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## The dynamic evolution experiences of urbanization in developed countries and the inspirations for developing countries

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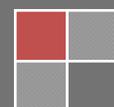
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### ABSTRACT

Although Chinese urbanization rate is over 50% at present, the quality of urbanization is quite low. During the accelerated phase of urbanization, we should draw foreign experiences in transition to urbanization in developed countries, and adjust the pattern of urbanization timely. Based on summarizes the dynamic evolution characteristics of urbanization in developed countries, and according to the characteristics and the stage of urbanization, the paper proposes that the government should elevate the quality of urbanization from the aspects of “service orientation”, “innovation orientation”, “employment orientation” and “environment orientation” to promote the coordinated development of new urbanization in the future of developing countries.

### KEYWORDS

New urbanization; Service orientation; Innovation orientation; Employment orientation; Environmental orientation.



## INTRODUCTION

Urbanization is proceeding rapidly in China and the urbanization rate has exceeded 50% for the first time in 2011. Chinese urbanization rate will reach 60% by 2020 according to the expected, British had taken about 180 years that the urbanization rate increased from 30% to 60%, the United States had spent about 90 years and Japan had spent about 60 years, while China only need about 30 years. Although the urbanization rate in China has reached the level of middle-income countries, but the urbanization quality is not high, three aspects of land urbanization, industry urbanization and population urbanization have certainly uncoordinated. In the new development stage, how to advance new urbanization, how to achieve the synchronous development of industrialization, informationization, agriculture modernization and urbanization need global vision and international experience; therefore, the paper would explore foreign experience worthy of reference in different development stages in order to cross successfully the “urbanization trap”.

## MAIN RESULTS

### **The basic tendency of urbanization dynamic evolution in developed countries**

With the development of industrialization, developed countries has experienced rapid development stage of urbanization as china. The successful experiences, how the developed countries had advanced urbanization in healthy, orderly, harmonious methods, worth further studying and reference.

### **Japan: from “highly concentrated” urbanization to “multicore dispersed” urbanization**

The Japanese urbanization rate is only 28% in 1945, but the urbanization rate had achieved 91.3% in 2011. After World War II, Japan depended on strong push of industrialization, urbanization had entered rapidly into the high-speed development stage. While, Japan vigorously developed export-oriented economy and port industry, so that industry, population, towns had concentrated highly to the coastal city, the 10 largest cities in the country had concentrated in the eastern Pacific Industrial zone. The pattern of highly concentrated urbanization was the strong support for the rapid growth of postwar Japanese economy, but had led to contradictions and problems of economic too close or too sparse<sup>[1]</sup>. There were a number of City belt nationwide at first, now only Tokyo and the surrounding several cities were more prosperous, and other urban zone and small towns had declined gradually, the population was less and less. The government of Japan had carried out a large-scale construction of Expressway and the public service facilities in middle and small towns for promoting the urbanization in the last century. However, due to the lack of popularity, the users of these buildings as huge citizen hall, stadium and national resort were very few, while the high maintenance cost had brought heavy burden to the local government. Under the influence of spatial excessive concentration, Japanese urbanization process had appeared a series of problems, such as housing difficulties, land prices rising, traffic congestion, long distance commuting and the living environment worsening etc.

In view of the reflection on the pattern of highly concentrated urbanization, in order to adapt to urbanization development stage, and solve the problem of uneven development in various areas and promote the urbanization, the Japanese government had formulated and implemented 5 national comprehensive development plans since 1962, and formed a more perfect planning system including regional and city planning. Many Japanese scholars have considered that promoting urbanization should be not only construction of traffic facilities, infrastructure, public facilities and high-rise buildings, but to find suitable local industry direction. Urbanization could be guaranteed only after industrialization has been truly realized and adequate employment opportunities have been ensured. Combination with the flow of economic elements, after the Tokyo Metropolitan scale reached saturation, the planning of “multicore dispersed” had guided the Tokyo metropolitan area evacuation. The planning dispersed part of Tokyo city function to the surrounding, the large-scale development of satellite city, and guided actively evacuation of the population, industry and city function. Such as, industrial park with jobs and housing balanced were constructed in Tsukuba 50 kilometers away from Tokyo, and guided residents to live in Kanagawa County, Chiba county and Saitama Prefecture and other places dozens of kilometers away from Tokyo central, urbanization pattern has realized the change from centralized to decentralized<sup>[2]</sup>.

