on inclusive cities, innovative cities, creative cities, low-carbon, and resilient cities, and livable cities. The manual selects and summarizes best practice cases of sustainable urban development in these areas. In the meantime, as urbanization continues to gather pace worldwide, cities are facing new challenges, including urban population explosion, rapid urban expansion, housing shortage, air pollution, congestion and urban inequality. These challenges have hindered sustainable development, which makes it more complicated for cities to achieve the aforementioned urban development goals and involves a more diverse and complex range of entities. We are now in urgent need of better urban governance. In 2016, the third UN Conference on Housing and Sustainable Urban Development(Habitat III) adopted the *New Urban Agenda*, which laid out new development targets and directions for cities around the world for the next two decades. The Quito Declaration in this document clarifies a common vision that cities and human settlements can be shared and enjoyed by all, and brings this vision to the level of the idea of the 'right to the city'. The Quito Implementation Plan for the New Urban Agenda specifies the need to commit to transforming the model of urban governance and to strengthen 'urban governance, with sound institutions and mechanisms that empower and include urban stakeholders, as well as appropriate checks and balances, providing predictability and coherence in urban development

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* Foreword is compiled by College of Architecture and Urban Planning Tongji University, written by Peng Zhenwei.

plans to enable social inclusion, sustained, inclusive and sustainable economic growth and environmental protection.' The *Shanghai Manual* provides practical solutions to problems related to sustainable urban development in the real world, with a focus on urban governance and sustainable urban development. The manual is therefore of special significance to the implementation of *The 2030 Agenda for Sustainable Development* and the *New Urban Agenda*. The two documents were also major reasons behind the decision of urban governance as the theme of the *Shanghai Manual—A Guide for Sustainable Urban Development in the 21ˢᵗ Century · 2017 Annual Report*.

Since the end of the 1980s, the international academic community has introduced the concept of urban governance and has begun relevant researches. Urban governance is seen as a process in which city governments, institutions, social organizations, individuals collectively make decisions on urban development and urban administration. Studies on urban governance come from disciplines including urban planning, urban management, urban sociology, and in most cases, are concerned with the governance of urban space and the various matters arising from urban planning, construction and management. The research often examines how to optimize the structures of urban space, improve urban public services, boost urban vitality and strengthen city competitiveness. In the practice of urban governance over recent years, there has been a tendency to pursue economically, socially and environmentally sustainable models and to stress the inclusive development of cities. The structure of urban governance tends to be increasingly pluralistic and multi-centered, and governing bodies have become more diverse, transforming the traditional authority-centered top-down urban administration approach into a system in which more citizens participate in urban administration, private agencies engage in the provision of public services, and multiple stakeholders coordinate and cooperate with each other. Meanwhile, the development of new technologies is also improving the capability of urban governance. Since the official publication of the NUA in 2016, governments in a range of countries have worked proactively to implement its provisions and initiatives through various approaches, in order to realize the visions of the *New Urban Agenda*.

Given the above considerations, the 2017 report will focus on the topic of urban governance. Building on descriptions of urban governance concepts, different urban governance models, and development trends in urban governance, the report will analyze existing problems and major challenges facing global urban governance from a practical perspective. In addition, the report will put forward overall strategic choices, specific strategies and decision-making advice for realizing the various visions of the *2030 Agenda for Sustainable Development* and the *New Urban Agenda*, in the hope of providing the much-needed guidance for the implementation of these two major UN agreements. When selecting global urban governance solutions, the report focuses in particular on how to facilitate sustainable urban development through urban governance, including content on urban public spaces, public services, housing, infrastructure, urban renewal and the smart city.

In essence, the report investigates both common and unique urban governance issues encountered worldwide, analyzes the challenges and proposes visions and goals accordingly. By studying outstanding city development case worldwide, it is able to outline suitable and feasible strategies and measures. The *Shanghai Manual* support mayors and urban administrators in their sustainable urban development work, is a helpful reference for cities in their process of urbanization, and more importantly represents an important step in the implementation of the *2030 Agenda for Sustainable Development* and the *New Urban Agenda.*
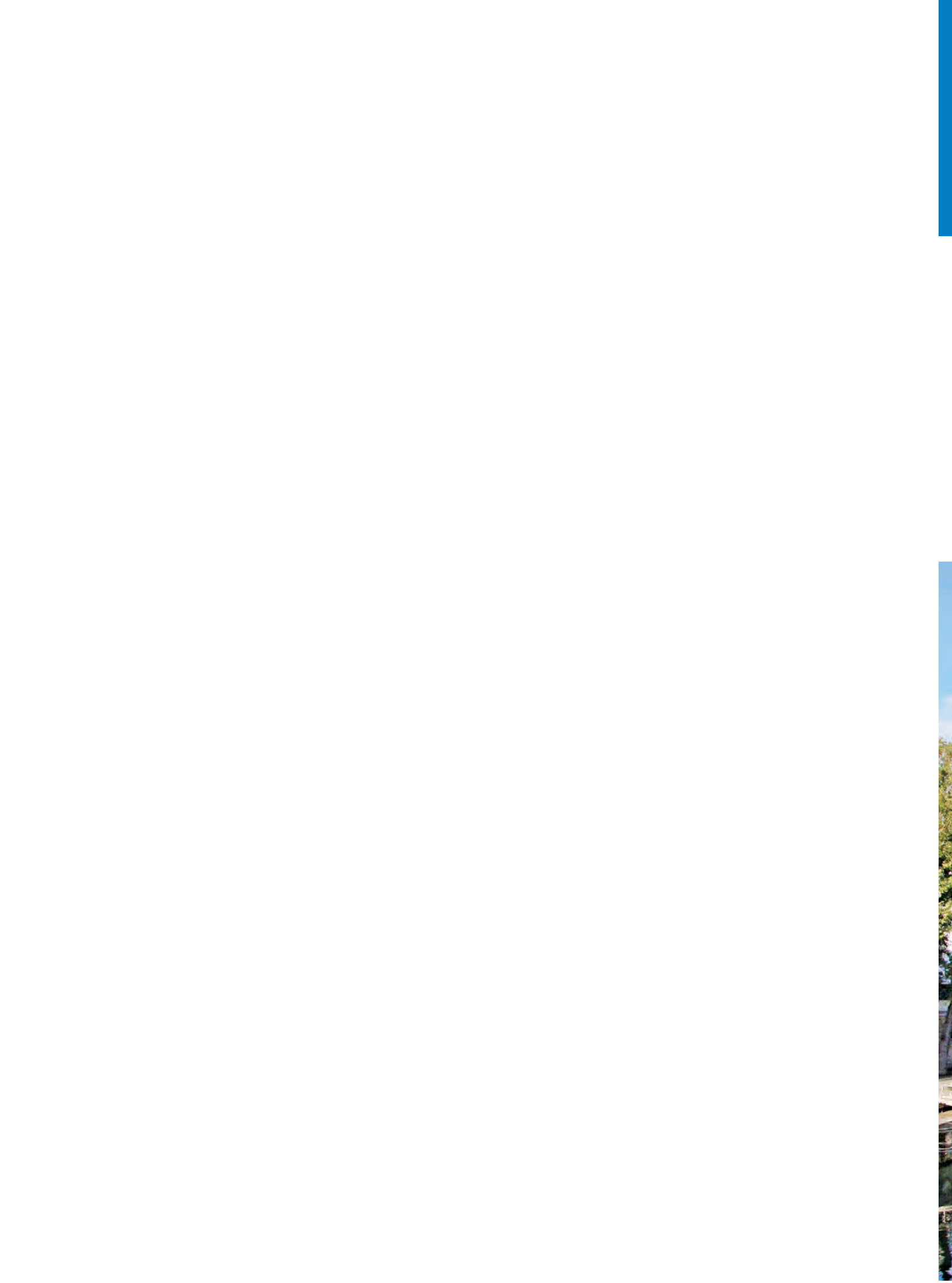
Chapter 1

Concept and Development of Urban Governance

Concept of Urban Governance[*]

According to *Our Global Neighborhood* released by the Commission on Global Governance in 1995, 'Governance is the sum of many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest'. This shows that governance represents a new model of management, referring to a pattern in which the management of an organic organization is no longer a single top-down mechanism. Instead, there should be interactions among different levels for a consensus on management style.[1] Since the 1980s, the governance theory has become a popular research and analysis tool in the public management area, the governance theory has become a popular research and analysis tool in the public management area, showing expanding theoretical connotation and research boundaries, as well as a large amount of research findings.[2] It is in this period that developed countries applied the theory of governance to their urban operation and management policy development to tackle old and new problems in the process of urbanization. They coined the concept of urban governance and its theoretical system, which were promoted by them to the rest of the world and later became an important global research field.

Therefore, the core concept of urban governance, a process of applying the concept of governance to the management of urban public affairs, originated from governance theory.[3] Some scholars believe that urban governance is the sum of many ways in which governments at all levels, institutions, social organizations and individuals manage their common affairs,[4] and some believe that urban governance is the process in which the city government and the civil society make joint decisions for urban development and management in the economic structure of the

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[*] Chapter 1 is compiled by College of Architecture and Urban Planning Tongji University, written by Peng Zhenwei, Hou Li, Cheng Yao, Qiu Xiang, Tang Weicheng.

[1] Rhodes R.A.W. 'The New Governance: Governing Without Government'. *Political Studies*, 1996(44):652–667.

[2] Sheng Guangyao. 'Review on Urban Governance Studies'. *Urban Problems*, 2012(10):81–86.

[3] Yuan Zheng. 'Urban Governance Theory and Its Application in China'. *Academic Research*, 2007(7):63–68.

[4] Gu Chaolin. 'Studies of Urban Governance in Developing Countries and Their Implications to China'. *Urban Planning*, 2001(9):13–20.

modern market.[1] And some argue that from a broad perspective, urban governance refers to management within urban space. It seeks an sustainable development of economy, society and ecology in the city, as well as an coordinated development of the whole region by integrating factors of production within the city, including capital, land, labor, technology, information and knowledge.[2] Urban governance in its narrow sense refers to the process, in which the government, the private sector and NGOs, as the three main forms of organization within the city, establish a governance network that is multi-actor and interdependent. Based on equality and in accordance with the governance mechanism of participation, communication, consultation and cooperation, they work with each other and incorporate interests in the process of solving urban public problems, delivering urban public services and enhancing public interests in the city.

Although there are more than one definition of urban governance with different focuses, the definitions share some connotations: (1) adjusting and delegating government decision-making power to reconstruct relations between different governments, the government and the market, and the government and the society; (2) highlighting the complex relationship involved and the fact that governance is a process, and paying attention to consultation, negotiation, interaction and cooperation among various parties; (3) aiming to form a benign self-governance system, for the improvement of people's living standard and the sustainable development of urban enviroment. In this sense, the core business of urban governance in actual urban development lies in how a city handles its public affairs, which in essence means how the varied actors of urban development jointly solve the various problems arising from urban development.

Connotation and Interpretation of Urban Governance

1. Shift from Single Centralized Management to Multi-participant Democratic Management

Political democratization, social stratification, the development of information

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[1] Zhou Chengjun, Hong Yinxing. 'Markets, Governments in Urban Management and Modern Urban Governance: Experience Review and Theoretical Reflection'. *Reform*, 2003(4):15–22.

[2] Wang Dianli. 'Urban Management Transformation and Urban Governance Analytical Framework'. *Chinese Public Administration*, 2007(12):97–101.

technology and other factors have exposed prominent negative effects of the centralized decision-making mechanism. This not only propelled the decentralization of the central government and local governments, but also highlighted the need to delegate, as appropriate, the decision-making power and social management functions of the municipal government. Under the concept of urban governance, the city government is not the only decision maker of urban public affairs. The public, social organizations and businesses also participate in decision-making and governance.

The concept of urban governance broke previous limitations when the government was the only center of power[1], and effectively bridged the city government and the non-government society. Urban governance has enriched the role that different social groups and organizations play in urban public management, assumed part of the city government's responsibility and functions shared them with the public, businesses and social organizations. Urban governance also reconstructed the interrelationship among different actors, which has also boosted changes and innovations of systems, mechanisms, and corresponding administration of the city government. The city government has withdrawn from some social areas to invest more efforts and funds in the key public service areas to achieve more efficient social management and internal operation of the government.

2. Shift from Urban Policy System Management to Coordinated Management of Complex Relationship between Parties Involved in Urban Governance

Urban governance is not about a string of rules or systems. It is a process of interaction and consultation. This ongoing process is firstly reflected within actors of urban governance, including the bureaucratic city government, the private sector in different areas, and citizens of different classes. Secondly, the process of urban governance sees complex interaction among actors at different levels. For example, the bureaucratic city government remains the leading player in urban governance. The organizational capacity of the government is a key factor to the advancement of urban governance. Internally, governance capacity of the city government is embodied in its vertical regulation, checks and balances, and administrative constraints on the various departments. Externally, its governance capacity is manifested in promoting constructive collaboration among

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[1] Stoker G. 'Governance as Theory: Five Propositions'. *International Social Science Journal*, 1999(3):17–28.

organizations, businesses and citizens. The city government works with different interest groups and organizations, striving for their common goals. The process of urban governance is complex and its different levels need to be understood. Cooperation in various fields requires different forms of platform for consultation. Urban governance is an opportunity for actors with different interests to participate in equitable consultation. Through such consultation and continuous interaction, actors involved will fresh their understanding of mutual dependence, and naturally incorporate the complex interactive relationship into the development of a self-governing network.

3. Shift from Autonomous Internally-responsive to Externally-adaptive Governance Network Cooperation System

Urban governance is supposed to respond to both interactions among different interests within the city and external influences of all kinds. Factors like globalization, adjustment and repositioning of national strategies, scale reconstruction of territorial governance, as well as the fierce competition among city governments require a governance network system for both internal response and self-adjustment within the city. Such system should include formal and informal organizations, various public and private sectors, as well as members of different social groups. The autonomy of the system is embodied in the fact that urban governance can expand, deepen and form a cooperation intention and action criterion in specific fields of economy, society, environment and politics, and

Source: United Nations Human Settlements Programme, UN-HABITAT.

Figure 1.1   17 Sustainable Development Targets Brought Forth in the *2030 Agenda for Sustainable Development*

evolve toward a more flexible cooperative network.

The urban governance network system is designed to achieve the ultimate goal of actively responding to external trends and achieving sustainable urban development. The *2030 Agenda for Sustainable Development*, adopted by the United Nations General Assembly in 2015, defined 17 sustainable development goals for the next 15 years. The 'Habitat III' conference, held in Quito in 2016, is an implementation and shows support of the *2030 Agenda*. The *New Urban Agenda*, which was promulgated at the conference, suggested that a sound social governance structure plays an important role in a city's response to challenges. In the new context, all sectors of society in the urban governance network system will pay more attention to their common goals and interests, and advance sustainable development of the city through local cooperation. All these efforts will forge a flexible, fair and competitive urban governance system. New technologies, ideas and methods will continue to be introduced, which is significant for the sustainable development of the city.

Common Models of Urban Governance

More than half of the world's population now lives in cities. Urbanization has on the one hand enabled people to enjoy the achievements of modern civilization and, on the other hand, presented unprecedented challenges, including exponentially growing populations, congestion, poverty, cultural conflicts and financial crises. To tackle these development challenges, municipal governments have tried to explore possible approaches to governance. However, varying macro environments, stages of development and challenges require different models of urban governance. Starting from a review of the urban governance concepts, main objectives and participants, the *Shanghai Manual* draws upon the research of political scientists Pierre[1], Ansell and Gash[2], and summarizes the main models of urban governance as follows:

1. Managerial Governance

Managerial governance was introduced to cope with the ever-expanding reach of urban public services, loose governments, constantly growing financial budgets and public expenditures, and the resultant crisis of confidence in the government. The

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[1] Pierre J. 'Models of Urban Governance: The Institutional Dimension of Urban Politics'. *Urban Affairs Review*, 1999, 34(3):372–396.

[2] Ansell C., Gash A. 'Collaborative Governance in Theory and Practice'. *Journal of Public Administration Research and Theory*, 2008, 18(4):543–571.

model draws upon ideas incorporate management and close attention is paid to the efficiency and output of urban governance.

Managerial governance is based on the idea that urban public services can simulate market management models and be provided through a 'transaction' between the supplier(the city government) and the customer(the citizen). Managerial governance emphasizes cost and efficiency, and in order to achieve the 'professionalization' of urban administration, it involves experts from multiple fields(especially corporate management) in its decision-making process, therefore incorporating elements of the elite theory. Building on this model, the theory and practices of 'new public management' have been developed. Key ideas and approaches include: the government as 'helmsman' rather than 'rower'; the learning from the best management practices and lessons from the private sector; the introduction of competition mechanisms; and customer-(citizen-) —oriented governance.[1]

The results of practice indicate that this model is in fact effective in boosting the efficiency of government agencies and increasing the authority and evidence base of urban policy-making. However, inevitably, there are drawbacks. First, the provision of urban services, especially public goods, is not the same as a market transaction. Due to their externalities, resources cannot be appropriately allocated based solely on a market transaction model. Second, this model highlights efficiency and output, but often neglects other important aspects of urban governance such as social and procedural justice.

2. Corporatist Governance

The corporatist governance model grew out of the political concept of participatory democracy. Its features include huge public agencies, a complex system of resource reallocation and a high-level of political participation, as well as powerful social groups.

Corporatist governance aims to allow stakeholders to express their needs and have their interests met by involving the stakeholders in the process of governance. In other words, the governance and policy-making process is one in which various groups compete for their interests through bargaining and eventually reach a consensus. In this governance model, major stakeholders all participate in the decision-making process, therefore, the city residents are highly accepting of local

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[1] Yao Maixin, Tan Haibo. 'The Transformation of Urban Governance Models in China under New Public Management Theory from the Perspective of Systems, Governance Entities and Culture'. *Tan Suo*, 2010 (2):46–51.

governance policies and act in concert with the local government in the process of urban governance.

Compared to other models of governance, however, the complex participation process slows down the implementation of policies. Moreover, due to its overdependence on stakeholder participation and joint decision-making, corporatist governance is inevitably used by stakeholders to prioritize partial interest over public interest, leaving the urban government in a weaker position. This, in practice, often leads tocarving up of the public interest by different interest groups.[1]

3. Progrowth Governance

Against the backdrop of economic globalization, cities want to hold an advantageous position in the fierce competition for resources. Therefore, some municipal governments consider boosting economic growth, increasing competitiveness of the city and attracting external investment as their priorities. When transforming in this way, municipal government and business elites form a so-called 'growth coalition' and jointly perform urban governance through a pro-growth governance model.

Pro-growth governance builds upon close and institutionalized public-private partnerships and profit sharing mechanisms. It is a typical elite governance model which includes business elites and senior officials devoted to promoting local economic growth as participants. The common goal is a long-term and, sustainable development, and a range of measures are adopted to achieve the goal, including urban planning, competition for local or national resources, infrastructure construction and raising the city's profile to attract investment.

The results of pro-growth governance practices reveal that this model does help local economic growth. For this reason, it is very widely applied to stimulate an economic boom over a short term, especially in developing countries. Nevertheless, pro-growth governance is also the subject of widespread debate, mainly focusing on questions such as the extent to which political decisions can influence urban economy and whether a city's interest is simply the same as economic growth. In particular, due to the low level of public participation, it is not easy to guarantee a fair distribution of economic benefits, inevitably resulting in a widening income gap and social conflicts.

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[1]   Pierre J. 'Models of Urban Governance: The Institutional Dimension of Urban Politics'. *Urban Affairs Review*, 1999, 34(3):372–396.

4. Welfare Governance

Welfare governance aims to achieve relative equality in social development by leveraging the national welfare system and transfer payment mechanisms. This model has been widely adopted in traditional industrial cities trapped in sluggish economic growth in particular.

In this model, city administrators typically expect assistance from the central government to help reinvigorate local economy. However, this generally leads to excessive dependence on government intervention, which in turn further dampens the local market economy. When a city falls into economic difficulties, government intervention and financial stimulus can help its economy grow in the short term, mitigate social problems that are caused by the economic downturn, and prevent unbalanced regional development. However, this external injection of resources does not allow the city to develop its own sources of growth. Cities must leverage public welfare resources, identify new sources of growth and restructure their industrial base to achieve sustainable development in the long term.

5. Collaborative Governance

Collaborative governance encourages all stakeholders(including organizations and individuals) to participate in collective decision making. Public policies are decided and implemented after an official, consensus-oriented and balanced political process. In comparison with other models, collaborative governance engages as many stakeholders as possible(including individuals and vulnerable groups) directly in the policy-making process. The role of urban government then transforms from that of decision-maker to launcher and organizer of collaborative platforms, guiding stakeholders through the decision-making process.

Collaborative urban governance does achieve positive results in practice. However, a number of case studies indicate that the model's decision-making process is time-consuming, especially at the consensus-seeking stage where a relatively large amount of time is required for stakeholders to build mutual trust. Therefore, collaborative governance does not cope well with emergencies, such as like policies that must be decided and implemented in a short period of time. Moreover, collaborative governance is by its nature a more demanding model for urban governments, as it changes the government's role, i.e. the government should

proactively lead the negotiations throughout the entire participatory process to ensure that it moves toward consensus and that interests of certain groups are not overlooked.

In summarizing the above governance models, we can see that the background, challenges, objectives and political context for each model differ in a number of ways(Table 1.1). As described in the case studies of urban governance introduced in the *Shanghai Manual*, urban governments tend to combine multiple governance models when tackling emerging topics and take innovative measures to meet specific local requirements, providing lessons from which governments of other cities can learn.

Table 1.1   Comparison of Governance Models

Category	Managerial Governance	Corporatist Governance	Progrowth Governance	Welfare Governance	Collaborative Governance
Core values	Efficiency	Representative participation	Economic growth	Justice	Wide participation
Participants	Professional managers	Interest group representatives	Business elites and senior officials	Local and national governments	Stakeholders (individuals and organizations)
Objectives	More productive and efficient public services	Protect the interests of members of interest groups	Sustainable economic growth	National support for economically-weaker regions to achieve balanced development	Consensus of multiple stakeholders on public issues
Means	Interaction with private sectors, creation of management positions or public positions in specialized fields	Encouraging representatives of major interest groups to participate in governance processes	Improving infrastructure and the investment environment	Building a political resource network between central and local governments	Guiding the public and NGO stakeholders to directly participate in the governance process

Note: 1. Pierre J. 'Models of Urban Governance: The Institutional Dimension of Urban Politics'. *Urban Affairs Review,* 1999, 34(3):372–396.

2. Gu Chaolin et al. *Urban Management—Concept·Theory·Method·Practice*. Southeast University Press, 2003.

3. Zhang Xianchun, Shan Zhuoran, Xu Shuncai, Hong Shijian. 'Meanings·Models·Value: Review, Comparison and Hope for Urban Governance Research in Western Countries and China'. *Urban Studies*, 2016, (02):84-90+104.

Development Trend of Urban Governance

1. The Sustainable Development of the City Defines the Ultimate Goal of Urban Governance in the New Era

Sustainable urban development is a timeless theme of urban development in the world today. For that, people across the world have never stopped trying, from the *Rio Declaration on Environment and Development*, to the World Summit on Sustainable Development, the World Summit for Social Development, the *International Conference on Population and Development Program of Action*, the *Beijing Platform for Action* and the United Nations Conference on Sustainable Development, as well as the follow up to these conferences. In particular, the 17 sustainable development goals adopted in the United Nations *2030 Agenda*, involving social, economic, environmental, peace, justice, efficient institutions and other aspects related to peace, justice and efficient institutions, have depicted a blueprint for human sustainable development in the next 15 years. The *2030 Agenda* is a social contract between world leaders and people across the globe. It is also a list of actions for the benefit of human and the earth. The *New Urban Agenda*, which was adopted at the 2016 Habitat III, reaffirms our global commitment to sustainable urban development as a critical step for realizing sustainable development in an integrated and coordinated manner at global, regional, national, sub-national, and local levels, with the participation of all relevant actors.

To realize the transformative commitments set out in the *New Urban Agenda* requires an urban paradigm shift in the social, economic, environmental and other relevant dimensions, so that cities and human settlements can be more inclusive, safe, resilient and sustainable. Therefore, it is an important task in future urban governance to promote the transformation of urban development models for sustainable economic, social and environmental development, and to build open, shared, inclusive and sustainable cities. This is also an ultimate goal requiring continuous efforts.

For the sustainable development of economy, countries around the world are pursuing sustainable and inclusive urban economy to meet current and future challenges in economic growth, leveraging urbanization for structural transformation, high productivity, value-added activities and resource efficiency, and also harnessing the local economy. At the same time, countries are leveraging the agglomeration benefits of well-planned urbanization, high productivity, competitiveness, and

Figure 1.2   Sustainable Environment Development

innovation, focusing on the role of the informal economy, promoting full and productive employment for all, and ensuring decent job creation to end poverty.

For the sustainable development of society, social inclusion and ending poverty remain a major task in the future. That is, to foster prosperity and opportunities for all in sustainable and inclusive cities. Countries around the world will continue to focus on the profound impact of today's socio-economic transformation, universal access to knowledge, skills and education, and the spatial division in closed communities and slums in the city, including land tenure, public space, natural and cultural heritage.

For the sustainable development of environment, countries worldwide have agreed to take concrete actions to control carbon emissions in urban areas, advance sustainable models of consumption and production, promote clean energy, build resilient cities, reduce disaster risks, and mitigate and tackle climate change. At the same time, countries are also advocating healthy lifestyles that are in harmony with nature. They are committed to sustainable use of land and resources to safeguard urban ecosystems and biodiversity.

2. Shift from Focusing on Efficiency and Order to Fairness and Inclusive Development

Inclusive development is an important concept and trend of the present and

future urban development. It focuses on the actual needs, viability, environment and opportunities for the development of all citizens, including persons in vulnerable situations, as well as distribution of benefit. It pursues comprehensive and coordinated development of economy, society and politics. In this trend, the 'people-oriented' idea is both the starting point and the goal of urban governance. The city government is supposed to base its management on people's need, understand, respect, care and rely on them, and deliver services to them. The *New Urban Agenda* begins by emphasizing the 'people-centered' settlements, reflected in the repeated appeals for the improvement of life for all those in vulnerable situations — women, children, youth, persons with disabilities, people living with HIV, seniors, indigenous peoples and local communities, slum and informal settlement dwellers, homeless people, workers, smallholder farmers and fisher-folks, refugees, returnees, displaced persons, and migrants of any migration status. They should no longer be hurt by violence, discrimination, exclusion or neglect.

The development philosophy of the concept 'for all' is widely recognized in the current international community. It is designed for people's individual needs, with the essence of inclusiveness. 'People' here refers to not only those living in the present or contemporary times, but also future generations. As Item 11 of the *New Urban Agenda* goes, 'we share a vision of cities for all'. As the following explanation adds, '(the concept of cities for all) referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient, and sustainable cities and human settlements, to foster prosperity and quality of life for all'. Therefore, cities in the future will become more inclusive human settlements that are shared by all. Everyone can benefit from urbanization. Attention will also be given to those who are in vulnerable situations.

Emphasis on the idea of 'for all' together with the pursuit of fair and inclusive development has come to be a basic value to follow in the future urban governance. People used to focus on the right to development in the past, especially in developing countries. Government's decision-making paid more attention to economic efficiency and social order. Although this has brought about great economic achievements in some countries, the equitable development of the global community was still constrained by a wider range of problems like extreme poverty, inequality between the rich and the poor, as well the neglect of people in vulnerable situations. Good urban governance in the future should absolutely

embrace an inclusive thinking of development, and focus on the equitable evolvement of society. The government should shoulder its responsibility for interest coordination and bottom line control. It does not have to allocate resources directly, but should pay more attention to social issues, and shift its focus from efficiency and order to pursuit of fairness, so that people can have a stronger sense of benefit through the shared experience.[1]

3. Decentralized, Diversified and Multi-centered Development in the Urban Governance Structure

The ongoing transformation of urban governance structure will evolve toward decentralization, diversification and polycentrism. Decentralization is mainly caused by excessive concentration of central authority and 'governance failure' that results from low efficiency in the management of local affairs. Many governments in the world have rolled out decentralization reforms that strengthen the principle of local autonomy. At the same time, there have been ongoing reforms of internal management systems in governments around the world based on local management services, concerning urban development strategies, economic development, transportation, environment and water treatment. A variety of new government agencies and private institutions built on authorization clarification have emerged. In addition, the internal reforms of some local government agencies have also given attention to the voice of marginalized groups and people in vulnerable situations, aimed at fairer government decision-making and enhanced social inclusiveness.

One of the main developmental characteristics of urban governance structure in recent years is that the governance body has become more diversified. The traditional, power-centric top-down management approach is no longer suited to the increasingly complex urban governance practices. In the context of market economy, more and more citizens are looking to participate in urban management and private institutions are hoping to be involved in urban public services. Various forms of cooperation among governments at all levels, coordination of multiple interests and actors, as well as the involvement of the private sector and the direct participation of citizens have brought diverse actors in the process of urban governance. As a result of improper management of the government or the failure of the market, the public is expressing an increasing demand to participate in public

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[1] Shi Nan. '"Habitat III", *New Urban Agenda* and the Implications to China'. *Urban Planning*, 2017(1):9–21.

Figure 1.3   African Countries are Facing the Tide of Rapid Urbanization

management, especially important decisions concerning public affairs such as urban planning, government budget and environmental governance. Meanwhile, the convenient information-driven society has enabled easier public participation. For example, the rapid urbanization has resulted in social exclusion in urban development, including the exclusion of the poor by the rich due to differences of income, sex, household registration, employment and politics; exclusion of the civilians by the elite; exclusion of immigrants by the indigenous; and exclusion of vulnerable groups by the mainstream. These eventually led to a social gap with mutual exclusion. Although community participation does not necessarily bring an inclusive society, it is a good start and a universally applicable method to ease social exclusion and remove social isolation. Community participation enables 'ice-breaking' and brings 'dialogue' back to the table. It is a path to rebuild inclusiveness in a multi-centeric society through dialogue, and eventually reach social empowerment. At present, we see a variety of new forms of urban governance across the world, such as transnational economic cooperation organizations, regional planning organizations and local autonomous institutions(neighborhood organizations, platforms for public participation and community planners). The emergence of these forms of governance reflects more or less the trends of public interests, the least-cost principle, social equity, efficiency, greening, etc. They will show greater potential in future development.

Governance involving diverse actors also directly reflects the trend of a shift of decision-making model in urban governance from the 'unicentric' obedience to 'multi-centeric' cooperation. The model of multi-centeric governance has involved government organizations, civic organizations, business organizations and other stakeholders, therefore realized the diversification of actors, the non-monopoly of rights and the democratization of decision-making. The multi-centeric governance model breaks the centralization and monopoly of unicentric governance. The governance network system, which consists of multiple centers of power, can better allocate social resources and assume responsibility for the supply of public goods and services. This mode requires joint decision-making by actors through discussion and consultation, which has to be supported by reasonable new procedures and mechanisms. At the same time, local governments, as the core of multi-level management, still play a key role in urban governance.

