

## Research on the Achievement of New-Type Urbanization of Chongqing Under The Perspective of Low-Carbon Development

XU Guoping<sup>[a],\*</sup>

<sup>[a]</sup>Postgraduate, School of Political Science and Public Administration, Southwest University, Chongqing, China.

\*Corresponding author.

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### Abstract

Under the perspective of low-carbon development, the comprehensive promotion to new-type urbanization of Chongqing makes a significant meaning to the implementation of the “314” overall scheme (a development plan about Chongqing includes three locations: the fastest develop area in the west of China, the economic center of middle and upper reaches of Yangtse River, the municipalities with coordinative development of urban-rural area; one goal: take the lead in building a moderately prosperous society in all aspects in the west of China; and four tasks: the construction of socialism new countryside, the reformation of old industrial sites, the construction of harmonious socialist society, the improvement of urban management level), and the realization of the overall mission that includes “scientific development” and “people in a rich and colorful life”. This research is firstly carding and defining the related conceptions of the low-carbon development and new-type urbanization, then depending on the basic theories and related conceptions between low-carbon development and new-type urbanization to analyze the logical relationship between low-carbon development and new-type urbanization. Last, pointing out that Chongqing now is in a period of fast development of new-type urbanization, through a specific case to summary the achievements about the new-type urbanization of Chongqing under the perspective of the low-carbon development.

**Key words:** Low-carbon development; New-type urbanization; Logic relationship; achievements

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## 1. THE RELATED CONCEPTIONS OF LOW-CARBON DEVELOPMENT AND NEW-TYPE URBANIZATION

### 1.1 The Low-Carbon and Low-Carbon Development

Recently years, the words “low-carbon”, “intensive”, “green” and the other related words, such as, carbon trading, carbon emission arouse the attention in domestic and overseas. People pay more attention to the environment and low-carbon. The low-carbon means to advocate an economic model that based on the low energy, low pollution, and low emission to reduce the emission of harmful gas. Its connotation includes low-carbon economy, low-carbon consumption, low-carbon life, low-carbon city and so on. The low-carbon economy and low-carbon life are the key aspects.

The low-carbon development is an organic combination of “low-carbon” and “development”, on the one hand, it should reduce the carbon emission, and on the other hand, it should realize the economic and social development. That is to say, through the new economic development model to improve efficiency and competitiveness with the reducing of carbon emission, then promote the development of society. It is a sustainable development model characteristic as low energy, low pollution, and low emission that makes a significant meaning to the economic and social sustainable development.

## 1.2 The Urbanization and New-Type Urbanization

The urbanization means a historical progress that the population in a country or region mainly depends on traditional agriculture, and live in a traditional rural society transfer to a modern city society step by step. The realization of this progress mainly includes four aspects, that is, the population's occupation change, the city size change, the industrial construction change and society construction change.

The new-type urbanization comes from the traditional urbanization; it is a redefining of urbanization from the

essential aspect. It is the urbanization that characteristic as urban and rural overall development, urban-rural integration, industrial city integration, economical and intensive, ecological livable, harmonious development, and it also an urbanization that can make the big city, small city and new-type rural community develop harmoniously. According to the third Plenary Session of the 18<sup>th</sup> Central Committee of the Chinese Communist Party, the difference between new-type urbanization and traditional urbanization mainly includes the following aspects (Table 1):

**Table 1**  
**The Difference Comparison of Traditional Urbanization and New-Type Urbanization**

Difference	Traditional urbanization	New-type urbanization
Target	Lopsided development target of economic and city development	Comprehensive and urban-rural integration development on economy, society, culture, environment, and city
Content	Emphasis on the urbanization of land	Emphasis on the urbanization of people
Method	Government leading and government intervention	Market leading, government guiding
Dynamic	Industrialization	Industrialization, informationization, agricultural modernization and urbanization
Route	Unsustainable development	Sustainable development

## 2. THE INNER LOGIC RELATIONSHIP BETWEEN LOW-CARBON DEVELOPMENT AND NEW-TYPE URBANIZATION

Making the low-carbon development as the guide, choosing the developing route of green low-carbon will be the key characteristic and developing trend during the future development orientation and strategy target of urbanization, and it is an efficient route to realize the sustainable development of urbanization in our country.

### 2.1 The Relatedness Between Low-Carbon Development and New-Type Urbanization

The report of eighteenth CPC National Congress provides to highlight the position of ecological civilization, advocate the green, circulation, and low-carbon development conception of new-type urbanization to present the closely relatedness between low-carbon development and new-type urbanization. Li and Liu (2011) point out the transformation development orientation contains low-carbon, ecological, and green.

