Academic Journal of Management and Social Sciences
ISSN: 2958-4396 | Vol. 5, No. 2, 2023

Analysis on the Path of Continuous Reconstruction of Urban Villages in Shenzhen from the Perspective of Integration of Industry and City

Jian Peng

School of Economics, Shenzhen Polytechnic University, Shenzhen, Guangdong, 518055, China

Abstract: As an international metropolis, Shenzhen is grappling with increasingly strained land resources after years of development. At present, the new construction land that can be developed is very scarce, shifted the city into the secondary urbanization stage with the development of stock land as the main factor. As the main source of Shenzhen's stock land, urban village land is of great significance to the construction planning of the integration of industry and city. However, a large number of urban village land managed by community joint-stock cooperative companies involves historical issues, illegal and inefficient use, complicating the secondary development of Shenzhen's stock land. The application of the Theory of Urban Land Value-added Income Distribution reveals a decreasing number of urban village projects meeting the threshold for Urban Renewal. Simultaneously, the commercial return rate of Land Preparation and Interest Coordination is declining, posing challenges to the large-scale continuous transformation of urban villages in Shenzhen. In order to solve the dilemma of urban village reconstruction caused by the complex Dual Land Structure in Shenzhen, based on the analysis of Urban Renewal and Land Preparation Theory, this paper innovatively proposes the mode of "Industrial Preparation + Urban Renewal", which is consistent with the planning basis of the integration of industry and city in Shenzhen. Through the project of "Longhua Meiguan Innovation Corridor Industrial Block", this paper analyses in detail how to coordinate and promote Industrial Preparation and Urban Renewal, how to simplify the process of dealing with the historical issues of land on the basis of respecting historical objective facts, and how to optimize the transformation process to realize the decentralization in the theory and practice of continuous transformation of villages in cities. In this way, the legal land indicators of Urban Renewal and Land Preparation can be complemented, the process of approval and negotiation can be optimized, and the overall development of the project can be increased on the premise of lower legal land indicators, so as to realize the balance of interests among all parties and the overall planning of the integration of industry and city.

Keywords: Integration of Industry and City; Land Dual Structure; Land Preparation; Urban Renewal; Urban Village.

1. Introduction

The rapid development of Chinese megacities in the last decades have been mainly characterized by top-down planning and large-scale urban development and redevelopment (Yawei Chen and Lei Qu 2020) [1]. At present, Shenzhen strategically prioritizes the development of the "20 + 20" industrial cluster to build itself into an important and leading global center for advanced manufacturing, and proposes a continuous augmentation of housing supply, with a specific focus on alleviating housing challenges for new citizens and young people. Moreover, Shenzhen will further strengthen the synergy between industrial development and urban construction, and implement the plan of integration of industry and city. Advanced urban infrastructure and supporting services are imperative for the development of industries, while urban construction needs industries with development vitality and supporting capacity. In addition, Shenzhen also needs to prioritize addressing housing challenges and continuously increase the housing supply, which can alleviate the housing pressure, improve the allocation efficiency of resources within the city, and promote the balance and sustainability of urban development. The integration of industry and city can promote industrial development and urban construction, form a virtuous circle, thus contributing to and enhance the overall development level of Shenzhen.

There is contradiction between the growing population and limited land resources as well as the barriers to industrial clustering formation(Liu Guiwen, Li Cheng and Zhuang Taozhi 2022)[2]. Nevertheless, urban villages in Shenzhen remain a primary reservoir for industrial and residential land, Shenzhen's urban villages still have nearly 300 square kilometers of land untapped. At present, market forces mainly revitalizes the land of urban villages via processes such as Urban Renewal, Land Preparation and overall development of reserved land. The urban renewal not only includes real estate and industrial parks, but also covers renewal of municipal infrastructure and transportation facilities (Guiwen Liu, Zhiyong Yi and Xiaoling Zhang 2017)[3]. Urban Renewal is mainly influenced by market factors, but when excessive marketization leads to challenges to social equity, government regulation will become an effective means to make up for market deficiencies (Yin Jie, Si Nan and Zhang Wenjia 2021)[4]. The Urban Renewal process takes an average of seven to eight years from the establishment of the renewal unit plan to the completion of the reconstruction, which involves complex procedures such as willingness collection, surveying and mapping, negotiation, special planning approval, etc. Therefore, the government, as the supervisor of the transformation, must legislatively regulate the Urban Renewal process of urban villages. In 2020, Shenzhen promulgated the Regulations on Urban Renewal of Shenzhen Special Economic Zone. On the basis of the old policy, the new regulations raised the threshold of willingness collection and solved the problem of "Nail Households", and

also focused on cracking down on speculation in relocated houses(Regulations of Shenzhen Special Economic Zone on Urban Renewal,2020)[5]. Moreover, the new policy not only encourages the transformation of urban villages at the policy level, but also conforms to the national strategic policy of "No Speculation in Housing".

In 2018, Shenzhen promulgated the "Measures for the Management of Land Preparation and Interests Coordination in Shenzhen", followed by the "Measures for the Coordination of Land Preparation Interests in Shenzhen" (draft for comments), which clarified the types of land for the Coordination of Interests and the importance of implementing agreements for land preparation projects. This initiative innovatively proposes linking Land Preparation and Interest Coordination projects with Urban Renewal projects to achieve win-win situation. In addition, Shenzhen has also issued relevant legal documents, such as "Shenzhen Land Price Calculation Rules", "Shenzhen Urban Planning Standards and Guidelines", "Decision on the Treatment of Illegal Buildings Left over from the History of Rural Urbanization", aiming to meticulously refine each phase of the urban village transformation process and establish a solid legal foundation for the transformation.