### **USA: from “mechanization-oriented” Urbanization to “Green Traffic-Oriented” Urbanization**

The typical features of American urbanization is that mechanization has driven the urbanization development, and promoted population flow to the suburbs; with the free flow of production factors in the national scope, especially after the popularization of railway network, road network construction and automobile. In 1930, USA had already 2, 700, 0000 cars, car ownership had reached 211 vehicles per thousand. After World War II, the number of car has risen from 6, 200, 0000 in 1960 to 2, 4000, 0000 in 2010, car ownership had increased to 779 vehicles per thousand. In the 1930's, in order to stimulate the development of industry construction and cut the influence of economic crisis, American government had encouraged the middle class to build new houses in the suburbs by the method of residential building mortgage loan, and had further accelerated the suburbanization development<sup>[3]</sup>. With the urbanization process accelerating, in the latter part of the urbanization development, American cities had spread out of control, so as to create “boundless city”. America small and medium-sized cities troubled had common characteristics, public transport was not perfect, and residents relied entirely on private cars as daily transportation. With oil prices rising, residents had no other alternative transport means.

City spreads as development and construction pattern of low density, discontinuous and depending on car, its cost was a large consumption of farmland and natural resources, irreparable damage to ecological humanities environment, utilization

level of public service facilities reduced, further differentiation of social class, the city center area continued to decline and the disorder spread of urban morphology etc. In recent years, American government had began to realize the necessity of exploring a new intensive, green, efficient city development path, had passed a variety of planning and design to correct errors on the rural development. The use of green transportation, development of green transportation mode, creation of green city structure, all of these has reflected the green ideological trend, and showed the transition to "green city". The quite representative development mode is based on TOD bus oriented in Portland, this mode is aimed at urbanization phenomenon that the city center presented declining trend and the emergence of inverse urbanization. Portland has encouraged public transport hub as the core through the construction of light rail, promoted the efficient, mixed land use, suitable development density, living in the district walk and opening facilities, in order to respond to traditional development model dominated by cars. The Portland resident dependence for cars had decreased 35%, so that the old city was flourishing and had realized the re-urbanization by the TOD development mode.

### **Britain: from "industry priority" to "ecological priority" Urbanization**

As the forerunner of industrialization and urbanization, Britain had also appeared the "radical propulsion" phenomenon in the early implementation process of urbanization. The laissez-faire pattern of early urbanization had made people to pay a great price, the problems of city housing tension, increasing city slums, serious environmental pollution and others had troubled city development. The demonstration was the London smog event that occurred in 1952. Throughout the British development course, the main reason which urban social problems highlighted in the early industrialization was that the British social reform had lagged behind economic change, production factors and living places of industrialization and urbanization development requirement were relatively concentrated, so that Britain appeared the contradiction between growth pole spontaneous formation and laissez-faire social management.

In order to compensate for the loss of laissez-faire urbanization pattern had led, Britain had to use laws and regulations to strengthen policy guidance, coordinate the interactive coupling between urbanization and ecological environment, make up for the rupture of a series of social development caused by the laissez-faire urbanization pattern. Intervention and regulation of British government had played an important role to improve the urbanization quality; the experience has mainly two points. The first, making the planning guides city development. In order to advance the urbanization construction, British government had paid great attention to design the overall planning to launch a multi-level planning guidance, and had actively guided the slum building and old district reconstruction and promoted the revival of urban culture. The second, guiding the environment construction. After 1980, traffic pollution, which replaced industrial pollution, had become the main threat to the London air quality. So the government introduced a series of measures to curb traffic pollution, including the priority development of public transport network, the inhibition development of private car, reduce emissions from cars, remediation traffic congestion and so on. The part of British community developed community economy of energy saving and environmental protection, to maximize the use of natural energy such as solar energy; to reduce energy consumption and water consumption. Therefore, city realized human ecology development, and created an ecological society. Today, London has cast off the "fog" hat, and degenerated into the "eco city", the green industry has become British economic growth areas. From the pioneers of industrial revolution to ecological civilization leader, Britain provides reference for the rest of the world industrialization and urbanization development.

From what has been discussed above, we could see that the developed countries have different problems in the process of urbanization development, the urbanization pattern also has timely adjustment and transformation; according to their respective national conditions, countries has carried on the key guide, from different angles such as industry, transportation, facilities, policy.

