

# *Study on the Characteristic Path of Transformation and Development of Resource-Based Cities in China*

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**Abstract:** Transformation is the fundamental way to realize the development of resource-based cities, and it is a fundamental measure to promote the optimization and upgrading of the industrial structure of resource-based cities, improve the quality of human life, and enhance the overall competitiveness of cities. However, on the whole, the current transformation of resource-based cities in China is still at a relatively low level. To effectively change this situation, we should start from the transformation concept, transformation planning and people's livelihood transformation, explore the innovation momentum for the development of resource-based cities, optimize the social environment for the transformation of resource-based cities, and promote the new development momentum of resource-based cities. To realize the healthy and sustainable development of resource-based cities.

## 1. Introduction

With the depletion of resources, slow economic development, destruction of social ecology and other factors, China's resource-based cities are generally faced with severe difficulties and challenges. Although its categories are diverse and the degree of development is different, from the perspective of urban development strategy, transformation is the only way out for any resource-based city, which is determined by its own characteristics. Since the 18th National Congress of the CPC, the Party and the state have attached great importance to the development of resource-based cities, and proposed and implemented a series of measures to provide direction and guidance for the transformation and development of resource-based cities [1]. The promulgation of the National Plan

for the Sustainable Development of Resource-Based Cities (2013-2020) has taken the transformation of resource-based cities as a national strategic task, providing a solid institutional guarantee for promoting the transformation of resource-based cities [2]. In the current situation that most resource-based cities are stuck in the development dilemma, strengthening the research on the transformation of resource-based cities with Chinese characteristics is of great practical significance for solving urban development problems and promoting the sustainable development of national urban system construction.

## **2. The Necessity of Characteristic Transformation of Resource-Based Cities**

The transformation of resource-based cities is a complex systematic project, which involves many fields such as economic structure reform, regional economic development, urban environmental governance and resource tax reform. The key to the success of the transformation of resource-based cities is how to ensure that problems in all aspects and fields are effectively solved and coordinated development is achieved [3]. It is also the key to achieve sustainable urban development and provide residents with a good living environment and urban development space.

Transformation is a necessary stage to promote the innovation and development of resource-based cities, which is determined by the characteristics of resource-based cities. Resource-based cities are dominated by resource industries at the beginning of their rise, and then with the reduction of resources and the adjustment of economic structure, they must realize the "sublation" of the city itself to prepare for the transformation and development [4]. Generally speaking, the core of resource-based city transformation is economic transformation, and the fundamental of economic transformation is industrial transformation. Industrial transformation includes the improvement and optimization of output structure, technological structure and industrial organization, replacing old industries with new industries and upgrading of technologies as the main methods and approaches [5]. Its primary goal is to deal with the negative impact of resource reduction on resource industry, and promote the formation of diversified industrial structure through transformation and development, which can not only reduce dependence on natural resources, but also reduce dependence on natural resources. It can also provide a good opportunity for the comprehensive development of the city's economy, society and culture.

Transformation is the fundamental way out and inevitable choice to realize "self-sublation - self-improvement - self-innovation" in resource-based cities. It can be seen that the transformation of resource-based cities focuses on the transformation of urban economic form and growth mode, emphasizes the transformation of extensive economic development mode to intensive economic growth mode, continuously reduces the dependence on resource industry, promotes the development of diversified industrial structure, and thus achieves the purpose of promoting the sustainable development of resource-based cities [6]. The transformation process of resource-based cities involves a variety of transformations, such as social transformation, people's livelihood transformation, cultural transformation, technological transformation, green transformation, etc. It should be considered from multiple dimensions such as society, economy, people's livelihood, ecology and culture, so as to provide a systematic approach and path for solving specific problems of resource-based cities and realizing innovative development of resource-based cities.

## **3. The Practical Significance of Characteristic Transformation of Resource-Based Cities in China**

At present, the development of traditional resource-based cities has been shackled, and the development of resource-based cities dominated by resource-based industries has fallen into

difficulties. In this severe situation, promoting the transformation of resource-based cities with Chinese characteristics has important practical value for promoting the optimization and upgrading of industrial structure, improving the quality of urban living, and enhancing the overall competitiveness of cities.