4. Shift from Closed Governance of Urban Administrative Districts to Open Governance through Cross-regional and Cross-border Cooperation

With the deepening of globalization, exchanges and cooperation between city governments across the world have been continuously strengthened. The narrow administrative district governance is developing towards cross-border metropolitan governance involving international cooperation. Cooperation among cities worldwide is more conducive to less-developed cities for them to establish new governance systems and to improve the livelihood of their people. Cooperative relations among cities influence and benefit urban governance at the two levels of urban system and civil society. To pursue 'good governance' in the cooperation among cities worldwide requires the participation of local governments, institutions and the public in decision-making. The establishment of a landscape of cooperative decision-making requires symmetric information, and will improve government capacity and lead to better and innovative methods of 'urban governance'.

Now, more and more cities in the world are involved in international partnerships. It is estimated that 70% of the world's cities have established cooperative relations. China alone has established 2,022 sister city pairs with 131 countries across the world.[1] Developing countries are working to strengthen the management of urbanization. Strengthening cooperation with cities in other countries contributes to the capacity

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[1] Jiang Xianrong, Hong Yuanbo. 'Theories, Case Studies and Implications of International Cooperation on Urban Governance'. *Urban Studies*, 2015(8)22:21–26.

upgrade in local institutions and helps city governments address issues concerning urban management and services. Secondly, cooperation among cities worldwide usually aims to deliver services to the community, including cooperation in school education and sports facilities. More importantly, it serves the poor in the community, which contributes to the good governance of cities in these countries and regions. Also, international organizations play an important role in the cooperation and exchange between cities worldwide. For example, the United Nations and other organizations have committed to promoting capacity building in local governments and multi-level cooperation, as well as facilitating exchanges among relevant stakeholders at all levels of the city over urban solutions.

5. Seeking Intelligent, Integrated and Refined Urban Governance Powered by Internet Information Technology

The information revolution at the end of the 20th century had a profound impact on the world. Nowadays, the development of new internet technologies including big data, cloud computing, Internet of Things and mobile social media has brought significant changes to various aspects, including urban politics, economy, society, culture, people's daily life, construction and management. Development of new technologies like bike-sharing, Airbnb, e-government, smart healthcare and smart transportation have facilitated the life of urban residents and accumulated data for urban governance. However, these new technologies also triggered new problems, such as network sovereignty, departmental information separatism, public privacy protection and urban network security. Therefore, it is becoming one of the important trends in the innovation of global urban governance to adapt to the development and requirements of the society of information, internet and technology, which aims to meet the needs of the public for diversified services and safer urban operation with the support of big data, reshape urban governance system, speed up the development of open government and information database, and achieve a smart (smart transportation, smart healthcare), integrated (information sharing between government departments, establishing one-stop service organization) and refined urban governance.

Countries in the world are at different development levels of information-based management in urban governance. Some countries are still confronted with multiple problems including insufficient hardware facilities, immature utilization of technology, imbalance between development level and urban governance skills. The focus of information-based urban management in the future will shift from the building of basic networks, application systems and public platforms to the deepening and integration of applications, as well as the strengthening of public service delivery. Future directions

include: to enhance the urban public service capacity with e-government technology; to promote innovation in urban management model with information technology; to strengthen the integration of public data for the advancement and utilization of information resources; to improve the security system for urban information with breakthroughs in independent innovations of security technology; and to pace up digitalization of urban communities with focus on improving people's livelihood.[1]

Innovation in the information-based urban governance in the future will focus on the development of citizen-centric digital governance tools, tapping into technological innovations, including capacity-building programs, in order to make information and communications technologies accessible to the public and to strengthen e-government and participation of the public, including women and girls, children and youth, persons with disabilities, seniors and persons in vulnerable situations. These groups should be enabled to develop and exercise civic responsibility, increase participation and foster responsible governance, as well as improve efficiency. The use of digital platforms and tools, including geospatial information systems, will encourage the improvement of integrated urban and territorial planning and design, land administration and management, and access to urban and metropolitan services in the long term.

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Chapter 2

Problems and Challenges in Urban Governance

Practice of Urban Governance[*]

1. Main Stages of Urban Governance Practice

Practice in urban governance has been explored before the concept of urban governance was proposed. The practice of urban governance, represented has developed from market-oriented to government-led urban governance, and then turned into an urban governance model co-dominated by both market and government. The overall trend shows that the practice of urban governance has undergone the following four stages:

(1) Before the early 1930s, the basic characteristics of city government administration was a laissez-faire approach, with its guiding ideology as 'that government is best which governs least'.

(2) From the Mid-1930s to 1960s, marked by Roosevelt's New Deal and the Keynesian Policy, the city government began to expand its functions of social and economic administration, which was embodied by massive intervention in market and social life.

(3) From the 1960s to 1970s, symbolized by the establishment of social security system, new heights have been achieved in expanding the functions of urban government administration, and the number of government institutions and government employees, and the share of government spending in national revenue have all sharply increased. Then new public administration fields and policies kept cropping up, such as those in environmental protection and scientific and technological development, which urged governments to expand their reach. Such a situation persisted until the 1970s. Pitfalls and contradictions got sharpening in the expansion of government functions, alongside which, the strong momentum of informatization and economic globalization also applied pressure to the government to seek reform.

(4) Since the 1980s, government governance reforms have swept the globe. The universality, comprehensiveness, and profoundness of the reform were unprecedented. Almost every aspect of administrative system and management mode was reviewed. The main feature of this wave of reform is a return to 'Limited Government' and attention to the role of market. The convergence in the direction

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[*] Chapter 2 is compiled by College of Architecture and Urban Planning Tongji University, written by Huang Yi, Yang Fan, Li Siman.

of reform among countries addressed the key issue of improving government governance and service efficiency.

The main direction of the current practice in urban governance is to build a system of coordinative governance and governance value system. Collaborative governance model aims to 'fully mobilize and give play to the initiative of all parties, and apply the model in cities and regions worldwide by formulating practical operation procedures and diverse objectives'. The governance value system has established an evaluation mechanism of governance model on one hand, and has pushed governance research to be more dynamic on the other.[1]

2. Main Areas of the Practice of Urban Governance

The practice of urban governance has three focuses: first, areas of economy and population concerning urban development; second, areas of land, housing, and infrastructure concerning urban planning and spatial building; third, areas of sanitation, greening, and environment concerning urban livelihood. Urban governance, in a narrow sense, mainly means the latter two.

2.1   Urban Economy and Finance

The sectors of urban economic management related to urban governance are urban finance and price control. Urban finance has the function of distributing and allocating resources, and stabilizing economy. Price control can maintain overall price stability, protect the legitimate rights and interests of consumers and businesses, and boost the healthy growth of market economy.

Since cities broke away from the period of homogeneous development, competition between city centers and marginal parts, as well as between cities has intensified. Urban governance during this period has responded to economic growth with a limited capital, and emphasized on non-governmental participation. These efforts have effectively secured economic growth. Nevertheless, economic growth has made cities that are appealing to capital attract more economic activities of high added value, thus intensifying space inequality.[2]

2.2   Urban Population Governance

Human are the main entities of a city. Population management is a fundamental system of urban governance, and is related to the registration, alteration and

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[1]   Yuan Zheng. 'Urban Governance Theory and Its Application in China'. *Academic Research*, 2007(7):63–68.

[2]   Brenner, N. 'Urban Governance and the Production of New State Spaces in Western Europe, 1960–2000'. *Review of International Political Economy*, 2004, 11(3), 447–488.

management of the born, death, migration, health, and education of the population. Regarding population management, on the premise of ensuring citizens' right of migration, the city needs to comprehensively use legal, administrative, planning, tax, market, welfare, technology, information, and other means to solidify the foundation of population management system, to make the population be willing to be managed. In this way, they can properly guide population flow and its direction so as to effectively regulate the population size of cities, and guarantee social integration process within regions.

Figure 2.1   Urban Population Governance

Population management plays an important role in the movement of population and migrant population management, and has the following two characteristics in practice. First, based on management, a pair of 'double nuclei' information systems of population management were established. One of the two systems reflects individual life information, and embodies the function of population registration. And the other is related to everyday life, and mainly reflects migration and mobility information, and represents the function of public welfare provision. Second, in terms of management, a residence permit system was founded to achieve progressive welfare provision. The population information registration system was separated from various public welfare, including education, medical service, and elderly care. The residence permit system was used to offer these welfare to migrant population in a phased and progressive way. The source of rational population migration and effective management lies in relatively undifferentiated

provision of public welfare among regions, which is supported by an effective fiscal and financial system.

2.3　Urban Planning and Land Management

Urban planning and land management are key areas of urban governance. Urban land provision is an effective means and tool for city governments to regulate the development of urban spatial economy and the pace of urban construction. In recent years, land utilization and social housing policies have limited the access of the poor to decent housing. Informal settlements, unsure holding, and exclusion are key factors impacting the housing of nearly 1 billion people worldwide.

Various systems of land ownership also exert enormous influence over urban land supply and the way of city building. In most countries that adopt the system of private land ownership, urban building is subject to stricter market restricts. The relevant stakeholders are complicated, and large municipal construction projects and renewal projects of cities always have to go through more complicated consultation and requires a longer period. In countries that adopt public land ownership, urban governments enjoy a relative flexibility. That enables massive urban building, renewal, and large scale municipal facility projects to be easily advanced and implemented. Cities in developing countries also face problems such as excessively fast land expansion, irrational structure of land function and inefficient land use, too high proportion of industrial land use in total urban land use.

2.4　Urban Housing Security

Housing security is an important aspect of urban governance among countries. The policy of urban housing security is subject to national economic and political systems, and economic development levels, so different arrangements of housing security system lead to difference in the results. In most countries, the main beneficiaries of the housing support program are low-income people, and special classes who cannot solve their housing problem themselves. The state defines the bottom line responsibility of governments at all levels to ensure the housing security of low-income groups, including: to develop and build affordable housing, to ensure that 'everyone has access to housing', to offer rent subsidies and renting guarantee, to ensure land guarantee, land at reduced rate for low-income groups, and to provide tax relief and government guarantee.

Against the background of housing marketization, in order to provide access to housing for low-income families, city governments will define responsibility in housing support programs of subordinate governments at all levels, and the

Figure 2.2　Urban Housing Security

development and trading behaviors in terms of urban housing. City governments in general will lay down special preferential policies and guarantee measures. For example, they offer minimum interest loan for low-and middle-income people, or direct rental allowance for families with the lowest income. Urban governments at all levels will directly provide public housing to low-and middle-income groups, and be responsible for the planning, construction, sales and renting of public housing. Urban governments will adopt housing provident fund system, or a comprehensive compulsory savings system.

2.5　The Building and Operation of Urban Infrastructure

Based on the principle that 'whoever invests, benefits and bears the risks', city government can capitalize on advantageous projects, support, encourage, and attract private capital and non-governmental capital to engage in the construction and operation of the infrastructure.

There are three main models of urban infrastructure operation: (1) Public establishment and operation. City governments make investment in and operate non-profit urban infrastructure. Specialized companies are formed and operate in line with the modern enterprise system. These companies are of quasi official nature, and normally enjoy franchise rights; (2) Public-private cooperation. The government builds cooperation relation with private sector through equity participation, financial assistance, and preferential policies to provide urban

infrastructure and their services jointly. (3) Private operation. The government attracts direct investment from private sector in the forms of public tendering, franchise, and open competition. The private enterprises are responsible for the investment, production, and operation of infrastructure and receive returns on investments through the payment mechanism on user charges. In the model of private operation, the charge standard of infrastructure projects and services are adjusted by market supply and demand.

2.6 Urban Appearance and Environment

Urban appearance embodies urban economic level, social morality, culture atmosphere, and landscape planning in a comprehensive way, and is also an important part of urban governance. Important parts in public space governance in cities include management of city roads, streets, markets, buildings, structures, construction sites, outdoor advertising, means of transportation, public spaces, public facilities, rivers and other water surfaces, public green lands and other landscapes, as well as urban construction wastes, domestic wastes and environmental sanitation facilities.

The main participants of governance in urban appearance and environment include: governments, enterprises, social organizations, urban builders, city residents, and other groups. The wide range of the subjects of governance covers basic physical structures such as various kinds of buildings, facilities, and

Figure 2.3   Urban Appearance and Environment Governance

software contents such as environment, sanitation, urban appearance and order, bearing the dual nature of both substance and spirit. The governance practice of urban appearance and environment is deeply rooted in the community levels. It engages directly with the ordinary residents. Full-fledged legal guarantee and communication mechanism will enable residents to participate in the decision-making and execution of governance.

3. Innovation of the Practice of Urban Governance

In recent years, the innovative practices of urban governance are mainly embodied by the establishment of various kinds of local governance mechanisms supported by technology, especially in practice, for example building smart cities, and using big data to diagnose cities.

3.1   Smart City

The age of information has arrived. From internet to Internet of Things, cloud technology to big data, the rapid updating and development of technologies have brought new hope to solve the problems in urban development. As an innovative concept and practice in sustainable urban development implemented globally since the early 21st century, smart city has become a new concept and new path to innovate the mode of urban governance, reform the system of urban management and improve the mechanism of urban governance. The concept of smart city was proposed to tackle various challenges facing human society in the process of

Figure 2.4   Smart City

Table 2.1　Key Links and Roles of Various Actors during the Construction of a 'Smart City'[1]

	Governments	Scientific Institutes	Enterprises	NGOs	Citizens
Top-down design	Formulate overall planning, clarify construction focus, establish platforms and attract participation	Responsible for pre-research and demonstration, and provide theoretic and technological support	Offer inputs and assist in formulating of specific construction schemes	Offer inputs and pay attention to disadvantaged groups, social impact and public welfare	Pay close attention, offer inputs and feedbacks, and actively participate in policy making
Construction and execution	Coordinated between various actors, guide the overall trend, contribute to specific construction work, and carry out skill education programs for citizens and publicity campaigns	Offer consulting service, make predictions, conduct objective analysis and cultivate professional talents	Participate in project construction, commercialize technologies and give play to the role of market	Supervise the relevant execution and publicize the "smart" concept to support market	Offer immediate feedbacks on effects and service quality, express appeals and actively take in new things
Comment	Guarantee the provision of comments, comment on overall effect, focus on entire social benefits and make proper adjustments based on comments	Provide theoretic support for the specific implementation based on comments	Cooperate to facilitate the comments and focus on the realization of economic benefits	Urge the provision of comments and make corresponding supplements	Actively make comments and express appeals
Innovation	Innovate systems and mechanisms, and encourage innovation	Innovate theories and technologies	Innovate technologies, application and management modes	Promote and publicize innovation	Innovate lifestyles

urbanization, including population explosion, environmental pollution, traffic jam, resource shortage and public security. In addition, smart city also indicates the active attempt to apply the digital, internet-based, intelligent, and interconnected

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1　Zhang Yu. 'Urban Governance and China's Construction of "Smart Cities"'. Chinese Society For Environmental Sciences. Collected Papers of the 2016 Annual Academic Meeting of Chinese Society For Environmental Sciences(Volume One). *Chinese Society For Environmental Sciences*, 2016, 6.

new-generation of information technology to urban governance.[1]

The smart city has played a role of promoting innovation of systems and mechanisms in the practice of urban governance. Its key links include 'top-down design, construction and execution, comment and innovation'. For example, in the process of building a smart city, Beijing has been working for online handling of government affairs through e-government and public service platform, so that people can handle these things at home; Shanghai has launched an online administrative service center, which makes it possible to share the data of administrative examinations and approvals. Now Shanghai has realized a 100 percent online coverage rate of items subject to examination and approval, thus simultaneously innovating the governance and creating easier access mechanism for people.

3.2   Big Data Urban Diagnosis

Big data and quantitative description can change previous analysis methods constrained by data and calculation condition, and make accurate diagnosis on urban problems, and offer sound support to urban governance.

(1) When it comes to land resource management, big data can establish a comprehensive data base. With the help of satellite monitoring and geographic information system, big data can monitor the size and property of urban construction so as to spot irregular behaviors at an early date.

(2) As regards traffic management, timely gathering of road traffic information can effectively alleviate traffic jam, and respond to emergencies in a timely way, thus providing scientific decision-making basis for the smooth operation of urban transportation.

(3) As to public opinion analysis, online keyword searching and intelligent semantic analysis can make public opinion analysis more timely and comprehensive, have an overall grasp of social conditions and public opinion, enhance the capacity of public services, and respond to emergent public events timely.

(4) In the fields of security and disaster prevention, man-made and natural disasters, and terrorist incidents can be detected at an early time with help of big data, thus improving the capability of emergency management and security precaution.

(5) With regard to urban planning, the gathering, processing, and digging of

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[1]   Wang Shiwei. 'Smart Cities—New Concept and New Design for Urban Governance Patterns'. *Wenhui News*, 2016-04-01(W04).

information of the nature such as urban geography, meteorology, and information of human activities such as economy, society, culture, offer great help for decision-making, thereby making urban management services more scientific and forward-looking.

Urban Governance Issues

There are two categories of issues on urban governance: one concerning the object of urban governance, which should be addressed in practice; the other concerning mechanism problems in urban governance, which lie in the process and mechanism of urban governance.

1. Objects of Urban Governance

Cities in developed and developing worlds are undergoing social, economic and cultural changes that are more intensive and deeper than ever before. Main objects of today's urban governance include human-resource contradictions, ageing populations and migration flows, concentration of wealth and spread of poverty, as well as economic crisis and technical risks. Urban governance should focus on such areas as urban population, environment, political conditions, safety and poverty.

1.1　Urban Population

As a common growing issue for cities around the globe, population not only has a bearing on environment and resource, but also causes serious social problems, having a tremendous impact on sustainable safety and development of the world. First, global urban population keeps growing fast and cities in the stage of rapid urbanization in the developing world contribute to the majority of absolute population increase. Metropolises and megalopolises expand since flows of rural migrants are attracted to them for superior services and resources. Explosion and large density of population may lead to ecological disaster, environmental pollution, resource shortage and other serious problems. On the other hand, there are inter-city and intra-city population flows and redistribution in developed countries. In addition, many cities are experiencing all-time serious population ageing and flows of migration, which has put tremendous pressure on economic development and provision of job opportunities, as well as medical and social services.

1.2　Urban Environment

Urban environment issues include environmental pollution and ecological destruction. Global environment problems such as climate change, more frequent extreme and hazardous weather, reduction of biological diversity, ocean pollution,

cross-border contamination of harmful wastes, will have a stronger impact on all cities, causing losses, more or less, to urban economy and citizen's health and property safety. Cities with rapid urbanization in the developing world are facing more severe environment problems, which are triggered by structural contradiction between population growth and resource consumption.

1.3　Social Issues

Over the past few years, we have seen increasing civilian grievance against administrative regimes and public agencies in some areas of the world. The outbreak of social incidents in many cities is a proof of citizens' higher demand on more equity and democracy. Social issues in developed cities are usually connected with economy, employment and migration. For example, the Occupy Wall Street protest movement broke out in 2011 and this sweeping mass soon spread to more than 120 cities in the US. European cities, on the other hand, are confronted with ever-increasing complaint of citizens about governments' migration and refugee policies. In cities of developing regions, relocation issues along with urban expansion are also likely to ascend, in a way, to a knotty social problem that ignites and worsens social contradictions.

1.4　Urban Safety

Urban safety involves many areas and varies in different types of cities. For important node cities in the global network of cities, prevention of terrorism is an

Figure 2.5　Many European Cities Suffered from Terrorist Attack in 2017

imperative safety to challenge. For European cities, refugee-related racial conflicts and public security problems are main security issues they need to address. And for cities in regions suffering ongoing regional conflicts and political instability, they are confronted with lasting armed conflicts and wars.

1.5   Urban poverty and polarization of wealth

Poverty is a common issue for cities in underdeveloped world, and growing income gap is a problem for cities in developed and developing worlds, especially metropolises. Rural communities atrophy as their residents flood into cities; fewer jobs are available as the manufacturing industry downgrades; and more people live in informal settlements or become homeless; these troubles lead to poverty, which in turn confronts cities with unparalleled social problems and space shortage. Inside the city, more wealth flows into a small group of people due to profound changes in the development mode of global economy, and the urban public economic strength as a whole tends to weaken.

2. Mechanism Problems

In addition to the prominent issues discussed above, some mechanism problems are found in the relationship between parties involved in urban governance. Solutions to the abovementioned prominent issues depend largely on the settlement of these mechanism problems.

2.1   The Governance Concept of City Government to be Further Strengthened

The management model of the city government usually costs a lot and takes up too much resource, leaving limited resource for other social activities so that public needs cannot be all met. Besides, with so many stakeholders involved in the urban governance, great efforts are required in coordination, which the government can not achieve on its own. In real world, the contradiction between simplified management by urban government and ever diversified public requirements becomes more intense, and the ideas of government management and the concept of urban governance are yet to be coordinated.

2.2   Actors in Urban Governance need to be More Pluralistic

By nature, urban governance is about the cooperation between multiple actors, such as NGOs, businesses and individuals. Urban governance network is an important complement to the market and hierarchical government. The self-organized network of urban governance takes autonomy and self-management as its core. However, in many countries, due to the sluggish growth of new social groups and the limited types and capabilities of established social groups, there are not

many parties involved in urban self-management. Among them, most are citizen organizations or voluntary associations for environmental protection, putting restrictions on the resources of funds for such organizations.

2.3   Limited Channels and Platforms for Urban Governance

In the process of improving the urban governance system, the multi-channel and multi-platform construction of urban governance is of great importance. Currently, the limited channels and platforms for citizens to engage in urban governance have hindered them to exercising their democratic rights in greater scope and depth. In cities where the foundation of civil society is weak, citizens, lacking the sense of citizenship, are not so enthusiastic about taking part in urban governance. This has been one of the major reasons for some of the long-lasting urban problems, such as traffic jamming, environmental pollution, improper disposal of wastes and expansion of slums. In the developing world, some city governments fail to provide effective employment opportunities for grassroots citizens and migrants, or to effectively nurture the ideas and values of urban governance.

2.4   Synergy of Urban Governance Actors to be Enhanced

Given the close and complex relevance of urban political, economic, social and technological development, the effective solution to numerous urban governance issues, including environmental pollution, public health and urban safety, relies on collaboration of various parties at departmental, local, municipal, national, regional and even global scales. Urban-scale governance synergy, as one of the most effective dimensions, not only reduces institutional fragmentation and strengthens the synergistic effect of agglomeration economy, but also facilitates intra-city and inter-regional consolidation and collaboration. At present, however, there is insufficient, if not nothing, synergy between parts of a city and different cities. Stand-alone development and unilateral governance remain the dominant governance modes. Fragmented and lacking of coordination, has been futile in dealing with the complicated urban situation, which asks for coordinated urban governance.

Major Challenges Confronting the Urban Governance

Over the two decades between Habitat II Conference (1996) and III(2016), the background of urban development has changed greatly and cities are confronted with more significant and manifest challenges. The globalization of economy and

value system, population growth and rapid urbanization, threats of climate change and environmental deterioration, growing inequity, global migration, global health risks and influence of cutting-edge technologies have become imperative challenges in urban and social governance. Urban governance frameworks and institutions of most countries need to be upgraded to tackle these severe challenges, and critical reforms are required to accomplish the goal of sustainable urban development.

1. Challenge of the Increasing Complexity in Urban System

With the increasing complexity of the urban society, urban governance is more and more influenced by the interaction between a multi-tier system and various stakeholders. We need to adopt more integrated approach to cope with challenges both at present and in the future. When it comes to urban governance, governments at all levels and a wide range of participants(formal or informal) must be integrated into the issue of policy formulation and implementation. A differentiated policy is needed for the coexistence of metropolitan areas, medium-sized cities, small towns, rapidly growing cities, and dwindling cities. At state level, challenges confronting urban policies are that we must adapt to the policies tailoring to the specific features of cities. At the same time, we must cope with inequality and differences among urban areas and regions in terms of poverty, population issue and infrastructure.

2. Challenges Resulted from the Absence or Decentralization of Power System

The systems of urban local governments are complicated and varied. In some countries, local governments enjoy ample decision-making power and accountability, and are responsible of providing a wide range of basic services. That being said, since the global financial and economic crisis, local governments are facing budget constraints, so they are working to upgrade infrastructure in order to adapt to structural changes(such as aging population and climate change). In other countries, basic services are still in short supply. Local governments always have limited power and resources, short of professionals and the capacity of enhancing incomes. Insufficient decentralization of power, shortage in resources, scarce capacity, and dysfunctional frameworks involving civic society and main stakeholders have undermined urban governance. Inefficient process of power decentralization and multi-level governance system may lead to weakened multi-level governance, inadequate planning process, higher cost of transaction and lower economic efficiency in a more extensive way.

3. Challenges Resulted from the Inefficient Laws and Institutional Framework

In many countries, the key leverage role of local governments in urban governance has not been fully tapped into. That is because local legal and institutional frameworks can not fully suit the development conditions of urban areas, or in some cases, they can not respond to the rapid changes and the dynamics of urbanization, Therefore, there are disjoints among legal, administrative, and financial frameworks. Responsibilities are not clearly distributed among different levels of governments. There are also contradictory rules and regulations, which hinder urban governments to fully deliver their duties. In many countries, legal framework and national policy hold back the cooperation between neighboring countries, and between cities and their hinterlands, thereby weakening the bond between cities and rural areas.

4. Challenges of Metropolitan Expansion

At present, more than 500 cities around the world have over one million residents, many of which have expanded beyond their administrative boundaries and have developed into metropolises. Some of them have already grown into megacities, urban corridors or metropolitan interlocking regions. There may be significant differences and spatial segregation amony cities within these areas. Weak urban governance will undermine the development potential of big urban areas, and erode the appeal of big urban areas as the cornerstone of national development. When it comes to metropolitan governance, we should expand the soft cooperation between cities to better organized, integrated governance, which sometimes can even be in the form of elections. But there are still obstacles getting in the way of the governance and reform of big cities, including the strong sense of local identity and hostility, established interests of cities and residents, opposition of governments at higher levels, as well as constraints related to local public finance systems.

5. Challenges Resulted from Urban Inequality and Non-inclusive Development

In some developing regions, the urbanization process is exacerbating social inequality and exclusive development. The lack of basic services and housing, as well as informal and unstable employment lead to urban space decomposition

and social segregation. In some cases, such a scenario may lead to violence and political instability. People in vulnerable situations including women, youth, ethnic minorities and the urban poor are still at a disadvantageous position in urban decision-making. Cities and urban communities are still suffering from the imbalance of political operation and inadequate participation. Participatory processes are still affected by structural constraints, and there is a lack of effective legislation to recognize civil society organizations, to keep them well-informed and facilitate their participation.

6. Challenges Resulted from Restricted Public-private Multi-actor Cooperation

By establishing public-private partnership between the city government and other actors such as the private sector, NGOs and community organizations can play their due part in offering urban public service and promote urban development. However, some cities and areas do not have comprehensive legal framework for biddings, contracting and regulation, and lack enforcement of laws and regulations. An lack of transparency hindered the investment of domestic and foreign enterprises in urban services. Public institutions, particularly local governments, are faced with challenges in establishing partnerships with communities and informal sectors.

7. Challenges of Efficiency in Urban Policy Regulation and Evaluation

Currently, many urban governments face difficulties in accessing integrated local data to make effective decisions, which hinders the efficiency in developing local policies. Regulation of the sustainable development goals and the advancement of the *New Urban Agenda* require analysis based on more local data to ensure the efficiency in the formulation of follow-up urban public policies. At the same time, some local governments and stakeholders fail to explicitly participate in the process of developing urban policies programs, implementation methods and regulatory strategies. Urban stakeholders need more channels to monitor and evaluate public policies and programs.

8. Challenges of the Rapid Development of Information Technology

The digital age has seen major changes in our society, our lives, work and way of entertainment, making everything more convenient and feasible. Development of new technologies has provided wide possibilities for businesses, citizens and public participants to take actions. But such possibilities also come with many

uncertainties. The collection, ownership, use and opening of "Big Data" and real-time online information have enabled new urban governance processes and structures. Urban governance in the future will have to cope with emerging challenges concerning the use of sensors, algorithms, automation, surveillance, personal data protection and privacy. Information and media technologies will bring about flat social class structure, complicated social relations, and diversified interests. Diversified urban actors must work together to cope with the complicated and interrelated urban challenges coming along.

Problems and Challenges Facing Urban Governance in Different Regions

In addition to the above global challenges in urban governance, regions are also faced with unique and complex problems and challenges. Moreover, there are sophisticated distinctions between developed areas and underdeveloped areas in urban governance.

In recent years, all regions worldwide have made progress in urban governance. Following the issue of the *New Urban Agenda* by the UN, many regions have made dedicated efforts to advance development in governance structure, environmental sustainability, space development, city prosperity, social inclusion, etc., and the practice of urban governance in Asia and Africa has particularly scored remarkable achievements. As regions with relatively higher level of urban development, urban governance in Europe and the US has long enjoyed distinctive features.

Nevertheless, most megacities and large cities are in the south. It is expected that over the next 25 years, most urban growth(at least 90%) will come from low-income countries. Developing countries in Asia and Africa are also experiencing rapid urbanization. Asia, in particular, sees some common and concentrated governance problems and challenges in urban development, including the contradiction between urban renewal and the preservation of historical heritage, the governance of informal urban space and public participation.

1. The Americas

1.1　Wealth Gap and Social Segregation

Latin America is experiencing rapid urbanization with the least balance in economic development in the world. Its urban population accounts for 80% of the total

population(589 million). Despite the improvement over the past 10 years, there are still 124 million people in Latin America and the Caribbean living in poverty, of which more than half live in Brazil and Mexico. And most of the population lives in cities. According to a study released by UN-Habitat, the gap of wealth in Latin America is widening. The average income of the richest 20% of the population is nearly 20 times that of the poorest 20%. Erik Vittrup, a UN-Habitat expert, said that the main challenge facing Latin America now is the huge income gap in the process of urbanization.

In North America, the gap of wealth in the US is widening while the economy grows. Between 1989 and 2013, the wealth owned by the richest 10% households in the United States saw its share in the total household wealth increased from 2/3 to more than 3/4. The share of the 40% middle-income families dropped from 30% to 23%, and the share of the poorest 50% families decreased from 3% to 1%. At the same time, continuous decrease is seen in absolute income mobility of the American society.[1]

1.2   Slum Problem

The problem of slums in Latin America is an important space problem in the Americas. UN-Habitat defines 'slum' as a heavily populated area with low living standards and poverty as basic characteristics. In developing countries, slums refer to informal settlements showing prominent urban poverty. The slum issue in Latin America is representative in the world. Many slums are built by low-income people or rural migrants themselves after taking up idle land by means of 'illegal occupation'. These shabby dwellings were initially considered illegal, but as time goes by and urban governance develops, some qualified slums have been legalized. Occupants' right to use and own the land has been recognized.