## **THE INSPIRATION OF INTERNATIONAL EXPERIENCE FOR PROMOTING NEW URBANIZATION**

After urbanization rate is more than 50%, when the inflection point of demographic dividend, bonus to resources, foreign trade dividend and environmental dividend are coming, the urbanization model continued 30 years has been difficult to continue. In view of the stage and characteristics of Chinese urbanization, combined with the actual needs, we need select the core elements affected urbanization to guide classifiably. New urbanization in china outstands "new", which relates to the dynamic mechanism of urbanization, population migration, development idea, development model, spatial structure etc. The core of new urbanization is "person" urbanization, which is different from the development mode in past stage. Urbanization should not focus on the extension of "urbanization expansion", but should pay attention to the connotation of "urbanization quality". Specifically, new urbanization includes four aspects, namely how to upgrade the urbanization quality through the city renewal, how to construct the city that could provide high employment security, how to inject a steady stream of power for improving city, how to construct a livable city with environment attractive.

### **Strengthen the service orientation; guide the spontaneous growth potential of city**

With the development of technology, industrialization and urbanization development with mass production as the main characteristics is bound to bring the urban population agglomeration. The first station of habitat after the new immigration (immigrant population, the rural population) arrived city is usually arrival city. Compared with the flow of migrants among Western nations "Urban villages" in china has hold "immigrants"<sup>[4]</sup>. At present, Chinese urbanization rate has reached 51.27%, but the immigrant population proportion is only about 35% ~ 38% in the total population. In nearly 700 million of

the urban population, nearly half of them are not real city residents, namely “semi-urbanization” or “pseudo urbanization”. A large number of migrant workers have achieved the regional transfer and conversion of occupation, but they did not realize the transformation of the identity and status in the city, and stayed in the “Urban villages”. Hundreds of millions of the population have lived out of rural areas, and led to appear “hollow villages”. Migrant workers have provided driving force for the city development, propped up the city economy. To maintain lasting development, city must provide housing; facilities and services for the low-income groups suited for the consumption characteristics and consumption capacity, promote the foreign population to transform to the citizens.

Throughout the urbanization course in developed countries, Britain as the first country which had completed the industrial revolution and urbanization, its urban renewal is representative in the process of urbanization. In the initial stage of urbanization, industry developed unprecedentedly, a large number of agricultural populations had been attracted into city; the residential, factories and service facilities built hastily had become “old city” now, which is also the main object of update. In 19<sup>th</sup> Century, the foreign population was at least 40% in London citizen. Along with the policy adjustment and the promotion of environmental, London as the arrival city had spent peacefully one after another revolutionary era, and had gained more proper vitality. Investigate its reason, which is mainly due to the establishment of social welfare and security system, greatly improving the possibility of the public especially immigrants obtain to education and health services. The city also had a great improvement in housing, transportation, infrastructure and energy system etc, mainly solved the problem of city poverty, housing demand, the low income earners and the loss of jobs and other issues, and formulated a series of laws and regulations to ensure the effective implementation of city renewal. At the same time, the transforming process especially pay attention to the human scale and the people's demand, combined with the comprehensive improvement of community environment and community economic revival, with small-scale and phases of cautious and gradual improvement, such as ethnic minority renovation project in London central.

As for our country, the people in “urban village” could flow smoothly into city mainstream society, not only depend on their own efforts, but also need the government to provide multi-level and different facilities and services to meet psychological needs of their living security, safety and social attribution, improve public facilities, municipal facilities, educational facilities, and promote property right of “urban village” clear, otherwise it will become unstable factors in the society. In the planning design technique, the macro, the planning should be compatible with the level of urbanization, improve municipal public facilities, improve the environmental planning and spatial design, form a reasonable traffic organization, moderate community size and dynamic, organic balance structure. The middle, the planning should adjust the regional division and functional layout of new residential area, emphasis on community design, create favorable neighborhood harmonious environment. The micro, the planning should create cultural atmosphere to improve environment, create modern new home of new immigration affordable in pleasant space standards<sup>[5]</sup>.

### **Prominent innovation orientation, injecting the initial impetus to the city development**

The American famous economist Michael Porter has divided the economic development of four stages, namely, the production factor-driven, investment-driven, innovation-driven and wealth -driven. USA, Germany, Sweden had entered into innovation driven in the early 20<sup>th</sup> Century stage; Japan, Italy had entered into the innovation driven stage in 1970's; South Korea had entered into the innovation driven stage in the early 21<sup>th</sup> Century. Early economic development in China mainly benefited of production factors driving, such as cheap labor, cheap land and cheap resource environmental cost. The Characteristic of the investment driven is distinct in recent years, such as the dependence on the real estate investment and the investment of infrastructure construction. The economic growth of our country over the past 10 years has depended mainly on the investment, the investment contribution to GDP growth is more than 50% in most of the year. The major issue of new urbanization development model transformation is how economic growth driven transform from the elements investment driven to innovation driven, with the situation that urbanization lags behind development, the outstanding structural problems, and industrialization patterns supported by cheap labor is changing.