### **3.1. The Transformation of Resource-Based Cities with Chinese Characteristics Is an Objective Requirement to Promote the Optimization and Upgrading of Industrial Structure**

In the final analysis, the transformation of resource-based cities is the transformation of industrial structure. Only by realizing the optimization and upgrading of industrial structure can we fundamentally get rid of the "resource curse" of resource-based cities. The key to promoting the transformation of resource-based cities with Chinese characteristics lies in how to find the right way to optimize and upgrade the industrial structure, and through a series of new technologies, new means and new methods, innovate the industrial development mode, and create a transformation and development road of high-tech, high added value of products and high efficiency [7]. The key difficulty in the transformation of resource-based cities lies in how to eliminate backward and uncompetitive industries, and cultivate advanced and technologically advanced new industries to achieve industrial upgrading or industrial substitution. Generally speaking, the current domestic industrial transformation model includes three categories, one is the alternative type, that is, completely abandon the traditional industry, to achieve a thorough transformation; The second is the extension type, that is, to further deepen the original industrial model and realize the transformation to the development goal of deep integration or industrial cluster; The third is the hybrid type, that is, a hybrid development transformation that takes into account the extension transformation of the original industry and the cultivation of new industries. There is no clear distinction between good and bad in these three modes of transformation. Choices should be made according to the basic situation of local development, and the fundamental purpose is to meet the needs of regional economic and social development. Therefore, through the transformation to promote the optimization and upgrading of the industrial structure of enterprises, better promote the development of social economy, so that resource-based cities can get rid of the constraint of resources, so that residents of resource-based cities can enjoy real benefits.

### **3.2. The Transformation of Resource-Based Cities with Chinese Characteristics Is an Intrinsic Requirement for Improving the Quality of Urban Living**

Resource-based cities are based on resources, and most of them are built in the places where resources are located, which is the characteristic of resource-based cities. However, this characteristic also leads to the lack of necessary scientific consideration and human environment factors in the construction of resource-based cities [8]. The construction speed of resource-based cities is fast, under the influence of large-scale "city building movement", it is inevitable that some blind decisions will appear, keen on the construction of tall buildings, pavilions, landmark buildings, etc., and behind these projects is the lack of cultural connotation. In addition, resource-based cities rely solely on resource exploitation to drive economic development, especially at the beginning of urban construction, the extensive exploitation of resources not only causes a great waste of resources, but also causes serious damage to the social environment, affecting people's living environment and quality of life. It is because of the deep understanding of the above problems that the transformation task of resource-based cities is imminent, and the development of resource-based cities is in the lower middle position among many cities in our country. How to improve the quality

of life of residents in resource-based cities is an important issue to be solved at present, which is related to the goal of building a well-off society in an all-round way. Through a comprehensive analysis of the drawbacks of resource-based cities, targeted measures are put forward to promote the sustainable development of resource-based cities, maximize the sharing of development results for resource-based city residents, and help improve the quality of life of resource-based city residents.

### **3.3. The Transformation of Resource-Based Cities with Chinese Characteristics Is the Key to Enhance the Overall Competitiveness of Cities**