However, in the execution of Urban Renewal and Land Preparation, there are some contradictions between the approval process and implementation, resulting in a large number of potential land in urban villages which can not be released. In order to further promote the efficient development and utilization of Shenzhen's stock land and to materialize the Industry-City integration plan, based on the "Shenzhen Land and Space Master Plan (2020-2035)" and the "Shenzhen Urban Renewal and Land Preparation". It is of great theoretical and practical significance to explore the mode of "Industrial Preparation + Urban Renewal" for promoting the large-scale urban village reconstruction in Shenzhen. Based on the Theory of Urban Land Value-added Income, this paper mainly delves into the advantages and disadvantages of Land Preparation and Urban Renewal theory, while also examining the positive significance of the "Industrial Preparation + Urban Renewal" model in achieving the integration of industry and city, as well as in the ongoing transformation of urban villages. This paper also concentrates on realizing the integration impact of industry and city in the transformation of urban villages in Shenzhen through the comprehensive utilization of legal land indicators, a simplified approach to handling disputed land from a historical perspective, and process optimization.

2. Dilemma of Urban Village Reconstruction in Shenzhen

Since the founding of Shenzhen, after the self-expropriation, unified expropriation and urbanization of the original rural collective economic organizations, the land ownership in the whole city has been state-owned in theory, but there is still an obvious bifurcation in management authority, resulting in the division of land into two distinct realms.. It is managed, developed and utilized by the government and the successor units of the former rural collective economic organizations (community joint-stock cooperative companies) respectively. Among them, the community joint-stock cooperative company is the practical administrator of villages in Shenzhen.

2.1. The Phenomenon of Illegal Occupation of Land by Joint-Stock Cooperative Companies is Serious

Due to the limited land resources and delayed land planning, it is difficult for Shenzhen Community Joint Stock Cooperative Company to obtain the legal right to use land in the process of urbanization. But in order to maintain its routine business operations and meet the shareholders' demand of the company's dividend "only increase but not decrease", community joint-stock cooperative companies find themselves compelled to utilize land beyond the designated legal scope of urban villages, situated outside the government's defined red line, to facilitate their development. At present, most of the operational land held by the city's community joint-stock cooperative companies involves illegal occupancy problems such as historical issues, illegal and inefficient utilization, coupled with its single economic development model, which hinders Shenzhen's land management, urban construction, social and economic development, as well as the realization of Industry-City integration to a certain extent. It is the key and difficult point for Shenzhen to strengthen land management at present. Therefore, considering the intricate phenomenon of illegal land occupation, it is not necessary to spend extensive financial and temporal investments in traditional rights confirmation processes, but to find a convenient way of urban village reconstruction that acknowledges historical realities and accommodates the interests of land users.

2.2. The Problems Left Over by the History of Urban Land Requisition (Transfer) are Complex

After 30 years of development, various factors have contributed to numerous historical problems in the original rural land. For example, legacy problems from history, such as land requisition without transfer, procedural deficiencies, illegal land use and construction, illegal transfer or lease, and "Limited Owned Houses", make the rights and interests attached to land more complex(Dan Jun, Wu Jun and Yan Yongtao 2020)[6]. Furthermore, urban villages exhibit multiple land ownership structures, in addition to the land of the original rural collective economic organizations, there are also the land of the original villagers, urban villages residents or third-party organizations. Different property owners have different recognition of land rights and interests, ownership registration and operation mode, which leads to multi-party negotiation and benefit distribution in the process of urban village reconstruction, and increases the complexity and risk of government decision-making. Therefore, in the process of urban village reconstruction, to mitigate government management risks, market entities or community joint-stock cooperative companies can be responsible for negotiating the demolition compensation with the property rights and interests subjects, while the government plays the role of coordinator and supervisor.

2.3. A Large Number of Construction Land has not been Legally Developed

Community joint-stock cooperative companies hold 30% of Shenzhen's urban planning and construction land, of which about two-thirds are legally occupied land. Because most of the land is inefficient and has been built up, according to the Regulations on Urban Renewal of Shenzhen Special

Economic Zone, it is impossible to apply the "two regulations" or "three regulations" to deal with the illegal buildings left over from the history of the land and its attachment, resulting in the non-implementation of the Urban Renewal transformation plan. As a result, the layout of urban land use planning is disordered, the functions are scattered and chaotic, and the precious urban land resources are wasted, which can not give full play to their potential and value. Such inefficiencies represent a huge waste of resources for Shenzhen, which is not conducive to the sustainable development of the city. Therefore, in view of this kind of inefficient land, it is necessary to completely transform the dual structure of land into pure state-owned land by the implementation of Land Preparation and Urban Renewal. Simultaneously, the urban layout will be re-planned and constructed after the transformation of urban villages, so as to realize the integration effect of industry and city.

3. Theoretical Analysis of Land Value-added Income

3.1. Land Value Theory

Chen Jing and Ding Jing (2011) argue that the dualism of land value is a compromise between the theory of Land Valuelessness and the theory of Total Value, asserting that land is composed of valueless land material and valuable land capital[7]. As for the theory of Land Value Radiation, Zhang Kunlun (2005) believes that value radiation is the phenomenon of value appreciation caused by the external diffusion of the use value of real estate with the nature of public goods, which increases the utility of real estate in the surrounding areas[8]. To sum up, land value is the result of many factors, such as land characteristics, geographical location, surrounding environment, market supply and demand, as well as policies and regulations, which collectively determine the value level of land in the market.