Brazil faces typical slum problems. At the beginning of the 21st century, about 28 million Brazilians lived in slums. Over the past decade, the country has seen an intensifying trend of poverty. Currently, there are 14,000 slums in Brazil, nearly 2,000 more than that in the 1990s.

In addition to security risks and the damage to the city profile, slums in Latin America have also brought many social problems. First of all, most slum dwellers live below the poverty line. Citizens are facing great difficulty enjoying achievements in social development. The poor conditions in education, health care and social security affect the development of the next generation. Secondly, the huge gap of wealth has caused estrangement among citizens, which has accelerated

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[1]   Chetty, R., Grusky, D., Hell, M., Hendren, N., Manduca, R., and Narang, J. 'The Fading American Dream: Trends in Absolute Income Mobility since 1940'. *Science*, 201, 356(6336), 398–406.

Figure 2.6　Picture of Brazil Slums

the differentiation of social strata, affecting social stability. In some cities in Latin America, slums have become dens of criminals.

2. European Region

2.1　Youth Unemployment, Shrinking Population and Refugee Issue

Over the past several years, European cities were faced with severe crises. Some countries see economic recession and suffer debt crisis, resulted in rise of youth unemployment. Some countries' population is shrinking as a consequence of ongoing population aging and low birth rate. Furthermore, due to the impact of geopolitics and war, refugees poured into Europe, which exerted a great impact on Europe both economically and socially.

(1) Rising Youth Unemployment. In Europe, economic recession has caused a big increase in the youth unemployment rate. In Athens and Barcelona, two in three of those under 25 have no job. And in Leipzig, 80% of jobs in the manufacturing industry have disappeared since 1989. Even cities with good economic performance are still faced with serious youth labor problems. For example, Stockholm has a youth unemployment rate as high as 30%.

(2) Shrinking Population. Fewer births and longer lifespan are the common trends in most rich countries, which brings the problem of shrinking population.

Since the 1970s, Germany's death rate is higher than birth rate. The birth rate of Germany is lower than that of the UK and France. As the low birth rate leads to an overall depopulation, Germany faces the risk of depopulation. According to predictions from the UN in 2015, Germany, which suffers the most serious aging problem in Europe, will see its population shrink to 75 million from 82 million. Many German cities are running out of people. Amid a sluggish economy and a steep decline in urban birth rate, the population implosion of eastern cities is aggravated by a considerable migration of citizens to the western part of the country. For instance, the population of Leipzig, a 'shrinking city', decreased by 18.3% from 1981 to 1996.[1]

(3) Refugee Flows. In the post-cold war era, a large number of people from third-world countries and regions migrated legally or illegally to central and eastern European countries. Since 2015, refugees from the Middle East and North Africa have arrived in Europe. The increasing refugees and migrants in Europe have posed tough challenges for urban governance. In 2015, the total number of new asylum applicants in the EU was about 1.3 million, including over 470,000 in Germany

Figure 2.7   Influx of Refugees in Europe

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[1]   Mace, A., Gallent, N., Hall, P., Porsch, L., Braun, R., and Pfeiffer, U. 'Shrinking to Grow: The Urban Regeneration Challenge in Leipzig and Manchester'. *Institute of Community Studies*, 2011.

where almost each federal state sheltered refugees.

In 2016, the number of refugees arriving in Europe topped one million which was nearly five times greater than that of 2014. The soaring number of refugees usually settle down in a certain area in the city or its surrounding areas, thus resulting in pressure on urban governance in these Europe countries.

2.2　Refugee Resettlement and Urban Security

Refugee resettlement in European cities is leading to a more complex relationship between local residents and refugees. The arrival of refugees indeed influences local residents' living space and leads to collisions. In Germany, many refugees reside at urban camps and gymnasiums. The exclusive sentiment has led to a rise in the number of attacks on refugees. Some countries failed to provide refugees with satisfied settlements or basic living necessities.

(1) Life Space of Refugees in the Outskirts of the City. Take the southern suburb of the French port city —Calais as an example. There once was a large open area, more than ten minute drive away from downtown, where many refugees from North Africa and the Middle East resided. Refugees used to live in makeshift houses made of planks and plastic fabrics. With crowdedness and harsh environment, this place was known as the 'Jungle' to many. Calais is only 48km away from the UK, and the Port of Calais is located next to the Eurochannel which connects Calais with the UK. Such a convenient location has attracted a large number of migrants who attempt to enter the UK. In early 2015, as refugees flocked into Europe, the population of the camp rapidly grew. Built by refugees spontaneously, the 'Jungle' depended on NGOs and charities in France and the UK for a long time for infrastructures, basic medical services and food supplies. In April 2015, the government of Calais finally established a refugee service center in the neighborhood of the 'Jungle', providing basic services like one meal per day, showering, and battery recharging services.

(2) Lifing Space for Refugees within Cities. Take Paris for another example. The living conditions of the refugees in the city are also far from good. The municipal government of Paris has evacuated tent sites across the city. Those who live in tents are asylum applicants from the Middle East or Africa. With no resettlement during the application process, they had to pitch tents under bridges or around transport stations. Similarly, hundreds of refugees once were stranded at the railway station of Salzburg, Austria. Later, they were transferred to an underground parking lot. To accommodate refugees, the German government has established refugee centers in cities and suburbs.

In Germany, university gymnasiums in Siegen have been used as temporary shelters. In Berlin, two gymnasiums and one police barrack have also been used as temporary shelters. In Marburg, the university city in Hessen, temporary tents have been set up for refugees. Furthermore, the federal government is considering legislating local governments' temporary requisition of uninhabited houses to accommodate more refugees. However, these refugees settlements have seen a high rate of violent crimes such as robbery and rape.

(3) Urban Security. The increasingly prominent threat of terrorist attacks is a particularly tough challenge for Europe. Since 2015, according to statistics, more than ten terror attacks have taken place in western Europe in cities including Berlin, Paris, Nice, Manchester and Brussels. In 2017, terrorism continues sprawling in Europe. France and Italy are both on high alert, providing enhanced security to those who are vulnerable to terror attacks as well as special protection to crowded public places. Terrorism has posed a severe challenge to urban governance in European cities.

3. Asia-Pacific Region

3.1 Exponential Population Growth

In the 21st century, modernization mainly takes place in developing countries. During modernization, Asia-Pacific region see an obvious phenomenon of population agglomeration. In 2015, six out of the ten most populous cities in the world were in Asia. Among them, Tokyo topped the list with a population of 38 million. China and India, the two largest developing countries in the world, had four cities in the ranking. Urban population agglomeration has brought prominent issues in urban space, environment and infrastructure. In Asia, the eastern and western parts are the most urbanized. In highly-urbanized regions in Asia, the per capita income is higher while the birth rate is lower and the population aging is at a higher level. The rapid aging of urban population also poses new challenges to urban governance.

3.2 Big City Malaise

There are many densely populated megacities in the Asia-Pacific region. The big-city problems, such as traffic congestion, insufficient infrastructures, and shortage of housing supplies require efficient urban governance. The governance of these megacities needs an efficient, powerful and dominant government, as well as cooperation in the implementation of policies on space control. That is unique to the Asia Pacific cities.

(1) Resources and Environment Constraints. In the development of megacities in Asia-Pacific region, the strength of technology and economy can be used to solve some problems in environment and natural resource supplies. As megacities in Asia-Pacific region are becoming increasingly populous and densely inhabited, there is much more consumption and production in the cities, and the need for natural resources like lands and water is also increasing. At the same time, human impact like pollution and misuse causes the proportion of usable natural resources to gradually decrease. The environment of living and production is deteriorating further. In particular, the insufficiency of local resources has caused many urban problems.

(2) Insufficiency of Infrastructures and Public Products. Cities in the Asia-Pacific region urbanize at an accelerated rate with continuous agglomeration of people and industries, but urban systems and functions tend to be outdated and cannot satisfy the needs of urban expansion and population increase. Thus, the insufficiency of infrastructures and public products becomes prominent, involving the shortage of housing supplies and the lack of basic infrastructures such as sewage, drainage, water systems and roads. Those problems are obvious in cities in India. Cities in China are also facing such challenges. In recent years, for example, many cities in China were reported to have been hit by serious waterlogging after rainstorms, exposing the loopholes in urban infrastructures including drainage systems of Chinese megacities.

(3) Governance Needs of Informal Urban Space. In the 21st century, urban development mostly takes place in developing countries, and the development of urban informality has emerged during urbanization in many regions. [1] In Asian-Pacific cities, the development of slums, self-built settlements and other informal urban spaces are forms of this type of development. Upgrading and regeneration are traditional methods used to address urban informality. However, highly complicated informal urban spaces pose new challenges to urban governance in Asian-Pacific cities.

4. African Region

4.1 Political Turbulence Ethnic Conflicts and Youth Unemployment

Ethnic conflicts political turbulence and lack of job creation especially for the

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[1] Roy, A. 'Urban Informality: Toward an Epistemology of Planning'. *Journal of the American Planning Association*, 2005, 71(2), 147–158.

Figure 2.8　Ethnic Conflicts in Africa

youth are the main challenges of urban governance. Africa retains the world's greatest diversity in ethnicity, languages and religions with complicated ethnic conditions and features. Ethnic problems have had a lasting impact on political stability and economic development in some African countries.

An overwhelming majority of African countries are multi-ethnic. The number of different ethnical groups in a country varies from dozens to scores and even hundreds. As races, languages, religions, clans and tribes are all factors taken into consideration, the ethnicity of African residents comes in great diversity. Therefore, particular tensions between ethnic groups are often further exacerbated when deciding who will dominate urban governance.[1]

4.2　Division and Fight for Ethnic Regional Land

In Africa, 30% of national boundaries are straight lines that cut through tribes, separate tribes into different countries, or include different tribes into the same country, planting the seeds of unrest in the future.

In some African regions where different races live together, ethnic community often play a role in national disputes, which is also true in urbanized regions. The ethnic conflicts in some countries often lead to the segregation of living spaces.

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[1]　Zhang Chun, Lin Luzhou. 'Politics of Losers: Research on African Elections and Ethnic Clashes'. *Journal of University of International Relations*, 2016(1):117–145+151.

In addition, religious differences among ethnic groups in Africa are likely to lead to tense ethnic relations. Fights among different tribes for production and living spaces make the governance of geographical division one of the core issues of urban governance in Africa.

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Chapter 3

Cases and Experience of Urban Governance

Case Study Selection Criteria[*]

In-depth investigation and analysis of typical cases in urban governance are conducted to demonstrate how to promote and practice urban development through urban governance. This will provide extensive and in-depth information links and sources for the improvement of governance in other cities. This report follows six principles in the selection of typical urban cases:

(1) Creativity: The cases selected must be unique in urban governance and not simply copy or replicate past or current practices in urban governance. The report selects in particular those that apply information or knowledge to the formulation of new policies, the development of a new type of project, or the adoption of a new approach.

(2) Effectiveness: An important phase of the case must have been implemented or completed successfully so that there is evidence that the program has achieved or is achieving expected results.

(3) Applicability: The cases must have substantial replicability and potential for wider application, and be able to provide other cities with useful practices and ideas. They must encourage other cities to adopt new ways of thinking, new policies, and new measures that are sustainable and can be replicated by other cities, regions and countries.

(4) Impact: The cases must be closely related to the city's main areas of focus and concentrate on urban innovation and development, and have a strong and long-lasting impact on problems that concern the public.

(5) Timing: In light of global trends in urban governance, cases that contain fresh thinking should be prioritized, especially those were recently implemented, but also old cases that have shown new dynamics in the past five years, for example those involving the latest knowledge, information and technology into urban governance.

(6) Balance: The selection of cases should not only be regionally balanced, including cities in Asia, Europe, Africa, America and other regions, but also consider both developing and developed countries. Cases should be drawn from successful programs in fast growing cities in developing countries as well as well-established projects in developed countries.

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[*] Chapter 3 is compiled by Shanghai Urban Planning and Design Research Institute, written by Xia Liping, Lu Ke, Du Fengjiao, Zong Minli, Lin Hongmei, Chen Yang. See cases for details.

Based on the criteria above, the *Annual Report* selected seven cases, including 'Shanghai: practical exploration of a community garden in a high-density urban district', 'Paris, France: flexible thinking in the Berges de Seine project', 'Busan, South Korea: The renewal project in a semi-urbanized region in Sanbokdoro'. These projects are the most vivid, typical and influential cases of urban governance in the world today. All of them are derived from hands-on practice of the project team, or compiled according to the first-hand information provided by the project team, therefore featuring detailed contents and in-depth analysis. Owing to the wide contents of urban governance, the cases selected concentrated on the analysis of multi-agency participation in the management of urban development, especially innovative practices in public spaces, public services, housing, infrastructure, urban renewal, and smart and sustainable development.

The organization of cases is generally the same as in the 2011 and 2016 manuals, with the content divided into different sections that emphasize usefulness and applicability. The sections include a general overview, problems and solutions, results, and lessons learned, emphasizing practicality and operability. Among them, the 'general overview' mainly introduces the social and historical context of the city, the main factors affecting and restricting development, and the successful approaches the city has taken to tackle these issues. The 'problems and solutions' section explains policy choices and measures already taken to respond to the city's challenges, paying particular attention to how to mobilize interest parties in the city to play an active role in the project in the initial stage of the project and during its implementation. It also explains how the city's interest parties benefit from the program. The 'results' section analyzes the results of the project, the reasons for its success, and its influence on the city's sustainable development. Finally, the 'lessons learned' section summarizes experiences and provides advice.

Urban Governance Case Studies

1. Shanghai, China: Practical Exploration of a Community Garden in High-density Urban District[1]

1.1   Case Overview

As China sees the development of agglomerated cities, high-density cities are

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[1]   Compiled by Department of Landscape Architecture, Tongji University; Liu Yuelai, Yin Keluan, We Min, Fan Haoyang, Yan Jianwen and Ding Shiyi of Shanghai Clover Nature School.

increasingly confronted by a string of issues related to land, energy, transportation and environment due to the high density of population and the rapid expansion of urban construction land.[1] Shanghai, as an important representative of China's high-density city in China, is focusing on exploration for sustainable urban development despite tight resources and plummeted increase of downtown open green space. The *Outline of the 13th Five-Year Plan for National Economic and Social Development in Shanghai* states that by the end of the thirteenth five-year period, the city will have no more than 3,185 square kilometers of land available for construction. While in 2015, the entire city had 3,145 square kilometers of land available for building, meaning an increase of only 40 square kilometers. The Outline states that efforts will be made to ensure that the new land is available for infrastructure and projects that strengthen people's livelihoods and benefit the public. Urban spatial planning under the new normal and the renewal and optimization of idle land are main ways of urban renewal. Currently, the main task of urban spatial planning comes to enhance the quality of public space, strengthen the compound use of land, and motivate community residents to participate in designing, maintenance and management.

In recent years, the idea of "community garden" rising in China is an arranging form of green space originated from the West, in which, idle land is divided into small pieces and cheaply leased or assigned to individuals and families for gardening or agronomy.[2] In the context of China's public ownership of land, this model attaches more importance to space for community residents' gardening activities by and for all. Instead of restricting the use of land, community gardens facilitate the pursuit of a wider range of social benefits with gardening as promoter and gardens as space carrier. The emergence of community gardens has brought a good solution to cities. Community gardens in high-density urban areas can provide spaces with complex functions and complementary forms to meet diverse needs for activities and experiences. To introduce pastoral elements to urban landscape also helps to fully release the potential of land. It not only brings economic and social value, but also reduces possible negative effects brought by high-density commercial development.[3]

[1] Li Min, Ye Changdong. 'Threshold Standard and Global Distribution of High-Density Cities'. *World Regional Studies*, 2015(1):38–45.

[2] Qian Jing. 'The Comparison of Allotment Garden in Europe and Community Garden in the United States'. *Modern Urban Research*, 2011(1):86–92.

[3] Chen Keshi, Cui Chong. 'Spatial Design in High-Density Urban Centre Districts from Chinese Communities: Complementary Models of CRD and Park in Causeway Bay, Hong Kong'. *Modern Urban Research*, 2011(8):49–56.

Community gardens are like 'guerillas'. Although they have no independent position to stand on and have posed problems to the city's management of green space, they complement to other forms of green space. They also provide some dynamic and customized ways of urban development. Some social organizations have emerged in Shanghai in recent years. On the one hand, they are actively lobbying urban policy-making bodies to strive for policy permission and support for agricultural projects that teach about the natural world in urban spaces. On the other hand, they are self-governing and utilizing diverse landscaping approaches as they see fit. They do not advocate a one-size-fits-all mass production model for commercial purposes, rather, they more often begin by responding to the needs of the city residents and creating community gardens based on the specific features of the plot. They also consolidate the resources of multiple parties to involve urban residents in the development and maintenance of the garden.

At present, there are nearly 20 community gardens built or being built in the neighborhoods, communities, schools and parks in Shanghai. Based on two years of practice, two typical cases in Yangpu District, Shanghai are selected—
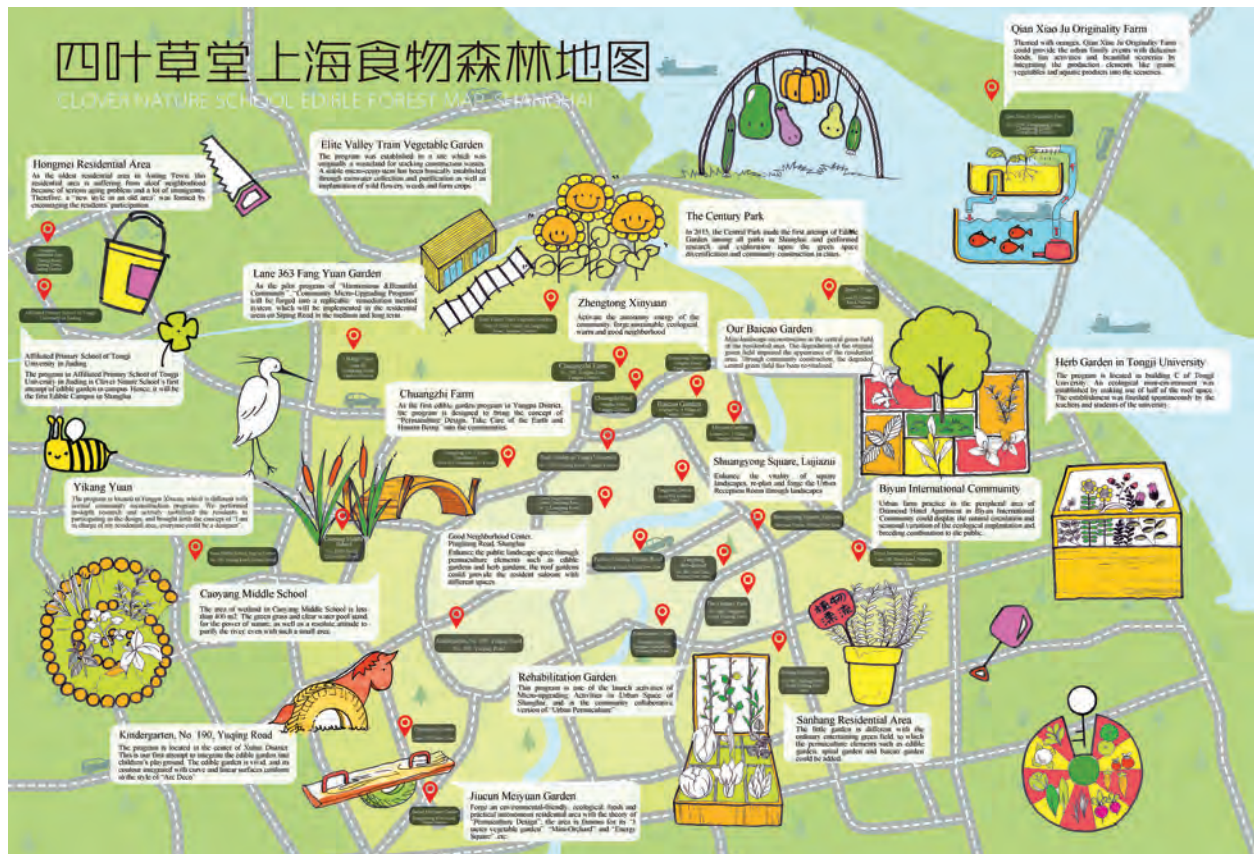
Figure 3.1   Edible Forest Map of Shanghai

Knowledge and Innovation Community Garden, a 'public neighborhood' garden supported by enterprise and a 'community-governed' Baicao Garden supported by the government. A comparative research is conducted to analyze the different features of community gardens in "public" and "private" urban spaces in terms of participants, involvement and applicable conditions. The research is designed to explore the strategy to create community gardens in the current high-density downtown areas in China, and to provide references for inclusive participation and sustainable development of community gardens.

1.2 Measures and Effects

(1) Baicao Garden: Residents' Self-governance

The Baicao Garden project is located in the Central Square of the Third Neighborhood of Anshan Fourth Village, Yangpu District, Shanghai. It is a community garden that has drawn on multiple disciplines including landscape studies, ecology and sociology, as well as explores community-led participatory

Figure 3.2　Bird's Eye View of Baicao Garden

landscaping models for well-established residential communities. This project is designed to transform a dull central green space in this old neighborhood into a shared 'living room' for social interactions revolving around the plants and strengthen neighborhood connections. At the same time, community gardens are also supposed to enhance residents' overall management capacity, increase the awareness of community ownership, and realize residents' self-governance. This community is selected for following reasons:

First, lack of public space: The community is located in a dense residential area built in the 1970s. In 2014, there was an average of 13.38 square meters of shared green space per capita in Shanghai resident. The 2011 statistics for Yangpu District was 4.26 square meters. However, the number for this community was only 2.23 square meters, far lower than the average level of the city and the district. Additionally, the available space was of too poor a quality to meet the residents' needs for public activities and social interactions. Moreover, due to the lack of public management awareness, residents have ceded the management of community gardens to the property management company at the lowest cost. 'Collectively owned' has turned into 'privately operated'.[1] As quality of living rises, residents' lifestyles have changed and these central green spaces are in urgent need of improvement and upgrade.

Second, a high proportion of elderly residents. The community has 6,800 residents, 23.5% of whom are over sixty years old. While there are many renters, the population in this neighborhood is generally quite stable. Neighbors get along well with each other, and there is a relatively slow pace of life. On the balconies and in the green spaces around the homes are many traces of traditional agriculture and gardening arts, which gave the design team confidence in establishing the garden in the area. Exploratory visits to the neighborhood revealed the existence of a basic self-governing social organization, the Fangling Flower Club. This resident-organized club was a group of gardening enthusiasts who wanted to share their experience in tending gardens with one another.

In 2016, Tongji University and the Siping Sub-district Association designated the Baicao Garden a demonstration project for community building and invited a social organization, Shanghai Four-Leaved Clover Hall, to join the community empowerment campaign. The idea was to explore in practice how to improve spaces within older residential communities in Shanghai to provide new thinking

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[1] Liu Yuelai. 'Community Gardening—An Effective Avenue for Micro Upgrading of Urban Space'. *Public Art*, 2016(4):10–15.

and management models for similar communities with high population density, aging residents and more barriers to landscape improvements.

① Promote Consulting with Residents to Improve Landscape Space.

Learning that the community lacked platforms for democratic discussion, the government design department and the residents' committee joined the process and launched an internal consultation mechanism. They held meetings at every level from sub-district office, to residents and children, breaking down barriers to communication among residents themselves and between residents and decision-makers. They also went on neighborhood visits and listened to the opinions of large numbers of residents. While creating the landscape improvement plan, the design team took a creative on-site approach and held an art event with the local 'futurelandscape architects'. The event allowed the children to exercise their right to make requests and during the event, and the children expressed their hope to have a part of the garden reserved for them. Using their extensive local surveys and professional skills, the team strengthened communication with resident committee members and local enthusiasts and adjusted the plan for the garden. Finally, the garden was positioned as a space to meet the need of residents for leisure activities, parent-child interaction and nature education.

Figure 3.3 The Kids' Event

Once the initial draft was completed, the design team solicited the opinion of the residents for improvement. First, the wooden floor featured in the design was opposed by the residents. There is only a small amount of space between the

buildings and there were concerns that the sound created by the floor would disturb nearby residents. Secondly, the residents requested that the natural water pots next to the spiral-shaped garden might pose a safety hazard and requested adjustments. After subsequent back-and-forth, the design team gradually realized that the community garden shouldn't increase the pressures on the residents. The high-density environment already takes a psychological toll on the people that live there, so the landscaping improvements should start small and focus on personalizing the space and relating it to the residents' lives, giving the residents more ownership of the space and more room to change the space in the future. The network of residents in such old, high-density residential communities is complex, and the rights of residents in the public space are exercised sincerely and strongly. The current state of the cramped space was the result of compromise between competing interests, and the landscape improvements also brought these conflicts to light. The design team had to have the confidence and patience to look at the garden from the residents' standpoint and communicate more with residents to find a plan that will help and satisfy the most.

The design team's selection of the central green space, which had an area of 200 square meters, was the final solution. The poorly maintained grass would be changed into the children's activity area, an herb garden, and public garden that make up Baicao Garden. The garden's name means to take collect flowers from all to build a garden for all.

② Multi-strength and Public Participation.

The design team broke the landscaping works into a number of steps that could be completed separately, such as shaping the earth, preparing the soil, laying turf, planting plants and seeds, paving, and covering the beds. Each step in the process was turned into a public class for the residents, so that they could learn while carrying out the work. The flower club began to play an active role in the process at this point. The club president created a list of members, recorded the free time of each member, and came up with a work schedule based on each member's areas of expertise and the main skills needed for each step in the process. The president also established a watering and fertilization team, a litter-picking team, and a gardening team. The work on the garden and the recruitment of flower club members encouraged even more children and adults to get involved. The residents, who had almost no prior experience in landscaping, rebuilt Baicao Garden in less than one week.

③ Foster Interest Groups to Strengthen Community Empowerment.

Public space is a way of fostering public life. Integrating the hobbies of

community residents into the maintenance of the public space, organizing events around nature education or community-building, and re-organizing and re-training community residents can help unearth local talents, establish a local talents database, and encourage residents to take the lead.[1] At the same time, building a community space is also a matter of building community cohesion. Through multiple well-organized, content-packed theme events, a child volunteer team was assembled. A public WeChat (messaging APP) group was established to talk about shifts at the garden, conflicts over square dancing space, dog walking and other issues related to community life. These discussions outside of the gardens' scope deepened the children's understanding of people's responsibilities to their community and society. The child volunteer team currently has more than forty members, and the group is able to put up support for vegetable plants, and water and fertilize the garden by itself. The children have also organized community events including a Mid-Autumn Day lantern riddle party, and have become a dynamic force for community building and garden management. In addition, Baicao Garden also worked with Dahushan Road Primary School as its nature education base, and shared resources with Fangcao Gardens at Anshan 363 Alley,

Figure 3.4　A View of Baicao Garden

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[1]　Liu Jiayan, Tan Xiaoyan, Cheng Qingyi. 'Practice and Reflection on Participatory Community Planning in Transformation: A Case Study of Community Y in Qinghe Street, Beijing'. *Shanghai Urban Planning Review*, 2017(2):23–28.
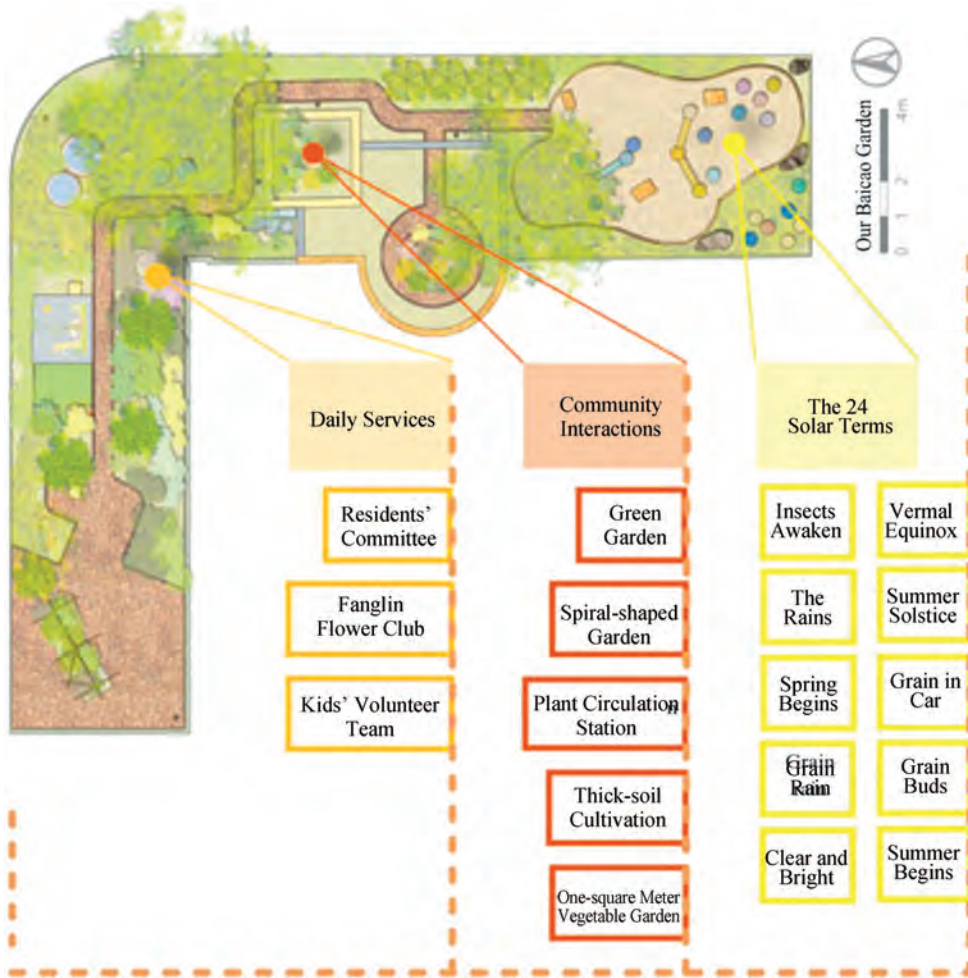
Figure 3.5　A Diagram of the Baicao Garden Project

Figure 3.6　Taking Notes on Nature

bringing neighboring groups closer together.