The overall competitiveness of a city refers to the comprehensive strength and development potential of a city in politics, economy, culture and other aspects. Cities lacking urban competitiveness often do not have bright development prospects. For resource-based cities, resources once played the role of competitiveness factor in the planned economy period. In resource exploitation and utilization, the total amount and scale of resources are often important manifestations of urban development potential, and government planning regulation is the main means to promote urban competitiveness. However, with the rapid development of the market economy, the factors affecting the competitiveness of resource-based cities have also undergone significant changes, and the influence of market factors has impacted the development of resource-based cities dominated by resource ownership and government [9]. How to realize the transformation of resource-based cities under the condition of market economy has become a key issue that must be faced and solved. It can be said that China has done a lot of work in promoting the transformation of resource-based cities. Considering the multiple considerations of economic development, social stability and ecological protection, some typical resource-based cities have achieved successful transformation, and the overall competitiveness of these cities has also been significantly improved, which is the welfare brought by the transformation and development of resource-based cities. So that residents living here can better enjoy the fruits of urban development. Economic development is related to social harmony and stability. Due to the particularity of industrial structure, resource-based cities often affect social harmony and stability due to the poor development of enterprises, such as enterprise bankruptcy and employee unemployment caused by resource exhaustion. Only by realizing urban transformation and developing emerging industries can urban residents have more employment choices [10]. In addition, urban ecology has also become an important part of urban competitiveness, strengthening the transformation of resource-based cities is an objective need to promote green development, through the implementation of green development and low-carbon development in the transformation process, accelerate the construction of environmentally friendly cities, effectively solve ecological problems, enhance the ecological image, and further enhance the overall competitiveness of urban development.

## **4. The Transformation Practice of Resource-Based Cities with Chinese Characteristics**

In 2013, the promulgation of the National Plan for Sustainable Development of Resource-Based Cities (2013-2020) marked that the transformation of resource-based cities in China has been promoted to a national strategy, and how to explore the regenerative and healthy transformation of resource-based cities has become the main task faced by resource-based cities since the 18th National Congress of the CPC.

#### **4.1. Improving the Environment Is an Important Way to Develop Productivity**

Since the 18th National Congress of the Communist Party of China, China's economic development has entered a new normal and is in the period of "three superposition", that is, the interweaving and collision between the shift period of economic growth speed, the painful period of structural adjustment and the digestion period of early stimulus policies. Under such economic conditions, the economic development model of green, circular, sustainable and high economic efficiency has become the mainstream of economic development. Replace the traditional extensive economic development model with high cost, high consumption and low economic benefits. The Fifth Plenary Session of the 18th CPC Central Committee put forward the five development concepts of "innovative, coordinated, green, open and shared", stressing the need to adhere to green development, promote harmonious coexistence between man and nature, and build a beautiful China. Some resource-based cities have actively explored the path of transformation and development in close combination with their own realities. Among them, adhering to the green transformation is the basic principle that every resource-based city adheres to in the transformation. Taking Liupanshui City as an example, under the premise of fully considering its own geographical location and economic foundation, Liupanshui City adheres to green development and realizes the transformation from "coal capital" to "cool capital". Through the development of circular economy, strengthening the development of green economy, and constantly exploring the development of industrial ecology and mountain agriculture, the city has promoted its own green development transformation. In the process of transformation of resource-based cities, enterprises play an important role, and the technological transformation of production mode and management mode is the key to realize the green transformation of enterprises. Since the 18th National Congress of the Communist Party of China, the state has vigorously encouraged enterprises to adopt green production and operation methods, and given appropriate financial incentives, which to a large extent mobilized the enthusiasm of enterprises to adhere to green development, but also promoted the development of enterprises themselves, and provided direction and ideas for the healthy transformation of resource-based cities.

#### **4.2. Adhere to Diversified Development and Transformation, and Promote the Optimization and Upgrading of Industrial Structure**

The fundamental task of the transformation of resource-based cities is how to get rid of the dependence on resources and transform from the original resource-based industries to new industries. Since the 18th National Congress of the Communist Party of China, some typical resource-based cities have realized leapfrog transformation by cultivating new endogenous power. Taking Xuzhou as an example, Xuzhou is a century-old coal city. Before the transformation, the urban infrastructure was backward and the environment was poor, with the typical characteristics of "old industrial base". In recent years, through the transformation of industry, city and ecology, the city has effectively solved its own shortcomings and cracked the outstanding problems restricting the long-term development of the city. First, in terms of industrial transformation, on the basis of the original industrial industries, vigorously develop textile and clothing, agricultural product processing and other industries. According to statistics, in 2017, the proportion of tertiary industry reached 47.3%, high-tech industry reached 36.5%, and the industrial structure was continuously optimized; Second, in terms of urban transformation, Xuzhou boldly breaks the "northern Jiangsu consciousness", offloads the burden of the old industrial base, comprehensively improves the level of urban management, builds a regional central city, and joins the "Huaihai Ecological Economic Belt Development Plan", so as to better play its radiating role as a regional central city; Third, in