Characteristics of Land: As a natural resource, land has certain characteristics. These characteristics include land area, quality and use. The larger the land area, the higher the value of the land. Land of superior quality, such as fertile farmland or urban land with high development potential, is usually of higher value. The use of land also has an important impact on its value, for example, land located in commercial areas is usually more valuable.

Geographical Location: The geographical location of land is one of the important factors that determine its value. Land in different locations has different values, as geographical location affects the use and development potential of the land. Lands located in prosperous and easily accessible areas are usually more valuable because they are easier to fulfill the needs of business and social activities. In addition, land close to natural resources or environmental landscapes may also have a higher value.

Surrounding Environmental and Social Impacts: The value of land is also influenced by surrounding environmental and socio-economic factors. The level of development, population density, social facilities and economic activities in the surrounding area have a significant impact on the value of the land. For example, land located in a thriving commercial center is generally worth more, while land located in a declining area is generally less expensive. In addition, the quality of the surrounding environment, such as the natural environment, scenic beauty and public facilities, may also have a positive impact on land values.

Market Supply and Demand: Market supply and demand is one of the important factors that determine the value of land. The relationship between supply and demand determines the price of land. When land availability is limited and demand is high, prices tend to rise. Conversely, an oversupply of land coupled with low demand leads to price depreciation. Fluctuations in market supply and demand will directly affect the volatility of land value.

Policies and Regulations: Government policies and regulations also have an impact on land values. Policies related to land planning, land use control, land expropriation and land tax may affect the supply and demand of land, thus affecting the value of land. The government's land policies and regulations play an important role in regulating the stability and development of the land market.

3.2. The theory of Urban Land Value-added Income Distribution

The theory of Urban Land Value-added Income Distribution is an economic theory, elucidates the equitable distribution of income brought by urban land value-added within society. The urban land value-added income is produced by the promotion of urban land value brought by urban economic and social development, such as the increase of urban population, economic development, urbanization process and so on, which will promote the increase of land demand, thus leading to the rise of land prices and the generation of land value-added income. Therefore, the urban land value-added income is considered to be a kind of social income, given that it results from collaborative efforts of the whole social and economic environment, coupled with infrastructure construction. According to this theory, urban land value-added income comes from the promotion of urban development and social-economic activities, necessitating distribution through a reasonable mechanism. Zhang Jun (2007) believes that in practice, the total value-added of urban land should be divided in a certain proportion to realize the recovery of natural value-added of land [9].

Public facilities, transportation network, education and medical resources in cities play an important role in the promotion of land value, so land value-added benefits should be returned to the whole society. However, Zhu Daolin (2017) believes that there are sharp contradictions in the distribution of value-added benefits among stakeholders[10]. To sum up, the distribution of urban land value-added benefits involves the balance of rights and interests among different stakeholders, and the common distribution mechanisms include:

Government Income: The government obtains land value-added income through land expropriation, Urban Renewal and sale of land use rights. As the main body of urban planning and land management, the government undertakes the responsibilities of infrastructure construction and public services, justifying its claim to a share of the land value-added benefits.

Income of Land Operators: the successor units or developers of the original rural collective economic organizations obtain land value-added income through demolition, development and land sales. In the process of venture capital and market operation, land operators bear corresponding responsibilities and costs, so they should obtain certain value-added benefits.

Social Welfare and Public Services: Land value gains can also be used to provide social welfare and public services. The

government can use the land value-added income to improve the supply of public services such as infrastructure, education and health care, so as to improve the welfare level of the whole social group.

Social Investment: Land value-added income can also be used for social investment, such as the development of poor areas, housing security and other social undertakings. The redistribution of resources and social equity can be realized by investing the land value-added income into social investment.

Government Regulation: The government plays an important role in the distribution of land value-added income. Governmental regulation and intervention in land value-added income can be achieved through land management policies, land expropriation, and land transfer. The government can set policies such as land development fees and land value-added tax to regulate the utilization and distribution of land.

Public Participation and Transparency: public opinions and participation should be fully considered in the distribution of land value-added benefits to ensure the reasonable protection of public interests. Simultaneously, the distribution mechanism should pay attention to transparency to ensure the fairness and rationality of land value-added income distribution.

3.3. Inspiration for Urban Renewal and Land Preparation

The theory of Urban Land Value-added Income Distribution provides a theoretical framework and guidance for the benefit distribution of Land Preparation and Urban Renewal, emphasizing the principles of public interest priority, fairness and rationality, incentive innovation and investment, and sustainable development. Zhao Yihan (2016) believes that the transfer of land use rights and the reform of new value distribution system are closely related to the future economic development of cities[11], so the following enlightenment can help policymakers formulate more scientific and fair urban village transformation policies to promote sustainable urban development.

Priority of public interest: The theory of Urban Land Value-added Income Distribution emphasizes the priority of public interest, and the distribution of urban village reconstruction benefits in Shenzhen should prioritize addressing public needs and improving public facilities. This means that in urban village reconstruction projects, whether Land Preparation or Urban Renewal, the government should ensure equitable recognition of public interests (such as the preparation of affordable housing, schools, hospitals and libraries by the main body of implementation), and adopt corresponding policies and measures to balance and coordinate the interests of all parties. Through the transformation of urban villages, the living environment is more livable, the living conditions are more comfortable, the infrastructure is more perfect, and the residents can enjoy higher quality education, medical and cultural resources, ultimately enhancing the quality of life.

Fairness and reasonableness: The theory of urban land value-added income distribution advocates the principle of fair and reasonable benefit distribution. In the reconstruction of urban villages, it is imperative to avoid excessive concentration of interests through reasonable mechanisms and rules (for example, in Land Preparation and Urban Renewal, we should avoid excessive concentration of economic interests on market players), and ensure equitable sharing of interests among diverse stakeholders by establishing transparent rules for the distribution of land value-added benefits, strengthening social participation and democratic decision-making.