By holding such events, the child volunteers learned basic gardening skills and eventually the kids and the adults launched and actively participated in a management mechanism for the space by themselves. The original goal of the community garden was exactly to establish this kind of shared learning mechanism and to turn the garden into a 'learning garden'. The program encouraged the residents to start small and gradually transformed them from consumers into active participants and producers.

④ Develop Community Organizations and Focus on Institutional Norms.

A mark of maturity for a self-governing community garden is whether or not it has a public organization capable of managing the space independently. The greater the number of clubs and content-rich events, and the more standardized the management systems are, the more inclusivity and greater levels of resident engagement a garden enjoys. At present, Baicao Garden has two self-governing organizations that are gradually standardizing their policy systems. However, more time is needed to explore issues around establishing community and resident discussion mechanisms, policies on oversight and implementation, and the formulation of standards for evaluating results.

(2) Knowledge and Innovation Community Garden(KICG): A Collaborative Effort

Located in Knowledge and Innovation Community (KIC) Park in Wujiaochang Street, Yangpu District, Shanghai, the 2200-square-meter Knowledge and Innovation Community Garden(KICG) is adjacent to Wujiaochang Business District, one of the sub-centers of Shanghai. KIC Park was jointly built by the government of Yangpu District and Shui On Land Limited, Hong Kong, with a total investment of 10 billion RMB, which will be a high-tech industry cluster with information industry as the core, and cover a total construction area of one million square meters after completion. In 2015, the government of Yangpu District defined an idea to expand and promote KIC Park into a 'Greater KIC Zone' in the context of the innovation and entrepreneurship campaign to better advance common development with surrounding areas. The plot of land where KICG stands was thus incorporated into the key 'green axis'. KICG is on the east of Jiangwan Regency(residential area) with the boundary wall to the old district of Shanghai University of Finance and Economics on the west. On its south, there are the fashionable Daxue Road and the dual-use commercial/residential SOHO Community KIC Area. To the north of KICG, the School of Management, Fudan University is being built. The surroundings are rich in commercial and demographic

Figure 3.7   Location of KICG

Figure 3.8   KICG—A Bird's Eye View

diversity. This plot used to be the auxiliary green land of Jiangwan Regency, but was not put into full use due to some important municipal pipelines underground. It was later used for temporary housing on construction site or stayed idle. In 2016, Shanghai Yangpu Science and Technology Innovation Group Co., Ltd. (STI) and Shui On Group seized the opportunity of "Greater KIC Zone' development, put this plot of land into

better use and positioned it as "community interaction space". They also selected through bidding Shanghai Four-Leaved Clover Hall, which holds similar philosophy, for landscape transformation and community building. Thus, KICG became the first community garden placed in an open neighborhood in Shanghai.[1]

① Build Communication Platform to Address Community Pain Points.

The design team conducted basic research on the KIC area and prepared materials on the status of the local community culture, population and facilities as basis for the design of the garden. At the same time, with the design team at the core, the community was fully motivated and involved. In neighborhoods with relatively complex environment, people were classified based on land usage. Among them, an active group was selected to set up a platform bridging the design team and community residents, so that professional knowledge and localized life experience can complement each other.

The KIC is a complex high-tech community, but it lacked public space and areas for nature education. In light of this, the design team divided KICG into several parts including facility and service zone, public activity zone, permaculture garden, square-meter vegetable garden and interactive gardening zone. In order to meet the community
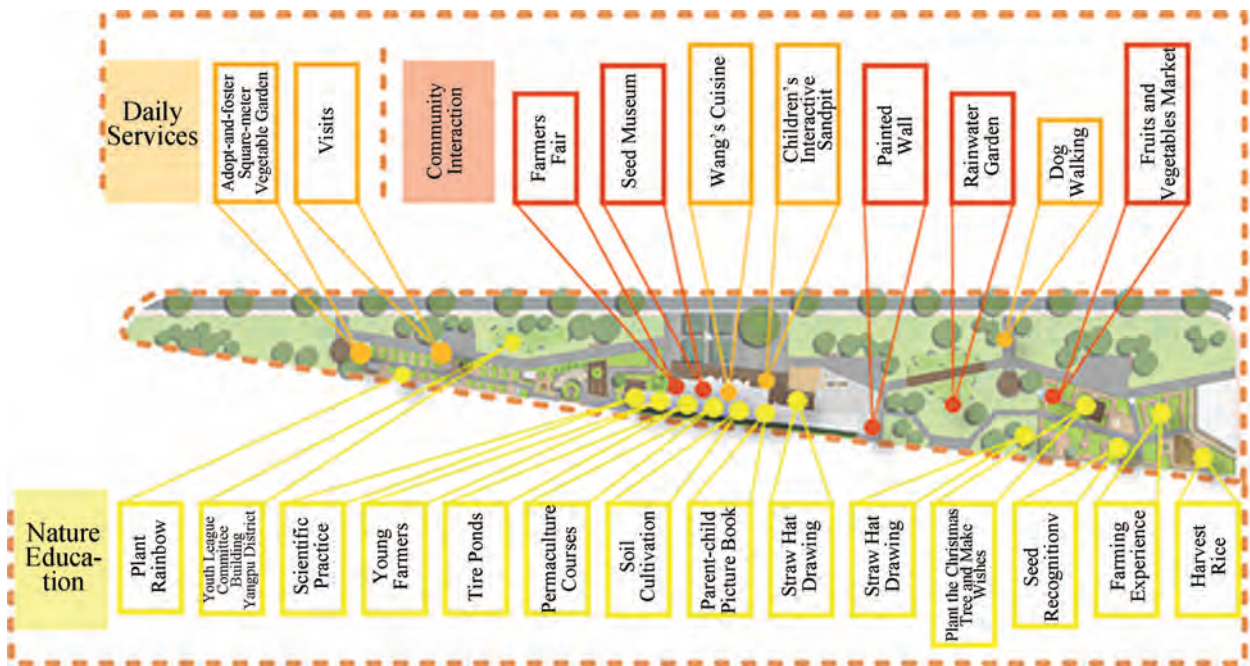

Figure 3.9　Location of Activities

1　Liu Yuelai, Yin Keluan, Wei Min, Wang Ying. 'New Approaches to Community Garden Practices in High-density High-rise Urban Areas: A Case Study of Shanghai KIC Garden'. *Shanghai Urban Planning Review*, 2017(2):29–33.

Figure 3.10   Sand Pit in KICG

Figure 3.11   Humulus Garden in KICG

needs for public exchange activities, indoor and outdoor community living room, community square and children's sand pit were set up. Practices and popular science on sustainable concept and energy recycling were also integrated into every corner of the garden, such as garbage sorting boxes and rainwater collection devices. The public farm provided a place for nature education from basic knowledge and key points of planting, encouraging urban residents to come to the land for observation and practice. The square-meter garden was designed to cater to urban residents' enthusiasm for planting, and to explore new management models of public space through the conversion of money, time and labor.

② Bring in more Active Participants with Better Services.

There are three types of services involved in the operation and maintenance of KICG. Daily management and services(including adopting-and-fostering management and guest/tourist reception): KICG opens on daily basis and garden management rules, activity organization and management rules and other regulations have been developed for administration purpose. Over the six months since its opening, KICG has received 20 groups of VIP visitors. Residents come here every day for social communication. Science education: Teachers of nature science are hired and theme activities are organized at least once a week, covering multiple aspects such as farming activities, children's nature education, food and beverage, as well as arts. Community consolidation initiatives: interactive platforms are established to bridge colleges and universities, enterprises, the government and local residents through the topic of public relations to enable information and resources sharing. Within KICG, social responsibility departments of large enterprises and the self-governance office of the neighborhood responsible for promoting social construction and community governance offered big help in

Figure 3.12   Mini Garden in KICG – Little Dream Garden

the early stage of operation. They also strengthened exchanges and cooperation in space sharing and resource complementarity. The government and enterprises have provided key support to KICG's regular activities including interdisciplinary lecture salon, farmers market featuring organic food for urban-rural mutual assistance, public welfare programs jointly sponsored by the government and enterprises[1], as well as activities for Party building and League building.

③ Promote Multi-party Dialogue to Strengthen Community Self-governance.

Though KICG has taken the first step towards participatory landscape development, more efforts are required for further exploration of such issues as expanding services to neighborhood communities, motivating the public and standardizing management regulations. Given the large area of KICG, the complex management contents and the fact that no community self-governance has been formed so far, participants' awareness of self-governance still has to be cultivated through sound operating mechanism and long-term practice. For community gardens built in open blocks, the conflict of interest appears more noticeable due to the much more diversified population mix around them. To address this issue, the

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[1] In the 'Love for Children of the Stars' initiative co-organized by the office of Shanghai Landscaping Committee and Green Shanghai Special Fund of China Green Foundation, autistic kids, accompanied by their parents, are guided by KICG employees to identify vanilla and participate in experiment of fostering aquatic plants. The organizers have tried to understand the world from the kids' perspectives yet also have left some space for them to think and explore, expecting that their inner potential could be unleashed.
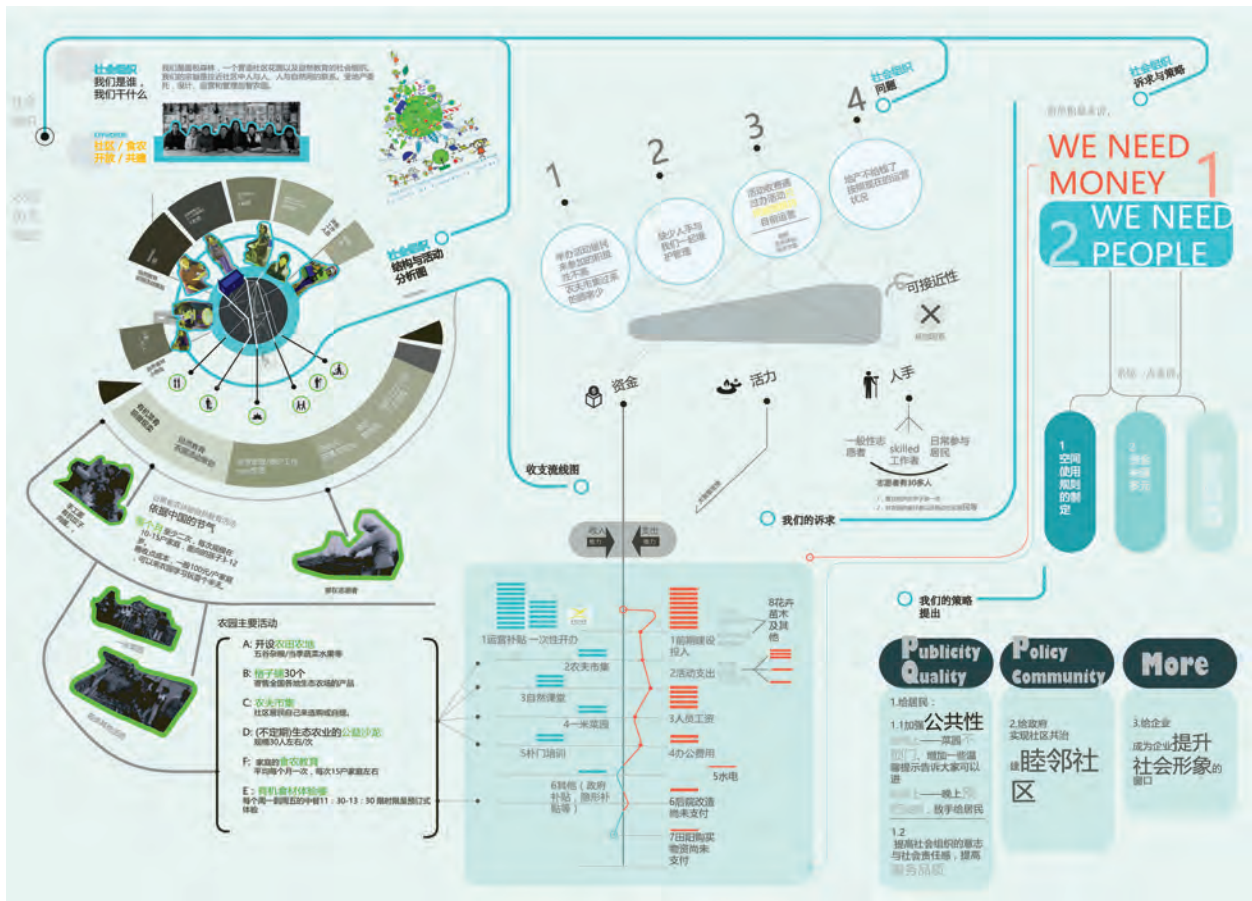
Figure 3.13　Tongji Mapping Workshop: Landscape of Joint Governance

key is the dialogue among stakeholders, which lays a foundation for cooperation by establishing a platform that involves government agencies, businesses, colleges and universities, social organizations and local residents. Tongji University's 'landscape of joint governance' workshop takes KICG as the core topic to explore the mechanism for sustainable development of social public space. Through student's role-playing debates and discussions participated by representatives from four parties in reality, the workshop seeks to inject more thinking and strength into the future development of KICG.

1.3　Experience and Inspiration

Community gardens play a positive role in addressing many issues in the development of high-density cities, including constraints of resources and environment, sustainable development, community building and nature education. In China, the development of community gardens is still relatively one-sided. For example, usually relying on the form of tourist agriculture park in the suburbs,

Open Community

KICG

Decision-making Period

Participants
Enterprises
Government

Land Ownership:
Business Trusteeship

Design Team

Participants
Design Team

Spot Users

Reasonable Layout

Construction Period

Participants
Social Organizations
Government, Enterprises,
Residents

Identifying Common Interests

by Space Optimization

Maintenance Period

Participants
Social Organizations
Government, Residents

Improve Daily Operation and
Maintenance Gain Public Attention
and Trust

Management Period

Participants
Social Organizations
Colleges Enterprises,
Government

Attract Social Attention Activate

Multiple Participation

Future Development

Participants
Residents
Government Colleges
Enterprises,Colleges,
Social Organizations

Multiple Participation
Joint Governance Mode

Community Owned

Baicao Garden

Participants
Government
Colleges

Land Ownership:
Residents

Participants
Design Team
Residents

Consultation and Adjustment

High-density Residential Area
Micro-touch Transformation

Participants
Social Organizations
Residents

Find Community Activists
Create Opportunities for
Public Participation

Participants
Residents
Social Organizations

Foster Community Trust
Promote Community
Empowerment

Participants
Residents Societies

Talent Team Building
Improve Society System

Participants
Residents Societies

Autonomy of Residents Societies
with Multiple Participation

Figure 3.14   KICG vs. Baicao Garden

community gardens are often seen as only a new attractions of suburban tourism, without much actual participation of the public[1]. In addition to bridge producers and consumers, more efforts should be made to cultivate people's ability of self-governance in production and foster proper public communication habits in public green space to promote community communication and enhance neighborhood vitality. At the same time, community gardens provide opportunities of nature education for people at all ages and from all occupations, especially for children, therefore play a positive role in cultivating their awareness for sustainable development and ecological protection and maintaining urban biodiversity[2].

Based on the two representative projects completed in recent years—Baicao Garden and KICG, the case expounds main characteristics and corresponding strategies of community garden-building from the two perspectives of 'public' and 'private'. Practice indicates that the degree of participation is lower at the beginning in communities with more vague boundaries, more complex population mix and richer contents of community gardens, vice versa. Residents in closer relationship fully participate in the building of community gardens under the guidance of a professional design team. Residents in lack of such relationship may have to build a garden space with a heavy reliance on a design team. Trust and closer relationship should be established through long-term community exchanges and activities by the operation team, so that residents' participation can be enhanced in the future management, maintenance and even spatial updating. In fact, either way will lead to the set destination. Strategies in the early stage of building and operation should give considerations to characteristics of different communities. Solutions should also vary in different stages as well. Actually, both types of community gardens are aiming to encourage more residents to pay attention to the surrounding environment and participate in public affairs with will and ability in a proper way. In the process of public participation, a self-governance organization should be formed to help build a sustainable development mechanism for public space.

The rapid development of metropolises in China has many challenges. This requires solutions based on profound interdisciplinary discussions. As a space for residents to participate in gardening activities through joint construction and

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1   Wang Xiaojie, Yan Guotai. 'Initial Exploration on the Management of Community Gardens Against the Backdrop of Urbanization'. *Chinese Society of Landscape Architecture, Collected Papers for 2014 Annual Meeting of Chinese Society of Landscape Architecture(Volume II)*. Chinese Society of Landscape Architecture, 2014.
2   Clark W.L., Jenerette G.D. 'Biodiversity and Direct Ecosystem Service Regulation in the Community Gardens of Los Angeles, CA'. *Landscape Ecology*. 2015, 30(1):367–653.

sharing, Shanghai's community gardens pivoted on landscaping design to deal with human-environment relationship by combining results of sociology, education and other sciences. Community gardens are a scientific attempt to realize sustainable ecosystems, harmonious neighborhood relations and nature education activities in a densely populated metropolis like Shanghai. From a non-academic point of view, the essence of space is people, not just children and the elderly, but also young people. The idea of community gardens is all about taking the position of the users, paying attention to their concerns and arranging activities that meet their pursuit of value to realize the interconnection between people, coordinate the contradictions of all parties and enhance people's attachment to the space.

## 2. Paris, France: Flexible Thinking in the Berges de Seine Project[1]

2.1 Case Overview

In 2012, the waterfront renewal project of the Seine(Berges de Seine) was officially launched in Paris. With the goal of 'reclaiming the Seine River's banks for Parisians, metropolitan residents, visitors and all those who love Paris' and 'ensuring that everyone can find their own place'[2], a series of measures were taken in the project construction: the 2.3-kilometer-long motorway on the left bank was rebuilt into a car-free promenade; the corresponding section on the right bank was set with speed limits to make other forms of transport safer and more viable; at the same time, new public spaces were created on the left bank for cultural activities, sports, and general strolling in a natural setting. Today, the central stretch of the Seine banks has become the most vibrant and charming area in Paris.

The project fully embodies the complex interest structure and the task of multi-stakeholder coordination faced by a well-developed city in its renewal, especially during its transformation from the "plan"-oriented urban governance path to a 'project'-oriented one. Urban planning has truly become a process of interest coordination. Planning programs and implementation methods that are tentative and reversible have enabled perfect balance between different stakeholders, and have also brought new ideas for flexible implementation of urban renewal.

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[1] Case source: CyprienButin, Jean Claude Yawili, Marion Waller, Margot Delafoulhouze, Yang Chen(2012). Overcoming Functional and Ideological Fragmentation and Power Relations in Waterfront Renewal Projects: A Case Study of the Policy Formulation, Design and Implementation of the Berges de Seine Project. Sciences Po Paris; compiled by: Chen Yang, Shanghai Urban Planning and Design Research Institute.

[2] Atelier Parisiend' Urbanisme(APUR)(2011), *Paris, Rives de la Seine. Le projet des Berges de Seine 2012*.
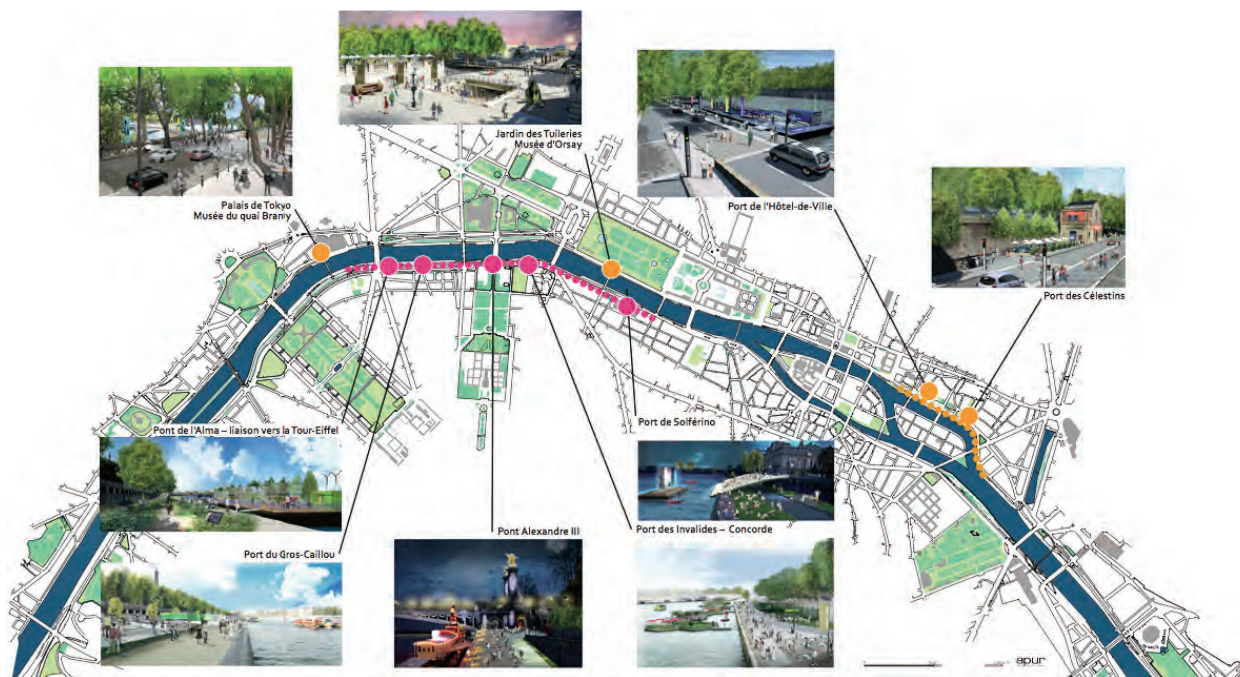
Source: APUR, 2011.

Figure 3.15   Main Implementation Sites of the Berges de Seine Project

2.2   Problems and Measures

It was a long journey from 2010 when the project proposal was officially placed on the table to 2012 when the agreement was eventually signed and the implementation began, involving multi-stakeholder engagements and compromises. The project involved a complex group of stakeholders, including the Paris municipal government and its four related subordinate departments, APUR, the French central government and its three directly affiliated departments(the port authority, police office and the housing authority), six private planning and design firms, UMP, the right-wing political party, as well as four major local NGOs. Among them, APUR was responsible for the project coordination on behalf of the Paris municipal government. while UMP, port authority and local NGOs dropped a clear opposition.

In addition to the complex stakeholder network, there were two more barriers in the actual advancement of the project. On the one hand, speed limits on the river banks would directly damage the interests of a large number of motor vehicle users. In particular, it would increase the commuting time for travelers from Paris suburbs to the city center and aggravate traffic congestion, which might hold back economic development. The project was therefore strongly opposed by an NGO named '40
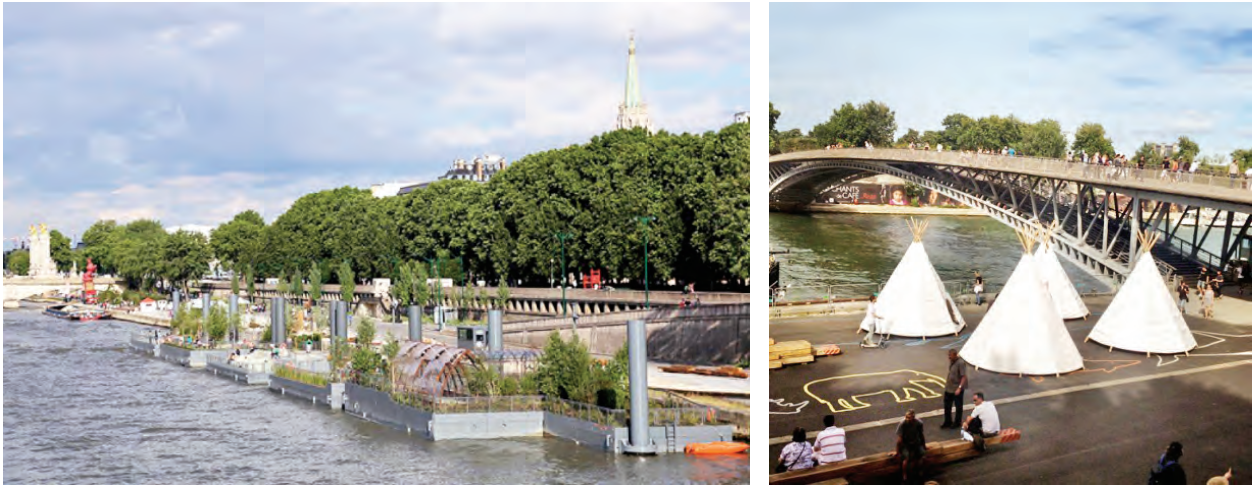
Figure 3.16   Removable Facilities on the Left Bank of the Seine

Millions d'Automobilistes' and many other civil NGOs. On the other hand, the port authority and the central government were reluctant to show their support due to the flood threat to the river banks. Compared to the latter, the former constituted a major challenge, which actually reflected a deeper contradiction over sustainable urban development in values.

As a result of stalemate, the project was suspended for five months. During the period, despite all the democratic agendas including project briefings, public debates, court appeals and parliamentary voting, what really facilitated reconciliation between the two sides were the development of flexible and progressive programs, and the release of the report on the project impact evaluation.

In public debates, the police office started by suggesting a flexible and reversible implementation plan to prevent irreversible consequences to traffic. At the same time, for the preservation of the world cultural heritage and the unique style on the banks of the Seine, the housing authority also expressed its hope to avoid facilities of huge size or are mismatching to the surroundings.

In this context, APUR pulled together some planning and design firms as well as government organs to coordinate the overall task and revise the program. On the one hand, a string of flexible designs, like movable non-permanent facilities such as floating gardens, containers and tents, was proposed, which constituted the main part of activity facilities on the banks. Main venues were set up in open spaces, ensuring that all the facilities on the banks can be dismantled within 24 hours. On the other hand, the program retained the north-south channel of Place de la Concorde—Champs Elysees traffic axis to minimize the impact on traffic.

In addition, to better ensure the effect of the project, the Paris government invited experts to conduct a scientific assessment of the traffic impact the renewal program might bring, thereby objectively overcoming the misgivings of the opposing party. The government also pledged to push for the project in a gradual manner and to timely adjust the plan according to implementation effects and views of relevant parties.

The project was eventually resumed thanks to the tentative, reversible program design and implementation methods. In 2014, the brand-new waterfront of the Seine finally fully opened to the public.

2.3 Effects

Today, banks of the central stretch of the Seine have become the most dynamic and charming area in downtown Paris. It is not only the hottest scenic spot, but also an ideal place for the local people to have a picnic, enjoy recreational activities, do physical exercises and meet with friends.

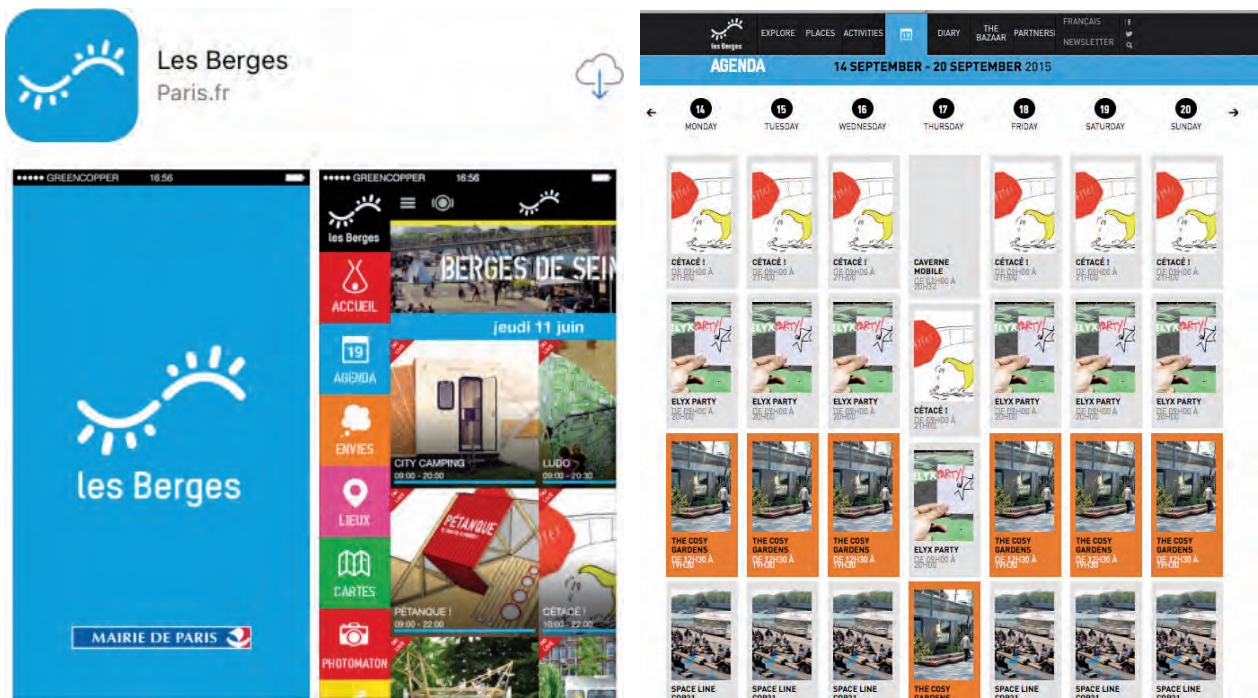Figure 3.17　Project Implementation Status

Figure 3.18   App and Website

As for operation, the municipal government of Paris jointly set up a project company jointly with a private event planning company, which will be responsible for the management and operation of facilities and activities on the riverbanks. In addition to providing activity spaces for the general public, the company also works with NGOs, volunteers and artists to provide free activities on a daily basis like all kinds of sports training programs, educational activities, concerts, children's birthday celebrations and other events. Traditional items like cruise sightseeing, yacht restaurant and shared bikes are also integrated into the project. To enhance its popularity and user friendliness, the project company has also launched its official website and app, so that users can view activities and book venues online.

In fact, the renewal project of the Seine has exerted only minor negative impact on the traffic nearby. It has actually demonstrated the significance of a slower and friendlier urban space and bigger waterfront public area to the upgrading of urban environmental quality. For the government, this project has perfectly balanced various interests at a low cost, put private capital into good use and at the same time retained infinite possibilities of improvement in the future.

2.4   Experience and Inspiration

As some major cities enter a low-speed developing period, they have to turn

their attention from developing idle land to land reserves. As we are glad to see that we can finally slow down the pace and take our time carefully revisiting the urban space, we must also be fully aware that this way of growth focusing on developed land is a maiden voyage for the government, planners, developers and all the citizens. There are a lot to learn. In the renewal project of the Seine, there is much valuable experience to draw upon.

