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Research on the Transformation and Development of Resource-exhausted Cities from the Perspective of Social Change

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Abstract: *This paper aims to explore the challenges faced by resource-exhausted cities in terms of social structure, economic development, urban governance, and other aspects from the perspective of social change, and seek corresponding transformation and development paths. Firstly, by analyzing the impact of population mobility and changes in social structure on resource-exhausted cities, we will explore how to reasonably allocate resources and optimize urban functional layout to effectively respond to the challenges brought by changes in population structure. Secondly, in-depth research will be conducted on the impact of social changes on the economic structure, industrial layout, and enterprise development of resource-exhausted cities, exploring how to promote industrial upgrading, transformation, and upgrading, and promote the transformation of urban economy from traditional to modern, green, and intelligent directions. Finally, we will explore the impact of social change on urban governance and social management, as well as how to improve the urban social management system and build a more open, inclusive, and just urban social governance mechanism.*

Keywords: *social change, resource-exhausted cities, sustainable development*

1. Introduction

With the rapid development of social economy and changes in population structure, resource-exhausted cities are facing new challenges and opportunities, and in-depth research is needed to guide their sustainable development. In this context, studying the transformation and development of resource-exhausted cities from the perspective of social change will help to deeply understand the new driving forces and challenges of urban development, provide more scientific decision-making support for urban development, promote the transformation of cities towards more livable, suitable for work, and suitable for tourism, and achieve sustainable economic, social, and environmental development.

2. The current situation and challenges faced by resource-exhausted cities

2.1 Resource-exhausted cities

Resource-exhausted cities refer to the gradual depletion of the resources that cities rely on, including natural resources such as water, land, mineral resources, as well as human and social resources, under long-term and intensive development and utilization [1]. For a long time, these cities have relied on these resources for economic construction and social development, but over time, the problem of resource-exhausted has gradually emerged. Firstly, the depletion of natural resources poses a serious problem of insufficient resource supply for cities, such as water scarcity, land desertification, and mineral resource depletion, which seriously restricts the sustainable development of cities. Secondly, resource-exhausted has also led to environmental degradation, such as increasingly serious problems such as air pollution, water pollution, and soil degradation, posing a serious threat to the quality of life and health of residents. In addition, the single industrial structure is also one of the common problems in resource-exhausted cities. The urban economy excessively relies on a single industry or resource extraction, lacks diversified development, and is easily affected by macroeconomic fluctuations, making it difficult to cope with new development challenges.

Faced with the many problems faced by resource-exhausted cities, transformation and upgrading are imperative to achieve sustainable development of the city [2]. Firstly, cities need to increase their efforts in resource conservation, utilization, and protection. By promoting resource recycling and

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recycling, they can extend the lifespan of resources and slow down the rate of resource-exhausted. Secondly, cities need to strengthen environmental protection work, vigorously promote ecological civilization construction, reduce pollution emissions, improve environmental quality, and provide residents with a healthier living environment. At the same time, cities also need to actively adjust their industrial structure, promote industrial transformation and upgrading, cultivate new economic growth points, achieve diversified economic development, and enhance the resilience and sustainability of urban development. In addition, cities also need to strengthen the development and utilization of human and social resources, cultivate talents, improve the quality of workers, promote the diversified development of social capital, and provide strong support for the sustainable development of cities.

In the process of transformation and upgrading, resource-exhausted cities need to fully leverage the guidance and planning role of the government, formulate scientific and reasonable development plans and policy measures, guide all parties to participate together, and form a joint force to promote the transformation and development of the city. At the same time, it is necessary to strengthen scientific monitoring and evaluation of urban development, timely identify problems, adjust policies, and ensure the smooth progress of urban transformation and development. In addition, it is necessary to strengthen international cooperation and exchange, draw on international experience, absorb external resources and wisdom, and promote the transformation and upgrading of resource-exhausted cities.

In short, the transformation and development of resource-exhausted cities is a complex and arduous task that requires the joint efforts of the government, enterprises, and all sectors of society to form a joint force and jointly promote the city towards sustainable development, achieving coordinated development of economy, society, and environment. With the deepening of transformation and upgrading, resource-exhausted cities are expected to radiate new vitality and usher in a better tomorrow.