Encouraging innovation and investment: According to the theory of Urban Land Value-added Income Distribution, a reasonable benefit distribution system can encourage innovation and investment. In Land Preparation and Urban Renewal, if the market participants are willing to use part of the land value-added income for public use, such as the construction of affordable housing, public infrastructure and service facilities, the government may permit appropriate increase in the volume ratio of reconstruction to reward the market participants. Through a reasonable exchange mechanism of rights and interests, we can promote the smooth implementation of urban village transformation. This can be further facilitated through measures such as providing suitable tax relief and facilitating land use rights transactions.

Long-term planning and sustainable development: The theory of urban land value-added income distribution emphasizes the importance of long-term planning and sustainable development. In the reconstruction of urban villages, the enduring impact of land appreciation on urban development should be taken into account, and corresponding policies and measures should be taken to protect the ecological environment, improve the quality of the city and the living standards of residents. In the practice of Land Preparation and Urban Renewal, the government can formulate ecological control lines and delimit ecological protection zones to protect natural resources and ecosystems.

4. Theoretical Analysis of Urban Village Reconstruction in Shenzhen

The supply of new construction land for development in Shenzhen is highly limited. Beginning in 2012, the supply of stock construction land surpassed 50%, marking the first instance of exceeding the supply of new construction land. Additionally, from 2015 to 2017, the stock of construction land supply consistently exceeded 70% for three consecutive years. Urban development has transitioned towards utilizing the stock of construction land. At present, the transformation of urban village land in Shenzhen has entered the fast lane of normalization and institutionalization.

4.1. Urban Renewal Theory

There are a large number of incomplete land requisition (transfer) compensation procedures in Shenzhen's urban villages, which hinders the promotion of old village reconstruction and the efficient operation of land resources utilization. Firstly, land requisition (transfer) is the premise and foundation of old village reconstruction. Failure to complete the corresponding compensation procedures will lead to the unclear ownership and use right of land, thus affecting the subsequent demolition and construction work. Secondly, in the process of old village reconstruction, demolition and compensation are crucial procedures. Imperfections in the compensation procedures for land expropriation may deprive residents of rightful compensation and resettlement, contributing to social instability. Finally, the government will have to spend more time and resources to deal with the related rights, which will increase the burden of management, and may lead to the waste of resources and the

reduction of efficiency.

With the rapid development of Shenzhen's economy and the increasing shortage of land resources, the transformation of urban villages becomes imperative. numerous incomplete land requisition (transfer) compensation procedures for urban villages pose as formidable challenges that demand resolution. Building upon the principle of prioritizing "public interest" in the theory of Urban Land Value-added Income Distribution, Shenzhen has innovatively put forward the theory of Urban Renewal (Dai Xiaoping, Xu Lianghua and Tang Zixiong, et al. 2021) [12]. Therefore, urban villages are allowed to carry out the transformation of old villages on the premise that there is a certain proportion of land for incomplete land requisition (transfer) compensation procedures. However, in view of this part of unconfirmed land, the government and the implementing body (the market entity) implement a benefit-sharing mechanism, that is, after the reconstruction of the village in the city, the main body of the implementation needs to build a certain proportion of public service facilities in accordance with the terms of the land transfer contract and the area of the land used for the compensation procedures for the land requisition (transfer), and return the property rights to the government. According to the Regulations on Urban Renewal of Shenzhen Special Economic Zone, urban villages must attain a minimum legal land use proportion of 60% (30% for key Urban Renewal projects).

The Urban Renewal model has been implemented in Shenzhen for more than ten years, and the whole system has been legislated by the Shenzhen Municipal Government for many times, achieving a state of relative maturity. Under the latest Urban Renewal mode of Shenzhen, the government, market entities and property rights subjects collaborate in a mutually beneficial tripartite pattern, and jointly form a solid growth alliance to promote the overall process of Urban Renewal in Shenzhen (Cheng Hui and Lai Yani 2021) [13]. Based on the theory of Urban Land Value-added Income Distribution, the advantages of Urban Renewal theory are reflected in the following three aspects:

4.1.1. Transfer of Land by Agreement

The transfer of construction land by agreement facilitates seamless collaboration between service providers in the early stages of Urban Renewal and subsequent construction units. This minimizes extensive restructure to the project's asset-liability relationship caused by changes in the main declaration and implementation body, enabling developers to gradually transition from secondary land operations to primary land development, thereby further enhancing profit margins. Compared with the government's own development and full investment, the agreement to transfer land can reduce the government's financial input and reduce financial pressure. By transferring land use rights to land development enterprises, the government can maximize the value of land, and obtain benefits through land transfer fees and land value-added, so as to improve the efficiency of resource utilization.

4.1.2. Market-oriented

The introduction of market mechanism makes the decision-making of land use and development more scientific and reasonable. Determination of land transfer fees and relevant provisions in the transfer contract relies on the market's supply and demand dynamics, optimizing the land use structure and improving the utilization efficiency of land resources. At the same time, land resources are allocated more effectively, and all kinds of market players can play their respective advantages and roles in Urban Renewal. This is conducive to promoting industrial development, promoting employment growth and enhancing the competitiveness of urban economy.