terms of ecological transformation, Xuzhou has established the concept that green water and green mountains are gold hills and silver mountains, strengthened environmental protection and ecological restoration, and built a national ecological garden city, which has changed the main tone of the "gray" coal city before and achieved a gorgeous ecological transformation. Since the 18th National Congress of the Communist Party of China, transformation and upgrading have become a comprehensive concept, which not only includes economic transformation and industrial transformation, but also combines it with ecological transformation and people's livelihood transformation, so as to promote the regenerative development of resource-based cities and achieve healthy transformation.

#### **4.3. A series of Institutional Policies Have Been Promulgated to Provide Policy Support for the Healthy and Green Transformation of Resource-Based Cities**

In 2013, The State Council issued the National Plan for the Sustainable Development of Resource-Based Cities (2013-2020), which clarified the development goals and layout guidance of resource-based cities in the form of programed documents, and proposed the construction of a diversified industrial system to promote the steady development of urban economy. In the Outline of the 13th Five-Year Plan for National Economic and Social Development promulgated in March 2016, it is clearly proposed to build industrial transformation demonstration zones and demonstration parks in old industrial cities that have the conditions, and support the industrial transformation and upgrading of old industrial bases in terms of policies. Subsequently, in April and September 2016, the "Several Opinions of the Central Committee of the Communist Party of China and The State Council on Comprehensively Revitalizing Old Industrial Bases in Northeast China" and the "Implementation Opinions on Supporting the Industrial Transformation and Upgrading of Old Industrial Cities and Resource-based Cities" were successively issued, providing specific programs for the transformation and upgrading of old industrial bases. At the same time, a series of policy documents to promote the development of emerging industries and promote enterprise innovation also provide impetus for the development of resource-based cities. For example, the Opinions on Several Policies and Measures to Vigorously Promote Mass Entrepreneurship and Innovation promulgated in 2015, the Notice of The General Office of the State Council on Further Supporting Enterprise Technological Innovation promulgated in 2016, and the Opinions on Further Promoting the Innovation and Development of Central Enterprises promulgated in 2018, etc. These policies and provisions from the development of innovative enterprises, strengthen the innovative development of enterprises themselves and encourage innovation and entrepreneurship, vigorously promote the innovative development of the entire social and economic structure and diversified transformation.

#### **5. The Optimization Path for the Transformation of Resource-Based Cities with Chinese Characteristics in the New Era**

Transformation is the only way out for resource-based cities in our country. If the transformation cannot be realized smoothly, the development of resource-based cities will become more and more intense and eventually fall into trouble. At present, the transformation of some resource-based cities in China has achieved certain results, but the overall transformation level is not high, and there are still some resource-based cities in the stage of development stagnation or even regression, to reverse this situation only rely on the healthy transformation of resource-based cities, and explore a transformation and development road with Chinese characteristics from various aspects.

### **5.1. Adhere to the People-Centered, Establish a Scientific Ecological Civilization Value Transformation Concept**

"The decline of resource-based cities is mainly manifested in the later stage of maturity, and the root cause is the failure to plan ahead in the growth and maturity stage." Thinking concepts lag behind the development of resource-based cities, fail to recognize the necessity of transformation early, and ignore the particularity of the development of resource-based cities, which are important factors hindering the transformation and development of resource-based cities. The 19th National Congress of the Communist Party of China clearly mentioned that the principal contradiction in Chinese society in the new era is the contradiction between the people's ever-growing needs for a better life and unbalanced and inadequate development. We must adhere to the people-centered development philosophy, promote the all-round development of people and society, always highlight the principal position of the people, and take the people's yearning for a better life as the goal of our struggle. In the process of promoting the transformation of resource-based cities, we should always adhere to the people-centered development thought, and take whether to meet the basic requirements of the people as the measurement standard of the success of the transformation, which is the key criterion to follow in the transformation of resource-based cities in the new era.

