

Development Direction of Land Consolidation Path under the New Urbanization Strategy

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Abstract

Under the background of new urbanization construction, land engineering faces enormous challenges and opportunities. Starting from the requirements of new urbanization for land consolidation in the new era, this article reveals the dual challenges faced by China's land consolidation work in the process of new urbanization in terms of resource and environmental carrying capacity and public utility construction. And it is pointed out that in the context of new urbanization construction, land remediation work should be carried out from aspects such as "deepening the implementation of the" comprehensive "remediation concept", "deepening the implementation of policy support and incentive mechanisms", "promoting the development of land engineering through the transformation of scientific and technological achievements", and further "developing land remediation projects with land management industry as the core", in order to further improve the service value of land engineering To provide certain reference for achieving rural revitalization and new urbanization construction.

Keywords

New Urbanization; Land Engineering; Land Improvement; Opportunities and Challenges; Approach.

1. Introduction

Land engineering refers to the remediation and restoration of degraded and polluted land resources through engineering methods and related supporting measures, ultimately making land resources cleaner and more valuable for development and utilization, including agricultural land remediation, construction land remediation, and comprehensive ecological land remediation. Land engineering is one of the important means to alleviate land conflicts, intensively and economically utilize land resources, improve rural living environment, and promote urbanization construction. China's urbanization path has made significant progress and achieved certain results. However, in the context of new forms of comprehensive rectification, comprehensive innovation, and the national rural revitalization and new urbanization strategy, the development, utilization, rectification, and protection of land resources, especially in promoting rural industrial development and urban-rural integration development, are facing unprecedented challenges. The development and construction of new urbanization in China is still in its early stages, and due to reasons such as uneven rural economic development, the progress of agricultural population urbanization is still very slow, and the quality of urbanization is not high. The focus of land engineering to promote new urbanization construction is currently mainly focused on agricultural land remediation, and there is still insufficient exploration of construction land and ecological land.

Land engineering plays a very important role in the process of national new urbanization construction, but existing research mostly focuses on theoretical analysis. There is little research on the specific implementation path, and the research results are not clear. Starting

from the connotation and necessity of new urbanization, this article proposes the important significance and implementation path of land engineering in the construction of new urbanization, thus promoting the further development of land engineering, Provide technical support for promoting rural revitalization and new urbanization construction.

2. The Requirements of New Urbanization for Land Consolidation

New urbanization is a urbanization construction model that focuses on people, advocates green, low-carbon, and environmental protection, and is developed to coordinate urban-rural coordinated development, optimize urban-rural industrial layout, and build ecological and livable development. While promoting intensive and economical use of land and improving land production capacity, it pays attention to ecological environment protection and the protection of cultural environments such as ancient villages, and promotes the construction of ecological civilization in the new era The key to achieving and building a moderately prosperous society in all respects. The high standards and requirements proposed at the national level have also brought enormous pressure to the further development of land engineering. The focus of traditional land engineering lies in the field of land improvement projects in rural areas, with insufficient emphasis on the public subject status of land owners, and the entire process of project implementation also neglects the interests of the masses. In addition, the construction of new urbanization has made clear regulations on prohibited, restricted, and suitable construction areas, with special emphasis on land development behavior for basic farmland and natural reserves. In addition, higher requirements have been put forward for the protection of ecological red line areas, ecological wetlands, and characteristic villages rich in historical culture.

Putting people first is the fundamental feature of new urbanization construction, and it is also one of the important measures to achieve socialist ecological civilization construction and promote rural revitalization. The construction of new urbanization includes the evolution from rural to urban areas, as well as the transformation of rural population to urban population. Developed countries have gone through a long process of urbanization construction. They have summarized their unique social development laws and the road to urbanization. Due to the particularity of Socialism with Chinese characteristics, China cannot completely copy foreign experience. Up to now, the overall development level of urbanization in China is poor, and the infrastructure in some urban areas is also relatively weak. The realization of urbanization process through a large number of rural Human migration in a short time does not meet the current social development law. The urbanization process is an important way to drive the transformation and upgrading of urban management methods and refined management. It should focus on reflecting the government's leading and leading role, doing a good job in top-level design, coordinating planning, and serving the people well. At the same time, it is necessary to adhere to the people-centered approach, take good care of the relationship between rural and urban populations, fundamentally improve the overall quality of rural and urban populations, and further leverage the enormous advantages of new urbanization construction.

3. Challenges Faced by Land Remediation in the Process of New Urbanization

China is mainly facing dual challenges in terms of resource and environmental carrying capacity and public utility construction in promoting the construction of new urbanization. On the one hand, China has the largest population base in the world, and the phenomenon of population aging is severe. The per capita resource share is very limited, and the serious water resource shortage problem will also face greater pressure with the increase of urban population. In

addition, China has fewer land and more people, and the per capita arable land occupation is less than the world average. Land resources are the ultimate material production base and food production guarantee for rural areas. With the promotion of the new urbanization road, the demand for arable land resources will continue to increase. With the continuous increase of national protection of arable land resources, land resource issues are also important influencing factors in the process of new urbanization construction. Once again, with the continuous progress of urbanization, the urban population will continue to grow, and the urban air pollution, water pollution, solid waste pollution, soil pollution, and household waste caused by population growth will also continue to increase. On the other hand, the Aggregate supply of urban infrastructure in China is still very insufficient, and it is difficult to bear the excessive urban population growth for a period of time. Some urban infrastructure operations are inefficient, the structure is unreasonable, and cannot meet the needs of economic and social development. In addition, due to the unbalanced development between urban and rural areas, there are obvious gaps in the construction of rural infrastructure in terms of housing security, basic medical care and educational conditions. No matter the number, type, function and level of infrastructure can be compared with that of cities and towns. The new urbanization road needs to take into account the unbalanced development of urban and rural areas as a whole, which will undoubtedly hinder the further progress of the new urbanization process.