4.1.3. The Development Volume is Relatively High

According to the latest Shenzhen Standard, the theory of Urban Renewal defines the benchmark volume of different density zones. Based on this foundation, the basic building area is determined according to the correction coefficient. The transfer and reward building areas are determined respectively by the land transfer rate and property contribution rate of the project. At present, the average volume rate of Urban Renewal in Shenzhen is 6.0, and in the former special zone it reaches an average volume rate as high as 7.74, at a relatively low level of land transfer rate. The relatively high amount of development enables market participants to obtain higher potential profits and returns through the development and sale of renovation projects, which stimulates the enthusiasm of market participants to participate in Urban Renewal.

4.2. The Theory of Land Preparation

The urban village land in the former Shenzhen Special Economic Zone is gradually nationalized by means of land acquisition by state-owned enterprises and unified land acquisition by the government. The confirmation procedures are relatively complete, and the proportion of land ownership with legal property rights is relatively high. Moreover, the former Special Economic Zone has a high degree of urbanization and belongs to the core urban area. Therefore, most of the urban village land in the former Special Economic Zone has been transformed through Urban Renewal. At present, there are still a large number of untransformed urban village land outside the former Shenzhen Special Zone. However, due to the nationalization of collective land through urbanization in these areas, the registration procedures for the confirmation of land rights in such urban villages have not been adequately enhanced. Consequently, complex historical issues pertaining to land and its attachments persist, resulting in an average legal land ratio of less than 10%, falling below the 30% legal land proportion threshold required for Urban Renewal.

In order to break through the bottleneck of legal land use threshold for Urban Renewal and solve the problem of urban land shortage, Shenzhen has creatively put forward the theory of Land Preparation and Interest Coordination throughout the city. In view of the imperfect land requisition (transfer) compensation procedures for the management of urban villages, the problems left over by history are solved in a package through the trinity of "land + planning + funds"(Wu Huanyang and Zeng Siping 2022)[14]. Among them, the government and the community joint-stock cooperative company figure out the "comprehensive account", mainly accounting for the community reserved land, benefit distribution from planned construction land within the project scope, allocated Land Preparation monetary compensation and the transfer land price. The "detailed account" between the community and the original villagers, non-original villagers, enterprises and other participants with property rights is mainly reflected in the community's responsibility to clarify the economic ownership of the planned construction land within the scope of the project and to negotiate compensation for demolition and relocation around resettlement compensation, monetary compensation and equity allocation. Based on the theory of Urban Land Value-

added Income Distribution, the advantages of the theory of Overall Planning of Land Preparation Interests are reflected in the following three aspects:

4.2.1. Lower Transformation Threshold

The majority of land in Shenzhen's urban villages lacks proper land requisition (transfer) compensation procedures. Consequently, the Urban Renewal mode presents opportunities for urban villages in the former Special Zone that meet land ownership requirements to undergo transformation first. In contrast, urban villages outside the former Special Zone, with insufficient land ownership, experience a slower transformation process, often resulting in demolition disputes. The theory of overall planning of Land Preparation interests does not strictly require land ownership, relaxes the threshold of transformation, and digests a large number of historical problems that are difficult to solve at one time through the way of benefit sharing between the government and the community, so that the original restricted urban village reconstruction projects can be started and promoted faster.

4.2.2. Diversified Economic Returns

Compared with the traditional housing expropriation, the overall planning of Land Preparation interests pays more attention to diversified economic returns. Land Preparation allows original villagers to choose appropriate compensation methods in the process of demolition, including options like monetary compensation or housing resettlement, so as to ensure the original villagers can obtain the land value-added benefits of urban villages after demolition. The benefit-sharing mechanism under the theory of Land Preparation stimulates the motivation of the original villagers to participate in the reconstruction of urban villages.

4.2.3. Strengthen Cooperation and Coordination

The government, community joint-stock cooperative companies and all kinds of property owners should strengthen cooperation and coordination to promote the smooth progress of urban village reconstruction. The existing practice of Land Preparation in China is rooted in the land system of our country and depends on the strong operation of the urban government (Qian Kun, Ye Xiaoling and Lin Hao, et al. 2022) [15]. As the leader of the overall planning of Land Preparation interests in Shenzhen, the government has the power of overall planning and decision-making, and provides policy support, planning guidance and resource allocation by calculating "big accounts" with community joint-stock cooperative companies. Community joint-stock cooperative companies clarify the economic relationship of the renovation project and understand the demands of various property owners by calculating "detailed accounts" with various property owners. Through the close cooperation among the government, community joint-stock cooperative companies and property rights holders, the interests of all parties can be better coordinated, the difficulties and challenges in the project can be solved, thereby the efficiency and quality of the renovation work can be improved.

4.3. Innovative Theoretical Analysis of the Transformation Mode of "Industrial Preparation + Urban Renewal"

In view of a large number of lands illegally occupied by urban villages in Shenzhen, compared with the theory of Urban Renewal, the Overall Planning of Land Preparation and Interest Coordination is more conducive to balancing the economic, social and ecological benefits of land use, coordinating the interests of the government, enterprises and community joint-stock cooperative companies, and realizing the overall planning of large-scale industries. However, the high rate of land transfer for public use may limit the development of retained land by market participants, resulting in a lower overall profit level. As an important means, Urban Renewal can improve the quality of living and optimize urban functions through a sound policy system and efficient operation mechanism. Although the land transfer rate of Urban Renewal is relatively low compared with the Overall Planning of Land Preparation and Interest Coordination, there are few urban villages left in Shenzhen to meet the legal ownership ratio of land of Urban Renewal. Whether it is Land Preparation or Urban Renewal, the current stock land development mode in Shenzhen is mainly formulated for specific land problems, mostly adopting a single project, a single participant or a single policy path. But there are still some problems that are difficult to solve, such as the lack of guidance for the implementation of statutory plans, the difficulty of forming a joint force among multiple participants, and the difficulty of coordinating multi-project planning (Yang Jiawen, Duan Yang and Le Xiaohui 2020)[16].

