The Development Strategy of New Urbanization Based on Resilient City Theory

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Abstract. This year is the closing year of the "National New Urbanization Plan" issued by the State Council. During this time, the urbanization of China has achieved in-depth development in theory and practice, but it has also encountered many problems in the actual advancement stage. The theory of resilient city has important guiding significance for the sustainable development of new urbanization. Based on the summary of the resilient city theory, combined with China's new urbanization with Chinese characteristics, the value of the resilient city theory for new urbanization is analyzed from the five perspectives of the city's natural resilience, economic resilience, social resilience, organizational resilience and technical resilience. And from these five perspectives, it puts forward guiding opinions on the development strategy of new urbanization.

1. Introduction

It has been six years since China put forward the new urbanization development strategy. During this period, in China, new urbanization has gone through the Planning and Development Stage, mainly represented by the State Council's publication of the National New Urbanization Plan (2014-2020) [1]; the Practical Operation Stage, comprehensive pilot projects have been set up in many provinces and cities to actively promote the new urbanization; the Key Construction Stage, marked by the publication by the Development and Reform Commission of "Key Tasks of New Urbanization Construction in 2019", these measures are of great significance to the comprehensive and high-quality development of cities and towns in China. [2]

Resilient city is "a city that can prepare, recover and adapt to the impact and pressure" [3]. Resilient city provides effective support and guarantee for the development direction of new urbanization. For the main problems of new urbanization, resilient city theory provides solutions; for new challenges of new urbanization, resilient city theory provides technical support; for the long-term nature of new urbanization, resilient cities' adaptability and learning ability, can keep a long-term perspective on urban development.

In the process of new urbanization, China's urbanization rate has steadily increased. (Figure 1) But the new urbanization development in China is facing serious problems and great challenges: On the one hand, it forced to be under developed countries environmental consequences resulting from development, facing climate change, energy crisis, food security and other global challenges; On the other hand, there are also unique opportunities for urbanization form information era and the ecological civilization period.[4] It requires the new urbanization development in China can't develop like some western developed countries, which have experienced the urbanization, industrialization, then globalization, informatization and are pursuing the ecology now, and to pursue a new way of urbanization in parallel with the resilient development.
The value and significance of resilient city theory to the new urbanization development

The past urbanization development experience has proved that follow the increase of towns and population and the unceasing enhancement of urban industrialization level, the contradiction between urbanization development and urban ecological environment has become increasingly acute. Therefore, it is great significant that deal with the relationship between urban development and ecological environment, to the urban development and the promotion of a country's position. The theory of resilient city provides a theoretical basis and platform for the balanced development of urban and rural areas and provides the ways for solving the new urbanization facing huge problem in our country, implementation of urban sustainable, healthy and coordinated development.

Combined with the research on resilience of urban climate disasters proposed by Shaw et al. of Kyoto University in 2009, the regional research center of State University of New York at Buffalo in 2011, and the Rockefeller Foundation of the United States in 2013, this paper summarizes the value of resilience city theory for the development of new urbanization, which is mainly reflected in natural value, social value and economy value, organization value and technology value.

2.1. Natural value

The natural resilience of a city is often reflected in the carrying capacity of its natural environment, which provides material resources and development basis for agriculture, forestry, animal husbandry, sideline, fishery and industrial production of the town. But with the rapid development of industrialization and urbanization, at the same time of the pursuit of better human material civilization, the human survival environment is damaged; environmental degraded and ecological balance has been broken. Especially, the rural areas has been the role of the server in the urban development, offers a wide range of material resources and human resources for the city, so the land, water, forest, grass and other natural ecological environment are damaged to a large extent. But the income, welfare and quality of life in rural area, are far less than in the city, the structure contradiction between the urban and rural is more and more fierce.

The new urbanization under the guidance of resilient city theory can adjust this contradiction, its basic characteristics are planning urban and rural areas as a whole, economical and intensive, ecological livable and harmonious development, making cities and small towns and rural area develop harmoniously, mutually promote, not at the expense of the agriculture and food, ecological and environmental cost. [5]

2.2. Social value

The town is a complicated synthesis, closely linked with human culture from the beginning of the birth. The urban ecosystem including invisible ecological relations and ecological factors besides tangible natural ecological system, Social ecological system is an important part of urban ecosystem, including politics, law, economy, culture, education, science, etc. The construction and development of the city
reflects the progress of human civilization and human culture history. In fact, civilization of the city is reflected in the immaterial production urban of ecological system, i.e., it reflects in the city social resilient value.

However many towns often directly transplant typical urban development pattern in the development process, lost comparative advantage and characteristic, appeared the phenomenon thousand cities closely resembled, seriously restricted the development and progress of the town. The town of non-material production function of the city should be strengthened in the new urbanization, so that can improve the grade of the town, which is beneficial to improve the spirit civilization of the town and even the whole of the human. Therefore, the pursuit of the intangible advantages and characteristics in the town's culture, history and context, is a reflection of social ecological value of the new urbanization.