The new increase dynamic of Chinese economy comes from industrialization, informatization, urbanization and agricultural modernization, among them, the urbanization, especially the new-type urbanization is a perfect design. The association between low-carbon development and new-type urbanization can promote the high quality and sustainable construction of new-type urbanization, at the same time, it improve the establishing of ecological

civilization to make the speed, scale, intense of new-type urbanization fit the progress of environmental carrying capacity, then make sure the developing model of new-type urbanization always stay in the limitation of ecological environment to provide the conditions to solve the problems during rural-urban development (Shen, 2013).

### 2.2 The New-type Urbanization Is the Tool to Realize the Urban-rural Low-Carbon Development

The new-type urbanization is an efficient route to forge the urban-rural low-carbon lifestyle, low-carbon industry development, and low-carbon infrastructure urban-rural integration. From the perspective of energy consumption, Wen and Wang (2012) consider the new-type urbanization make benefit to coordinate the energy consumption structure to promote green energy consumption. Ho et al. (2013) consider the low-carbon urban-rural plan and construction can make contribute to the low-carbon emission under the principle of sustainable development to realize the high efficiency and level implementation of low-carbon energy and technology, and then transfer to the low-carbon consumption behavior.

Since the reform and opening-up policy, the urbanization rate of our country increase rapidly, from the 17.92% of 1978 to 53.37% of 2013, however, the urbanization level f America, Japan, and Korea has increased to 80%-90%, the specific situation of urbanization rate as the table2 shows. China can not promote the urbanization with the form of scale expansion, and the key point includes transfer the

development conception, innovate new model to establish the low-carbon city construction during the high speed of urbanization promotion.

**Table 2**  
**The Urbanization Rate of China, America, Japan, and Korea In Different Years (unit:%)**

Year	Country			
	China	America	Japan	Korea
1980	19.36	73.74	76.18	56.72
1985	22.87	74.49	76.71	64.88
1990	26.44	75.50	77.35	73.84
1995	30.96	77.25	78.02	78.27
2000	35.88	79.11	78.66	79.65
2005	42.52	80.73	85.99	81.35
2010	49.23	82.17	90.54	82.96
2011	50.57	82.40	91.27	83.22

Note. Data sources: writer's collection.

### 2.3 The Low-Carbon Development Is a Significant Symbol of New-Type Urbanization

The new-type urbanization development insists on the unify of universality and individuality, that is to say, the universality of scientific development, sustainable development conception, the individuality of developing model and realizing route (Chen & Jiang, 2013). Bi (2009) points out the low-carbon city is the space carrier and time object of low-carbon area, it is the inevitable choice of our country's future development. The two researches' opinions deeply describe the low-carbon city is the future construction trend of new-type urbanization.

As the important carrier of new-type urbanization to realize low-carbon development, the low-carbon city is a significant route to practice the China new-type urbanization, it is also a systematic project that includes industrial development, space and traffic plan, ecological and environment management, energy and resource management, solid waste management, atmospheric controlling, information technology and so on. It should explore a suitable low-carbon development route through low-carbon technology innovation, economic construction adjustment, consumption model transformation and so on to realize the economic low-carbon transformation.

## 3. THE ACHIEVEMENTS OF CHONGQING NEW-TYPE URBANIZATION UNDER THE PERSPECTIVE OF LOW-CARBON DEVELOPMENT

The new-type urbanization of Chongqing grasps the key point of that, which is to say, insisting on the principles

of "people-orientation, urban rural interaction, city and industry integration, intensive and efficient, green and low-carbon, preparation plan, distinguished feature, and grouping development" to promote the replacement of new model to traditional model of scale expansion, realize the coordinate promotion of people, industry, and environment with some achievements.<sup>1</sup>

### 3.1 The Steadily Promotion of Low-Carbon Urbanization Progress

The new-type urbanization should choose the sustainable route of economic and intensive resources utilization, natural ecological and cultural protection, big city and small city integration. In the past long time, during the urbanization progress, Chongqing chooses the old route that includes high involvement, high energy consumption, high emission, and low efficiency, and that badly influence the urbanization process.

The acceleration of urbanization speed and incensement of population must lead to the problems include city pollution, noise, traffic jam and so on to bring pressure and challenge of environment carrier capability. So, the construction of low-carbon city, low-carbon town is the inevitable choice of urbanization improvement. So, the Chongqing government makes the policy "*The Evaluation Indicators system of Green Low-carbon Ecological Area in Chongqing*" to rule the green low-carbon ecological areas that need new construction, reconstruction and extension, and these areas should strictly accord to "*the indicators system*" to plan, design, build, and manage, and then show the demand of resources saving, environment protection to build the green low-carbon ecological area with local characteristics. At the same time, encourage the other new construction, reconstruction and extension with the standards of "*the indicators system*", make the conception of green, ecology, and low-carbon as guidance to do the urban-rural construction<sup>2</sup>.