In order to realize the integration of industry and city and balance the harmony of all stakeholders, based on the original policy and the theory of Urban Land Value-added Income Distribution, it is necessary to carry out innovative theoretical integration with the respective advantages of Land Preparation and Urban Renewal. The theoretical integration and innovation can be achieved through the synergistic effect of "Industrial Preparation + Urban Renewal" under the urban village transformation model. This approach leverages the higher land contribution rate of Land Preparation and the increased commercial return rate of Urban Renewal to strike a balance between occupation and compensation, while the Land Preparation facilitates the release of industrial space to meet the regional economic development and the employment of surrounding residents. Simultaneously,, Urban Renewal takes into account the residents' demand for houses and higher living standard in order to promote win-win results for all parties.

First, meet the housing demand. The transformation mode of "Industrial Preparation + Urban Renewal" can better meet the housing needs of residents. With the increase of urban population and the improvement of housing demand, the shortage of housing supply has become an important problem facing Shenzhen. This model can increase the supply of multiple housing, alleviate the housing pressure of residents and provide more housing choices through demolition, transformation and construction of new affordable housing, industrial supporting dormitories and commercial housing.

Second, optimize land use efficiency. The transformation mode of "Industrial Preparation + Urban Renewal" uses the low threshold of Land Preparation to optimize land use efficiency, break through the dilemma of legal land occupation by community joint-stock cooperative companies, and release the land resources with imperfect land requisition (transfer) compensation procedures for industrial space. Through the higher commercial return rate of Urban Renewal, the overall development volume can be reasonably increased by using social capital, and the inefficient industrial, commercial and abandoned land can be transformed into high-quality residential areas, thus effectively releasing the

living space.

Third, to achieve a smooth transition of residence. The transformation mode of "Industrial Preparation + Urban Renewal" can better realize the smooth transition of the original villagers. In the process of Land Preparation and Urban Renewal, the community and the main body of the market, under the leadership of the government, adopt reasonable and unified resettlement policies and compensation standards. This approach ensures the needs of the relocated villagers are met during the transitional period of residence and resettlement, safeguarding their interests throughout the preparation and renewal phases. This will help to smoothly promote the urban village reconstruction project and realize the comfortable transition of villagers.

Fourth, promote the comprehensive development of cities. The transformation mode of "Industrial Preparation + Urban Renewal" can promote the comprehensive development of the city. Through the integration of industry and city, the old houses and factories in villages situated in the old city or the marginal areas of the city will be transformed, the overall image and function of the region will be enhanced, and the living facilities and public service facilities will be improved, so as to improve the quality of livelihood projects. Simultaneously, A large number of industrial land released will attract more talents and resources, promoting urban economic development and meet the employment needs of residents, contributes to the comprehensive development and prosperity of the city.

In conclusion, the transformation mode of "Industrial Preparation + Urban Renewal", achieved through meticulous planning and the integration of industrial space, effectively amalgamates industrial, residential, and commercial zones. This integration not only realizes the harmonious coexistence of industry and city but also fosters a conducive environment for economic development and urban construction. Simultaneously, it contributes to the optimization of urban functions, elevating the competitiveness and attractiveness of the city. Additionally, the city can achieve sustainable development by simultaneously implementing rational land resource planning and management, prioritizing ecological environment protection, maximizing the utilization of industrial space for green building, energy conservation, and emission reduction efforts, as well as guiding industry towards high efficiency, low carbon emissions, and environmental preservation.

5. Empirical Analysis of the Model of "Industrial Preparation + Urban Renewal"

5.1. Overview of the Renovation Project of "Longhua Meiguan Innovation Corridor"

This project is an important engine to promote the development of Jiulongshan Intelligent Science and Technology City in Shenzhen, a key area at the municipal level. Positioned in a location with convenient transportation and obvious location advantages, the project encompasses a transformation area of square kilometers. Through the mode of "Industrial Preparation + Urban Renewal" (as shown in Table 1), it promotes the coordinated transformation of large areas of urban villages. The implementation area of Land Preparation and Urban Renewal is 1.15 square kilometers, involving two streets of Fucheng and Guanlan and five joint-stock cooperative companies.

Table 1. Mode of "Industrial Preparation + Urban Renewal"

One square kilometer continuous transformation scope: 1.15 square kilometers		
Stages	**Project Name**	**Scope (ha)**
Land Preparation (Phase I)	Meiguan Innovation Industry Corridor Fucheng Guanlan Reconstruction Plot	68
Urban Renewal (Phase I)	Urban Renewal Project of Dankeng Industrial Zone	14.6
Urban Renewal (Phase II)	Minhe Road Urban Renewal Project	6.3
Urban Renewal + Land Preparation (Phase II)	Yuexing Erwa Kiln Pit	16.8
Urban Renewal (Phase II)	Yuexing Second New Village Urban Renewal Project	5.2
Urban Renewal (Phase III)	Urban Renewal Project of Wanfengjing Industrial Zone	4.0

Data source: Interpretation of Land Preparation and Interest Coordination Policy, Planning Scheme, Cooperative Development of Reserved Land and Collective Assets Transaction by Guangdong Unity Urban Renewal Research Institute

The project adopts an innovative implementation strategy, namely the mode of "Industrial Preparation + Urban Renewal", where the government-led Land Preparation and Urban Renewal are vigorously promoted, the introduction of Shenzhen Longhua Talent Anju Company endows the project with public welfare attributes. The community joint-stock cooperative company ensures the relevant rights and interests of property owners by currency and property relocation and resettlement, employing benefit pooling to calculate reserved land and compensation funds, effectively addressing the challenges of compensation and resettlement. State-owned enterprises are responsible for the development, construction, implementation and operation of follow-up reserved land and Urban Renewal projects, so as to realize the sustainable development of joint-stock cooperative companies. By increasing the supply of affordable housing, implementing public interests and releasing industrial space, the project achieves the positive effect of the integration of industry and city and the win-win situation.