2.2 Analysis of the current situation of resource-exhausted cities

Currently, many resource-exhausted cities are facing severe challenges, which are mainly manifested in multiple aspects.

Firstly, the exhausted of resources caused by long-term overexploitation has become apparent, with issues such as reduced water sources, desertification of land, and depletion of mineral resources becoming increasingly prominent. The limited resources make cities face serious supply pressure, which has begun to affect the development of cities and the lives of residents. The reduction of water sources has led to serious water supply problems, land desertification has exacerbated the difficulties of agricultural production, and the depletion of mineral resources has constrained the industrial development of cities. The accumulation of these problems has become a major obstacle to sustainable development of cities.

Secondly, the single industrial structure, outdated technology, and insufficient innovation capabilities have led to sluggish economic growth and difficulty in adapting to new development needs. Resource-exhausted cities often rely on a single industry or resource extraction, lacking diversified industrial support, which makes the economic development of cities constrained by cyclical fluctuations in specific industries, lacking stability and resilience. At the same time, the lagging technological level also makes cities feel overwhelmed when facing new economic development models, and the lack of innovation ability further weakens the city's ability to adapt to new needs. These issues pose enormous challenges for resource exhausted cities in terms of economic transformation and structural adjustment, requiring the search for new development paths and driving forces.

Finally, population outflow, lagging social services, and single urban functions are also practical challenges faced by resource-exhausted cities. The exhausted of resources has limited the living and development space of some cities, which has led to the phenomenon of population outflow in some cities, which exacerbates the lag in social services and the single function of cities. The lag in social services is manifested in the imperfect public service facilities such as healthcare, education, and culture, while the single urban function is manifested in the single economic structure and incomplete urban development functions. These problems also face many challenges in population and social development for r resource-exhausted cities, which require more attention and solutions.

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3. Challenges faced by resource-exhausted cities

Resource-exhausted cities face many challenges, including difficulties in economic development, deterioration of the ecological environment, and imbalanced social structure.

3.1 Difficulties in economic development

The difficulties in economic development are mainly reflected in the single industrial structure, the deadlock in traditional industries, and the lack of new economic growth points and competitive advantages. In this situation, resource-exhausted cities often rely on a certain dominant industry, such as mining and wood processing. For a long time, these cities may excessively rely on resource extraction and processing, while neglecting the diversified development of industrial structure [3]. Due to slow technological updates and saturated market demand, traditional industries have fallen into development bottlenecks and deadlocks, unable to bring new growth drivers to the urban economy. At the same time, due to the lack of new economic growth points and competitive advantages, these cities are facing severe challenges in global competition.

3.2 Ecological environment deterioration

The problems of water scarcity, land degradation, and air pollution caused by the deterioration of the ecological environment are becoming increasingly prominent, not only posing a threat to the quality of life of urban residents, but also bringing enormous pressure to the sustainable development of cities.

Firstly, water scarcity has become a serious challenge faced by many cities. With the acceleration of industrialization and urbanization, the demand for water resources in cities is constantly increasing. However, due to factors such as geographical location and climate, the supply of water resources in some cities has gradually become urgent. The shortage of water resources not only affects the domestic water use of residents, but also restricts the development of urban industrial production and agricultural irrigation, thus becoming an important factor restricting the sustainable development of cities.

Secondly, land degradation is also a significant manifestation of ecological environment deterioration. Due to excessive development and unreasonable utilization, some farmland and arable land around cities have suffered severe erosion and degradation, resulting in a decrease in soil fertility and a serious threat to the sustainable utilization of land resources. The degradation of land not only affects the sustainability of agricultural production, but also has a serious impact on the ecological security and sustainable development of cities.

In addition, the issue of air pollution is becoming increasingly prominent, with industrial emissions and traffic exhaust in cities becoming the main sources of pollution. Poor air quality not only poses a threat to residents' health, but also affects the image and attractiveness of cities, hindering their sustainable development. At the same time, air pollution also exacerbates the risk of global climate change, posing a long-term threat to the ecological balance and sustainable development of cities.