### 3.2 The Orderly Progress of Population Transfer

The new-type urbanization of Chongqing must promote the reasonable population transfer from rural to urban, and then it accelerates the speed of new-type urbanization process.

#### 3.2.1 The Expansion of Urban Population Scale

Recent years, the new-type urbanization of Chongqing is orderly promoted, it makes the industrial agglomeration area, new urban district, center business district, and characteristic commercial district as carriers to attract large rural population transfer. In addition, the government

<sup>1</sup> Chongqing builds the low-carbon city and new green urban. Retrieved from <http://www.cnmn.com.cn/ShowNews1.aspx?id=272902>

<sup>2</sup> The notice of "the evaluation indicators system of Chongqing green low-carbon ecological urban area". Retrieved from <http://www.ccc.gov.cn/xxgk/wjtz/2012-05-24-621019.html>

works hard on the rural population transfer works to make the process of rural population transfer, and then the population transfer scale increases year after year. From 2005 to 2012, the urban population of Chongqing increased from 12659.5 thousands to 16871.1 thousands, the urbanization rate increases obviously. The specific situation as the following Table 3 shows:

**Table 3**  
**The Urban Population, Rural Population and Urbanization Rate of Chongqing From 2005 to 2012**  
(unit: ten thousands)

Year	Permanent resident population	Urban population	Rural population	Urbanization rate (%)
2005	2798.00	1265.95	1532.05	45.2
2006	2808.00	1311.29	1496.71	46.7
2007	2816.00	1361.35	1454.65	48.3
2008	2839.00	1419.09	1419.91	50.0
2009	2859.00	1474.92	1384.08	51.6
2010	2884.62	1529.55	1355.07	53.0
2011	2919.00	1605.96	1313.04	55.0
2012	2945.00	1678.11	1266.89	57.0

Note. Data resources: Chongqing statistical yearbook of 2013

### 3.2.2 The Regional Diversification of Population Transfer

The trend of future labor transfer must be from rural to urban, and then the urban will become the accumulation area of labor. Nowadays, there still more than 3000 thousands labors need to be transferred, and the number increases with the speed of 2000 thousands per year, so the rural population transfer task is very hard. Confronting such hard task, Chongqing established the rural population transfer regional target that includes “mainly transfer to Chongqing, suggest transfer to the west of China, expand transfer to the coastal areas, develop transfer to the northeast, and explore transfer to overseas” to make sure the orderly population transfer process. And the local city absorbed 43.7% rural population, the development chances of the western region development provided a large amount of jobs, through the improvement of labor quality to make some people transfer to the north areas.

### 3.2.3 The Integration Degree of Transfer Population to Urban Life Significantly Improved

The Chongqing government insisted on the tone of “urban-rural integration, and harmonious development” to make sure the transfer population can enjoy the fundamental public service and social right, and that made the improvement of integration degree of transfer population to urban life. The improvement of urban life integration is mainly present on the following aspects:

Firstly, the changes reflect on occupational identity, social identity, and wage standard. On the aspect of

occupational identity, they changed from the primary industry to the second and third industry. On the aspect of social identity, they got the urban household registration to enjoy the equal right and treatment with citizen. On the aspect of wage standard, their wages increased year after year.

Secondly, the improved of fundamental public service system of the transfer population. Their integration to urban public service system can make them equally enjoy the urban public resources and social welfare, and then, they can comprehensively join the political, economic, social, and cultural life.

Thirdly, become a real citizen with the comprehensive integration of psychological and cultural. They become real citizen through the economic dependent, social acceptance, identity recognition, and cultural integration.

### 3.3 The Advantages of Basic Industry

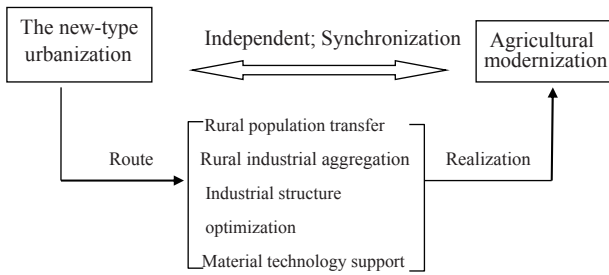
It is vague and fake to talk about industrial development and urbanization without each other (Xin, 2013). The achievements of Chongqing new-type urbanization can not be without the support of industrial development and it is the reasonable result that can prove the fitness of industrial development and new-type urbanization.