5.2. Challenges Faced by the Mode of "Industrial Preparation + Urban Renewal" in Practice

5.2.1. The Cycle of Urban Village Reconstruction is Restricted by the Approval Process

The traditional interaction mechanism of Urban Renewal and Land Preparation needs to wait for each other in the approval process. Because of the complex process and many audit projects, it takes an average of 2 to 3 years between the project established and the approval of the plan. If the Urban Renewal project is declared only after the approval of the Land Preparation, the urban village renovation cycle will far exceed the scheduled time limit for major infrastructure construction, which will eventually lead to the failure of urban planning.

5.2.2. There is Uncertainty in the Confirmation of the Subject of Implementation

Although the market participants engaged in Urban Renewal and Land Preparation and Interest Coordination obtain the land development authority through agreement transfer, their involvement stages in the project differ. Market participants can intervene in Urban Renewal projects as pre-service providers, but they can only intervene in interest co-ordination projects after the approval of retained land. Therefore, the final recognition of market entities as the implementation subject under the mode of interest co-ordination is uncertain, which is not conducive to the seamless connection of the primary and secondary development of the urban village land.

5.2.3. Urban Planning is Difficult to Land

The project plots involved in the Urban Renewal mode are relatively scattered, posing difficulties in implementing implement major public infrastructure and major industries. Despite the government's emphasis on safeguarding public interests in the overall planning of Land Preparation, the project faces challenges such as low overall project profitability, limited market participant enthusiasm, and difficulty in project promotion. Most of the built-up areas formed by the original rural collective economic organizations and villagers outside the scope of urban villages and old housing villages are contrary to urban planning. Currently, the implementation rate of urban infrastructure and public service facilities within the scope of urban village reconstruction is less than 50%.

5.2.4. The Proportion of Legal Land Can Not Meet the Threshold of Urban Renewal

Table 2. Current ownership within the scope of transformation

Status quo ownership	Area (m2)	Proportion	Total (m2)
Urbanization	126113.88	19%	**168591.89 (25% of urbanized land)**
Vegetable base	23007.51	3%	
The requisition and demolition project has been compensated	2223.73	0.3%	
Land for existing trunk roads	12488.64	2%	
Current river	4758.13	1%	
Land with real estate certificate which has been obtained	14003.58	2%	**60172.99 (9% of legal land)**
The land contract has been obtained	9274.01	1%	
Lianggui private residence land	1658.31	0.2%	
Among	1137.46		
	520.85		
Two plans for industrial land	35237.09	5%	
Imperfect requisition (transfer) Ground	448439.36	66%	**448439.36 (remaining 66%)**
Totally	677204.24	100%	

Data source: Interpretation of Land Preparation and Interest Coordination Policy, Planning Scheme, Cooperative Development of Reserved Land and Collective Assets Transaction by Guangdong Unity Urban Renewal Research Institute

The declaration of Urban Renewal unit plan requires that the proportion of legal land ownership within the transformation scope should not be less than 30% (for key Urban Renewal plans). But the current ownership of the urban village reconstruction project is only 9% of the legal land use, with the remaining portion involving urbanized land transfer and imperfect land acquisition (transfer). This situation hinders the urban village reconstruction project from meeting the access conditions of Urban Renewal mode. The current ownership of the project is shown in Table 2.

5.3. Theory and Practice of "Industrial Preparation + Urban Renewal" Model

5.3.1. Increase the Overall Development Volume of the Renovation Project

The Management Measures for Overall Planning of Land Preparation and Interest Coordination in Shenzhen has made an innovative attempt to address the issue of insufficient legal land ownership in Urban Renewal projects., allowing the legal land use indicators in the reserved land indicators to be Co-ordinated with the Urban Renewal projects in the administrative region (new district). Taking key Urban Renewal projects as an example, if the proportion of legal land within the scope of urban village reconstruction is less than 30%, the open space, corner land and flower arrangement land within the scope of the project can be included in the reserved land for overall planning of Land Preparation interests. This transfer of interests from the first phase to the subsequent Urban Renewal phase increases the legal land proportion to surpass 30%, laying the foundation for the declaration of Urban Renewal projects, and achieving a higher amount of development.

5.3.2. Shorten the Approval Cycle of Renovation Projects

Because the examination and approval process for Urban Renewal mode has been reduced by two-thirds after the decentralization of authority in developed areas, while the Land Preparation and Interest Coordination mode is relatively complex and time-consuming, in order to seamlessly integrate Land Preparation with Urban Renewal, the government can establish an expedited pathway for the "Industrial Preparation + Urban Renewal" mode. The reform work focuses on simplifying government procedures, decentralizing authority, reducing the examination and approval links, and optimizing the examination and approval process. In the specific operation practice, as the relevant declaration subjects declare the Urban Renewal plan, providing the land and building verification certification materials and compiling the unit planning, the Land Preparation and Interest Coordination project synchronously carries out the planning project declaration and implementation plan approval. The planning approval steps for projects that occupy more than 3000 square meters of state-owned reserve land are streamlined. The project simultaneously submits the relevant declaration documents of the Urban Renewal and Interest Coordination project, cross-examines and approves the relevant materials and plans (striving to complete within one to two years), shortens the construction period of the urban village reconstruction project, and makes the major urban planning land as soon as possible.