4. Implementation Path of Land Remediation based on New Urbanization Construction

4.1. Deeply Implement the Concept of "Comprehensive" Rectification

Comprehensive land consolidation is a collection of agricultural land consolidation, rural construction land consolidation, and rural ecological restoration work. However, it is not a simple superposition of the three, but rather a full consideration of the internal connections between the various elements of the "mountain, water, forest, field, lake, and grass" life community. It is necessary to always remember and highlight the "whole region" concept, and combine it with the "one map" of national spatial planning to implement comprehensive planning, overall design, and comprehensive remediation. Efforts will be made to achieve diversified land remediation functions, urban environmental friendliness, and comprehensive development of ecological landscape patterns. In planning and design, it is necessary to deepen the connotation analysis of the "whole area", improve the station position, fully consider the soil, terrain, climate, land use status, local customs, living environment, and industrial integration development in the project area, propose targeted solutions and effective measures for existing problems, and organize various experts to conduct in-depth argumentation of the design content within the planning area. In the specific implementation process, it is necessary to refine the construction processes, processes, and methods of land remediation projects under the guidance of the rural revitalization strategy, comprehensively consider the current type of land in the planning area, natural suitability and production potential, as well as the engineering geological conditions and the possibility of applying machinery. In combination with social environmental conditions and economic factors, high standards of construction should be adopted, while optimizing the allocation of water resources and emphasizing agricultural measures such as soil fertility, Promote the improvement of the effectiveness of land ecological remediation.

4.2. Deeply Implement Policy Support and Incentive Mechanisms

Comprehensive land consolidation is a comprehensive land management model that integrates and optimizes agricultural land consolidation, construction land consolidation, and ecological land protection and restoration. It is also a powerful measure to promote rural revitalization

and the development of new urbanization. Therefore, it is necessary to fully apply policy support, conduct in-depth research on the trading channels and income management methods of supplementary cultivated land indicators, construction land surplus indicators, and carry out comprehensive land remediation in the entire region, while also making good use of relevant land policies. Secondly, the focus of comprehensive land improvement in the entire region mainly revolves around agricultural land, construction land, and ecological land. In project planning, it is necessary to fully analyze the potential for agricultural land consolidation, construction land consolidation, and ecological protection and restoration in conjunction with the planned development area. At the same time, it is necessary to coordinate the protection of arable land, ecological protection, rural landscape, and historical and cultural protection, forming a unified planning area. Building a new pattern of rural development with integrated content. In addition, we need to increase efforts to encourage and incentivize social capital investment such as new agricultural investment entities, optimize rural land management and utilization models, and seek new growth points for interests.

4.3. Promoting the Development of Land Engineering through the Transformation of Scientific and Technological Achievements

The transformation of scientific and technological achievements is an important way to promote the improvement and innovation of land engineering quality. The land improvement industry should take the land resource security strategy as a whole, focus on carrying out the work of three living space governance, and increase scientific and technological investment on the basis of combining existing land engineering technology, carry out research and development related to land engineering, from the treatment of degraded land, the restoration of polluted land, and the research and development of new materials and equipment in the field of land engineering, Further promote steady improvement in the field of land engineering. In addition, it is necessary to continue to carry out in-depth research and transformation in land engineering, sort out and integrate existing technology in the land engineering industry, decompose the implementation of each individual project, conduct targeted research on the technology optimization methods of each individual project, and apply and promote the research results in the project construction process. At the same time, purposefully carry out research on difficult issues such as Alkali soil treatment, heavy metal pollution land remediation, and degraded land use, so as to broaden the channels in the field of land remediation and provide necessary technical support for China's land and space remediation.

5. Relevant Suggestions in the Process of New Urbanization in China

Land engineering constructs the foundation for coordinated urban-rural development and resource exchange, which can optimize land use structure, improve land use efficiency, release land space, and revitalize land stock in the process of China's new urbanization construction, providing strong guarantees for China's industrialization and urbanization process. The task and goals of new urbanization construction have put forward higher requirements for land engineering, which provides effective means for the comprehensive improvement of urban and rural ecological space by constructing a rural ecological civilization pattern, improving the quality and grade of arable land. Land engineering is conducive to the comprehensive improvement of idle, scattered, and extensively utilized construction land, laying a solid foundation for the intensive and economical use of land in rural areas. At the same time, the implementation of land projects is conducive to improving rural infrastructure and human settlements, and is conducive to the scale of cultivated land and the development of agricultural modernization. Land engineering also contributes to the integration of agricultural resources. In the context of new urbanization, land engineering should delineate key remediation areas within the context of national spatial planning and overall land use planning, carry out

construction of farmland, roads, and ecological networks, fully integrate advantageous resources in land governance, industrial structure adjustment, and ecological compensation, and comprehensively plan the urban-rural construction pattern in rural population, production, life, and ecology, Promote the rational use of land, labor, and social capital factors, narrow the urban-rural gap, promote urban-rural integration development, and also promote regional economic development and new urbanization construction through the indicator benefits created by land engineering implementation, adding intrinsic impetus to rural land consolidation.

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