

Optimal Path of Land Rehabilitation under the Background of Rural Revitalization Strategy

Peiqin Qi

Shaanxi Dijian Technology Venture Bay Real Estate Co., Ltd, Xian Yang, Shaanxi 712023 China

Abstract

Comprehensive land management is a new development stage in my country. The comprehensive restoration project is also an important means to implement the idea of ecological civilization, promote the process of new urbanization, promote the overall development of urban and rural areas, and implement rural revitalization. This paper analyzes the important impact of comprehensive land consolidation across the entire region on the strategy of rural revitalization, and puts forward the advantages of policy opportunities, market demand, and technological support faced by the land consolidation industry from the perspective of rural regeneration. The further thinking and relevant suggestions of the company are expected to provide a certain reference for the development of the land consolidation industry in the future.

Keywords

Rural Revitalization; Land Engineering; Comprehensive Land Remediation; Implementation Path.

1. Introduction

China is a developing country dominated by agriculture. Up to now, the work of "agriculture, rural areas and farmers" is still the key content of building a moderately prosperous society in an all-round way and building a socialist modern country in an all-round way. In order to realize the continuous development of agricultural modernization and the continuous improvement of human settlements, it is the only way to promote rural revitalization and improve the new urbanization road. Rural revitalization is an important strategy put forward by China in the new era, aiming at improving the livability of rural areas, building the spiritual civilization of rural areas, building the industrial chain of rural products and improving the living environment. The strategy of rural revitalization has strong pertinence. Its main body is the countryside, and it also includes factors such as rural culture, life, external environment and various resources. Therefore, the renovation of land can not only pursue economic benefits, but more importantly, it is necessary to do a good job in the screening and inheritance of rural culture, the improvement of living standards, environmental protection and the use of resources and other links of synchronous construction. At the same time, the main target of land remediation in China is also in rural areas. With the continuous refinement of farmland protection policies and the continuous improvement of requirements, the implementation of projects such as the balance of occupation and compensation and the linkage of urban and rural construction land has greatly increased the number of cultivated land and provided a strong guarantee for the land demand of urbanization development nationwide. With the continuous improvement of the economic level and the requirements for ecological environment protection in recent years, the mode of land remediation has also undergone great changes. The land remediation idea with the goal of "increasing the area of cultivated land and improving the productivity of cultivated land" has been difficult to adapt to the requirements of the current era.

2. The Important Impact of Comprehensive Land Improvement on Rural Revitalization

In 2003, Zhejiang Province took the lead in making two strategic decisions, namely, "building an ecological province" and implementing "thousand village demonstration and ten thousand village renovation". Focusing on the improvement of the three major environments of rural production, life and ecology, it promoted the rural land renovation work, changed the rural landscape of Zhejiang Province, and created a good start for the comprehensive land renovation work. In September 2018, the CPC Central Committee and the State Council issued the Strategic Plan for Rural Revitalization (2018-2022), which coordinated urban and rural development space, made comprehensive arrangements and overall layout for the development, protection and renovation of land space, accelerated the comprehensive renovation of land, and implemented major actions for the comprehensive renovation of rural land. In March 2019, the General Office of the CPC Central Committee and the General Office of the State Council forwarded the Report of the Central Agricultural Office, the Ministry of Agriculture and Rural Affairs, and the National Development and Reform Commission on Deeply Studying the Experience of the "Thousand Village Demonstration and Ten Thousand Village Renovation" Project in Zhejiang Province and Firmly Promoting the Renovation of Rural Human Settlements. In 2019, the Ministry of Natural Resources issued the Notice on Carrying out the Pilot Work of Comprehensive Land Remediation in the Whole Region (TZF [2019] No. 194), which formally defined the objectives and tasks of the pilot work of comprehensive land remediation in the whole region, and highlighted the important contents of comprehensive land remediation and ecological protection and restoration. Comprehensive land remediation is to optimize the overall layout of rural ecological agriculture construction space, and comprehensively renovate the whole area of "mountains, water, forests, fields, lakes, and grass". Compared with traditional land remediation, the implementation scope is larger, the consideration factors are more comprehensive, the methods are more comprehensive, and the effect is more perfect. The most important content is to improve the quality of high standard farmland in the region, and revitalize the rural stock construction land. It is a comprehensive project to promote the integration and development of new rural construction and related industries, and carry out unified treatment and restoration of rural ecology and human settlements.