To implement the people-centered development idea into the concrete practice of the transformation of resource-based cities, we should start from the following two aspects: First, change the concept of local government performance assessment and speed up the construction of green government. Economic, ecological, cultural and other factors should be taken into account in the assessment of political performance. Second, promote the return of urban functions. "A city is a relatively large, relatively dense, relatively permanent settlement made up of different heterogeneous individuals. It is an artificial environment created by human beings to meet their needs for survival and development." Resource-based cities tend to ignore cultural and social factors in the formation and development process. Although after a long period of development, cities increase investment in education and culture and strengthen the construction of public infrastructure, they still lack humanistic factors compared with other comprehensive cities. Therefore, it is necessary to promote the return of urban functions under the people-centered development idea, build urban central areas, promote ecological greening projects, improve science, education, culture and health levels, and meet people's expectations for a better life as a starting point to improve the happiness of urban residents.

The report to the 19th National Congress of the Communist Party of China clearly stated that we should accelerate the reform of the ecological civilization system and build a beautiful China. To promote the construction of ecological civilization, the key lies in changing the concept, establishing the concept of ecological civilization, and promoting ecological and environmental protection in practice. The concept of ecological civilization is also an important part of the ecological concept in the new era. How to instill this concept into everyone's mind, especially into the minds of residents in resource-based cities is an important work content of strengthening the construction of ecological civilization in resource-based cities in the new era.

### **5.2. Accurately Grasp Urban Transformation Planning and Improve Policies and Regulations for Urban Transformation**

The government plays a leading role in the transformation of resource-based cities. The government should closely combine the actual situation of the region, determine the direction of transformation by accurately grasping the transformation planning of the city. Through the continuous improvement of urban transformation policies and regulations to provide a strong

institutional guarantee for the transformation of resource-based cities. In view of the current common problems faced by resource-based cities, the government should do the following three aspects: First, the overall planning of the urban transformation and development path, clear the steps of urban transformation and the development orientation after the transformation, the urban population, resources and environment and other aspects into the planning scope, to achieve the overall deployment of all aspects of the city. It generally includes urban population size, land use selection, road traffic, square location, engineering pipeline, civil air defense facilities, suburban residential construction, etc., and each aspect involves a large amount of content, which requires relevant government departments to work hard in the development of transformation planning, comprehensively understand the regional development situation, and ensure the scientific planning. Second, we need to plan for industrial development. Industrial transformation is the core of urban transformation, and scientific industrial development planning is the key to ensure the sustainable development of regional economy. By drawing up development plans for some key industries and guiding market economic activities through scientific and systematic planning, the government is conducive to promoting the effective allocation of resources and thus promoting the optimization and upgrading of regional industrial structure. The third is the planning of the regional ecological environment. Through the preparation of the ecological city planning, the coordination and unity of industry, human settlements and nature should be promoted. In the process of formulating the transformation plan, ecological issues should be taken as the focus of regulation, so as to transform it into an ecological city under the modern concept. Among them, party members and leading cadres should take the lead in promoting the transformation of resource-based cities, standardize their words and deeds with party spirit, hold themselves accountable, use power according to law and impartiality, grasp the transformation and development as an urgent task, and effectively transform the fine style into specific ideas for planning development and the actual results of transformation and development, so as to draw a feasible and beautiful blueprint for urban transformation.