3.3 Imbalance of social structure

The imbalance of social structure is mainly manifested in population outflow, aging population, lagging social services, etc. Cities are faced with the challenges of brain drain and increasing pressure on social services [4]. This phenomenon is quite common in many cities today. First of all, population outflow is one of the important manifestations of the imbalance of social structure. With the development of urban economy and the improvement of living standards, many young people choose to go out to work or move to other places, resulting in an imbalance in the population structure. This exodus is not only causing labor shortages, but also exacerbating the aging population in rural areas. Secondly, population aging is also a significant feature of social structural imbalance. With the improvement of medical conditions and the improvement of living standards, the proportion of the elderly population in the city is increasing, and the lag of the social pension service system has led to the aging problem. At the same time, due to the lag of urban social services, including health care, education, employment and other aspects of the service level and demand there is a huge gap, to the sustainable development of the city has brought great challenges. Especially in the current period of economic and social transformation, cities are facing more severe challenges of brain drain and increased pressure on social services.

In the face of these challenges, resource-exhausted cities need to seek ways of transformation and

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development from various aspects, including adjusting industrial structure, strengthening environmental protection, promoting scientific and technological innovation, optimizing population structure, etc., in order to realize the transformation from resource-exhausted cities to livable and business-friendly cities.

4. Future development direction and strategies for resource-exhausted cities

4.1 Promoting industrial upgrading and promoting enterprise transformation

Resource-exhausted cities face unique challenges and opportunities in promoting industrial upgrading and enterprise transformation [5]. These cities usually rely on limited natural resources, such as coal and minerals. With the increase of resource mining output and gradual depletion of resources, these cities need to seek new development paths.

Firstly, resource-exhausted cities can achieve industrial upgrading and transformation by guiding enterprises to adjust their industrial structure. With resource exhausted, cities need to break away from their dependence on traditional resource-based industries and shift towards more environmentally friendly and sustainable industrial development, such as new energy and high-tech industries. This requires enterprises to upgrade their industries, increase investment in environmental protection, energy conservation, and high-tech industries, increase industrial added value, and achieve optimization and transformation of the economic structure.

Secondly, resource-exhausted cities can utilize their location advantages to develop modern service industries and high-end manufacturing industries, and promote enterprise transformation and upgrading. By developing modern service industries such as finance, information technology, cultural creativity, and high-end manufacturing, cities can achieve the upgrading and transformation of their industrial structure, enhance the connotation of economic development, reduce dependence on resources, and achieve sustainable development.

Meanwhile, resource-exhausted cities can also promote technological upgrading and transformation of enterprises by strengthening technological innovation. Cities can establish technological innovation platforms, encourage enterprises to increase investment in scientific and technological research and development, promote technological innovation, improve product quality and technological content, and achieve enterprise transformation and upgrading.

In addition, resource-exhausted cities can also promote industrial upgrading and transformation by promoting cooperation and sharing among enterprises. Cities can encourage industry chain cooperation among enterprises, jointly develop new products, share resources and information, and form a new pattern of industrial coordinated development, promoting enterprise transformation and upgrading.

Finally, the government plays an important role in promoting industrial upgrading and enterprise transformation in resource-exhausted cities. The government can introduce relevant policies to increase support for industrial upgrading and enterprise transformation, provide more policy and financial support for enterprises, and create a good external environment for urban industrial upgrading.

In summary, resource-exhausted cities face unique challenges and opportunities in promoting industrial upgrading and enterprise transformation. By guiding enterprises to adjust their industrial structure, develop modern service and high-end manufacturing industries, strengthen technological innovation, and promote cooperation and sharing among enterprises, resource-exhausted cities can achieve industrial upgrading and enterprise transformation, and achieve the goal of sustainable economic development. The government, enterprises, and market parties should work together to promote the industrial upgrading and enterprise transformation of resource-exhausted cities.

4.2 Strengthening environmental protection and promoting technological innovation

Resource-exhausted cities face severe environmental challenges, such as land destruction, water source pollution, air pollution, etc [6]. In order to strengthen environmental protection and promote sustainable development, these cities need to take a series of measures. At the same time, technological innovation is also an important means to achieve environmental protection and sustainable development.

