# The institutional conditions for the evolution and innovation of the land consolidation model in China

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Key words: Land improvement mode, Institutional conditions, Evolution and innovation

Abstract: with the development of social economy, China's land consolidation model is evolving. The goal of land consolidation is from simply pursuing the increase of cultivated land quantity to improving the quality of cultivated land, and then to pursuing the coordination between human and land and constructing the life community. In order to further expand the vitality of land consolidation, the latest model of land consolidation is the comprehensive land remediation model, which requires the coordination of the relationship between population growth and urban and rural development, social progress and the sustainable use of natural resources. With overall planning, funds and coordination as the core, the construction of fields, water, roads, forests, villages and cities will be linked with various projects, villages and towns will be incorporated into the whole geographical space, and the allocation and utilization of various types of land such as production, life and ecology will be promoted and coordinated. Under the restriction of the cultivated land quota system, the clear property right, the effective utilization of resource characteristics and the innovation of the system are the foundation for the land remediation innovation model to play its role.

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#### Introduction

China's land consolidation starts from the project-based governance of state investment [1], then the management style have changed to the distribution of funds to the provincial level and the decentralization of project management power. It gradually forms the management pattern of "supervision at the central government level, overall responsibility at the provincial government level, organization and implementation at local level". Through the continuous transformation of the regulation mode from "agricultural land consolidation - Rural construction land replacement - comprehensive rural land arrangement - overall area land arrangement", the target of land consolidation has been continuously explored and developed from "increasing effective arable land area to becoming a platform to promote rural revitalization and development". Conceptually, the comprehensive improvement of the rural land, not only including the agricultural land consolidation, also including land management related to village infrastructure and the supply of public service facilities. It also improve rural production and living conditions and ecological environment, making the rural environment to become a Sustainable development system with promoting the urban-rural integration process. In practice, land consolidation has the tendency of localization, diversification and differentiation, which cannot be fully explained by the land development right transaction (Wang, 2009) and Project application and packaging at local level(Tan, 2015). The task can be achieved is limited in various regions. During the process of interest coordination of different stakeholders, such as the department, the government, the villagers. The constraint of the regime due to the central government of the land use quota system, making the project most still be given priority to in order to accomplish the task, or the target for urban development contribution index. So how to better achieve the goal of land remediation? By investigating the mode evolution and institutional constraints of land remediation, this paper finds that clear property rights, resource utilization and institutional innovation are the basic guarantee for land remediation to continue to develop and maintain its vitality.

#### 1. China's land improvement system and farmland protection

From the perspective of system, land improvement is inseparable from the most rigorous cultivated land protection system implemented by the central government. To study the evolution of land regulation mode, we need to study the balance system of occupation and

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compensation in China.

## 1.1 China's quota system for farmland protection

China realizes farmland protection through the balance system of occupation and compensation, which adopts a quota system of four main quotas, the maximum quota of construction land that cannot be exceeded and should be in the scope of planning, the minimum quota of cultivated land that should be preserved, the annual quotas of newly added construction land for urban development or industrial, and Supplement of cultivated land which the other cultivated land be changed into the construction land. In other words, the occupation of agricultural land by local construction land must meet the requirements of the four indicators at the same time and become a land control system with Chinese characteristics. As a link of "supplementary cultivated land", the supply of land consolidation project is bound to be constrained by institutional space. Its aim of Public good provision is constraints by increasing new cultivated land.