First of all, we must know how to improve the service function of the city with a project-based thinking. The 'planning era' simply guided by blueprints is gone. Today, cities have to adopt a market-oriented thinking and find a better way to implement projects conducive to the well-being of the people. To this end, the project has to meet the direct interest demands of developers and rights holders, earn the support of the public and attract private capital.

Secondly, we must learn how to deal with a complex network of interests on a plot of developed land. The government should learn to make better rules. Land and house owners and management right holders should learn to safeguard their rights and interests. Citizens need to get their messages across, and planners are supposed to give full play to their roles as the 'guide' and 'catalyst' of the project.

Thirdly, we should make more attempts in the urban space with flexible thinking. In reality, a plot of developed land usually means an intricate network of interests associated with the land. Therefore, decision-making is never easy. The case above also drops a hint for endowing the urban space more chances to try some flexible thinking. It turns out that this flexible and progressive thinking works better in balancing various interests and meeting the demands of urban rights holders by eliminating contradictions.

In the future, urban spaces may embrace more choices than stiff permanent facilities and desperate government investment. Tentative and reversible approaches will bring dynamic and hope to people and the spaces they live in.

3. Busan, South Korea: The Renewal Project in a Semi-urbanized Region in Sanbokdoro[1]

3.1   Case Overview

Peri-urbanization is a dynamic process of villages transitioning into towns and

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[1]   Case source: Urban Regeneration Center Busan(URCB), Urban Innovation Database, http://www.urban-innovations.org/index.php?title=Sanbokdoro_Renaissance_Project_(Hillside_Town_Regeneration_Project_in_Busan)&setlang=en; compiled by Cheng Yao from College of Architecture and Urban Planning of Tongji University, and Li Renxi, a professor of Department of Architecture of Pusan National University, South Korea.

cities, and which is considered a special subset of the urbanization process. Regions undergoing peri-urbanization always present opportunities and challenges, and also lack effective management mechanisms, and therefore frequently encounter problems. The overwhelming majority of residents and workers in such regions are poor, and lack sufficient access to all kinds of resources, and have been cast off as marginal groups by the narrative of urbanization which centers on the major cities. They often live in informal accommodations, out of the reach of the city's formal public facilities, and in poor hygiene . The urban governance of these regions has become a major challenge faced by every country in the world, especially those of the developing world.

Korea's Sanbokdoro was originally a village in the mountains of Busan(formerly Pusan). The area used to gather a large number of laborers when South Korea was under Japanese control; during the Korean War, numerous refugees swarmed into this place. However, as South Korea experienced a period of rapid economic growth, the Sanbokdoro region became a gathering point for informal accommodation for the working class. Due to the complex historical factors, this

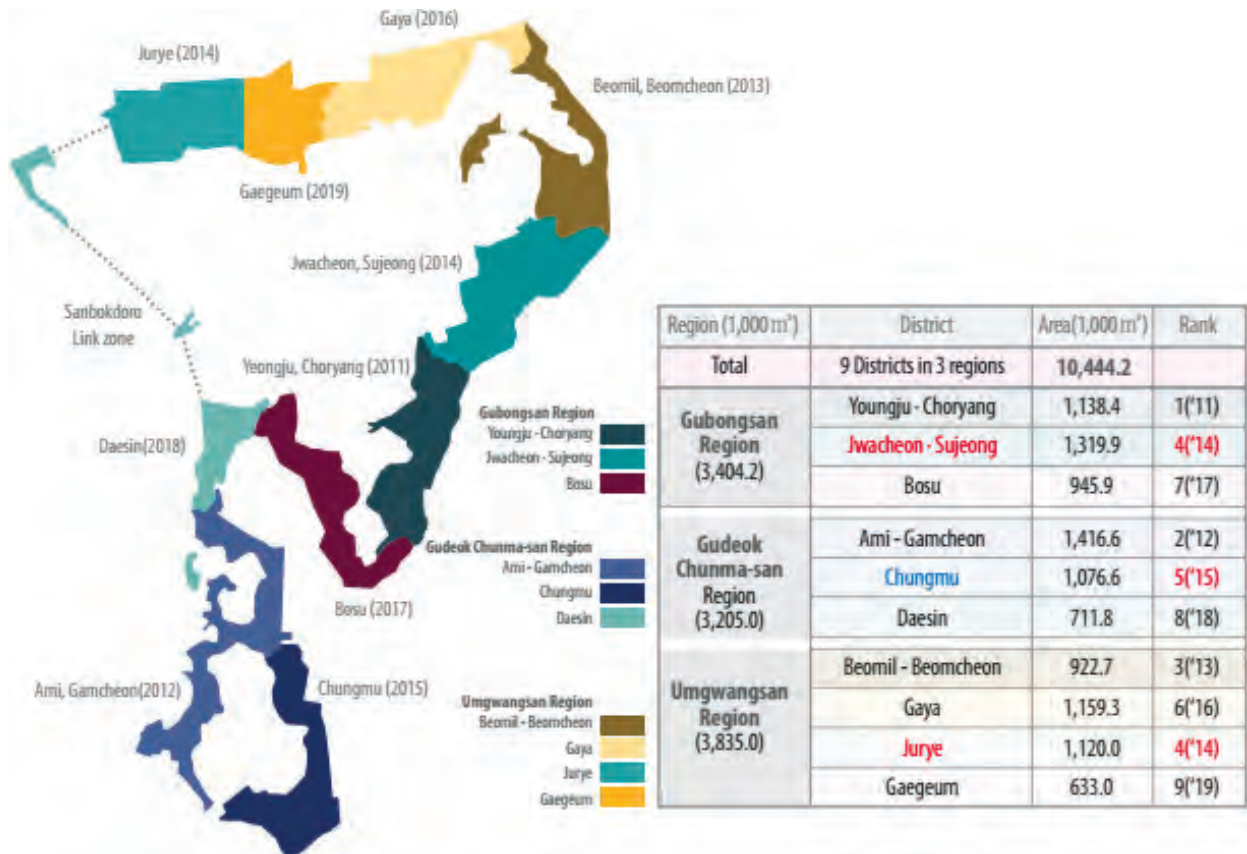| Region (1,000 m²)	District	Area(1,000 m²)	Rank
Total	9 Districts in 3 regions	10,444.2	
Gubongsan Region (3,404.2)	Youngju - Choryang	1,138.4	1('11)
	Jwacheon - Sujeong	1,319.9	4('14)
	Bosu	945.9	7('17)
Gudeok Chunma-san Region (3,205.0)	Ami - Gamcheon	1,416.6	2('12)
	Chungmu	1,076.6	5('15)
	Daesin	711.8	8('18)
Umgwangsan Region (3,835.0)	Beomil - Beomcheon	922.7	3('13)
	Gaya	1,159.3	6('16)
	Jurye	1,120.0	4('14)
	Gaegeum	633.0	9('19)

Figure 3.19   The First Stage Plan of the Renewal Project in Sanbokdoro(2011–2020)

region lagged far behind the overall level of development of the city of Busan, and urgently needed revitalization to make it a more attractive and livable place. Since 1964, ring roads called 'mountainside roads' were built around the mountains at the center of Busan. Based on these mountain roads, since 2009, the government had initiated 'Sanbokdoro Renaissance Project', which was aimed at rejuvenating and reviving the villages along the roads, and restoring the local cultural and historical heritages, so as to make these roads and communities more sustainable. The renewal project for the Sanbokdoro region did not follow the established pattern of demolishing previously existing buildings and creating huge apartment blocks, or an overall improvement of the entire city's facilities. Instead it emphasized resident participation in improving the area's pedestrian spaces such as those of alleys and steps as well as the surrounding environment, and renovating existing buildings, housing, and public facilities. The project focused on nurturing optimism amongst the residents, tapped into the local resources, and thoroughly utilized the history, culture and the beautiful scenery of the traditional residential area in an effort to realize the full rejuvenation of the semi-urbanized region. This project is estimated to continue to receive 150 billion KRW capital support from the Busan Municipal Government in the next decade, which would benefit the 634,000 people in this 54-square-kilometer area.

3.2　Problems and Measures

The vision of this project was to co-create a lively and creative space for exchanges. Three main measures were adopted: 1) regenerate space(ecology, transportation, landscape, and living environment); 2) evive life(make community enterprises more community-conscious and revitalize local economy); 3) recreate culture(identify historical and cultural heritages as tourism resources, and activate more cultural projects, and initiate more relevant infrastructure). Specifically, Sanbokdoro region has been upgraded in seven major ways:

(1) Infrastructure Construction. First of all, the pedestrianized system has been upgraded, and existing roads and steps have been repaired and resurfaced. Notably, the inter-linking network of pavements between Sanbokdoro's bus stops and all its blocks has been enhenced.

Secondly, a new traffic system has been adopted, for example, at Mangyang Road, Yongkang-dong in the central district, single railway tracks were used and stairs were repaired for easy of access for pedestrians.

Figure 3.20   Mangyang Road, Yongkang-dong in the Central District before and after Planned Changes(rendered) for Comparison

Thirdly, themed pathways have been constructed. Huge numbers of refugees flowed into the area during the Korean War and built basic huts and narrow pathways that encircled the mountain. The spider-web-looking pathways covered the entire community and formed a tangible historical cultural legacy for the region, becoming one of the symbols of recent Korean history. The Busan municipal government opened up a Busan tourism bus route to exploit this labyrinthine network. Not only could tourists admire the Sanbokdoro region's unique history and scenery, they could also, from what is called the 'sightseeing tour to the roof of Busan', catch a glimpse of the other side of Busan, where its past and present live side by side.

(2) Restoration of the Local Scenery. Gamcheon Culture Village in the Sanbokdoro region was the highlight of the region's scenic restoration with its unique scenery and culture. It has been selected as one of the most beautiful villages in Asia. As a textbook example of regional development driven by grassroots collaboration, it was awarded the 2012 Asian Urban Scenery Award.

Other scenic renewal projects included Gamnae Community Center(converted from a public bathroom), Gamcheon Haneulmaru(a scenic viewing platform and tourist information center built upon old buildings, Sanbokdoro first phase project(paths through the city), Daecheong-dong Colorful Village Project, Dong-gu Rainbow Village Project, 'The Face of History' Project(a platform from which residents and tourists alike can enjoy the full view of Bushan).

(3) Constructing Regional 'Stories'. With focus on bringing together Sanbokdoro region's unique historical figures and 'stories' and constructing facilities which celebrate its culture, it has revived its regional memory and created a cultural atmosphere. Related projects included the Jung-gu, Cultural Center/

Figure 3.21　Gamcheon Culture Village, Busan

Geum Su-hyun's Music Salon), Mildawon Age Coffee Shop, the Sanbokdoro Historical Archives Centers and the Ibagu workshop, the Jang Gi-ryeo' The Nanum Center, and the You Chihwan's Post Box.

(4) Recreating a Community Consciousness. The entire Sanbokdoro renaissance plan emphasized the nurturing of a community awareness and extensive resident participation. A great variety of activities were organized to encourage residents to participate in the region's reviving plan, ensuring the long-term effectiveness of the project's implementation.

(5) Revitalizing Alley Economy. The development of commercial facilities from one village to another, which was supported by local resources and residents, was largely encouraged in the bid to propel the community's economy, create employment opportunities, and promote development of the region. Such facilities included the street front shops, guesthouses, and the Ganchuan Cultural Village Coffee shop, and the Flower Village Culture and Arts Gallery.

(6) Attract Newcomers. By upgrading the semi-urbanized area's transportation, its commercial and basic facilities as well as cultivating a strong sense of community awareness amongst residents, the region has alleviated the outflow of local residents and attracted new migrants to the area.

Figure 3.22   Recently Constructed Cultural Facilities in the Sanbokdoro Region

(7) Village Events. By organizing and hosting events such as the Sanbokdoro Village Festival, Children's Orchestral Performance, volunteer events, Sanbokdoro village choir, the United Nations Human Settlements Program Work Camp and Gamcheon Culture Village Alley Festival, the region strengthened its reputation, attracted more tourists and boosted the local development.

In implementing the project, the urban government took charge of formulating vision and action plan, and pooling fund, and commissioning private organizations to engage in cultural and art activities. Busan metropolis sent out planning staff and coordinators to support these resident-driven urban planning projects, found community-based development supporting center and offer business consultation and supporting service platforms for the community. Personnel involved in the

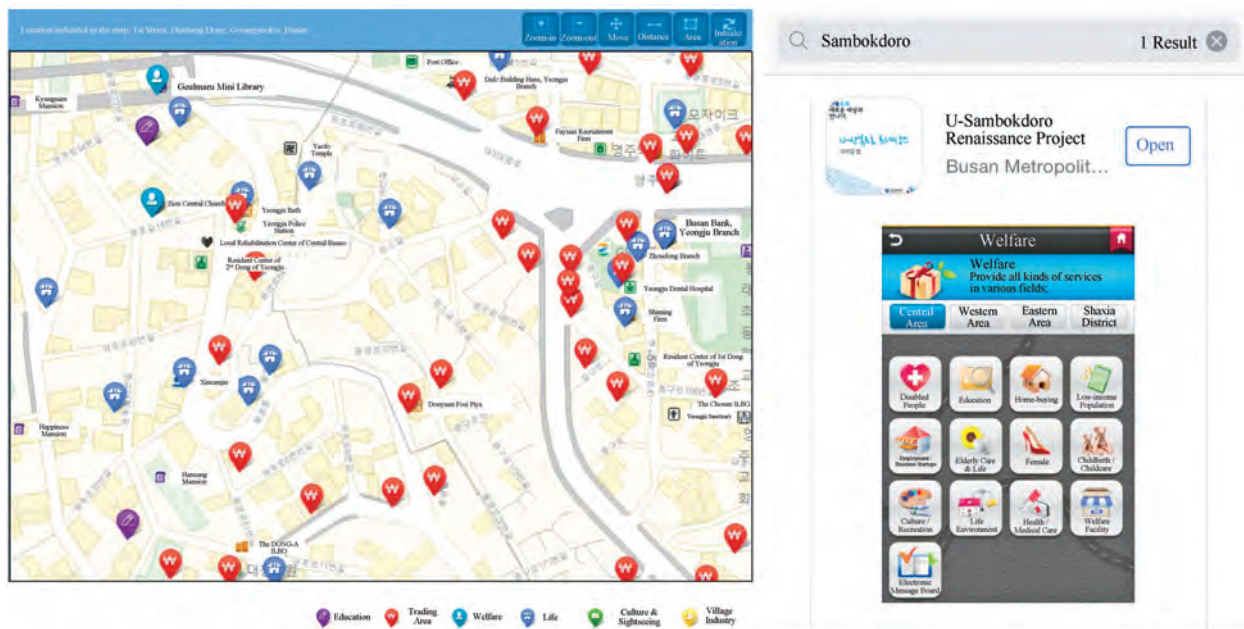Figure 3.23   Alleys Festival of Gamcheon Culture Village

Figure 3.24 Mobile Phone Application and Updated City Map

public-private governance program included professors, experts, non-governmental figures, artists, and community activists. As for training and other work, a team was set up, bringing together government organizations, local colleges, and private companies. With the help of the memorandum of understanding with AURI, specialized knowledge was acquired about urban planning and architecture.

The project has set up 33 neighborhood committees, and founded community centers by rebuilding wasted houses and idle spaces, providing meeting venues for residents. Any resident could participate in meetings, and community centers can be involved in the whole process from planning to operation. With a view to encouraging residents to express their opinions, the project has introduced an online resident participation system. Through installed media boards, project website, and mobile phone apps, residents can browse various kinds of relevant information. The project has harnessed internet-based geographic information system application to update urban maps, and offered the latest information about the project online to residents on a regular basis. For the elderly and people who were unfamiliar with smart devices, RFID cards were sent out to help users to scan and acquire information on screens.

3.3 Effects

In Seoul, the capital of Korean, there had been many communities similar to

the semi-urbanized region, which had to be dismantled in the boom of real estate industry. In order to pave roads for high-rise apartments, communities in downtown were toppled down, and residents had to be relocated to poor communities. However, desirable results have been achieved in revitalizing the semi-urbanized region: the first was that a safer transportation system was put in place, with pedestrians being put first; the second was that the ecology of environmentally degraded areas was restored. Wasted houses were turned into green lands, with urban landscape retained; the third was that more urban public space was created, and thus encouraged residents to engage more with each other; the fourth was that the project helped residents realized with self-sufficiency; the fifth was that the project catered to the education need of residents by offering extracurricular activities, recreational and cultural activities.

After a whole series of renovations, the district has become a fairly popular tourist destination in Busan. Tourists can choose from a number of streets and alleys, each of which has a rich and unique scenery that can provide a different experience. There is a very strong sense of interactivity between the tourists and the environment in such a form of explorative tourism, through experiencing the relationships between the village's organic structure and its spaces. In addition, the project emphasized community participation and essentially maintained the region's original ways of life. In this area, about 70% of inhabitants are original residents who have persisted in their traditional ways of life, the villages possess a unique cultural vibe. That's how Busan has emerged as a model of upgraded cities in an innovative way, and the case has been included in the geography textbook for senior high schools in Korea.

3.4   Experience and Inspiration

Most emerging economies are challenged by excessive urbanization, and the rapidly increasing population in a short time span has stretched the supporting capacity of public services. As a result, besides space changes, there are also series of social problems, including the aging population and gloomy local economy. However, emerging economies always pay excessive attention to the development of physical spaces and facilities. Such a practice could not improve the livelihood and living conditions of residents in poor areas, and even undermined the historical and cultural heritage of old cities.

The implementation and the remarkable results thereof of the Sanbokdoro district revitalization project is closely interlinked with the platform established by the government, and the management model which encouraged the comprehensive

participation of the residents. The underlying concept of the entire plan is to revitalize the village's community, let the residents speak for themselves and commission the residents' committee to make proposals, with the ultimate aim being the creation of an independent community who can run and manage the project over the long term. A review of the governance process and residents' participation of the revitalization plan provides following suggestions:

(1) Proactively Mobilize the Local Residents. In April 2011, Sanbokdoro district began to recruit members for the residents' committee, but resident participation was low. Following sustained support from the government and professional assistance, the residents' attitudes began to change, and their enthusiasm for both the committee and the revitalization plan gradually grew.

(2) Guide Residents to Build and Share. The renovation of Choryang 6-dong, Dong-gu can serve as an example. When residents received land ownership permit they demolished the buildings. On the resultant brownfield site they installed 50 mobile gardens and a platform for hosting mini music concerts. Apart from this, the residents utilized leftover materials to decorate the surrounding area with the assistance of a professional design team.

(3) Motivate Residents. Orientation classes allowed the residents to clearly understand the nature of the Sanbokdoro revitalization project, who also proactively provided feedback and suggestions during the implementation phase, contributing to a multi-lateral dialogue between the government, professionals, and residents.

In Gamcheon Culture Village, the residents also published a village newspaper as promotion. The editors of the newspapers were comprised of 25 local residents, who aged from a 15-year-old secondary school student to a 74-year-old senior. The newspaper, which is still published today, began publication in August 2012. Its monthly circulation is handled by the Promotion Council of Gamcheon Munhwa Village. Professor Li Mingxi of Tunghai University now holds the post of chief editor, and the above mentioned 25 residents are responsible for sourcing news stories, articles and photographs.

(4) Assisting Residents in Building the Village. When the residents engaged themselves in building the village, designers and social activists and local residents all joined. The work involved building the village's core facilities and relaxation area, holding residential committee meetings periodically, launching on-site investigations, and jointly maintaining the village's facilities and alley space, so

that the villagers could revitalize their community and take responsibility for its development independently.

4. Nairobi, Kenya: Community based Transformations in Informal Settlement[1]

4.1   Case Overview

Nairobi, Kenya houses the most typical research samples of 'slum' in the present age. Although the slum in Nairobi occupies only a small piece of land, it is home to more than 60% of the urban population. Data shows that[2] some 800,000 people are living in the 2.5-km^2 Kibera slum. The internal space is cramped and disorganized, lacking clear road systems, spatial sequences and public facilities. Further research indicates that the slum is not just the place of residence for the 'poor', it is actually made up of a large number of service spaces and public spaces. As a complex community(rather than a simple residential area), the slum is showing distinct attributes. Its social and cultural functions are thus more complex and systematic.

Since 2006, Kounkuey Design Initiative(KDI), an international NGO, has built a series of influential community projects in Kibera, which have greatly improved the local economic status and living conditions. KDI based its work on the slum's "self-organized" style of construction, adopted sophisticated skills in space organization and operation and pumped a large amount of social resources.

4.2   Problems and Measures

According to the World Bank's latest data, between 2007 and 2009 Kenya's urban population increased by 767,000 people, 366,000 of whom lived in slums. Urban development as the traditional method of "slum clearance" has proven ineffective here. The primary reason lies in that population density and scale of the slums are simply too high and too big, for which the local government lacks effective methods and sufficient resources. A different perspective however, is that these "slums"(or informal settlements) are not in essence an issue of the building environment, but are rooted in a city's social and economic environment. In this sense, to simply increase 'housing space' in an attempt to alleviate the problems resulted from such impoverished communities is simply treating the symptoms but not the cause of the underlying illness.

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1   Case source: Huang Zhengli.
2   There are more than one view on the total population of Kibera. The data cited here is an estimated figure based on the population statistics of the Nairobi municipal government and estimates of the United Nations and other international agencies.

Source: Huang Zhengli.

Figure 3.25   A Crowded Corner in the Kibera Slum of Nairobi

Source: Huang Zhengli.

Figure 3.26   Houses in the Kibera Slum are so Close to the Railway because the Space is too Crowed

This does not mean that such spatial intervention is without merit though. On the contrary, the space occupied by slums does need improvement, and such informal settlements might later develop into diversified, positive spaces. Although slum construction lacks formal land development assessment and approval procedures, such settlements in fact operate in accordance with meticulous "informal development systems". These ordered "informal real estate development procedures" have given birth to a variety of construction methods.

For a variety of reasons, Kibera is subject to several different intervention methods. These cases, relying to differing degrees on external assistance; and some of which have indeed resulted in real improvements to the living environment of some of those residents in the slums. The longest running and most effective case is a program run by an international non-governmental organization(NGO): Kounkuey Design Initiative, or KDI. KDI is a non-profit design and development organization, which runs long-term construction projects in Kibera. In addition to designing, their development programs also attach great importance to the planning of self-operating functionality of public spaces, and achieving the goal of consistent development of the city's communities.

Their constitution of the organization includes the following:'At KDI, we know that poverty is complex—and is the result of economic, social and physical factors. To counter such mutually inter-connected challenges, we focus on highly visible projects where we can lower construction costs. In addition, we help communities attain self expression. We often construct what are called productive public spaces—the spaces which formerly lacked such facilities as empty land or waste heaps—and then turn them into positive, influential community centers, improving the personal and local environment.'[1] These productive public spaces always provide basic facilities such as water, toilets and rest areas, and also provide certain social operation plans, ensuring that the spaces have the finances for sustainable development opportunities, which are then maintained via micro loans and commerce.

As the project began, KDI mainly focused on polluted rivers. These river systems are Kibera's natural water system, but overcrowding have resulted in the water system being subject to pollutants for sustained durations of time, leading to a detrimental impact on residents, including rise in the transmission of infectious diseases. Kibera's more than half a million people live in an area equivalent to that of

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[1] The project data mainly comes from the writer's interviews and communication with KDI's persons in charge, Charles Newman and Joe Mulligan, and other local members in 2014 and 2015; part of the information comes from KDI's publications and website(http://www.kounkuey.org/).

Source: Huang Zhengli.

Figure 3.27   Children Lack Playground due to Limitation of Space

Source: KDI.

Figure 3.28   KDI Staffs are Discussing How to Deal with the Land with the Residents

Source: KDI.

Figure 3.29   Public Toilet Built by KDI in Kibera

Source: KDI.

Figure 3.30   Waste Yard by the River Transformed into a Multi-function Community Center
with Toilets and Classrooms

Source: KDI.

Figure 3.31   Another Successful Transformation by KDI: Turning the Waste Yard
                into a Child-care Center, Education Center and Washroom

only two thirds the size of New York's Central Park. They have no proper drainage systems and also lack safe, affordable water. With regards to hygiene, there is an average of 250 residents per toilet of acceptable quality. (The United Nations Human Settlements Programs estimates that there are 140 people per toilet, but their estimate includes pit toilets which are not suitable for urban use). Public spaces are rarer, and the existing ones are frequently used as rubbish dumps for the lack of effective waste disposal system. To address the problem, KDI resorted to toilets with wet and dry separation, where drainage is not a problem. All excretion was collected through the collection device at the bottom of the toilet, and then transferred to nearby processing center for disposal, and fertilizer was extracted for bamboo and other cash crops.

(1) Stakeholders. Each KDI project begins with a vision. Each vision comes from the local residents and is based on their community resources. KDI's designers will subsequently work together with the community to develop each plan, helping them develop and achieve their own ideas, helping them to link up to other resources. Therefore, KDI is working to assist these residents to

improve the environment, develop their skills to create value, as well as social cohesiveness.

As the planner and designer of the project, KDI directly participates in the construction of the local communities. Apart from the design of the space, KDI critically engages in the organization of economic production. This kind of organization method might appear simpler than that of other projects, but KDI's personnel actually need to directly grapple with the complicated political relationships within the slums. Every project touches upon issues pertaining to land rights and space management, both of which are considered extremely sensitive 'assets' within the slums, and lead to unavoidable conflicts and coordination issues.

KDI employs local residents for extended periods of time to serve as its official community representatives to facilitate participation in local affairs. They are the most adept at negotiating with the communities. In addition, KDI has the landowners(who often are local officials such as MP, MCA—locally elected representatives) to participate in a project negotiations and decisions as well. In addition, residents also set up independent local organizations and then participate in KDI's projects, aiming to skim the cream of the economic profit that results from local control. That often brings complexities to KDI. After a long period of hard work, KDI has become the spokesperson for much of the charity work undertaken by many charitable foundations in Kibera.

(2) Project Length and Fund Allocation. All of KDI's projects begin with extended negotiations over land use. They encourage local residents to participate in the design and development process. This process usually takes for one to two years. Therefore, not much capital is used on the actual construction. Most of the capital is reserved for the salaries of reliable employees. KDI has between four and five such employees, and also one or two architects from America who head the Kenya branch. Personnel expenses are approximately 80,000 USD per annum, with two to three ongoing projects each year.

At between 10,000 USD and 20,000 USD, project construction expenditure is very low. However prior to the commencement of construction, KDI usually devotes a certain amount of energy to clean up the site. For example, prior to the project of constructing separated dry and wet toilets, KDI organized the river cleaning and bamboo planting work. These tasks were completed during May and June 2013, and construction of the foundations commenced in October 2013, with construction of all of the toilet facilities completed by February 2014.

(3) The Construction Process and Organization Methods. Construction in KDI's projects is mainly undertaken by local non-professional work teams, and the community residents take part in a proportion of the cleaning as well as other tasks associated with winding up a project. From the stage of planning to that of construction, KDI periodically organizes community meetings to discuss topics such as the design or the construction process, and encourages the residents to freely participate and provide feedback or ideas for the latter stages of construction. The purpose is to raise the communities' sense of participation, and garner the project more recognition from the community's residents.

4.3 Effects

Since founding, KDI has run seven projects in Kibera, winning a high degree of prestige in the process. For example, KDI provides its employees and other involved personnel with jackets printed with its name. Employees wear these jackets when they walk among the densely-packed population, a situation where outsiders are often seen as easy targets. They have not been attacked, receiving instead a certain degree of recognition and have been unmolested. In addition, KDI's work has received international recognition, and financial support from the Rockefeller Foundation, the California Endowment, Ashoka Changemakers, American Express, Annenberg Alchemy, Smithsonian Institute, and Echoing Green.

4.4 Experience and Inspiration

(1) The Maintenance and Usage of Space. For KDI, the end goal of a construction project is to nurture the productive space within a community. Therefore, the maintenance and usage of a space is considered more important than its construction. Usually, a project requires KDI to organize operations for up to a year, until qualified local management personnels have received adequate training, at which point the management of the space is completely handed over to the community. For example, the training period following the completion of dry and wet separate toilets, which at their current stage of operations are still being actively supervised by KDI. Even if extremely simple technology is used, concerns pertaining to fertilizer collection and external sales lead KDI to believe that a longer period of supervision is necessary.

(2) Maintenance of Land Assets. After completing its first project in Kenya, the construction of a Community Center, KDI made a simple children's play area out of old tires and iron sheets. However in 2013, local government indicated that KDI did not possess whole land usage rights of the area. After long period of negotiation, this children's playground had to be demolished and replaced by a

policy station according to the plan of local authority. This case gives KDI a lesson that it is very important for NGOs to seek collaboration, rather than competition, with local authorities to find well-accepted solutions.

(3) Organizing Productive Space and Community Network. Another area where KDI adds important value is that they have organized spaces with productive capacity in many of Kibera's communities, creating an extremely cohesive community network. It is this kind of achievement which other short-term interventions on transformative projects would have been unable to achieve. More commendable is that, Kibera originally comprised 12 separate villages, each village being a contained unit and socially closed off from the others, to the extent that a villager from one village would even encounter difficulties upon attempting to enter a neighboring village. In such a large, crowded environment, Kibera was turned into a 'reservoir' for all manners of social conflicts. KDI has managed to break through these barriers and carry out its projects in many of these villages. Even though this kind of network is yet to overturn the barriers and conflicts between Kibera's many small communities, it has established a new kind of interventionist transformation project, the kind of project with historical importance.

5. Columbia: Antioquia Educational Parks[1]

5.1   Case Overview

The Department of Antioquia is situated in the northwest of Columbia, with a total population of 6.3 million and is the second highest GDP in the country. There is, however, a huge disparity of wealth between the urban and rural areas. To narrow education disparities among regions and drive the social and economic development of backward regions, in 2012, the Antioquia Educational Park project was proposed to facilitate the ongoing construction of the network of 80 education theme parks. After extensive promotion, the local governments and communities strove to be selected so that they could set up their own parks. This project was one of the important strategies in the "Education First in Antioquia" development plan, and has become a key project in the transition of Antioquia's education provision, and in the creation of regional development opportunities. The municipal government authorities also signed agreements with its citizens and the regional

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[1]   Case source: The cities recommended by experts for the Second Session of Guangzhou International Award for Urban Innovation, published by the Office of Guangzhou International Award for Urban Innovation; compiled by Du Fengjiao, Shanghai Urban Planning and Design Research Institute.

parliament, ensuring the project's sustainable development.

5.2 Problems and Measures

The gap in the social and economic development levels between Medellín, the capital city, and other cities in the Department of Antioquia is strikingly evident. Owing to this the people of Medellín view innovation and development in rural areas as being of little importance. The nine regions which surround the city are frequently considered to be backward, remote places that are subject to an outflow of labor. Education is a key factor in the uneven development. Test scores of students in mathematics, science and literature in the nine surrounding regions rank lower than the average for the whole country. Among them, about half of the

Figure 3.32   Antioquia Educational Park Project

young people drop out of school, and only one tenth of students receive higher education. Uneven education levels are a contributory factor in the region's uneven development, and for many people moving to the city from the countryside is the only feasible solution.