3. Opportunities for Land Improvement Industry in the Context of Rural Revitalization

3.1. Rural Revitalization Ushers in Major Opportunities

China has entered a new period of development. In order to achieve a decisive victory in building a moderately prosperous society and realizing agricultural modernization, the report of the 19th National Congress of the Communist Party of China put forward the implementation of the "rural revitalization strategy" for the first time, which organically combines the system and mechanism of building beautiful villages with the construction of new urbanization. The implementation of the rural revitalization strategy will undoubtedly bring about profound changes in the social economy, human-land relationship and spatial pattern of rural areas. In 2018, the CPC Central Committee and the State Council issued the Opinions on Strengthening Ecological Environment Protection in an All-round Way and Firmly Fighting the Struggle for Pollution Prevention and Control (ZF [2018] No. 17), proposing to comprehensively strengthen ecological environment protection, fight the battle for pollution prevention and control, and effectively implement the action plan for soil pollution prevention and control, Control soil environmental risks of agricultural land and urban construction land. Land is the main body of the construction of ecological civilization. The report of the 19th National Congress of the

Communist Party of China proposed "carry out land greening action" to win the battle for the protection of clean land, and also provided a good opportunity to accelerate the pace of ecological land construction. In addition, since the 18th CPC National Congress, the CPC Central Committee has made a series of major decisions and arrangements to promote rural revitalization and the construction of new urbanization, which has greatly promoted the development of new industrialization, agriculture and informatization with Chinese characteristics. The report of the 19th CPC National Congress pointed out that we should build a new pattern of coordinated development of large, medium-sized and small cities and towns with urban agglomeration as the main body. In 2021, the CPC Central Committee and the State Council issued the Opinions of the CPC Central Committee and the State Council on comprehensively promoting rural revitalization and accelerating agricultural and rural modernization (ZF [2021] No. 1), which once again raised the rural revitalization strategy and the new urbanization strategy to a new political height. In addition, food security is an important factor affecting China's economic and social development and social stability. With the growth of population and the upgrading of consumption structure, the total amount of food production and demand will increase, and the structural contradictions will intensify. The problems of "non-agricultural", "non-grain", "fragmentation", "loneliness" and "marginalization" of cultivated land resources are highlighted year by year. As an important carrier of food production, the importance of land resources is increasing day by day, The improvement of grain production capacity is closely related to the quality of cultivated land, and the degree of improvement of cultivated land by land remediation is the most direct factor affecting the improvement of grain comprehensive production capacity.

3.2. Facing Huge Market Demand

In the context of rural revitalization, land remediation has become a necessary means to solve the problems of "non-agricultural", "non-grain", "fragmentation", "loneliness" and "marginalization", promote the appropriate scale of agricultural operation and the optimization and upgrading of agricultural industrial structure, improve the efficiency of land use, ensure national food security and output efficiency, and actively implement the requirements of the "two mountains theory". With the steady development of China's economy and society, under the constant promotion of the rural revitalization strategy, the ecological land construction strategy, the new urbanization construction strategy and the food security strategy, the market space of the land remediation industry will be greatly released, and the market scale of the land remediation business will be further expanded in the future. At the same time, the key to the rural revitalization strategy is "industrial prosperity", the premise is "ecological livability", the soul is "rural style civilization", the guarantee is "effective governance", and the fundamental is "rich life". The report of the 19th National Congress of the Communist Party of China put forward that "adhere to the priority development of agriculture and rural areas", the agricultural green development is the cornerstone, the overall planning is the guarantee, and the need to take multiple measures to promote together, so the requirements for the land remediation industry are also increasing. The thinking of the comprehensive land improvement work in the whole region will be changed to "based on the clean land project", "ecological construction as the premise" and "people's yearning as the goal". The focus of the comprehensive land improvement work in the whole region will also be shifted to the land renovation and restoration, mine restoration, ecological environment restoration, contaminated land restoration, inefficient construction land upgrading, urban renewal and other regional restoration and revitalization to revitalize the construction land stock and improve the overall ecological environment of the region. As a result, a large number of professional companies for soil remediation, ecological environment remediation and human settlements remediation have been derived. However, some of them have been transformed from civil engineering companies specializing in land remediation. After the large-scale opening

of the market, the professional echelon will be reconstructed to meet the requirements of rural revitalization and development.