Strengthen environmental protection and formulate strict environmental protection regulations and policies. Resource-exhausted cities should formulate and implement strict environmental regulations

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and policies, including reducing pollution emissions, strengthening environmental monitoring and governance, etc. Government departments can increase investment in environmental protection, strengthen law enforcement efforts, and ensure the implementation of regulations. Promote clean energy and energy-saving and emission reduction technologies: Cities can actively promote clean energy, such as solar and wind energy, to replace traditional high polluting energy. In addition, enterprises and residents should be encouraged to adopt energy-saving and emission reduction technologies to reduce energy consumption and emissions. Strengthen environmental monitoring and governance: Cities should establish a sound environmental monitoring system, timely grasp the environmental conditions, and take necessary governance measures. This includes monitoring and evaluating air, water quality, soil, etc., and managing and controlling pollution sources. Increase environmental education and publicity: Cities can raise public awareness of environmental protection and enhance residents' enthusiasm for participating in environmental protection by conducting environmental education and publicity activities.

Promote technological innovation and invest in supporting technological innovation. The government can increase investment in technological innovation and establish special funds to support scientific research and innovation projects. This will encourage enterprises and research institutions to increase their research in environmental protection related fields, and promote technological innovation and application. Establishing a scientific and technological innovation platform, cities can establish a scientific and technological innovation platform to promote cooperation and exchange between enterprises, universities, and research institutions. This will facilitate the sharing of technological resources and accelerate the transformation and promotion of scientific and technological achievements. Encourage the development of environmental technology enterprises. Cities can encourage the development of environmental technology enterprises, provide preferential policies and support, and attract more enterprises to invest in the field of environmental protection. These enterprises can carry out relevant technology research and development and provide solutions based on the characteristics of resource-exhausted cities. Strengthening international cooperation and exchange, cities can actively participate in international cooperation and exchange in environmental protection and technological innovation, learn from successful experiences and advanced technologies from other regions, and improve their own level of technological innovation.

In summary, resource-exhausted cities should strengthen environmental protection and promote sustainable development. By formulating strict regulations, promoting clean energy, strengthening environmental monitoring and governance, and conducting environmental education and publicity, cities can effectively reduce pollution emissions and protect the ecological environment. At the same time, by increasing investment in technological innovation, establishing technological innovation platforms, encouraging the development of environmental technology enterprises, and strengthening international cooperation and exchanges, cities can promote technological innovation, promote environmental protection, and sustainable development.

4.3 Optimizing the allocation of social resources and public services

With the changes in the social structure of resource-exhausted cities, the allocation of social resources and the demand for public services in cities will also change. This is because changes in social structure can affect residents' lifestyles, values, and consumption habits, leading to different demands and expectations for public services [7]. Therefore, cities need to optimize and adjust public services such as education, healthcare, and social security to meet the needs of different groups based on new social needs.

Firstly, education is the cornerstone of social development and one of the important public service areas in resource-exhausted cities. With the changes in social structure, people's demand for education is also changing. Cities need to provide diverse educational resources and services based on the needs of different groups. For example, opportunities for vocational education can be increased to meet the needs of economic restructuring and the job market; it need to strengthen support for education for special groups, including disabled children, left behind children, etc; Promote the construction of educational informatization, provide online educational resources, and meet the personalized learning needs of residents.

Secondly, healthcare is an indispensable part of urban public services. With the changes in social structure, people's demand for medical services is also changing. Resource-exhausted cities need to optimize and adjust the allocation of medical resources, improve the coverage and quality of medical services. On the one hand, it is possible to increase support and construction for grassroots medical

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institutions, improve the level of grassroots medical services, and reduce the pressure on large hospitals; On the other hand, advanced medical technology and equipment can be introduced to improve medical level and efficiency; At the same time, it can also promote the construction of medical informatization, provide convenient medical appointments, health record management and other services, and meet the personalized medical needs of residents.

In addition, social security is an important component of urban public services. With the changes in social structure, people's demand for social security is also changing. Resource-exhausted cities need to optimize and adjust their social security system to provide more comprehensive, fair, and sustainable social security services. We can strengthen assistance and support for low-income groups to ensure their basic living rights are protected; Promote the reform and improvement of social security systems such as pension insurance and medical insurance, and improve the level and coverage of security; Strengthen employment services and vocational training to enhance residents' employability and competitiveness.