Industrial upgrading has two ways: one is the appreciation of added value for the same products, namely the transition from production to innovation, design, high-end service industry chain; the other is the appreciation of different products, different industry structures, namely industry upgrading from labor intensive to capital intensive, to knowledge intensive to service intensive<sup>[6]</sup>. Urban development model transformation has been realized with the industry upgrading. For most cities of our country, we should not pursue the expansion of city scale, but the city upgrading. The pursuit should be added value of city, including city attraction, competitiveness and upgrading of other aspects. In order to enhance the attractiveness of the city, the governments should strengthen industrial policy guidance and develop industries complemented with social and economic conditions of cities, and promote innovative enterprise incentive and the drive mechanism. Looking at the statistics situation of listing Corporation in Chinese main cities, there are 3 cities that owned more than 100 listing Corporations: Beijing is numerous because of the central enterprises, Shanghai tops the list, which attracts a large number of listed companies with headquarters economy as cohesion, Shenzhen as reform pioneer, has hatched ZTE and other outstanding local enterprises with high-tech industry as the first pilot. On the other hand, such as Wuhan and Changsha City, listed enterprise structure has all kinds of connections with local leading industries and economies of scale<sup>[7]</sup>. Wuhan, which is based on resources of colleges and universities, have listed companies such as the east lake high-tech. Changsha has closely linked to the positioning which it focus on development of the equipment manufacturing industry, such as Zoom lion enterprises. All of these have played a leading role in improving the local traditional industry chain, city industrial upgrading, innovation and competitiveness.

## **PAY ATTENTION TO EMPLOYMENT ORIENTATION, PROVIDING URBANIZATION EMPLOYMENT GUARANTEE WITH HIGHER QUALITY**

Urbanization is the result of industrialization; a city which suitable for entrepreneurship, employment growing and vibrant, should absorb fully agricultural overspill population. The Metro is the organic combination of industrialization and urbanization, the metro construction means that a large number of population will enter the city to work and settle down to become citizens. This requires enough jobs and housing that could ensure the new urban population to live and work in peace. Therefore, according to the trend of metro construction, which should avoid the "urbanization trap" that has city and no industry support, avoid making new citizens "homeless", Metro change "ghost town"<sup>[8]</sup>. The government should pay attention to the close connection of urbanization, regional economic development and industrial layout, make urbanization to built on the solid basis of the real economy, and prevent the "Industrial Hollowing".

Metro is result that benefits on industry and population agglomeration and diffusion movement in the space with the progress of science and technology and economies of scale. The success Metro should not only give people a place to live, but also provide employment opportunities, Metro is not just a "sleeping city". The more successful metro in the world has mainly Pastoral Metro, Edge Metro, TOD Metro, Industry Metro, deputy Center Metro and Administrative Center Metro<sup>[9]</sup>, they have advantages and disadvantages, but also they have developed in accordance with their own development conditions and the reality, have implemented strict planning, have promoted balance of job and housing, have done gradual and orderly development and construction of Metro. Such as Britain, one of the targets of its Metro establishment is building a residence and employment balanced community. The London Metro emphasizes particularly on providing employment opportunities for local residents. In order to increase effectively the Metro employment opportunities, the government has taken a series of measures, including bank loans, land rent, tax and other aspects, to provide preferential terms for each of Metro enterprises. In Harrow Metro, more than 85% of the employment population works in Metro, in the space layout, The pollution-free industry, the tertiary industry had been mixed effectively with living function to ensure the nearest employment, and set up corresponding skills training institutions to help residents in employment

In the process of urbanization development at the present stage, we should especially pay more attention to employment oriented, create "livable" Metro mode. The first, urbanization and industrial development realize integration; the idea of supporting industries should be designed in the top, reasonable industrial layout should be made as the support of new urbanization. The flexible industrial structure should be build based on their own advantages, to enhance the ability to resist risks. The maximum employment potential of urbanization is the service industry, the experiences of the developed countries has showed that the service industry employment is dominated when urbanization rate is more than 50%, the employment share of service industry is more than 2 ~ 3 times of industrial employment when urbanization rate is more than 70%. While the proportion of our service industry employment is still below the industrial employment, it indicates that there is still potential. The secondly, the government should support actively SMEs. A national employment of 65% ~ 80% would be solved by small enterprises. The developed countries per thousand populations generally have 45 ~ 50 small enterprises, and the current number of enterprises per thousand populations in our country is less than 12. Therefore, the small and medium-sized enterprise employment still has great space to develop.