Antioquia has gradually become more aware that education is the engine for social transition. Education plays an important role in raising a city's strength, because it leads to more opportunities and also promotes social fairness as well as the sustainable development. Public education is an extensive concept, covering every stage from early learning to corporate training, and is a combination of culture, science and innovation. Antioquia has launched the construction of 80 themed educational parks based on the concepts delineated above. Collaboration on the administration of these parks is evident among local authorities, scholars, educators, businesspersons, communities and citizens during the launch, construction, operation and during specific instances on implementation.

(1) Project Launch. When the project began, one hundred and nine autonomous cities competed for constructing their own themed educational parks, with all regions launching extensive education themed publicity, featuring mayors, educators, youth groups and citizens together discussing how themed educational parks can raise local education standards. Authoritative scholars, educators and businessmen formed a small independent organization to select the 80 wining cities as locations for the themed educational parks.

When the idea for the Themed Educational Park Project was first proposed, it was merely one aspect of the four-year development plan. Now, however, the project has been incorporated into a new policy framework, becoming a long-term project featuring collaboration between the public and private efforts as well as communities. Some political bodies opposed the project, believing that funds should be invested in the existing system. In response, the project team proactively promoted the concept, making it clear that the project had the support of both local governments and communities, and that the project would not result in the suspension of investment in the traditional school system, and finally dispelled the opposing voice. The positioning of the themed educational parks was that they would not act as a substitute for formal education organizations, and would merely be an implementation that consisted of a combination of the public, private, formal and informal educational projects, assisting the innovation and change of the education system. The purpose of these parks was not purely to improve traditional education, but also to provide a greater variety of educational opportunities for

Figure 3.33　One of the Antioquia Educational Parks

community residents, and to become a center to facilitate stronger relationships within a community. Those dysfunctional societies plagued by violence, in particular, were in especial need of this type of park.

People were also worried that the project would not be seen through until completion. In response, a public-private organizational framework was set up, ensuring public investment of funds, establishing long-term alliances, and keeping up the project's promotion and advertising amongst society. The private sphere provided financial assistance for a proportion of the project's construction outlays and educational facilities, whilst the local authorities provided funds and manpower. A major proportion of the project's funds came from the government, who had a policy framework to ensure the project's successful implementation.

(2) Building and Operation. The themed educational parks meant not only buildings, but also creating public spaces for citizens, and forging an example of how to raise capacities and create opportunities through education. The project, along with other education projects of different structures, jointly promotes the development of science, technology, research, innovation, communication, enterprise, culture, and art, thereby improving the citizens' level of general education, and diversifying the city. Each park is between 500 and 600 square meters in size, and has been designed by nationally renowned architects in

Figure 3.34　Buildings with Distinctive Features

collaboration with participating local communities. Each park emphasizes local characteristics and adds diversity. Architects and communities launched the 'Imagine Your Park' campaign together, so that local preferences, characteristics and desires could be incorporated into considerations for the design of the park.

　　The project adopted an innovative business model. The 80 themed parks formed a single network that is jointly run by the public, private and community sector. Despite social, economic, ethnic and regional disparities among individual cities, the network established a single standard in terms of the educational projects,

Figure 3.35　Running the Educational Parks

operations, financial mechanisms, and policy making. However, under the unified standard each park still its own unique character reflecting its unique environment. Some of the parks organized group social events, and some focused more on economic development, such as quality coffee and ecotourism.

(3) Specific Implementations. The primary aim of the educational parks was to raise the quality of education, and implement regional cultural and educational projects, so as to stimulate the growth of the local economy as well as society, attract and train talents, and create more opportunities and a harmonious atmosphere. The seven guiding principles jointly formulated by organizations and universities include: 1) Launch vocational training to improve teachers' understanding of education theories as well as their grounding in the subjects of mathematics, science and literature; 2) Universalize primary and secondary education in target areas; 3) Encourage students to pursue higher education; 4) Establish information and communication technology as an educational tool and as a method to connect with the wider world; 5) Foster a local atmosphere amenable to corporate culture; 6) Incorporate education into every aspect of the citizen's lives, including the fields of the environment, culture, art and sports; 7) Teach foreign languages in an easy, accessible manner.

Each guiding principle has its corresponding strategic and specific section in the project. Local committees formulated the details of each park project with reference to actual local conditions. These innovative projects in the public sector required the local governments and communities to often involve themselves in both top-
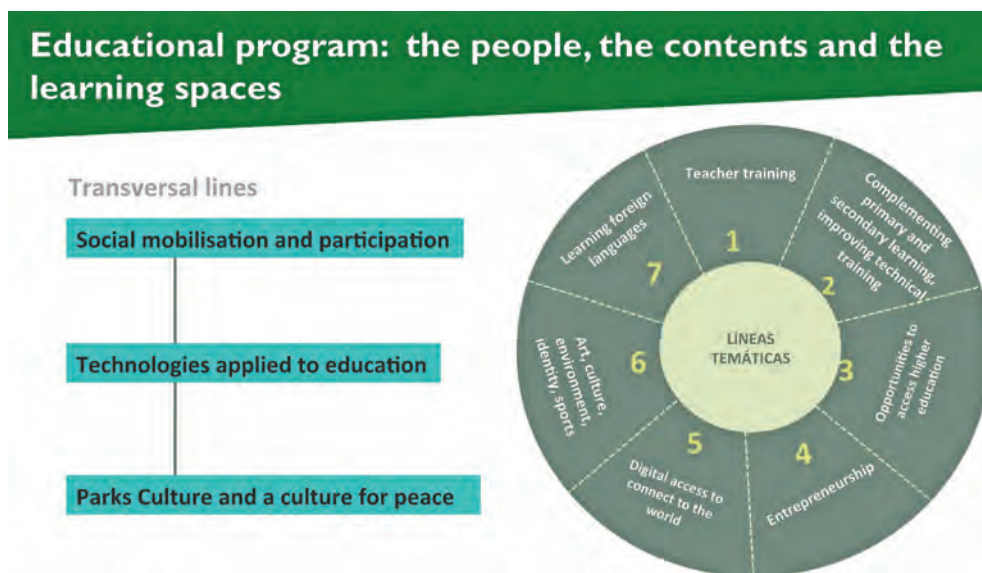

Figure 3.36   Educational Program

down and bottom-up innovative implementation. A key part, or a guiding principle, during this process, was to heighten community participation and improve their capacities.

5.3　Effects

Although the majority of the parks are still in the planning and construction stages, the project has already delivered initial progress which is evident in many different areas, such as raising community participation, increasing awareness of education, and raising the local standard of skills training. Light green on the map below marks the first group of regions to have submitted applications for the Educational Park Project, dark green marks the second group, and blue marks those
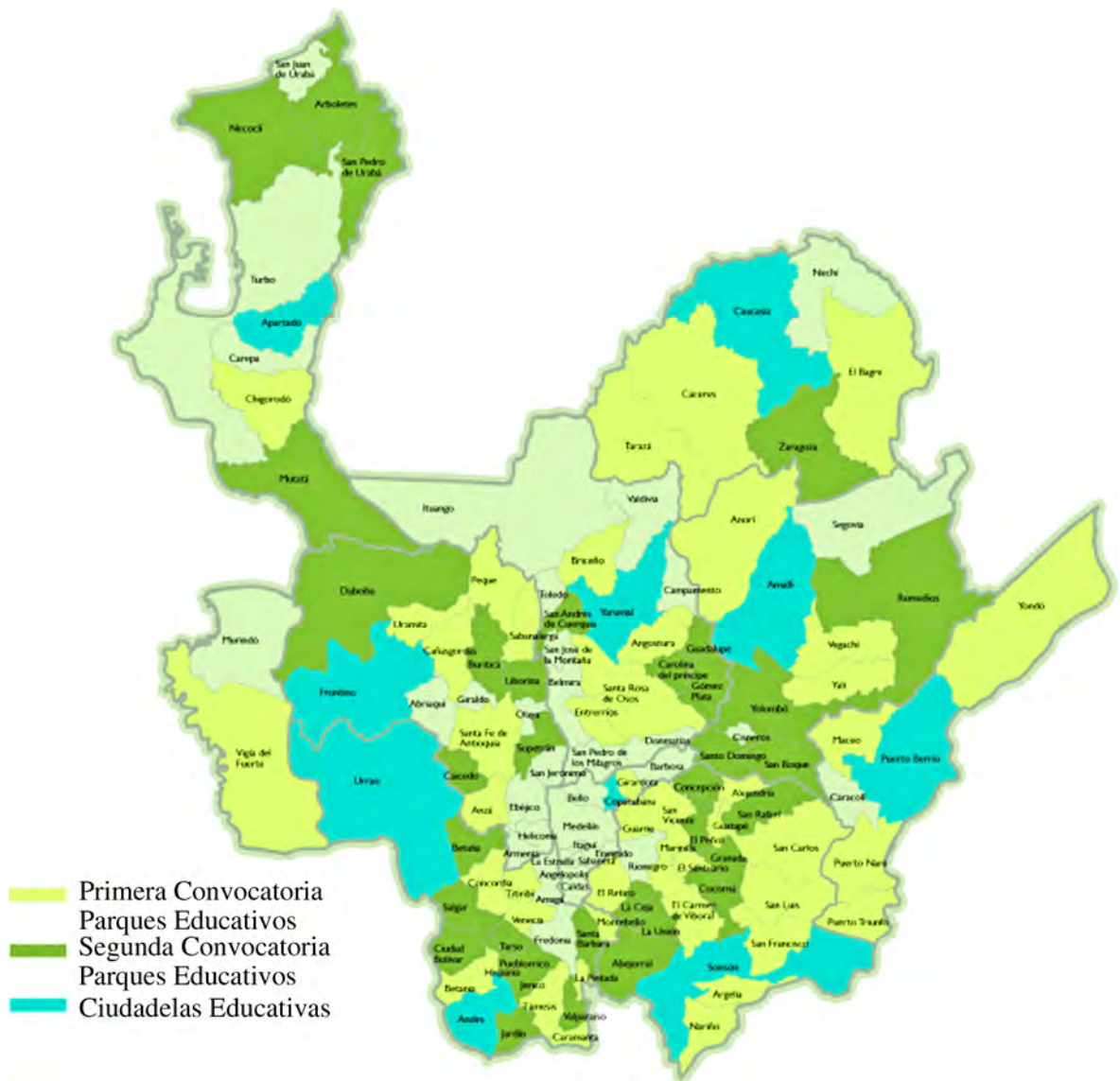

Figure 3.37　Map of the Distribution of Educational Parks

regions scheduled for admission to the project or those which already have related basic areas. The initial goal of the project was to construct 40 educational parks. However, the initiative proved so well received that the government had to look for assistance from public departments and private organizations before raising the total number of parks to eighty.

The local committees of these eighty themed educational parks meet once a month and comprise of around two thousand representatives from different communities. They discuss and map out the development of their own park. Each city hosts an average of forty social promotional activities, primarily to publicize 'Park Culture', so that citizens can better appreciate the value of their city and understand that the parks are the result of 'public philanthropy'. In addition, the project has developed links with NGOs, setting up a model for future park development.

The first open themed educational park is located in Vigia del Fuerte, an area featuring comparatively lagging development, lack of governance and chaotic social order in Antioquia. Therefore, the opening of the first themed educational park in such a location is laden with profound meaning. The park releases basic information weekly, such as visitor numbers, each day's events, the impact of each event on teachers, students and the general populace, citizens' suggestions and their satisfaction levels. Such promotion over a two-year period has proved very beneficial.

5.4 Experience and Inspiration

There are three main points worthy of consideration from the Antioquia Educational Parks Project for the administration of those regions in the world which have experienced a long-term lack of educational facilities and low education standards.

(1) The Project has Helped Complement the Traditional Education System, Draw out Young People's Talent, and Give Free Reign to Their Enthusiasm. The goal of the project was not to replace the formal education system, but to attract talented youths in the local area, and in addition to emphasize the concepts of peace and public worth. The most deprived communities are equipped by their educational parks with libraries, showing that the government pays attention to the residents of these areas. Holding a symbolic significance, educational parks form public, comprehensive, and interesting urban spaces. Citizens can develop their skills in education, art, creativity, culture, corporate management, science, technology, as well as deepen their understanding of civil rights and obligations in the parks. These might appear to be the provision of relatively basic functions for many cities, but for those cities in Antioquia, the

Figure 3.38   Students Study in an Educational Park

Figure 3.39   Children Reading a Book

Figure 3.40　The Role that Educational Parks Play in Supplementing Existing Educational and Cultural Facilities

themed educational parks constitute one of the most important fundamental facilities, and have become their most representative public spaces.

(2) The Educational Park Project was Initiated by the Government, but it was the Triangular Cooperative Framework among the Public, the Private and Communities that Played a Major Role. The tripartite cooperation framework ensured the implementation of the project by establishing good multi-party interactions, which includes the joint investment of public and private resources, the collaboration between architects and the communities, the educational training projects jointly organized by local (authorities) and communities, the solving of opposition from political groups, and the elimination of the general public's worries about the project's long-term sustainability.

(3) A Key Component is Extensive Publicity within the Society. A local network for dialogue and social media became key tools in the project's promotion, and also served to attract social investment within cities and raise awareness in

rural areas. Every aspect of the project was based on the experience gained in Medellín, promoting a whole series of social reforms. Innovative building design served to stimulate the development potential of neighboring regions, producing a brand-new image. Currently, some cities in Columbia and other countries across Latin America have expressed will in applying the experience gained in Antioquia.

6. Dubuque, USA: Smart Sustainable City[1]

6.1　Case Overview

Dubuque is situated in the mid-western state of Iowa in the US. The Mississippi River runs through its downtown area, and it is one of US's most livable cities, and a pioneer in smart city development.

In 2009, as the concept of 'a smarter planet' was raised, the Dubuque municipal government collaborated with IBM to establish the 'Smart Sustainable Development' (SSD) project in the city, which would connect all of the city's resources, such as its water, electricity, oil, gas, transportation, and public services information together with a set of smart systems such as the internet, computers,

Figure 3.41　Dubuque's Landscape

1　Case source: The cities recommended by experts for the Second Session of Guangzhou International Award for Urban Innovation, published by the Office of Guangzhou International Award for Urban Innovation; compiled by Zong Minli, Shanghai Urban Planning and Design Research Institute.
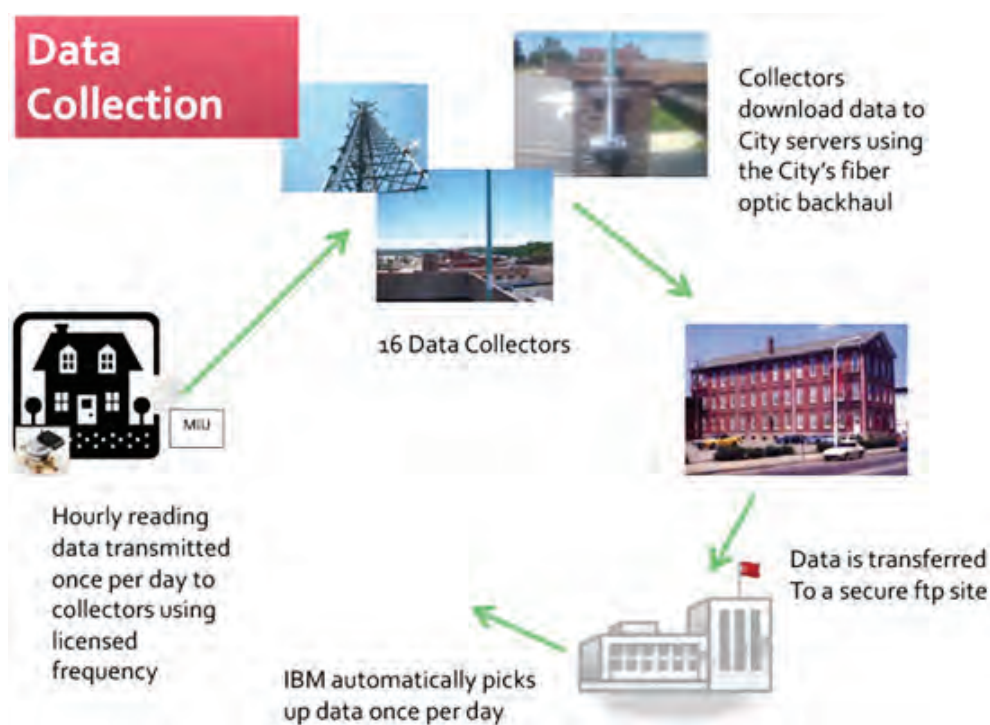
Source: Guangzhou International Award for Urban Innovation.

Figure 3.42　Data Collection System

sensors and software, and then control, sense, analyze and collate all manners of data before issuing a smart response. The SSD project was aimed at providing the residents with requested access to information on personal data regarding water, electricity management, transportation, rubbish, and health, thereby intelligently responding to their needs and also lowering the city's energy consumption and running costs, making Dubuque a more attractive place to live in and more amenable to commercial development.

6.2　Problems and Measures

(1) Extensive Project Participation. In the project, the Dubuque government was responsible for designing the pilot programs in partnership with the IBM Research Institute, recruiting volunteers, establishing a volunteer consultation platform, sending the resultant pilot zone user data to the IBM Research Institute for analysis, and then formulating policies and suggestions for implementation based on results of the analyzed data. The IBM Research Institute was responsible for analyzing data and providing technological support for each stage of the trial zone plan, as well as data evaluation, and providing the municipal government with the statistical basis for performance assessment and policy implementation.

The other main partners of the project included Constellation Energy(responsible

for the smart meter system), the ECIA, public transport system management personnel(responsible for the smart transportation system), Neptune Technologies(provision of water meters and data collection systems), Racom(providing wireless relay transmission technology), Ferguson Group(providing the integrated water meter system, and cooperated in data research and meter reading technologies with the IBM Research Institute), Camelot Engineering(providing wireless RFID technologies), the American Chamber of Commerce, the Community Foundation of Greater Dubuque(CFGD), and the Greater Dubuque Development Corp. (GDDC)(responsible for raising community participation, including the recruitment of volunteers and organizing the volunteer workload under the pilot programs).

Apart from this, Dubuque also collaborated with Iowa University's post-graduate programs to promote the development of the SSD project. Both sides launched a multitude of staggered milestone projects, collaborated on the research of new energy systems, researched the factors for sustainable social fairness, and formulated standards for assessing performance which accorded with the principles of sustainable development.

(2) Carrying out the Pilot Programs with Multiple Partners. The SDD project was innovative in its implementation. The construction of energy, water services and the transportation system were considered to be priorities. The public, private and community sectors of the society worked together to drive the pilot programs forward.

Dubuque entered into a close partnership with a local power company, Alliant Energy, after the installation of digitally controlled water and electricity meters at residential and commercial locations, and provided essential facilities with more smart functions to understand user usage patterns in depth before reaching a decision on electricity consumption. The energy pilot projects (installed in 1,000 Dubuque residential locations), by collecting information via smart electricity meters for cloud computing, gave citizens access to their personal information of electricity consumption through interactive portal websites, and thus might reduce the total consumption during peak hours In addition, a composite real time sustainable development monitoring platform was set up to instantaneously analyze, synthesize, and display data, providing residents with a visual method to monitor their daily water usage, detect water leaks, and manage water resources more intelligently.
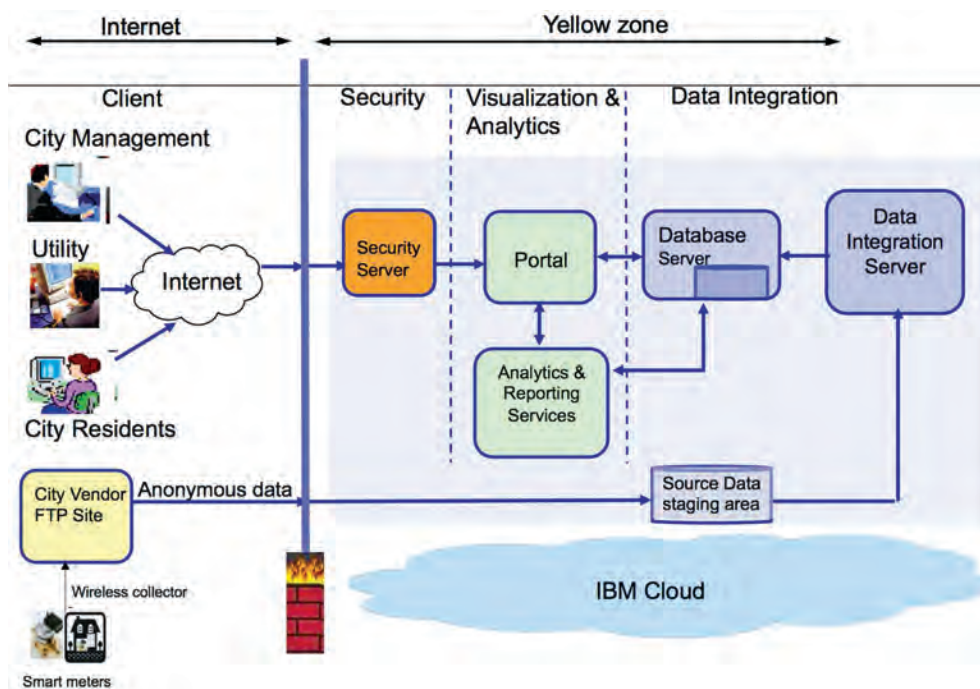
Source: Dubuque Official Website.

Figure 3.43　Display of Dubuque Smart Water Services Portal Website

The pilot programs also included the installation of smart progress meters to provide over 1,500 passengers with real-time traffic information and access to public transportation policy, as well as reorganization of sections of public transport routes to better serve passenger needs and achieve greater route utilization. There are two smart rubbish management system(supplies management) pilot programs, in which, the integrated projects covered 800 households, which gauged how residents managed waste disposal and recycling, and evaluated the social impact of resident participation in these two areas. Individual pilot programs faced three hundred volunteers, mainly surreying upon their waste disposal and recycling, yard rubbish and kitchen waste, and traced and compared the situations of each volunteer. In addition, a smart health care system pilot plan is currently under design.

(3) Encouraging Public Participation and Changing Patterns of Behavior. The SSD project developed unique 'smart' technologies, which were combined with community services expanding and the project implementation strategy. This kind of model drove public participation. Residents improved their quality of life through sensible energy usage. Apart from encouraging resident participation in the pilot programs, altering their patterns of behavior over extended periods of time was one of the challenges faced by the SSD project. To resolve these problems, the SSD project classified resident participation into three grades: the first one
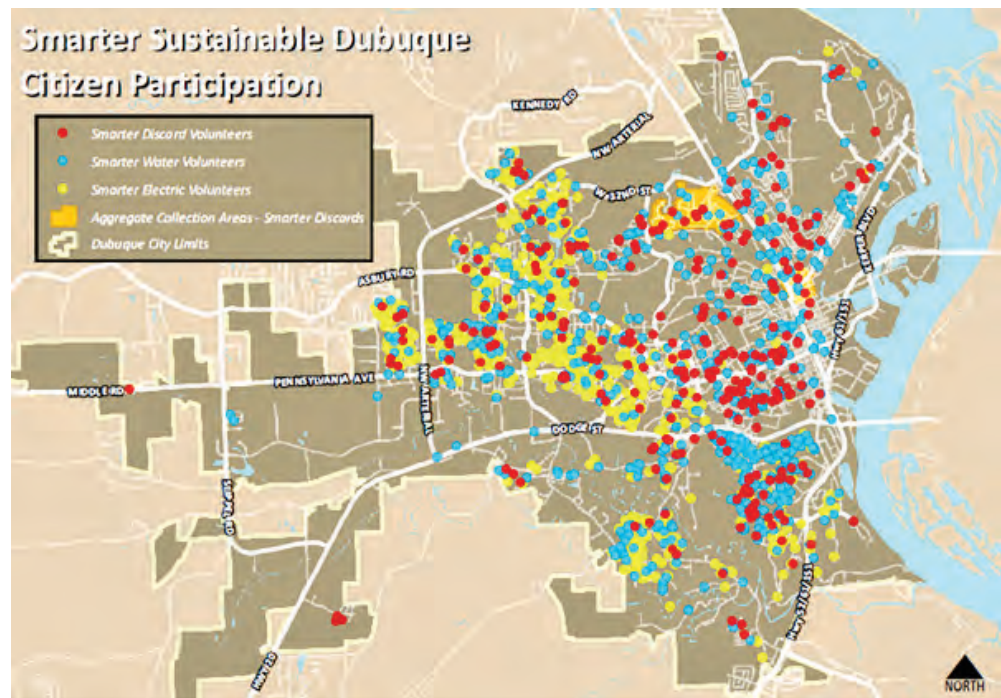
Source: Guangzhou International Award for Urban Innovation.

Figure 3.44   Map of the distribution of Dubuque volunteers

was 'fairly high participation rate' in which participants often checked meter data, and hoped to have greater access to data so that they could make more accurate decisions regarding behavior. The second one was 'average participation rate' in which participants frequently checked meter data at the commencement of the project, but soon reverted to only checking the meter in the event of some changes, and hoped to receive immediate notification when such changes occurred. The third was 'low participation rate' in which participants infrequently or periodically checked meter data, and hoped that the aggregate data from the meter would be used by public departments to formulate policy and guide investment. Overall, 60% of the users of the pilot programs displayed high and medium rates of participation.

6.3   Effects

(1) There were Evident Results in Energy Conservation. Residents proactively participated once the smart data controls were in place, and energy usage was better deployed. There was a huge reduction in water usage when the water usage patterns were changed, with household usage dropping by 6.6% on average. There was also an evident rise in the detection rate of water leaks; with 77% of users of smart water meters finding the data help them to better understand their own and their families' water usage patterns, and 61% of users utilizing

water meters to successfully reduce their water usage. By acquiring a deeper understanding of their electricity consumption habits, residents coordinated to reduce their electricity usage during peak times, with an electricity usage drop ranging from 3% to 11% in respective seasons, which means that every family in the city could, in aggregate, reduce electricity expenditure by 1,564,000 USD.

(2) Improvements to the Provision of Public Services. The success of the pilot programs of the SSD project encouraged IBM's original program FOAK to invest one million USD in the SSD project, so as to obtain a permit to research and implement smart public transportation pilot programs in collaboration with Dubuque. This innovative research aimed to track residents around the city, and find out whether there was a correlation between the transportation choices made and the real-time actual traffic situation. In order to achieve this goal, the whole city began to collaborate with the IBM Research Company to analyze data, and decided to utilize RFID technology to track the passenger capacity of existing public transportation routes. Several hundred passengers acted as volunteers, taking a tag onto buses, which when scanned would record data such as the time and location at which passengers got on and off buses. These data assisted in the optimization of route planning, and for managers of the public transportation system, data analysis effectively improved the level of service provided by the public transportation system.

(3) Rising Influence of the Smart Policies. While reserves of non-renewable resources reduce day by day, information technology is constantly growing, and so as smart sustainable cities. The impact of the SSD project's implementation is increasing in Dubuque, in Iowa, in the US and also internationally. The influence of the 'smart transportation' policies has led to the Dubuque transportation system being implemented across the transportation systems of Iowa and America's Department of Transportation, and the research which IBM has conducted on the SSD project is of enormous value to capital cities around the world. In 2013, Dubuque's smart water meter pilot program was successfully implemented in Townsville, Queensland, Australia. To commend the contribution made by the pilot program had made to Australia's drought prone areas in water conservation, the nation conferred the renowned 'Smart Infrastructure Project Award' of the 'National Infrastructure Awards' on it.

6.4   Experience and Inspiration

In the information era, big data, cloud computing, and other emerging technologies have been used in various aspects of urban construction and management. Using modern technologies, digitalized urban management has

embarked on a new model of urban governance, thus playing an important role in urban building, management, operation, and in sustaining sound urban development. In this field, Dubuque of the United States has identified a viable pathway towards the application of new technologies in urban governance.

Information is the best method to give residents the ability to choose. When the SSD project was first established, one of its goals was to give residents the power to alter and improve the project, thereby raising the utility of the project in their daily lives. A personal databank was set up for residents so that they could measure and monitor their water and energy usage as well as traffic information. The personal databank provided them with real-time data on their resource usage, with the specific information on their energy usage and the size of the carbon footprint created thereof. This databank assisted both residents and the city to make more informed choices for the sake of sustainable development.

Multiple different parties participating proved the most effective method to resolve the city's development problems. The SSD project's partners included the IBM Research Institute, local public service units and the people of Dubuque. The development model of the project covered the participation of the community's residents, reducing waste disposal and emissions, providing more employment opportunities, and raising financial reserves as well as improving the quality of life for all of the city's residents. This was the most effective method to resolve the city's development problems. If it had only proved beneficial to economic growth, and there had not been improved systems with which to promote the outstanding implementation of the project, then turning Dubuque into a sustainable city would have remained a pipe dream. The city aggregated all personal data and resource information into an "integrated sustainable system", and it was the first time that residents were able to lower their electricity usage based on their real-time water usage data, and the first time that information from a transportation system had helped raise their own level of health. The most unique aspect of the project was that the residents could understand and utilize their personal energy usage databank to make practical gains.

7. Japan: Barrier Free Design of Urban Public Spaces[1]

7.1　Case Overview
As cities enjoy higher level of development, to enhance the living environment

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1　Case source: Internet information; compiled by Lin Hongmei, University of Paris-Saclay.

for all will be the new goal in urban development. Particularly, considering the special needs of the elderly, people with disability, women, children, and other disadvantaged groups, user-friendly details should be adopted in urban planning for their convenience. 'Barrier Free Design' aims at catering to the needs of disabled people of various degrees, and shaping a caring, secure, and convenient modern living environment. Barrier free building mirrors the social moral of a country, and reflects the spiritual civilization of a country and a city.

Japanese cities have been increasingly focusing on the barrier free design of public spaces since the end of the 1960s. Thanks to decades of development, Japan's system of barrier free design, solely organized by civil groups at the very beginning and later co-organized by social groups and the government, is well-developed now.

Japan's barrier free movement was a public facilities reform movement which began amongst the grassroots and infiltrated upwards. Popular action consisted of feasible suggestions and proposals, and the government's mature regulatory system and incentive policies provided a firm foundation for the implementation of barrier free design, the results of which provide valuable lessons for cities all around the world.