In summary, with the changes in the social structure of resource-exhausted cities, cities need to optimize and adjust public services such as education, healthcare, and social security according to new social needs. This requires all levels of government and relevant departments in cities to closely monitor social changes, strengthen policy research and formulation, provide diversified public services, meet the needs of different groups, and promote the harmonious and stable development of society. Through these optimizations and adjustments, resource-exhausted cities will be able to better adapt to the challenges brought by social changes, achieve sustainable development and social progress.

4.4 Building an open, inclusive, and just urban social governance mechanism

In the process of social change, resource-exhausted cities need to adjust and optimize their governance and management systems to better adapt to the challenges brought about by social change [8]. This adjustment and optimization involves multiple aspects and requires in-depth consideration and effective measures by the government and relevant departments.

Firstly, the re planning of government agency functions is a crucial step. Traditionally, government agencies in resource-exhausted cities may focus more on resource development and environmental protection. However, with social changes and economic restructuring, the role of the government in promoting the development of emerging industries, promoting innovation and entrepreneurship, improving social welfare and public services has become increasingly prominent. Therefore, the government needs to re-examine its functional positioning, strengthen guidance and support for economic transformation and social development, and provide more powerful guarantees for urban development.

Secondly, the reform and innovation of the social management system are also crucial. With the adjustment of economic structure, the lifestyle, values, consumption habits, etc. of urban residents may change, which requires the city's social management system to timely adapt and meet new needs. For example, public services such as education, healthcare, and social security need to be closer to the actual needs of residents, while urban security, environmental sanitation, and other aspects also require more refined and intelligent management methods to improve the overall level of urban governance.

Finally, the adjustment of urban development strategies is also imperative. Resource-exhausted cities need to adopt a more open attitude and seek new development paths and growth drivers. This requires formulating more inclusive and flexible urban development plans, encouraging innovation and entrepreneurship, attracting talent and capital, and promoting diversified economic development. At the same time, cities also need to actively integrate into the national and global economic landscape, seek cooperation and exchange with other regions, and jointly explore new development spaces.

In summary, resource-exhausted cities need to adjust and optimize their governance and management systems in the process of social change. This requires the government and relevant departments to strengthen collaborative cooperation, promote the re planning of government institutional functions, reform and innovation of social management systems, and adjust urban development strategies, and build an open, inclusive, and just urban social governance mechanism, laying a solid foundation for sustainable development and social stability of cities.

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5. Conclusion

With the rapid development of social economy and changes in population structure, resource-exhausted cities are facing new challenges and opportunities. This paper aims to explore the challenges faced by resource-exhausted cities in social structure, economic development, urban governance, and other aspects from the perspective of social change, and seek corresponding transformation and development paths. This paper only provides a basic theoretical perspective, and this study hopes to be further explored in the future.

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References

[1] Y. Qian. Criterion for defining the resource-exhausted cities and its policy implication: take Liaoning province as an example [J]. Journal of Liaoning Technical University (Social Science Edition), 2007, (6):585-587.
[2] S. Y. Wang and S. Q. Guo. Study on Countermeasures for Sustainable Development of Resource-Exhausted Cities [J]. China Soft Science, 2012, (1):1-13.
[3] Q. Yu and J. Y. Wang. Economic Transformation of the Resourses - Exhausted Cities: Theories and Experiences [J]. Shandong Social Science, 2004, (5):39-43.
[4] W. D. Jin, J. J. Gong and Y. L. Yin. Social Structure Imbalance of Chinese Population: Theoretical Mechanism and Empirical Analysis [J]. Journal of Finance and Economics, 2017, (4):17-30.
[5] M. Yu. On the strategy of industrial transformation and upgrading in resource exhausted cities [J]. Journal of Jiangsu Vocational Institute of Architectural Technology, 2021, (4):98-100.
[6] X. Y. Zhang. Study on the correlation of resource-exhausted cities' environmental pollution and GDP——a case on Huangshi [J]. Journal of Hubei Normal University (Philosophy and Social Sciences), 2016, (6):68-73.
[7] N. Yao, Y.Z.Wang and L.H. Ke. Study on the evolution mechanism of cooperative transformation of resource-exhausted city composite system: a case of Huangshi City [J]. China Mining Magazine, 2023, (1):67-75.
[8] B.X. Jia. Resources Exhausted City Relief Mechanism of Social Crisis[J]. Coal Technology, 2012, (12):235-237.