#### 3.3.1 Agricultural Modernization

The report of 18th CPC National Congress points to insist the route of Chinese characteristic urbanization and agricultural modernization to promote the inter-coordination of urbanization and agricultural modernization, and then make the synchronous development of urbanization and agricultural modernization (Hu, 2012). The relationship of coordination and synchronous shows their interdependent relationship. The independent of agricultural modernization to new-type urbanization mainly reflects that the agricultural modernization needs new-type urbanization as its supporter.

First of all, the new-type urbanization promotes rural population transfer to make the most cultivated land occupied by few people to provide the necessary outside condition for the realization of agricultural modernization. Secondly, the new-type urbanization promotes the aggregation of rural industry. The new-type urbanization brings its aggregation effect into full play, through the aggregation of vicinages and lands to provide conditions for the rural industrial aggregation. Thirdly, the new-type urbanization promotes the rural industrial construction. The development of new-type urbanization makes demands for the diversified development of agriculture to promote the optimization and adjustment of inner industrial construction and product construction of agricultural (Xia, 2010). At last, the new-type urbanization provides the material and technology support to agricultural modernization. The new-type urbanization provides some material, machines, and devices for agricultural modernization through the modern industry.





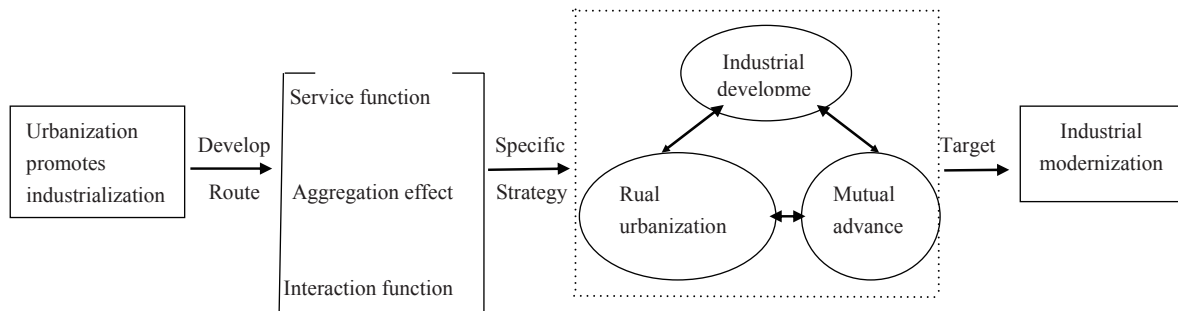
**Figure 1**  
**The Promotion Role of New-Type Urbanization of Chongqing to Agricultural Modernization**

**3.3.2 Industrial Modernization**

In 1975, the American economist Chenery and the Israel economist Syrquin proposed Chenery Syrquin Model, which concludes the general interaction model of urbanization and industrialization reveals the positive interaction relationship between urbanization and industrialization, that is to say, the industrialization is the development dynamic and promotion device to urbanization, and the urbanization is the significant support and security to industrialization, and that

promote the breadth and depth of industrialization development.

As a significant mark of modern society progress and economic development, the new-type urbanization progress also reflects the development level of industrialization, and promotes industrialization action. In the promotion progress of Chongqing urbanization, the government promotes economic industrial structure, employment structure, and ownership structure to improve economic industrial optimization, adjustment, and upgrade through develop the second and third industry vigorously. And then, through the urbanization of rural area, the government makes industry from dispersion to aggregation to form the aggregation effect. In addition, the government adopts the synchronous promotion strategy of industrialization and urbanization to bring the interaction effect of urbanization and industrialization into full play to strengthen the aggregation and leading role of urban on the aspects of resources, talents, technology, industrial, product, and information, therefore, there forms the urban as the carrier to promote industry and the third industry rapid development to accelerate the economy continue to modernization.



**Figure 2**  
**The Specific Route of Chongqing New-Type Urbanization Promotes Industrial Modernization**

**CONCLUSION**

The construction of new-type urbanization is the important strategy and history task of modernization construction in our country, it is also the long-term dynamic to effectively boost domestic demand and the leading of economic continuous development, what's more, it is the significant engine to promote our country on building moderately prosperous society and improve our country from economic big power to economic heavyweight. The low-carbon development advocates the coordinate and harmonious development of population, economy, social, resources, and environment, it is the significant model and symbol of new-type urbanization construction. So, under the perspective of low-carbon development, the healthy and orderly development of new-type urbanization construction in Chongqing has a significant meaning to population transfer promotion, economic aggregation,

industrial change, construction transfer, and urban-rural integration development, at the same time, it has a far-reaching significance to urban-rural integration goal realization and all-round development of human being promotion.

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