## 1.2 land improvement and farmland protection

Under the institutional constraints of quotas for cultivated land protection in China, the objective of farmland protection for land consolidation is transformed into new cultivated land quota in practice. One of the most important roles is to "supply cultivated land", while new cultivated land quota is directly related to supply of the urban construction land, that is, the source of local "land finance". Under such a leading goal, the supply of public goods for land consolidation seems to be a derivative of new cultivated land. Initially, the way of land consolidation to increases the effective cultivated land area mainly by means of engineering measures such as sorting, development and reclamation of the land. The remediation targets are mainly non-construction land or mine abandoned land. However, due to the imbalance of regional economic development, the different land use requirements, the mismatch of cultivated land and supplementary cultivated land resources, the cost of land consolidation to obtain new cultivated land quota far exceeds the cost of land development and reclamation to complete the task of replenishing cultivated land, resulting in the adoption of tidal flats. The supplementary farmland development method for reclamation and wasteland development is easier to obtain, and the local enthusiasm is also greater. The way of replenishing cultivated land such as development or tidal flat reclamation does not need to satisfy the demand for public goods supply, and even lead to ecology. The bad effects of destruction, but also the shortcomings of insufficient supply of backup resources. Therefore, in order to meet the land use needs of local economic development, developed regions have created a Zhejiang model of "transfer of indicators to compensate for adjustments", "recovering indicators" and "replenishing cultivated land in different places" to transfer and trade land development rights (Wang & Tao, 2009). In Chengdu, the Chengdu model (Li Qian, 2013), which uses the national unified urban and rural comprehensive reform pilot zone from agricultural land consolidation to construction land consolidation (Li, 2013), is based on the system exploration under the goal of land supply

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"supply of cultivated land". The re-emergence index of the Zhejiang model and the comprehensive rectification of the Chengdu model were finally recognized by the central government, which led to the introduction of the "urban-ratio growth and deduction" policy. As a result, land remediation to achieve the "farmland supply" remediation object extended to construction land, especially to rural residential areas and township enterprises land, and laid a policy basis for comprehensive land remediation.

## 1.3 Project-based governance of land consolidation

The project-based governance is a way for the state to allocate resources through fiscal transfer payments. It is a governance model that integrates the state from the central to the local level and the various fields of society (Qu, 2012). On the one hand, for land remediation, the central, provincial and local governments have invested in land remediation projects in the form of special funds to realize the supply of public goods. Under the regime of construction land control, the composition of capital investment implies the development of rural areas. The right to transfer to the town, the economic spillover of urban development should cover the countryside. Therefore, the central government will restrict the land consolidation of new construction land use fees to the national major projects (the central reserved part) and the high standard farmland construction (the central return part). Therefore, the special sources of funds used for land consolidation include: The central return portion of the construction land paid use fee, the cultivated land reclamation fee, and the land transfer income will be used for agricultural development. In addition, the newly added effective cultivated land area cannot be used for the balance of occupation and compensation, that is, the role of "supplying cultivated land" cannot be achieved. However, regardless of the source of funds, the national land remediation adopts the project management approach. On the other hand, after the new construction of the paid use fee is divided into the provincial level, the provincial department has exercised the power of the project-based governance resource allocation on behalf of the central government. Therefore, "Contract awarding" from the provincial department and carry out the provincial "plate". The process of "segmentation", the operation logic of the project-based governance of the land consolidation project, and the top-down control logic still follows the provincial level (Zhe & Chen, 2011).

#### 2. Evolution of land consolidation model in China

#### 2.1 Agricultural land consolidation mode

The pattern of agricultural land consolidation mainly refers to the development of unused land for cultivation, the destruction of land, and the consolidation of fields to achieve new cultivated land. The newly added cultivated land is used as a "supplementary cultivated land quota ". China began to implement land consolidation projects in 2000 year. From the central government to the localities, the relevant land consolidation agencies were established from top to bottom. The Ministry of Land and Resources issued the policy<sup>①</sup> to implement land consolidation projects from projects from project-based governance. In the process of project implementation,

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the central government has strengthened the project management technology in order to avoid project implementation, and has formed a complete technical system from project declaration, supervision, assessment and evaluation. The funds are uniformly allocated by the government through special funds.

The Ministry of Land and Resources issued a policy<sup>(2)</sup> that the state established a library of national investment land development and consolidation projects at the provincial level in 2004. To delegate part of the management rights of the project to the provincial level. The central government issued policy<sup>(3)</sup> to allocate funds for land consolidation projects to the provincial level by means of new construction land paid use fee sharing in 2007. The project investment is mainly provincial-level investment, emphasizing that the investment scope of land consolidation projects is inclined to high-standard farmland (Gui,2014). With the construction and promotion of protection, this kind of land remediation project is mainly based on the construction and land- consolidation project supplemented by cultivated land is carried out separately in the form of project system. This process embodies decentralization of the management power of land consolidation projects from the central to the local gradually. At this stage, the land consolidation is mainly the agricultural land consolidation model. The main objective is to increase the agricultural infrastructure and improve the agricultural

main objective is to increase the agricultural infrastructure and improve the agricultural production conditions. At the same time, it is necessary to increase the effective cultivated land area to achieve the balance of occupation and compensation.