7.2 Problems and Measures

Japan's disabled population initiated the barrier free movement between the tail end of the 1960s and the beginning of the 1970s, expressing their desire for urban design which would facilitate their free movement and ability to work in a manner similar to implementations in Europe and America. Wheelchair users investigated the provision of barrier free facilities in a number of cities, and then drew up maps marking barrier free areas. The 'National Assembly of Wheelchair Users', which began in the city of Sendai, gradually spread to other cities such as Kyoto, Nagoya, and Tokyo.

The year 1981 was the UN-advocated 'International Year of the Disabled', following which in 1982, the *World Action Plan for the Disabled* was passed. From 1983 to 1992, the UN promoted and implemented its plan the 'International Decade of the Disabled Persons', and Japan's barrier free movement was gradually elevated from a regional focus to a national one. However, considering the costs and benefits as well as the value presented by the disabled, not all of Japanese society was willing to attain the UN's target of immediately promoting barrier free design. At that time, such concepts were promoted out of a sense of compassion, and the construction of a barrier free environment was still just at a hardware level at that time.

This situation did not change until 1990, since when Japan's population structure became that of an ageing society. After that, an barrier free environment became not only necessary for the small number of the disabled, but turned into a pressing future problem for the majority of the population, including children, pregnant women and the elderly. The barrier free system has become a key component of the future development. At the same time, with a more reasonable sharing of costs and benefits, the need for barrier free environments became widely accepted and supported.

(1) Sound Regulatory System. A mature system of barrier free facilities is heavily reliant on regulatory support. Japan's Osaka Prefectural Government drew up the *Barrier Free Regulations(Blue Paper)* in 1993, becoming the first in Japan. Since 1994, Japan has placed legal and regulatory restrictions on buildings and similar structures. In 2000, Japan's Ministry of Transport formulated the *Barrier Free Transport Law* to facilitate barrier reduction on means of transportation. In 2006, Japan passed laws and regulations pertaining to the design of barrier free facilities, stipulating mandatory regulations on transportation and building design. The Ministry of Land, Infrastructure, Transport and Tourism then further drew up the *Barrier Free Law*. And in 2014, Japan ratified the United Nations *Convention on the Rights of Persons with Disabilities*. In 2016, the *Disability Anti-Discrimination Law* was formally implemented in Japan.[1] The Ministry of Land, Infrastructure, Transport and Tourism then issued regulations, followed by local governments proposing further regulations. Barrier free design became a highly practical, systematic, full body of legislation with detailed clauses, providing a convenient framework for both construction firms and authorization departments.

(2) Multi-lateral Participation. Since early 1971, a handful of elderly and disabled people have voluntarily organized and participated in events, symposiums for instance, on the design of barrier free facilities. They hold a meeting once a month and give designers feedback and suggestions based on their user experience of a wide variety of barrier free facilities. Such feedback sessions are of practical use to designers, who can make alterations to designs based on such information prior to the commencement of construction, thereby minimizing the risk of design errors and resource wastage result from not taking consideration for all

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[1]   Toshiyuki Ueno. *Wheelchairs Climb Up—The Development History of Japan's Barrier-Free Design*. http://www.youren.org.cn/page/4193.

factors. Involved social and research organizations are also important drivers for building barrier free design in Japan.Japanese Association of Welfare Barrier-free and Universal Design are two of the examples. It is an academic society that considers issues such as housing, the environment, transportation, and lifestyles, and covers multiple aspects such as law, social welfare and engineering, aiming to conduct research on and develop a variety of barrier free and accessible designs.

(3) Policy Incentives. First of all, calculate volumetric flow rate. In the design of building interiors, consideration is given to easy wheelchair access, including sufficient room to turn around larger bathrooms and wider corridors. Legal regulations allow for one tenth of the total surface area of a building to not be included into the ratio for the total building space to total usable space, thereby facilitating barrier free design and an increase in easy access floor space.

Secondly, taxation incentives. For example, special structures which are subject to barrier free design regulations(such as an elevator of over 2,000 square meters in size), are eligible for a 10% tax deduction for five years.

Thirdly, interest finance regulations. Any designated structure compliant with barrier free design assessments is eligible for low-interest financing from institutions such asDevelopment Bank of Japan Inc. and Japan Finance Corporation for Small and Medium Enterprise, and such preferential policies are intensified. Even if the assessment criteria are not met, as long as the structure contains elements of barrier free design, it can be awarded low-interest financing, the amount of which is comparatively smaller.

Fourthly, subsidy regulations. Structures designed for pedestrian usage, such as corridors, flights of steps, and elevators that connect to buildings serving a public welfare purpose, such as art galleries or cultural agencies can receive government subsidies covering a portion of the cost of refitting.[1]

7.3　Effects

Barrier free design in Japan's public spaces mainly focuses on the construction of urban public spaces, and includes places subject to large usage volume such as buildings, transportation networks, and parks. The Ministry of Land, Infrastructure, Transport and Tourism provides corresponding design guidance booklets for such spaces. Decades of development of barrier free design has given Japan a comprehensive network. The barrier free design in spaces such as residential areas,

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[1]　Deng Lingyun, 'Zhang Nan. Brief Analysis on the Establishment of Japanese Barrier-Free Design System for Urban Public Space'. *Urban Planning International*, 2015.30(S1):106–110.

Source: Deng Lingyun and Zhang Nan, 2015.

Figure 3.45　Barrier Free Design in Elevators and Bathrooms

transportation networks, and public facilities in cities such as Tokyo and Yokohama are well thought out and well equipped.

Barrier free design attaches the greatest importance to ensuring conveniences and security. Both outdoor and indoor facilities are equipped with pathways for the blind, and indoor pathways for the blind are predominantly in busy buildings with public functions, such as administrative offices, public bus stations, and exhibitions. Such indoor and outdoor pathways for the blind are as interconnected as possible. Elevators and stairwells also have corresponding facilities catering to the needs

Source: Deng Lingyun and Zhang Nan, 2015.

Figure 3.46　Pathways for the Blind in Outdoor Public Areas

Wheelchairs served free of charge

Lactation Room(for breast-feeding and diaper changing)

Baby strollers served free of charge | Information desk where gesture language is feasible | Convenience toilet for the disabled and children

Source: Deng Lingyun and Zhang Nan, 2015.

Figure 3.47   Other Barrier Free Service Facilities

of the disabled, the elderly and children. Elevators, for example, always come with buttons of different heights, and some have special buttons that are detached from elevators for the exclusive use of disabled people, as well as the Braille plan of each floor, and stairways are equipped with escalators for disabled use and anti-slip strips.

Apart from outdoor areas, such as pedestrianized streets in public areas, parks, pedestrian crosswalks, and costal green space, some other facilities have also been designed with consideration to human use, such as blind people-friendly street facilities. A number of parking spaces in car parks are designated for disabled use, rail transit and stations provide barrier free services, and bus doors are equipped with a sloped access way, and vehicle interiors are designed with designated seats or places for the disabled. Barrier free access in parks includes seats with armrests and barrier free public toilets.

Other barrier free facilities include a designated mother-infant room, free infant pushchairs or wheelchairs are available in many shopping centers and office blocks. Some administrative offices (such as the municipal government buildings) are equipped with information desks that can communicate in sign language.

Japan's Ministry of Land, Infrastructure, Transport and Tourism is comprehensively

driving a new round of barrier free conversions in time for the 2020 Tokyo Olympics and Paralympics, thereby creating a more comfortable environment for tourists from all over the world. With regards to airports, some parts of the Haneda Airport will be equipped with dedicated counters for those who need extra assistance including the disabled, those travelling with babies and infants, and wheelchairs constructed of tree resin will also be available. With regards to railways, the JR East Railway Company(JR-East) will have replaced all of its carriages with barrier free carriages and increase the proportion of priority seating for the elderly, disabled and pregnant women prior to Spring 2020. With regards to public buildings, historical structures will be equipped with barrier free upgrades such as armrests and easy access slope-ways. The target set by the Ministry of Land, Infrastructure, Transport and Tourism is that all stations and airports with a passenger volume of over 3,000 people per day will be fully barrier free by 2020. The local governments are responsible for the upgrading of barrier free facilities at tourist destinations and adjacent roads.

7.4　Experience and Inspiration

Japan's design of public spaces is advanced and well equipped, and thus enables the weaker members of the society, such as the disabled, the elderly, pregnant women and children to participate in social activities more conveniently, ensuring their power to engage in society. Looking at this from another perspective, no matter what the disparity of wealth is, all the vulnerable and elderly people are able to experience real equality. It is this experience which achieves the original intention of humanistic design. The experience of barrier free design of Japan's urban public spaces can be summarized as follows:

(1) Expand the Range of Target Recipient of Barrier Free Design, and Raise the Degree of Participation Amongst Target Users. Target users should include the disabled, the elderly, women with infants, and children. The disabled can be further subdivided into visual impairment, hearing impairment and physical disabilities. Therefore, researches targeted at different groups and their special needs should be conducted and analyzed. A project could be initiated by following a number of representatives of target groups for predetermined periods of time, and then tracking, understanding and analyzing their daily activities, thereby finding out their objective requirements of urban facilities. Raising participation rates of weaker groups, and conducting targeted design based on their needs would be the preconditions of barrier free design.

(2) A Well-developed Barrier Free Design System in Places Which Experience High Volumes of People, Especially in Public Places Where

People Tend to Congregate, Needs Deep Consideration with Regards to Buildings, Roads, Transportation, and Parks. Apart from the implementation of barrier free design in areas with different functions, considering how indoor and outdoor barrier free designed facilities are connected is also important. The end goal should be that weaker groups are able to rely on barrier free designed facilities from the moment they leave their house to the moment they arrive at their destination, and at no instance during such a process should they encounter any difficulties.

(3) The Most Fundamental Safeguard for Barrier Free Design Requires a Capable Legal System and Incentive Policies. The underlying reason why Japan has been able to implement barrier free design is a result of the strength of its regulatory systems, its combination of strong laws and a series of incentives policies.[1]

Experience Based on Case Study

The seven urban governance cases come from seven different countries and regions. Although each of them prioritizes different focus and practice, some common experience that are worth promoting can be drawn as the following.

1. The very Essence of Urban Governance, Participation of Multiple Parties, is Emphasized

These seven projects are typical with multiple parties involved in urban governance. During the project implementation, coordination of the relationships among different parties is needed to ensure well-handled negotiations among complicated stakeholders. Relationships among all parties are established differently in these projects, which can be summarized as following three models. The first is the public sector-dominated model that is represented by governments, while enterprises, urban residents and other groups get involved or offer opinions(pro or con). This model is applied to Berges de Seine project, Sanbokdoro Renaissance Project in Korea and barrier free design of public spaces in Japan. The second is the public-private cooperation model in which a cooperation platform is built by the government and enterprise, such as the Smarter Sustainable Dubuque(SSD) project undertaken by the government of Dubuque and IBM, and educational park project

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[1]   Deng Lingyun, Zhang Nan. 'Brief Analysis on the Establishment of Japanese Barrier-Free Design System for Urban Public Space'. *Urban Planning International*, 2015.30(S1):106–110.

in Antioquia, Colombia. The third is the enterprise or non-government organization-dominated model, which is taken in the practice of community garden in Shanghai and productive public spaces in slums of Kenya. Any model of the three aims at guiding various parties like government, enterprises, scholars, communities, citizens and non-government organizations to shoulder responsibilities respectively, leverage their advantages through mutual cooperation and thus promote the efficiency of urban governance. Surely, all this requires the guarantee by sound laws and regulations.

2. Participation is Enhanced at the Community Level

For the present, much more importance is attached to the creation and renewal of smaller spaces like communities in urban governance. It is advocated to increase participation of the public, create public spaces, and cultivate the potential of rejuvenation in communities. Governments, rather than direct interference, provide guidance for community citizens to realize community transformation. This 'bottom-up' model is more conducive to sustainable development. A variety of organizations are pulled together to pursue common interest and intensify the sense of belonging by lots of means, such as activities, gathering, educational training, hobby clubs, social service, etc. The practice of community garden in Shanghai and Sanbokdoro Renaissance Project in Korea pays special attention to the role of community committees that greatly facilitate independent and long-term operation and management of communities.

3. People-oriented Inclusive Governance is Promoted

As economic development and high efficiency are themes of the times, the issue of equity usually is easily neglected. 'For all' has gradually become a basic concept for urban governance in the world, enlightened by practices of Japan, Kenya and Colombia to a large extent. A city with mature development is required to consider the need of all citizens, especially the weaker groups like children, women, the elderly, disabled and needy people. All of them should be able to live in the city with dignity, comfort and convenience. Besides, widespread publicity is necessary to ensure that the information about project progress can reach to ordinary citizens timely for more participation. Various channels are utilized to disclose detailed information. For instance, personal database is created for citizens in Dubuque to help them make smarter choices, and the citizen online participation system is set up in Sanbokdoro.

4. Governance Principles of Flexible Thinking and Governance Based on Local Conditions are Never Wavered

Traditional urban governance is 'too rigid with too many chores', lacking the capacity for 'quick response' and far from meeting the demands of urban development in the future. The exploration into urban governance in the new times shall focus on building physical spaces and easing the conflict of interests in a flexible and dynamic way, thereby finding a solution step by step without escalating contradiction. For instance, non-permanent facilities that are easy to dismantle and move, are installed for main activities on both banks in the Berges de Seine project of Paris. It injects new vitality to this area. Any measure shall be proposed in light of local development and features. The maximum benefit shall be created at the minimum cost and in the most appropriate way. For example, given the terrible living conditions and polluted environment in slums of Nairobi, it is really a smart decision to construct recycled and sustainable public facilities and spaces.

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Chapter 4

Goals and Strategies of Urban Governance

The United Nations has published multiple research reports on governance in different regions and under different subjects, such as the *Unpacking Metropolitan Governance for Sustainable Development* and the *Urban Governance Survey*; drawing on these reports, the UN has convened countries and regions towards a common development agenda, in a bid to reach a consensus on global relevant visions and relevant measures. This chapter analyzes the main relevant UN documents which addressed the spatial category, specific targets, and implementation strategies of the governance vision, mainly the *Transforming Our World: the 2030 Agenda for Sustainable Development*(which includes 'The Sustainable Development Goals', SDGs) issued in 2015 and the *New Urban Agenda* issued in 2016.*

The *2030 Agenda*, agreed upon by all 193 UN Member States, was officially adopted at the UN Sustainable Development Summit in September 2015. This is an important agenda involving the three main aspects of sustainability: economic development, social progress and environmental protection. A total of 17 SDGs and 169 targets are put forward in the document with an aim to eliminate extreme poverty and inequality, and to achieve sustainable development, playing a key

Source: United Nations Human Settlements Programme, UN-HABITAT.

Figure 4.1   In the afternoon of October 20, 2016, the Habitat III Conference was Ended. During the Conference, the Milestone Document—the *New Urban Agenda* was Passed

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*   Chapter 4 is compiled by College of Architecture and Urban Planning Tongji University, written by Wang Lan, Zhang Yalan.

role in the follow-up drafting of the *New Urban Agenda*.[1] The *New Urban Agenda*, which marks an important political commitment made by the UN to addressing challenges like global rapid urbanization and climate change, was agreed upon at the United Nations Conference on Housing and Sustainable Urban Development(Habitat III) in 2016. The *New Urban Agenda*, composed of 175 clauses, puts forward action principles for promoting urban transformation through improved urban planning, construction and management. This chapter mainly analyzes the overall goals for development as well as the vision for urban governance depicted in the *2030 Agenda* and the *New Urban Agenda* to track the implementation of the two documents in all countries, study their implementation strategies and bring forward suggestions for decision-making.

Vision and Goals Depicted in the *2030 Agenda* and the *New Urban Agenda*

The *2030 Agenda* contains not only overall vision and goals, but also specific ones for different groups of people, which points out a clear direction and draws a blueprint for international development and cooperation in the next fifteen years. In the *New Urban Agenda*, UN focuses on the current global climate challenge and the urban problems universally existing in many countries, aiming to promote urban inclusiveness, sustainable development and cooperation through urbanization from social, economic and environmental dimensions, and bring forward the vision for future new cities, including 'social inclusiveness', 'rational planning', 'sustainability', 'economic prosperity', 'distinctive characteristics', 'stability and security', 'health', 'reasonable cost', 'regional coordination', etc.

1. Overall Vision and Goals

1.1　Global Vision

In all, the *2030 Agenda* intends to build a world free from poverty, hunger, fear and violence. It proposes to build a safe and dynamic world where everyone has equal access to education, health care, social security and welfare, with adequate food and sufficient energy.[2]

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[1]　Shi Nan.'"Habitat III", *New Urban Agenda* and the Implications to China'. *Urban Planning*, 2017(1):9–21.

[2]　See Article 7 of the 'Our Vision' section in the *2030 Agenda*.

In accordance with the overall goals above, firstly, we should respect human rights and dignity, extend much importance to the rule of law, and reserve cultural diversity.[1] Secondly, we should achieve the harmonious co-existence between man and nature while assuring sustainable, inclusive and sustainable economic growth through sustainable production and consumption patterns.[2] Lastly, we should properly manage the natural resources to enable the earth to serve the contemporary and future generations. The document expresses good vision and goals for the future world including peace, justice, inclusiveness and sustainability.

1.2　Vision for Cities and Human Settlements

The vision for cities can be summarized as building equal, free, inclusive, safe, healthy and sustainable cities and human settlements.[3] This goal, based on the purposes and principles of the UN Charter, puts forward multidimensional goals and vision, as well as ways and methods to realize the goals. The general values reflected are of crucial guiding value to the *New Urban Agenda*(Shi Nan, 2017).

The document points out the intention to reach the vision above through achieving the sustainable development goals.[4] Its specific goals cover housing, transportation, security, heritage protection, environmental protection, public participation, etc.;[5] it also points out that global, national, regional, urban and settlement planning should be combined in order to ensure follow-up implementation and evaluation;[6] and global partnership and global cooperation should be established to jointly plan relevant strategies and implement action plans.[7]

2. Visions and Targets for Different Groups of People

2.1　Vision for Vulnerable People

The *2030 Agenda* points out that we must 'empower people who are vulnerable, including all children, youth, persons with disabilities(of whom more than 80 percent live in poverty), people living with HIV/AIDS, older persons, indigenous peoples, refugees and internally displaced persons and migrants', and

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[1]　See Article 8 of the 'Our Vision' section in the *2030 Agenda*.
[2]　See Article 9 of the 'Our Vision' section in the *2030 Agenda*.
[3]　See Articles 7–9 of the 'Our Vision' section in the *2030 Agenda*.
[4]　See Articles 1–17 of the 'Sustainable Development Goals' section in the *2030 Agenda*.
[5]　See Articles 1–17 of the 'Targets' section in the *2030 Agenda*.
[6]　See Articles 72–91 of the 'Follow-up and review' section in the *2030 Agenda*.
[7]　See Articles 60–71 of the 'Means of Implementation and the Global Partnership' section in the *2030 Agenda*.

provide effective support for people whose life is threatened in conformity with international law.[1]

To illustrate the vision above, the case studies section of this book chooses barrier-free design in Japanese public spaces. Japan's attention to its vulnerable groups has lasted for over half a century, leading to the formation of a complete and elaborate system in barrier-free design. Japan has launched a series of laws about promoting barrier-free design such as the *Anti-Discrimination Law for the Disabled* in 2016; the country's barrier-free design has attracted enthusiastic social participation and public response, and embodies the spirit of common governance. At present, Japan's barrier-free design serves children, youths, people with disabilities and the elderly; it has permeated into all indoor and outdoor urban spaces, making the vulnerable groups better engage in social activities and enjoy truly humanized design and social equality. Japan's care and endeavors for vulnerable groups has advanced the implementation of UN's vision and goals for vulnerable people.

2.2　Vision for Poor Groups

The 2030 Agenda points out that we must 'end poverty in all its forms and dimensions, including by eradicating extreme poverty by 2030'. All people must enjoy a basic standard of living including through social protection systems; we must also achieve food security and end all forms of malnutrition, enabling all people to lead to equal and dignified life.[2] The specific targets include: by 2030, eradicate extreme poverty for all people everywhere(currently measured as people living under 1.25 USD a day).[3]

Excellent international cases in response to the goals above include 'community gardens' originating in European and American countries, the original purpose of which was to reduce the living cost of the unemployed through utilizing derelict land for fruit and vegetable planting to guarantee basic needs for food and to some extent solve the living problems of local poverty groups. Later, 'community gardens' transformed toward suburban leisure agricultural land, becoming key access for urban populations to get safe and organic food. Residents tap into their farming potential in the course of building community gardens and participate in urban green space system management through this important access. The successful practice of 'community gardens' is owed to complete European and

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[1]　See Article 23 of 'the New Agenda' section in the *2030 Agenda*.
[2]　See Article 24 of 'the New Agenda' section in the *2030 Agenda*.
[3]　See Article 1 of the 'Targets' section in the *2030 Agenda*.

American legal and social security systems as well as developed social autonomy. This book also selects the case of Shanghai seeking to build community gardens in its high-density urban district.

In addition, in the past decade, the Brazilian government has been dedicated to lifting children, youth and the poor out of poverty through offering education, housing and employment skill training, which is a long-term way to reduce poverty and an important approach to realize UN's vision and goals for poor groups.

3. Visions and Targets for Different Subjects

3.1   Vision for Education

The 2030 Agenda hopes to provide inclusive, equitable, and high quality education at all levels(including early childhood, primary, secondary, tertiary, technical and vocational training). In particular, it wants to provide the children and youth with an environment conducive to growth to help them fully exercise their rights and release their capabilities through ensuring school safety, maintaining community and family harmony, etc.[1] The specific targets include: to ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to effective learning outcomes by 2030 and that all youths and a substantial proportion of adults achieve literacy and numeracy, etc.[2]

The construction of Antioquia Educational Parks in Columbia, one case excerpted from this book, makes a positive demonstration of how to achieve this vision. Unbalanced regional development caused by educational inequality is one of the major urban problems facing the nine surrounding areas. After realizing the role of education as important driving force in promoting social equity and sustainable development, Antioquia implemented the construction of eighty educational theme parks in a bid to provide community residents with multiform educational opportunities. Its educational programs cover such fields as science, technology, research, innovation, communication, enterprises, culture and art. The project has stimulated the development of the local economy while improving education quality, cultivating technical talents and creating a harmonious atmosphere. The project has expanded from the construction of forty educational parks originally to that of eighty parks, becoming an important development pattern for cooperation between the local government and social organizations. Construction of the

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[1]   See Article 25 of 'the New Agenda' section in the *2030 Agenda*.
[2]   See Article 4 of the 'Targets' section in the *2030 Agenda*.

educational parks made up for the weakness of the backward local education system, helped the residents have equal access to infrastructure, and brought about great social benefits, which has contributed to achieving UN's vision for education.

3.2　Vision for Health

The *2030 Agenda* puts forward that we must achieve universal health coverage and access to quality health care. We must reduce newborn, child and maternal mortality by ending all such preventable deaths before 2030. And we must ensure universal access to sexual and reproductive health-care services, and meanwhile accelerate the pace of progress made in fighting malaria, HIV/AIDS, tuberculosis, hepatitis, Ebola and other infectious diseases and epidemics. Besides, we should be committed to the prevention and treatment of non-communicable diseases, including behavioral, developmental and neurological disorders.[1] Among the cases excerpted from this book, the Smart Sustainable Development Cities(SSD) project initiated in 2009 by Dubuque, America was aimed at providing the residents with necessary databases for water use, electricity use, transportation, rubbish and health. This project brought the data related to health into a smart system for the first time, with the purpose of having access to the health conditions of the residents through using transportation information to obtain ways of improvement. It is a case about information technology optimizing urban governance, and also an innovation in urban governance practice, promoting UN's vision for health.

3.3　Vision for Economy

According to the *2030 Agenda*, we should seek to build strong economic foundations for all of our countries, and achieve prosperous inclusive and sustainable economic growth; all forms of labor exploitation should be eliminated and wealth gap bridged. Among others, the first and foremost task is to strengthen the productive impetus of all underdeveloped countries and promote structural reform including improving productivity and productive employment, achieving sustainable industrial development, offering modern energy services, etc.

As one of the cases excerpted from this book, the construction of Antioquia Educational Parks in Columbia also drove balanced economic development in backward areas with educational development.

3.4　Vision for Employment

The *2030 Agenda* puts forward the goal of 'promoting full and productive employment and decent work for all', and indicates that all forms of labor

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[1]　See Article 26 of 'the New Agenda' section in the *2030 Agenda*.

exploitation should be eliminated. We should strive to implement reform, of production structure, improve productivity, and provide necessary financial and technical support for low-income groups and vulnerable groups.[1] Besides, primitive social production and consumption patterns should be changed in accordance with the *10 Year Framework of Programmes on Sustainable Consumption and Production Patterns*.[2]

For example, Brazil launched the Programa de Estimulo ao Primeiro Emprego('First Job Stimulus Program') in slum redevelopment, which is specially targeting the young people who have lower education levels, aged between 15 and 24 from slums, and are hunting their first job. Later in 2008 and 2011, the country successively launched employment programs to offer education to the youth and the poor in slums and help them get employed and end poverty. Another example is the JOSHCO's housing renovation project in Johannesburg, South Africa, which aims to provide community residents with education, training and employment among other services. The project was significant in improving the employment ability of community residents and has made contribution to social stability. All these set good examples of how to realize the vision for cities through urban governance.

3.5　Vision for Infrastructure

The *2030 Agenda* raises the goal of 'developing quality, reliable, sustainable and resilient infrastructure' to support economic development and enhance social welfare. The specific targets include: to upgrade infrastructure, improve resource-use efficiency and try to adopt clean and environmentally sound technologies and industrial processes in all countries in 2030; to enhance financial, technological and technical support to underdeveloped countries provided by developed countries, etc.[3]

Among the cases excerpted from this book, the renewal project in a semi-urbanized region in Sanbokdoro, South Korea, managed to renovate the existing housing and infrastructure, and improve the accessibility and safety of the walkways through mobilizing active public participation. Marked effect could be especially seen in the construction of the transportation infrastructure including the walkway system; the establishment of community centers and cultural facilities played a significant role in forming a cultural atmosphere with local characteristics, strengthening a sense of belonging to the communities and developing the local economy.

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[1]　See Article 27 of 'the New Agenda' section in the *2030 Agenda*.
[2]　See Article 28 of 'the New Agenda' section in the *2030 Agenda*.
[3]　See Article 9 of the 'Targets' section in the *2030 Agenda*.

Figure 4.2   Infrastructure Vision

3.6   Vision for Culture and Sport

The *2030 Agenda* pledges to foster intercultural understanding, inclusiveness, mutual respect and an ethic of global citizenship and shared responsibility, and protect the natural and cultural diversity of the world to contribute to sustainable development.[1] Meanwhile, it advocates the development of sport to propel the achievement of the goals about health, education and social inclusiveness.[2]

Among the cases excerpted from this book, Shanghai, China has built community gardens of different types such as Baicao Garden, Knowledge and Innovation Community Garden since 2014 based on the idea of 'community gardens'. These gardens have become effective access for the urban residents to get safe food, achieve community autonomy and tap into individual and social potential, effectively advancing community cultural construction. Meanwhile, the waterfront renewal project of the Seine(Berges de Seine) in Paris, France built the left bank of the river into a public space integrated with sport, culture and nature, adding fresh air to the city. Those cases represent various patterns of urban governance, which can effectively advance the realization of UN's vision for culture and sport.

3.7   Vision for Security Assurance

The *2030 Agenda* emphasizes the establishment of peaceful, just and inclusive

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[1]   See Article 36 of 'the New Agenda' section in the *2030 Agenda*.
[2]   See Article 37 of 'the New Agenda' section in the *2030 Agenda*.

societies that are based on effective rule of law. Factors which give rise to violence, insecurity and injustice, such as inequality, corruption, poor governance and illicit financial and movement of weapons, should be eradicated. We must resolve or prevent conflict and support underdeveloped countries, including through ensuring that women have a role in peace building and state-building.[1]

As one case excerpted from this book, Nairobi, Kenya, in the course of slum redevelopment, vigorously renovated the infrastructure in productive spaces like water supply facilities and health centers to provide security assurance for life and production. This case also shows, in another perspective, that collaborative urban governance should be encouraged to propel the realization of the UN's vision about security assurance.

4. Implementation of the *2030 Agenda* and the *New Urban Agenda* in all Countries

With the issuance of the *2030 Agenda* and the *New Urban Agenda* of UN, the UN and its member states strive to tackle the climate challenge and other major problems facing the whole world through urban governance, integrating the inclusiveness, sustainability and cooperation advocated by UN for years into actions to address challenges and advancing the formulation of the strategies and implementation plans based on state situations and conducive to urban transformation,

Considering the implementation of the *2030 Agenda* and the *New Urban Agenda* in all countries, cooperation and interaction among the government, enterprises and the society, adoption of legislation, system and mechanism, and monetary leverage, and taking urban planning and design as the foundation and an inclusive, innovative and coordinated new-type city as the goal are effective approaches to advancing sound urbanization and sustainable urban development. China, in its '13th Five-Year Plan', combines the sustainable development agenda with its medium- and long-term planning, issuing the *Position Paper on China Implementing the 2030 Sustainable Development Agenda*, and establishing coordination mechanism for implementation.[2] China Academy of Urban Planning and Design signed a *Strategic Cooperation Memorandum* with UN Habitat at a summit forum in 2017, with an aim to fully combine urbanization experience with Chinese characteristic with the UN *New Urban Agenda* so as to propel the 'One Belt One Road' initiative

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[1] See Article 35 of 'the New Agenda' section in the *2030 Agenda.*

[2] Source: http://www.shobserver.com/news/detail?id=29147.

and practically improve human settlements.[1]

Among the other countries, Sweden has been vigorously engaged in the development of the *New Urban Agenda* through the EU as the first country to lay stress on the importance of gender equality in sustainable urban development.[2] Brazil has signed agreements on sustainable urban development with UN-Habitat and participated in discussion about the implementation of the *New Urban Agenda* in local contexts[3]. The Japanese government took the lead in funding and organizing infrastructure project training programs in refugee camps in Kenya in July 2017, with an aim to provide opportunities for the refugee communities in Kenya to get out of poverty and support themselves.[4] League of Arab States and UN-Habitat prepared the *Towards an Arab Urban Agenda* in 2016 on the basis of the *2030 Agenda* and the *New Urban Agenda*, conducting discussions and working out strategies around the challenges to realize sustainable development in the course of local urbanization such as housing and social security.[5] South Korea facilitated its national economic development through stabilizing housing and promoting effective land use, founding the state-owned land and housing company LH and signing memos with UN-Habitat on expertise sharing, and joint formulation of policies on new cities and towns and affordable housing development.[6] Obviously, each country has chosen to advance the realization of the UN vision from different dimensions and in line with their own development stage and features.