2.3. Economic value
Cities with good economic resilience have the characteristics, just like reasonable economic structures, strong economic development momentum, and so on. A more resilient urban space is more conducive to attracting investment. The development of urban export-oriented economy largely depends on the ability of cities and towns to attract foreign investment. In order to better attract foreign investment, cities and towns should not only have convenient and superior transportation, information and service facilities, but also have certain adaptability, inclusiveness and learning ability. Through the planning and transformation of urban space environment, we can create a good investment environment, so as to attract the investment of domestic and foreign enterprises and investors, and obtain new economic growth points. It is the exploration and innovation of many long-standing urban new urbanization.

2.4. Organizational value
The Organizational Resilience of cities is the foundation of new urbanization. The development of new urbanization is a comprehensive and complex process. Through the interaction between government, society and market, the development and operation of new urbanization can be served and managed by using decision-making, organization, planning, command and other mechanisms. Urban Organizational Resilience breaks through the scope of urban management in urbanization. It is not a single management of transportation, water affairs, environmental sanitation, but a complex project for urban development, reflected in the decision-making guidance, standard coordination and management etc. from the perspective of development and dynamic with systematic analysis method, with the urbanization development placed in the large system of social and economic development.

2.5. Technical value
City Technology resilience includes that the “Internet+” technology under the background of big data, which provides the technologies such as Internet of things, cloud computing and mobile Internet for intelligent urbanization; coordinate the relationship between the city, economic development and environment, and achieve the development goal of low-carbon and resilient urbanization by using new energy utilization, green planning, clean technology; the improvement of infrastructure planning and construction technology, such as power, water supply, solid waste treatment, provides a guarantee for the sustainable development of new urbanization.

3. Development strategy of new urbanization in our country based on the Resilient City theory

3.1. Development strategy of new urbanization based on the improvement of natural resilience
The development of new urbanization should be on the premise of capacity of urban natural ecological environment, and urban planning layout should be fit and coordinated with the natural ecological environment. Therefore original unilateral development in the city should be broken, perfect nature and landscape ecological system network should be established in the range of the whole town, it will be better to deal with the relationship between the economic development and ecological environment protection.
3.2. Development strategy of new urbanization based on improving economic resilience

The economic activities and development in town is the foundation and vigor of urban development and construction, is also the material basis for the protection of ecological environment protection and development. During economic promoting, the ecological environment mustn't be damaged in the new urbanization. It should be complementary to each other and mutual development between economy and ecology.

Urban development depends upon land, which is a scarce resource. The new urbanization needs to develop scientifically; therefore, compact towns should be proposed, prompting urban land intensive, stereoscopic, diversified and sustainable. In addition, the construction of ecological infrastructure can improve the investment environment in the towns, improving the economic and social benefits of new urbanization.

3.3. Development strategy of new urbanization based on the social resilience

Urban humanities environment is wisdom crystallization created by working people in the long-term process, it traces with each era in the history of the urban development. So the development of new urbanization should improve the humanism consciousness of people; increase public participation; create historical memory and cultural characteristics of the towns and so on. At the same time, the improvement of social resilience is also reflected in the public's sense of identity and participation in the process of new urbanization. Therefore, we should strengthen the publicity work of new urbanization, let every citizen participate in the process of new urbanization, and provide assistance for the smooth promotion and development of new urbanization.

3.4. Development strategy of new urbanization based on the organizational resilience

The new urbanization is different from the past urbanization construction process, which determines that the development of new urbanization in China will not follow some western developed countries, but pursue the ecological, intelligent, complex and diverse new urbanization road. However, we can hardly find a precedent for this kind of development, but we can improve the ability of learning, coordination, planning and decision-making by improving the organizational resilience of the city, so as to make the city have the ability to resist risks and adapt to the unknown changes. There are risks and crises in the process of urbanization. The Organizational Resilience of cities is mainly reflected in the formulation of response plans and mitigation plans for risk hazards before its occurrence; the ability of cities to cope with risks in the process; the ability to summarize and learn from the experience of risks after it; and the effectiveness and action ability of urban government organizations. The improvement of urban organizational resilience has laid a solid foundation for the long-term and stable development of new urbanization.

3.5. Development strategy of new urbanization based on the technical resilience

Urban technological resilience is the guarantee for the smooth implementation of new urbanization. New urbanization can be promoted by the improvement of urban energy-saving technology resilience, smart city resilience, infrastructure resilience and so on.

Urban energy-saving technology, that is, taking all measures that are technically feasible, economically reasonable, environmentally and socially acceptable, has achieved the purpose of urban energy conservation, including the development and utilization technology of low-carbon and renewable energy; the end treatment technology for the pollution that has been generated; the technology for improving the carbon sequestration technologies of forest and cultivated land; and the low-carbon resilience technology such as resource conservation and recycling technology.

4. Summary

New urbanization is a process, not a result. It is not a simple incremental development process. It develops constantly with the city's own characteristics, the influence of surrounding environment and other factors. The Resilient City Theory provides a new perspective and direction for the new
urbanization. It will enable the sustainable development of cities and towns, and make the new urbanization more learning, adaptive, robust and redundant to cope with complex environmental changes.

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