## 2.2 Mode of linking the increase and decrease of urban and rural construction land

Generally, the rural residential land, industrial and mining wasteland will be reclaimed as cultivated land, and mining rural construction land will increase the urban construction land. Therefore, the increase and decrease linkage model not only solves the "planning quota" and "replenishment of cultivated land quota". The increased linkage model for urban and rural construction land originates from the rapid development of urban development, and the central government's strict control over the occupation of cultivated land by construction land has spawned policy innovations achieved by local governments to resolve the contradiction between the rapidly growing land use needs and regional development imbalances.

The "Rehabilitation quota" model for the transfer of land development rights in Zhejiang in 1999 (Wang & Tao, 2009), document<sup>(4)</sup> published in Zhejiang proposed "the rural residential areas and industrial enterprises that were relocated according to the plan, have retired The area of land and retreat can be replaced by agricultural land in the new site as a new construction land"in 1999. This policy was raised to local regulations in 2000[1]. In fact, the central government also recognizes the policy of Rehabilitation quota, and regards it as an incentive to promote land consolidation [2], so that the policy of Rehabilitation quota is legal accepted accoss the country.

Chengdu became one of the pilot areas for national comprehensive reforms approved by the state in 2007. Chengdu has explored the coordinated reform of urban and rural areas and

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accumulated rich practical experience since 2004. It shows that coordinating urban and rural areas will not only hinder and delay urbanization and industrialization, but also effectively promote the healthy development of urbanization and industrialization. While increasing the local government's transfer payments to rural areas and farmers, it will use the rare opportunity of urbanization to accelerate the release of the enormous energy of the differential land income, return the property rights originally owned by the farmers to the farmers, and legally transfer the land through the urban and rural barriers. Dealing with the unified land market, a new pattern form for farmers and all relevant stakeholders to share the value of urbanized land (Zhou, 2010). Therefore, Chengdu has actively innovated in the land consolidation mode, and has formed a link between urban and rural construction land including land leasing mode, rural collective construction land use, auction, hanging mode, share cooperative mode, and joint construction mode. In 2008, the Ministry of Land and Resources issued a plan<sup>5</sup> to clarify the pilot program for the increase or decrease of urban and rural construction land, and increase the scope of the pilot. At the end of 2010, the State Council issued<sup>6</sup> issues for the pilot problems in various regions, and further strengthened the link model for urban-rural construction land increase and decrease as land. Renovate important patterns.

#### 2.3 Comprehensive land consolidation model

With the gradual advancement of land consolidation, the Ministry of Land and Resources Document 7 in 2010 clarified that land consolidation should be changed in and combined with simple supplementary cultivated land to improving cultivated land quality, High standard farmland construction, saving and intensive land use, promoting new rural construction, urban and rural development and so on. The direction of land consolidation investment has gradually changed into a comprehensive land remediation model, requiring land consolidation to achieve comprehensive task of protection and restoring fields, water, roads, forests and villages. Zhejiang Province took the lead in issuing the document<sup>®</sup> to open the whole land consolidation model in the whole province in 2018. It is an innovative model in which the land consolidation model has evolved to a certain stage. This model will link up multitasking, such as agricultural land, high-standard farmland, urban and rural construction land, and improving the ecological environment, rural culture construction, rural residence and changes in industrial conditions. All the task are included in a unified project planning though planning guidance in a local administrative region. The comprehensive improvement of land in the whole region puts forward new and higher requirements in three aspects of ecological civilization, spatial planning and efficiency change (Tan, 2018). From the perspective of harmonious coexistence between human and nature, we should adhere to planning and lead the way, establish and improve the working mechanism of government-led, departmental coordination, and mass participation, and achieve new requirements for ecological construction, rational use of land space, and farmers' shared results through land consolidation.