From the perspective of the issues followed closely by globally influential international organizations and authority meetings, the global community is advancing the fulfillment of the vision and goals of the *2030 Agenda* and the *New Urban Agenda*, through multilateral cooperation and mutual promotion and supervision. At the 2016 G20 Summit, the G20 member states pledged to further connect their own work with the *2030 Agenda* to eliminate poverty, achieve sustainable development and build an inclusive and sustainable future.[7] The United Nations High-level Political Forum on Sustainable Development held in the next year was a discussion on the implementation of the Sustainable Development Goals about eliminating poverty in all countries and also a high-level political conference

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1   Source: http://www.sohu.com/a/141063308_611316.
2   Source: http://www.ycahj.com/a/guojixinwen/2017/0211/29497.html.
3   Source: https://cn.unhabitat.org/tag/Brazil/.
4   Source: https://cn.unhabitat.org/tag/Brazil/.
5   Source: https://cn.unhabitat.org/towards-an-arab-urban-agenda/.
6   Source: https://cn.unhabitat.org/un-habitat-andrdable-housing/.
7   Source: http://www.sohu.com/a/112556334_385107.

for the global community to further discuss how to achieve the visions of the *2030 Agenda*.[1] Among the joint endeavors to advance the *New Urban Agenda*, eight multilateral development banks including Asian Development Bank made a joint declaration on jointly building balanced, sustainable, inclusive and productive human settlement through direct financing, mobilizing domestic resources of local countries and exploiting other resources, etc.[2] Obviously, international bodies have, through their own platforms, stepped up efforts to boost the optimizing of urban governance in all countries, drawn more attention to the development visions and promoted the achievement of the visions worldwide.

Different Visions for Urban Governance

The *New Urban Agenda* emphasizes not only the inclusive development, but also the role of excellent urban planning and governance as major means of leading healthy urbanization and tackling major global challenges such as climate change and social differentiation. Such leverages as legislation, systems and mechanisms, and finance should be employed. And innovation and collaboration should be achieved in the whole process from state policies, design planning to implementation planning on the basis of cooperation and interaction among governments, enterprises and societies and taking society, economy, and environment as the point of departure, the three basic dimensions of sustainable development.[3]

Based on the main fields of urban governance summarized in Part 3 of this book, this chapter differentiates the visions for urban governance in the UN documents into five aspects, i.e. economy and population, urban planning and land management, urban housing security, urban infrastructure construction, and urban environment(city appearance, garbage disposal, greening, etc.).

1. Thematic Analysis of the Vision for Urban Governance

1.1　Economy and Population

In accordance with the *New Urban Agenda*, the vision in this regard can be summarized as: building inclusive and diversified cities and human settlement, consolidating social cohesion, mobilizing the participation of NGOs and fostering

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[1]　Source: http://world.people.com.cn/n1/2017/0722/c1002-29421765.html.

[2]　Source: http://iefi.mof.gov.cn/pdlb/wmkzg/201610/t20161020_2439098.html.

[3]　Shi Nan. '"Habitat III", *New Urban Agenda* and the Implications to China'. *Urban Planning*, 2017(1):9–21.

dynamic urban economy; meanwhile reducing the development imbalance between urban centers and urban fringes, and among cities; properly supplying public welfare to ensure rational population migration and guaranteeing regional social integration through controlling the size of urban population. The establishment of Social Security number system in the US and the certificate of residence system in Japan, and Brazil's Programa de Estimulo ao Primeiro Emprego('First Job Stimulus Program') and Fome Zero('Zero Hunger') program selected in the book as cases are all good examples for reference.

1.2　Urban Planning and Land Management

The *New Urban Agenda* fully stresses the role of urban planning as strategy guidance. Urban planning plays the role of strategy guidance and rigidity controller in urban development. 'Proper planning is the priority to achieve development for any cities'.[1] Therefore, we should promote planned urban extensions, retrofitting and renewal, and provide high-quality buildings and public spaces, avoiding spatial and socioeconomic segregation and gentrification and preventing and containing urban sprawl. Cities and regional planning departments should collaborate with each other, reaching consensuses in planning contents and policy frameworks at both national and regional levels.[2] Institutional, political, legal and financial mechanisms should be improved in cities and human settlement in a bid to expand inclusive platforms, rationalize residents' participation in planning decision-making and follow-up procedures, and enhance civic engagement and the awareness of sharing.[3] Meanwhile, we should establish and improve land laws and institutional frameworks to ensure orderly urban construction, and avoid unbalanced land structure, unlimited sprawl, and inefficient urban development and redevelopment. Diverse land development should be closely combined with local situations and the relevant environmental impact considered.[4]

1.3　Urban Housing Security

The *New Urban Agenda* advocates for access to adequate housing for all through improving national and local housing policies, ensuring that social vulnerable groups have equal access to modern urban environment, and reducing social and economic segregation.[5]

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[1]　Shi Nan.'"Habitat III", *New Urban Agenda* and the Implications to China'. *Urban Planning*, 2017(1):9–21.

[2]　See Articles 51, 52, 69, 97 of the *New Urban Agenda*.

[3]　See Articles 135, 137, 157 of the *New Urban Agenda*.

[4]　See Articles 13, 14, 35, 49, 51, 71, 88, 98, 104 of the *New Urban Agenda*.

[5]　See Articles 13, 14, 31 of the *New Urban Agenda*.

We are expected to build diverse and multi-tiered housing supply and security mechanisms to meet needs for safe and diversified housing, and formulate land supply plans for public housing on the basis of practical situations. We should eliminate all forms of forced demolition and construction, and pay attention to the needs for housing of vulnerable groups to avoid marginalizing communities and cultural segregation caused by economic factors.[1] The *New Urban Agenda* calls for us to vigorously improve living conditions of residents, and encourage all-round public participation in social activities while preventing, cracking down and eliminating crimes. Besides, integration of housing policies with employment, education, medicine and social sectors should be enhanced, and accessible, safe and dynamic settlement environment with complete public services created.[2]

In this regard, we can learn from Singapore's land guarantee system and the urban village redevelopment program in Shenzhen, China. With close attention given to the housing demands of vulnerable groups, the Shenzhen government and city planners spent over a decade studying and redeveloping the urban villages, advancing demolition and reestablishment that target urban villages and old industrial areas under the multi-cooperation among the government, the public and enterprises; old residential area renewal was conducted mainly in the form of comprehensive improvement and cautious demolition and reconstruction was carried out in those areas. In this way, Shenzhen has completed about 20 housing renovation projects in urban villages, meeting the demand for modern housing of 500,000 people.

1.4   Urban Infrastructure Construction

The *New Urban Agenda* expresses in its vision for urban infrastructure the hope to carry out construction and operation through public-private partnership to provide more efficient, higher-quality and more guaranteed service systems. The document states that everyone has equal access to using or indirectly benefiting from social infrastructure, including the land, housing, energy, health facilities, food, transportation, medical facilities, educational facilities, cultural and sport facilities, and communication devices attached to social infrastructure.[3]

Effective solutions must be sought for the countries and regions worldwide that are vulnerable to climate change or other natural or man-made disasters to ensure regional security.[4] Ecuador in South America has worked out a set of urban

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[1]   See Articles 32, 33 of the *New Urban Agenda*.
[2]   See Articles 34, 36 of the *New Urban Agenda*.
[3]   See Articles 50, 52, 54, 55, 120 of the *New Urban Agenda*.
[4]   See Articles 65, 77, 101, 119 of the *New Urban Agenda*.

governance frameworks supporting sustainable urban development targeting climate change, which sets a good example of achieving this vision. The renewal project in a semi-urbanized region in Sanbokdoro, South Korea and the Smart Sustainable Development Cities(SSD) project in America are all worth learning from.

1.5　Urban Environment

The *New Urban Agenda* envisages that all activities related to economic, social and environmental sectors are carried out in an integrated and coordinated manner in the future, to ensure the adequate involvement of all groups, including enterprises, society organizations, urban builders and inhabitants, in governance decision-making and implementation guaranteed by legal mechanisms.[1] It's advocated to employ the concept of sustainable urban development, taking into account experiences gained from urban construction and management of Germany, the United States and other developed countries in urban waste sorting and greening systems, and making constant improvements through international exchanges of experience. Natural and cultural heritage, other than natural environment, are leveraged to facilitate the construction of cultural infrastructure and sites and ensure
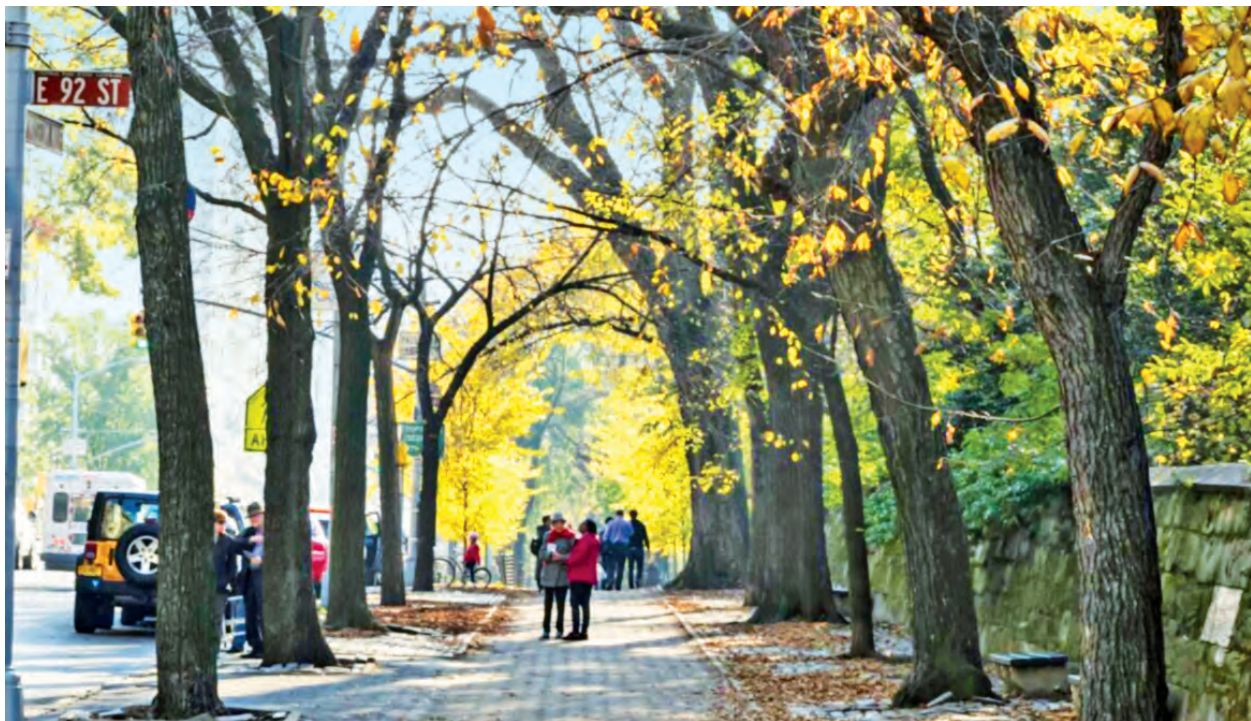

Figure 4.3　Urban Environment

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[1]　See Articles 34, 39, 44, 50, 51, 54, 55, 58, 65, 66, 67, 78, 82, 88 of the *New Urban Agenda*.

the promotion and dissemination of intangible cultural heritage through national and local policy guidance and resource integration.[1]

The cases which are worthwhile for reference propose include, Sanbokdoro Renaissance Project in Korea, Berges de Seine project in Paris, and the practice of community garden in Shanghai.

2. Regional Analysis on Urban Governance Vision

While the specific circumstances of cities of all sizes(large, medium and small), towns and villages vary, we shall, to achieve the vision of the *New Urban Agenda*, we shall define priorities and actions at the global, regional, national, provincial, municipal and local levels so that that governments and other relevant stakeholders in every country can implement the agenda based on their realities.[2] In implementing the *New Urban Agenda*, we shall address the unique and emerging urban development challenges facing all countries, including least developed countries, landlocked developing countries, small island developing states, etc. At the same time, particular attention should be given to the countries in situations of conflict, under foreign occupation, in need of reconstruction after wars and affected by natural and human-made disasters.[3]

To take Afghanistan as an example, the European Union and UN-Habitat signed the 14 million USD Municipal Governance Support Programme(MGSP) Agreement in Kabul, Afghanistan on October 1,2015, to support nine Afghan cities with spatial planning, municipal governance, land management and the like. The programme aims to increase sustainable municipal revenues, strengthen urban management for inclusive service delivery and local economic development. Nine cities are involved, including the capital city Kabul, the regional hubs of Herat, Jalalabad, Kandahar, Mazar-e-Sharif, Kunduz, Farah, Bamyan and Nili. The programme supports these nine municipal authorities to survey and register all properties within municipal boundaries(over 330,000 properties), improving land management(e.g. increase tenure security and reduce land grabbing) as well as significantly expanding the potential tax base for cities. Existing resources are efficiently utilized to increase local government revenues, stimulate local economic development, foster a sense of civic responsibility, and strengthen the legitimacy of government and state institutions. This MGSP programme builds on the success of

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[1] See Articles 109, 115 of the *New Urban Agenda*.

[2] See Articles 49, 50, 92, 93, 96, 98 of the *New Urban Agenda*.

[3] See Article 19 of the *New Urban Agenda*.

the Japanese-funded Community-Based Municipal Support Programme(CBMSP) which concluded in March, 2015. CBMSP reached over 30,000 Afghans with improved services in five major cities. MGSP is also attributed to the work of the State of Afghan Cities Programme 2015 which produced the first-ever baseline assessment of all 34 provincial capitals. Afghanistan proactively implemented urban governance for urban construction. For the present, Municipal Advisory Boards(MABs) have been established in over 30 cities to act as 'interim municipal councils'. 'Citizen Service Centers' are also being installed as a bridge between citizens and the municipality.

The developed and developing countries in this book have different priorities. Case analyses echo the visions of development and urban governance stated in the UN documents from different dimensions, which displays the diversity and polycentrism of urban governance, and reflects that the core of urban governance has been shifted from efficiency and order to equity, inclusiveness, the balanced and sustainable development of economy, society and environment.

Urban Governance Strategies

Based on urban governance experience in a variety of historical stages, regions and countries as well as specific themes, this manual concludes common problems present in urban governance, such as dominating management of governments, single participatory actor in urban governance, and the lack of urban governance channels, thus leading to severe challenges in system, society, space, technology and other aspects. Combining the best international practices with five basic paradigms for urban governance(see Chapter One), the manual hereby proposes corresponding urban governance strategies below to promote systematic, legal, smart, integrated, and sustainable urban governance.

1. Overall Governance Strategies

1.1　Sustainable Urban and Regional Development Strategies

In light of sustainable urban and regional development strategies stipulated in the *New Urban Agenda*, we will support the implementation of integrated, polycentric and balanced regional development policies and plans, encourage cooperation, mutual assistance and support among different scales of cities and human settlements, with much emphasis given to the role of small and intermediate

cities in enhancing food security and nutrition and providing access to safe and diversified housing, perfect infrastructure and services. We will also facilitate effective trade links across the urban-rural continuum to ensure that small-scale industries are linked to all provincial, municipal, national, regional and global value chains and markets, and achieve sustainable production and social interactions through networks of local markets and commerce.[1]

Specifically, we will support the implementation of sustainable development planning including city-region-metropolitan plans, and encourage synergies and interactions among cities of all sizes and between cities and their surroundings villages to realize sustainable economic development and social equity.[2] Besides, we will promote urban-rural partnerships and establish inter-municipal cooperation mechanisms based on functional territories and urban areas as effective instruments for performing all levels of administrative tasks, delivering public services and promoting regional development in a coordinated manner.

In addition, we will promote planned urban extensions and infill, prioritize renewal, regeneration and retrofitting of urban areas(including the upgrading of slums and informal settlements),[3] provide high-quality buildings and public spaces, avoid spatial and socioeconomic segregation and gentrification while preserving cultural heritage and preventing and containing urban sprawl.

Based on the principle of equitable, efficient and sustainable use of natural resources, and the principle of land use featuring compactness, polycentrism, appropriate density and connectivity, and mixed space, we will offer affordablehousing options for all with access to high-quality basic services and public spaces, and enhance safety and security to realize the sustainability of social and intergenerational interaction.

1.2　Urban-rural Integration Strategies

The *New Urban Agenda* proposes the integration of urban and rural functions into the national, provincial and municipal spatial frameworks and the systems of cities and human settlements, thus promoting overall management and use of natural resources and land, ensuring reliable supply and value chains that connect urban and rural supply and demand, so as to eventually fill social, and economic gaps and foster urban-rural integration development.[4]

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[1]　See Articles 95, 98 of the *New Urban Agenda*.
[2]　See Articles 115, 116, 117, 144 of the *New Urban Agenda*.
[3]　See Articles 52, 69, 97, 98 of the *New Urban Agenda*.
[4]　See Articles 49, 51, 88, 98 of the *New Urban Agenda.*

With regard to the development of urban spatial frameworks, we will resort to urban planning and design instruments as a guarantee for sustainable management and use of natural resources and land, and adopt infill or urban extension strategies to trigger economies of scale, strengthen food system planning and enhance resource efficiency, urban resilience and environmental sustainability. At the same time, we encourage spatial development strategies that take into account, as appropriate, the need to guide urban extension, prioritize urban renewal by planning for the provision of accessible and well-connected infrastructure and services, sustainable population densities and close integration of new and existing neighborhoods, and prevent urban sprawl and marginalization.

1.3 Multi-cooperation Policies and Systems

To facilitate regional coordination and cooperation for urban governance promulgated in the *New Urban Agenda*, all relevant stakeholders within the United Nations system and under the framework of multilateral environmental agreements are urged to pinpoint strategic goals and practical measures for urban and rural development, ensuring the effective implementation of the *New Urban Agenda*.[1]

Each country, with different primary tasks for its own economic and social development, needs to adopt specific instruments and mechanisms necessary to achieve sustainable urban development. But the core of this development is to formulate reasonable public policies and approaches to effectively use resources, which are based on measures for emphasizing context-sensitive financing urbanization and enhancing financial management capacities at all levels of government. Meanwhile, we will support the use of international public finance, such as official development assistance(ODA), and play a significant role in poor regions with limited local resources and mitigate risks for potential international investors. We will also expand opportunities for international, provincial, municipal, local, decentralized and city-to-city cooperation.[2]

We especially underscore the importance of enhanced cooperation and knowledge exchange on science, technology and innovation, promote the systematic use of multi-stakeholder partnerships in urban development processes, establish clear and transparent policies, financial and administrative frameworks and procedures[3] to push forward the implementation of the *New Urban Agenda*, including promoting co-production networks between regional entities, provincial,

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[1]　See Articles 21, 28, 29 of the *New Urban Agenda.*
[2]　See Articles 29, 145 of the *New Urban Agenda.*
[3]　See Articles 86, 104, 116, 140, 151, 153, 158, 160, 172 of the *New Urban Agenda.*

municipal and local governments and other relevant stakeholders.

For instance, in the Smarter Sustainable Dubuque(SSD) project of Dubuque, United States, expand to as many as 24 enterprises, three local universities and colleges, one local academy, eight state and federal agencies. It's aimed at building Dubuque into one of the pioneering cities for smart and sustainable development, which sets a typical example for multi-cooperation urban governance.

2. Governance Strategies for Specific Themes

2.1　Sustainable and Inclusive Urban Economic Development

The *New Urban Agenda* proposes to develop vibrant, sustainable and inclusive urban economies, building on endogenous potential, competitive advantages, cultural heritage and local resources, as well as resource-efficient and resilient infrastructure, with a view to promote sustainable and inclusive industrial development and consumption pattern and fostering a favorable environment for entrepreneurship.[1]

Specific measures stated in the *New Urban Agenda* are to strengthen the role of the housing and financial sectors(including the construction of affordable housing) in economic development, promote the contribution of the housing sector to stimulating productivity in other economic areas[2], and vigorously develop high-value-added, cultural and creative industries, sustainable tourism, performing arts and heritage conservation to sustain and support urban economies in pursuit of higher productivity.

2.2　Safe, Equitable and Diversified Housing

Guided bythe *New Urban Agenda*, we will develop and implement housing policies at all levels, incorporate participatory planning and apply the principle of subsidiarity, in order to ensure coherence among national, provincial, municipal and local overall development strategies, land policies and housing supply.

To be specific, we can encourage the development of policies, tools, mechanisms and financing models that promote access to a wide range of affordable and sustainable housing options, as well as cooperative solutions such as co-housing, community land trusts, etc.[3] Housing options shall put the satisfaction of diversified needs first, especially for low-income groups, prevent arbitrary or forced evictions and displacements, and provide dignified and adequate housing reallocation.

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[1]　See Articles 40, 58 of the *New Urban Agenda.*
[2]　See Article 152 of the *New Urban Agenda.*
[3]　See Articles 46, 95, 104, 105, 108, 111 of the New Urban Agenda.

This will include support to newly built housing and self-build schemes, and give special attention to programmes for upgrading slums and informal settlements. We shall provide adequate, safe and affordable basic and social services, and safe, inclusive, accessible, green and quality public spaces to ensure that slums and informal settlements are integrated into the social, economic, cultural and political dimensions of cities. These strategies also mention promoting security of tenure and its regularization, as well as measures for conflict prevention and mediation.

2.3   Safe, Efficient, Affordable, and Sustainable Transport Infrastructure

On one hand, we will support the development of mechanisms and frameworks based on sustainable urban transport and mobility policies, for sustainable, open and transparent procurement and regulation of transport services in urban and metropolitan areas, and pursue better coordination between transport and urban and regional planning departments. On the other hand, we will take measures to improve road safety and integrate relevant measures into sustainable road transport infrastructure planning and design. Feasible measures may involve, firstly, offering public transport and non-motorized options(such as walking and cycling) through a significant increase in safe, efficient, affordable, sustainable and accessible

Figure 4.4   Traffic Infrastructure

infrastructure[1], and prioritizing non-motorized transportation over the motorized. Secondly, apply the mode of 'transit-oriented development' (TOD) and work out better and coordinated transport and land-use planning, which would lead to a reduction of travel and transport needs, and stronger connectivity between urban, peri-urban and rural areas, and high quality of product services. In this way, urban freight planning and logistics may exert minimum impact on the environment and livability of the city while making maximum contribution to long-term, inclusive and sustainable economic growth.

2.4   Resilient Infrastructure for Disaster Prevention

As proposed in the *New Urban Agenda*, we shall strengthen the resilience of cities and human settlements through the development of quality infrastructure and spatial planning, and enhance disaster risk management to reduce vulnerabilities and risks, especially in risk-prone areas like slums. Furthermore, we shall make some inclusive measures while formulating urban strategies and initiatives to invite participation of local communities and non-government forces, jointly pushing forward the renewal and upgrading of slums and informal settlements[2].

To reduce greenhouse gas emissions, disaster risk, and the impact of climate change, we shall advocate resilience-based and climate-effective design of spaces, buildings, services and infrastructure, and nature-based solutions, promote cooperation and coordination across sectors, build the local authorities capacity in terms of disaster response, supervise the development and implementation of disaster reduction measures, such as current and future risk assessments concerning the location of public facilities, and formulate adequate contingency and evacuation procedures.

2.5   Environmental Protection

The *New Urban Agenda* points out that we shall enhance the sustainable management of natural resources in cities and human settlements in a manner that protects and improves the urban ecosystem and environmental services, reduces greenhouse gas emissions and air pollution and promotes disaster risk reduction and management, by supporting the development of disaster risk reduction strategies and periodical assessments of disaster risk(including standards for risk levels).[3]

We can commit ourselves to following feasible measures. Adopt a smart-city approach that makes use of opportunities from digitalization, clean energy and technologies, as well as emerging transport technologies, thus providing options for

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[1]   See Articles 50, 54, 66, 113, 114, 116, 117, 118, 141 of the *New Urban Agenda.*
[2]   See Articles 29, 63, 65, 67, 77, 78, 144 of the *New Urban Agenda.*
[3]   See 'Environmentally sustainable and resilient urban development' of the *New Urban Agenda.*

inhabitants to make more environmentally friendly choices and boost sustainable economic growth and enabling cities to improve their service delivery. In this regard, the Mexican government launched the PROTE programme to encourage students to choose more environmentally friendly means of transportation such as walking, riding a bike or taking a bus to school, which helps ease traffic congestion near schools and reduce motorized transportation and emissions of air pollutants and greenhouse gas.

Decision-making Suggestions on Urban Governance Strategies

All countries across the world have, to some extent, strived forward towards the vision depicted in the *2030 Agenda* and the *New Urban Agenda* in the social, economic and environmental sectors. To better facilitate the sound development of urbanization, we hereby make suggestions on decision-making for overall urban governance strategies and for urban governance with specific themes, in order to upgrade the urban governance structure in the process of urbanization and leverage the significant role of urban planning and design for innovative urban construction featuring inclusiveness, sustainability and cooperation.

1. Suggestions on Decision-making for overall Urban Governance Strategies

Strategy 1: Promote National and Regional Cooperation.

The primary principle for decision-making is coordinated cooperation and multi-integration among cities and regions across the world. We suggest relying on UN-Habitat and other international platforms to support the development and implementation of integrated, polycentric and balanced regional development policies and plans, encourage cooperation, mutual assistance and support among different scales of cities and human settlements, and share experience and best practices.

Strategy 2: Intensify Multi-actor Cooperation.

To boost the establishment of multi-cooperation policies and systems, we maintain that it is a must to give full scope to the guiding role of governments, strengthen the development and implementation of policies and the key role of planning and design in urban development with assistance of social organizations, and ensure the result of the implementation. We suggest stimulating citizens' participation in public affairs and mobilizing their initiatives in urban-rural development to ensure the interests and demands of diversified groups are all satisfied. The combination of 'top-down' overall development plan and 'bottom-up' initiative is conducive to optimizing the process and outcome of urban governance.

Strategy 3: Pursue the Urban-rural Development in a Coordinated Manner.

To accelerate the process of urban-rural integration, we suggest that decision-making be oriented at resource allocation based on market mechanisms. Local governments are thus recommended to play the role of guidance, regulation and control, as appropriate, to push forward the urban-rural integration, to encourage urban and rural citizens to passionately involve themselves in entrepreneurship and innovation, and to develop traditional and competitive industries as well as emerging strategic industries while taking into account local conditions. In addition, we advise to constantly optimize the industrial structure, and creating optimization mechanisms for land, employment and public facilities to realize simultaneous urban-rural development for common benefits.

2. Suggestions on Decision-making for Urban Governance Strategies with Specific Themes

Strategy 1: Push forward Sustainable and Inclusive Economic Development.

Sustainable and inclusive development of urban economy requires full utilization of regional advantages and features industries in local areas, promoting technology innovation and mechanism optimization, and upgrading industrial structure and value chains. We suggest encouraging small and micro enterprises to carry out innovative development, optimize research and development mechanisms in large-scale enterprises, create more platforms for talents exchanges and knowledge sharing, and provide training for current employees to constantly look for driving force for economic growth.

Strategy 2: Optimize the Provision of Housing and Public Facilities.

A great variety of means and subjects are utilized to provide safe, equitable and affordable housing and public service facilities, develop and implement policies for the supply of equitable, efficient and adequate housing and public service facilities. We suggest ensuring the balance of housing and public service facilities within the region, bridging the gap of those two between urban and rural areas, reducing the citizens' cost of living in megacities to ensure the basic standard of living, and improving the quality of life through optimizing the distribution and design of urban-rural housing, public spaces and facilities.

Strategy 3: Strengthen Public Safety and Security in Cities.

Public safety management in cities shall consider the three dimensions of urban spatial planning, infrastructure construction, and comprehensive policies. Spatial planning shall keep harmonious with the natural ecosystem, build a spatial pattern with regional safety and strictly control the scope of spatial construction. The emphasis goes to the resilience of basic service facilities, especially climate efficiency. Necessary risk assessment is required for large-scale facilities. Comprehensive policies mean to improve the cross-department cooperation mechanism of governments, strengthen disaster risk management, and build the capacities of local governments to disaster response, such as the development of adequate contingency and evacuation procedures.

Strategy 4: Effectively Enhance Environmental Protection.

Environmental protection is taken as the fundamental premise for sustainable development. Given each country's respective environmental problems, green transition of industries shall rely on technology innovation. At the same time, the institutional reform is conducted to make environmental governance more scientific and sustainable, improve city planning and its implementation, carry out advance development models, such as low-carbon cities and flexible cities.

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Postscript

The *Shanghai Manual: A Guide for Sustainable Urban Development in the 21st Century* is a legacy of the 2010 Shanghai Expo with the theme 'Better City, Better Life'. Thanks to the strong support of the United Nations, the Bureau International des Expositions, the Ministry of Housing and Urban-Rural Development of the People's Republic of China and the Shanghai Municipal People's Government, this Manual has been officially published in the 2011 and 2016 editions. Since the 2010 Shanghai Expo, cities in all countries, and in developing countries in particular, have seen unprecedented rates of growth. Given the recent demand from the international community for sustainable development, the *Shanghai Manual 2016* has distilled and summarized several outstanding sustainable urban development case studies and incorporated sophisticated achievements and innovative models identified around the globe. It plays an important role in helping direct healthy and sustainable urbanization around the world by providing more targeted guidance.

Since the adoption of New Urban Agenda (NUA)during the third UN Conference on Housing and Sustainable Urban Development (Habitat III) convened at Quito, in Ecuador, in October 2016, the *Shanghai Manual* has become a key component of efforts to fulfill the NUA and, as such, it is required to achieve ever more. Aside from providing a greater amount of detail on outstanding sustainable development case studies relating to urban issues from around the world, the publication of the *Shanghai Manual – Annual Report* also effectively brings the ideas and spirit of the NUA to life. The *Annual Report* 2017 focuses on the theme of urban governance, which is connected with prominent issues confronting all cities in the world today, and also responds to the World Cities Day 2017 with the annual theme of 'Innovative Governance, Open Cities'.

The editorial team of the *Shanghai Manual* has received selfless guidance from a great many authoritative experts throughout the whole process, from overall framework design, theory review, and the selection and probing of outstanding global case studies, to the drafting of the report, discussion, editing and improvement, review by experts in China and overseas, examination by guiding

departments, and translation and publication. We sincerely hope that this annual report can become an important means by which the NUA can be put into practice and that it will receive assistance and support from even more knowledgeable individuals as it is promoted across the globe, ultimately allowing *Shanghai Manual* to make an important contribution to the sustainable development of cities around the world.

Vincente Gonzalez Loscertales

Secretary General of Bureau International des Expositions

Ocotober, 2017

IMPLEMENTING
THE NEW
URBAN AGENDA

SUSTAINABLE
DEVELOPMENT
GOALS