In addition, the government should pay attention to city balanced development, to provide a solid foundation for strengthening the infrastructure construction, improve the employment environment and living environment, and enhance the attractiveness and absorptive capacity of the city. Yining zeng has proposed that, "the future development hope of a city is not the number of producing personnel, is the number of personnel attracted". For example, the number of college graduates in Wuhan ranks the first in our country, but Wuhan is unable to retain these talents. This is due to that the employment capacity of Wuhan local enterprises is limit, state-owned enterprises is the main body of Wuhan local enterprises, they cannot create high employment rate as private enterprises, Wuhan has also played a "wedding dress for others" role<sup>[10]</sup>. Although Shenzhen local university is not much, but the average citizen education is the highest in the nation, This is due to that the attract talent of Shenzhen brought by the good system is very strong.

## **ADHERE TO THE ENVIRONMENT ORIENTATION; CREATING A HEALTH URBAN WITH MORE ECOLOGICAL CHARMING**

Rapid urbanization in China has also brought a series of environmental problems, such as the "multicolor effect" of city ecology: red heat island effect, green algal bloom effect, gray haze effect, yellow congestion effects, white quarry bald spot effect and variegated garbage effect etc. The urbanization development way of the "scale first and benefit later", make the ecological service function and ecological civilization construction to be seriously neglected. The underlying reason of extreme pollution events occurrence, is mainly due to that the existing mode of production, lifestyle, traffic patterns and other aspects has ignored the atmospheric environment capacity, water environmental capacity, environmental capacity of the soil and other ecological capacity. Governance PM2.5 is not out of the question in strict accordance with the standard of Britain, Japan and other advanced countries. Such as during the Beijing Olympics, the Shenzhen Universidad, air quality had been improved through the measures of turning off all the polluting factories, a wide range of restrictions with motor vehicles. But the improvement of the ecological environment is not accomplish at one stroke, requires comprehensive consideration combined with industry, people's livelihood and other multiple factors

New urbanization development should regard “intensive, green, low-carbon” as the development philosophy; emphasize the adaptive management of ecological environment in the planning process; and the development philosophy should be applied to the urbanization ecological civilization process and actions; improve the ecological environment step by step, and create a more attractive healthy towns. Specifically, new urbanization includes the following aspects: (1) the construction of ecological security pattern. The government should strengthen the city and regional ecological planning, strengthen and improve regulations and policies of the ecological property management, ecological footprint compensation, ecological performance accountability, strategic environmental impact assessment etc. (2) Pay attention to ecological infrastructure construction. For example, the government should transform the automobile traffic to the ecological traffic, and realize city circulation function convenient access with minimal consumption of fossil energy and logistics; transform energy consumption buildings into capacity building; achieve the ecological footprint compensation through ecological engineering measures of surface softening, roof greening, sunken green; promote community decentralized wastewater treatment, solid waste composting and other means. (3) Emphasizes the reasonable layout. The government should cover most of the city's population in green transportation network, and guide hybrid land layout of the production, residential, commercial and ecological services Land. (4) Emphasizes the low energy consumption, low waste and high efficiency. The government should increase the solar energy, biomass energy, geothermal, industrial waste heat and other renewable energy application in heating and cooling of the scale, strengthen the reduction and recycling in family and community life garbage.

### CONCLUSION

Vice minister of MOHURD (Ministry of Housing and Urban-Rural Development of the People's Republic of China), Baoxing Qiu has proposed, "new urbanization need realize the transition in six aspects: the transformation from the city development priority to urban and rural harmonious development, the transformation from high energy consumption urbanization to low energy consumption urbanization, the transformation from quantity growth urbanization to quality enhancing urbanization, the transformation from high environmental impact urbanization to the low environmental impact urbanization, the transformation from laissez faire urbanization to intensive urbanization, the transformation from urbanization of a few people get rich first to social harmony urbanization." The transition background of Chinese urbanization is changeable and complicated; involving resource and environment, the household registration system, land system, industrial structure, financial structure, the term examination and other aspects, the urbanization development pattern is "extremely important". In this paper, new thinking and suggestion about new urbanization in China has been put forward from service orientation, innovation orientation, employment oriented and environment oriented and so on, aiming at the problems in the Chinese old urbanization pattern. The above does not cover all elements of scientific development of new urbanization, In the process of planning and policy implementation; Therefore, urbanization planning of the future still need to be dynamically improve continuously, new urbanization that emphasize on improving the quality of urbanization could be achieved.

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