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#### 3. Institutional conditions driving the evolution of the model

China's land consolidation on project has not only the engineering measures on "natural objects", and also transformed to comprehensive land consolidation, which become an institutional platform for rural development now. The goal of land consolidation has been extending from improving farmland infrastructure to ecological restoration, poverty alleviation, regional development and rural areas. In the process of revitalization and other multiple objectives with the land consolidation model constantly evolving, three things would have an important impact on the realization of land consolidation goals: the property rights, resource characteristics, and institutional innovation are clearly defined.

On the one hand, it is of great significance to clarify the property rights to ensure the development of the land and the protection of the interests of the peasants. As the goal of land consolidation is constrained by land supply quotas, the key to the breakthrough of the urbanrural construction land increase linkage model is to break through the limitations of the original land use indicators, thus stimulating vitality. The foundation of the joint mode and unified construction of the Chengdu model is based on the clarification of property rights. Since the peasant homestead is owned by the collective, the peasants can enjoy their ownership for life. However, in the process of transferring land development rights realized by land remediation, capital entry must require clear confirmation of rights. Unclear property rights will increase the risk of capital entry and reduce the possibility of capital entry. At the same time, the clarity of property rights also increases the value of potential land assets, increases the base of farmers' bargaining, and leads to an increase in the input of capital into public goods. For example, the construction of public infrastructure is required to ensure the ecological environment and The provision of public goods such as education and medical care, and greater value through the capitalization of public goods, is conducive to the realization of multiple objectives of land consolidation.

Second, the resource characteristics mean that the locality itself has irreplaceable resource advantages that can be tapped, including closer distance, better natural environment, and key policy support. In the process of land consolidation, the phenomenon that all kinds of investment are concentrated in a certain town and a village, because the town or village has better resource advantages, and it is easier to bring obvious investment effects and performance, making over-investment Lead to uneven resource allocation. However, the realization of multiple objectives of land consolidation needs to solve the problem of capital investment, and the power of mining capital is also the way to solve the problem. The sense of smell of capital is related to value. The problem of land consolidation to solve the problem of land supply can only ensure that the funds are willing to invest in the indicators, but they cannot solve the problem that the funds must bear the supply of public goods. At the same time, the intensity, size and speed of capital investment are related to the advantages of the resource itself. The advantage of resources can show the value through the market, and it can attract more capital. Third, institutional innovation is to encourage local governments to find institutional breakthroughs and achieve institutional innovations in order to solve problems in practice.

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Under the political system of decentralization in China (Zhou,2007), the central government's policies are implemented locally. Due to the differences in regional conditions, the implementation efficiency is constrained by information asymmetry and transaction costs, which leads to the mismatch between policies and local conditions. In order to solve the problem of efficiency of implementation, the central government will give the local a certain degree of autonomy, and the locality will also "bottom-up" anti-control to find institutional space, or seek institutional breakthroughs. When the practical effect is obvious, the central government will also affirm, and Promote good systems to other places. The evolution of the land consolidation model also reflects the process of this system breakthrough. The locality always starts from the local actual demand and gradually forms the breakthrough and innovation of the system, which leads to the innovative mode of land remediation becoming a means for rural development and revitalization.

## 4. Conclusion

Due to the difference between the central policy and local demand, the land consolidation under the constraint of China's quota system is constantly evolving, and the goals and functions that can be achieved by land remediation are also changing. Under the policy of building a beautiful China and realizing the central policy goal of rural revitalization, only by building an institutional environment with clear property rights, making full use of resource characteristics, and constantly seeking for appropriate institutional innovation, can a foundation be established for land consolidation to play a better role.

## Note:

(1)(2)(5)(7): Document of the Ministry of Land and Resources

- (3): Document of the ministry of finance and the ministry of land and resources
- (4): Document of Zhejiang provincial party committee
- 6: Document of State council
- (8): Document of Zhejiang provincial people's government

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