Good institutional arrangement is an important prerequisite to ensure the effective promotion of economic activities, and the transformation of resource-based cities needs to be based on complete policies and regulations, which is the institutional guarantee to ensure the successful transformation of cities. With the emergence of a series of new problems and new situations, some laws and regulations are no longer applicable to the economic development of the current society. Therefore, it is urgent to modify, supplement and improve the relevant policies and regulations. On the one hand, at the national level, the ecological problems caused by resource exploitation should be legislated, the resource exploitation behaviors of resource-based enterprises should be regulated and restricted, and the ecological environment protection should be taken into account in the process of resource exploitation, so as to reduce the damage to the environment as much as possible. On the other hand, local governments should formulate supporting policies in line with the core system and establish a series of supporting policies to ensure the effective promotion of urban transformation. For example, at the economic level, they should scientifically formulate supporting policies such as finance, taxation and finance according to the actual situation of cities to provide a solid material foundation for the transformation of resource-based cities. At the social level, supporting policies should be formulated to improve the level of social security, increase the re-employment of the unemployed and enhance the ability of industrial innovation to ensure that urban transformation will not lead to a decline in residents' living standards. In terms of environmental protection, on the basis of the national environmental protection policy and in combination with the regional resource exploitation situation, a more stringent environmental protection system will be established to reduce the harm caused by resource exploitation and the development of related resource-based industries to the urban environment.



### **5.3. Promote Urban Transformation with Information Technology, and Explore the Innovation Momentum of Resource-Based City Development**

Innovation is the primary driving force for development. Different from the traditional transformation path, resource-based cities with Chinese characteristics should adhere to the informatization to promote transformation, constantly strengthen the construction of scientific and technological talents, vigorously develop innovative characteristic industries, explore the inherent innovation momentum of resource-based cities, so that innovation provides fresh vitality and strong impetus for the transformation of resource-based cities. Therefore, it is necessary to further increase the in-depth application of information technology in promoting the transformation of resource-based cities, and lead the industrial transformation, industrial structure and urban management mode of resource-based cities with information technology. It is necessary to promote the optimization and upgrading of industrial structure with information technology, quickly realize the integration of industrialization and information technology, promote the development of high-tech industries and modern service industries, and promote the diversified development of industrial structure. At the same time, in the transformation, emphasis is placed on the development of emerging industries, increasing efforts to develop service industries with tourism, modern logistics and information consulting as the core, and developing innovative characteristic industries as an important driving force for innovation. For example, a series of brands such as cultural creative city and innovative city should be built in a targeted manner. "Looking at the current situation of urban and urban culture development in China, every city should go beyond the traditional urban development model and adopt innovative and creative models to promote urban sustainable development." In recent years, many cities have taken the cultural industry as an important driving force for regional development, and promoted the upgrading of modern service industries through the agglomeration of creative industries. This form of economic development, which combines local characteristics and conforms to market development, is worthy of vigorous promotion and is the innovation highlight of resource-based city transformation.

## **6. Conclusions**

As one of the fastest GDP growth countries in the world in recent years, China's development speed attracts the attention of the world. The ever-changing new China is no longer fixated on the rapid improvement of economic efficiency, but pays more attention to environmental protection, ecological governance, improving production efficiency, improving people's livelihood, and enhancing cultural quality. To this end, since the 16th National Congress of the Communist Party of China put forward the scientific concept of development of "coordinating the harmonious development of man and nature", the 18th National Congress of the Communist Party of China proposed the construction of "beautiful China" ecological civilization, and the 19th National Congress of the Communist Party of China reported "adhering to the harmonious coexistence of man and nature" as an important part of the basic strategy of upholding and developing socialism with Chinese characteristics in the new era. The CPC Central Committee has persistently implemented the concept of green development and ecological civilization. As an important national policy, the ecological civilization construction of "Beautiful China" not only vigorously develops the efficient use of resources and environmental restoration and protection, but also covers livelihood issues such as urban economic development and transformation and even poverty alleviation. This paper studies the characteristic path of transformation and development of resource-based cities in China, which is of great significance for promoting transformation and development of resource-based cities, promoting economic growth, optimizing resource allocation,

protecting ecological environment and exploring the development path with Chinese characteristics. The study can provide guidance and suggestions for resource-based cities, stimulate urban development potential, realize economic restructuring and upgrading, and summarize China's experience to provide reference for other countries.

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### Data Availability

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### Conflict of Interest

The author states that this article has no conflict of interest.

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