3.3. Possess the Advantages of High-End Technical Resources

The focus of rural revitalization is to ensure the improvement of land reuse and ecological environment. The improvement of comprehensive quality and utilization efficiency of land resources cannot be separated from the investment of scientific and technological forces. With the development of the times, China's land remediation work has undergone a great change from extensive to meticulous, and from machinery to manpower. Up to now, a large number of advanced science and technology have been applied to land remediation projects and achieved remarkable results. From the perspective of field survey, with the support of advanced high-precision remote sensing image technology at home and abroad, such as Google Earth, Bigmap, Ovi Interactive Map and Sky Map, as well as UAV aerial photography technology, the time cost and labor cost of land remediation have been greatly integrated; From the perspective of office work related to land remediation, a series of computer-aided processing technologies such as ArcGIS, MapGIS, Auto Cad, Gland, and "Sky" have appeared successively, which greatly improved the efficiency of office work and simplified the process of making relevant maps and data. With the popularization of GPS and GIS related technologies, the refinement of land remediation work has been continuously improved, and the level of project location, topographic mapping, planning and design has also been continuously improved.

4. Relevant Suggestions on Land Improvement and Development in the Context of Rural Revitalization

The comprehensive renovation of land in the whole region is a collection of agricultural land consolidation, rural construction land consolidation and rural ecological restoration, but it is not a simple superposition of the three, but it is necessary to fully consider the internal links between the elements of the "mountain, water, forest, field, lake, grass" life community, and always keep in mind and highlight the "whole region" concept, and implement the whole region planning, overall design, and comprehensive renovation in combination with the "one map" of land space planning. Efforts should be made to realize the comprehensive development of diversified land remediation functions, environmentally friendly cities and towns, and ecological landscape patterns. In the planning and design, it is necessary to deepen the connotation analysis of "whole area", improve the station position, fully consider the contents of soil, terrain, climate, land use status, local customs, human settlements and industrial integration development in the project area, put forward targeted solutions and effective measures for the existing problems, and organize various experts to conduct in-depth demonstration of the design content in the planning area. In the specific implementation process, it is necessary to refine the construction processes, processes and methods of the land improvement project under the guidance of the rural revitalization strategy, comprehensively consider the current type of land in the planning area, natural suitability and production potential, engineering geological conditions and the possibility of applying machinery, combine social environmental conditions and economic factors, adopt high standard construction, optimize the allocation of water resources, pay attention to agricultural measures such as soil fertility, Promote the improvement of land ecological remediation effect.

Global innovation and scientific and technological guidance are important means for the comprehensive renovation of rural land in the context of rural revitalization. The future development of the land renovation industry should be based on the strategic requirements of land resource security, face the improvement of urban and rural life, production and ecological environment, rely on the basic research of the existing land renovation project, attach importance to the transformation and promotion of science and technology, and take the "Pure

Land" project as the core, first of all, eliminate pollution from the basic soil level of cultivated land, Vigorously develop the application of advanced technologies in the field of land reclamation, such as the combination of soft sandstone and sand, the filling and reclamation of coal gangue, the restoration of contaminated land and the organic reconstruction of soil. At the same time, we should vigorously develop green, pollution-free and sustainable new technologies and methods for ecological integrated land remediation to help build beautiful villages. In addition, it is necessary to integrate the existing land remediation industry platforms and resources, actively combine the advantageous scientific and technological resources in the land remediation industry, strive to create a national level scientific research platform for the land system, develop the informatization of land remediation projects, realize the dynamic management and control of the whole process, vigorously promote the deep integration of "land engineering+digital technology", and promote the comprehensive land remediation The development of national-level scientific research platforms and big data platforms for comprehensive and systematic technological research and technological research and development, such as "mountains, waters, forests, fields, lakes, and grasses", such as comprehensive land development, and on this basis, accelerate the output of scientific research achievements and encourage their transformation and landing.

5. Conclusion

Under the background of rural revitalization, carrying out the comprehensive land improvement work in the whole region is an important way to realize the economical and intensive use of land in rural areas, and also an important measure to promote poverty alleviation, realize the new urbanization process and realize socialist modernization. The comprehensive improvement of land in the whole region is closely related to the improvement of rural life, production and ecological living space. It has a significant impact on the optimization of land use structure and layout and the overall arrangement of land use and land production activities. It is also an important starting point and basic bearing for promoting the construction of new rural areas, solving and improving the living conditions of rural residents. For a long time in the future, the comprehensive land remediation work in the whole region will be a hot spot in the land remediation industry. It will continue to expand the space for urban and rural economic development, coordinate urban and rural development, and promote urban and rural integration through the reallocation of land resources. At the same time, efforts should be made to optimize the land use pattern, ensure the land for rural industrial development, and consolidate the foundation for industrial development; Finally, we should expand green ecological space, pay attention to environmental protection and ecological restoration, and promote the construction of beautiful villages.

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