5.3.3. Realize the Interactive Development of Land

In this project, the market participants can intervene in the project as co-ordinating service providers in the early stage of the project, assisting the government and community joint-stock cooperative companies to declare projects, prepare plans, formulate implementation plans and organize demolition negotiations. In addition, if the district renewal and preparation department organizes and implements the project expropriation and compensation work, it may, on the premise of determining the conditions for development and construction, give priority to the transfer of the expropriation and relocation work and the land-use rights to be transformed to the overall service provider by means of agreement transfer, and sign a contract for the transfer of the land-use rights with the municipal planning and land authorities.

5.3.4. Shorten the Demolition Negotiation Cycle of the Renovation Project

Industrial Preparation projects generally involve the overall planning of areas spanning square kilometers, involving a complex array of property rights and types within the transformation scope. Many urban villages face challenges such as imperfect land use procedures, lack of property rights certificates, and difficulty in determining historical property rights. In view of the large-scale continuous reconstruction of the project, the demolition negotiation mode adopts a high-level overall planning structure and an efficient linkage working mechanism. The government leads the demolition negotiations with the property owners through the way of "large corps operations". Leading groups and field headquarters are set up at the district level. The reconstruction area is divided into different blocks, and each block is broken by cadres one by one. In the reconstruction area, a unified and reasonable compensation scheme for demolition and relocation compensation and resettlement standards should be formulated to avoid the competition among property owners and to control the ratio of demolition and compensation within the scope of market subjects.

5.3.5. Improve the Economic Feasibility of the Renovation Project

Within the first phase of the project, where the proportion of legal land use is less than 10%, the way of overall planning of Land Preparation and Interest Coordination can be adopted. According to the "Measures for the Overall Management of Land Preparation and Interest Coordination in Shenzhen" (draft for comments), the volume of rights and interests is determined according to the property rights of land and buildings, with the impact of statutory planning on project interests being weakened. Subsequently, the composition of the volume function of reserved land planning is clarified, and the reserved land is flexibly implemented. The area of the reserved land shall be determined according to the planned volume of the reserved land and the planned plot ratio (the upper limit of the residential plot ratio is recommended). The legal land use indicators of reserved land generated by the overall planning of interests can be coordinated with other Urban Renewal projects within the administrative region (new district) to efficiently promote the progress of urban village reconstruction. At the same time, priority should be given to residential land for reserved land, aligning with the "Several Measures on Further Increasing the Supply of Housing Land" (draft for comments), and stimulating the confidence of market participants in renovation projects.

Within the second phase of the project, where the proportion of legal land use is higher than 10%, Urban Renewal can be adopted. Within the scope of the Urban Renewal unit project, reserved land for overall interest coordination, general Land Preparation and five types of legal land use confirmed by verification are included. According to Shenzhen Urban Planning Standards and Guidelines and Shenzhen Urban Renewal Unit Planning Volume Ratio Review Regulations, the development volume of market entities is determined by basic volume, transfer volume and incentive volume. Although according to market practice, Urban Renewal projects are mainly based on the allocation of public rental housing, market participants can replace their rights and interests with the government through infrastructure construction and the implementation of public supporting facilities. This allows for the allocation of a certain proportion of public housing for sale and improve the economic feasibility of the project.

6. Conclusion

At present, the transformation of urban villages in Shenzhen encounters challenges. Under the mode of Urban Renewal, the proportion of legal land in urban villages can not meet the requirements of renewal, and the distribution of transformed land is scattered. Under the mode of Land Preparation, the transformation cycle is restricted by the approving process, and the profit margin of reserved land development projects is not optimal. To overcome these challenges, all stakeholders should leverage the synergies between Urban Renewal and Land Preparation in continuous urban village transformation projects. The two policy toolboxes will jointly promote the transformation of stock areas and coexist for a long time. Among them, the overall planning of Land Preparation interests has become an important source of industrial land. Under the leadership of the government, the old factory buildings in Shenzhen's urban villages have been continuously renovated and upgraded, and the spirit of statutory plans has been realized through urban planning. On this basis, Urban Renewal will be more refined and efficient in the future, focusing on cultural heritage and ecological protection, and the operation mechanism will be changed from development to operation. Through the transformation of urban villages, Shenzhen has integrated the original villagers and other residents into the urban life of living and working in peace and contentment, achieving the planning goal of building Shenzhen into a harmonious and beautiful resident-friendly city.

Acknowledgments

We thank Guangdong Unity Urban Renewal Research Institute for the data provided.

References

[1] Chen Y, Qu L .Emerging Participative Approaches for Urban Regeneration in Chinese Megacities[J].Journal of Urban Planning and Development,2020,146(1):04019029-04019029.

[2] Guiwen L ,Cheng L ,Taozhi Z , et al.Determining the Spatial Distribution Characteristics of Urban Regeneration Projects in China on the City Scale: The Case of Shenzhen[J]. Land, 2022, 11 (8):1210-1210.

[3] Liu G ,Yi Z ,Zhang X , et al.An Evaluation of Urban Renewal Policies of Shenzhen, China[J].Sustainability,2017,9(6):1001-1001.

[4] YIN Jie, SI Nan, ZHANG Wenjia. Chinese Urban Renewal Model Through The Lens of Rent Gap Theory: A Case Study of Shenzhen City, China[J]. City Planning Review, 2021,45 (01): 39-45.

[5] Standing Committee of Shenzhen Municipal People's Congress. Regulations of Shenzhen Special Economic Zone on Urban Renewal [Z]. 2020-12.

[6] DAN Jun, WU Jun, YAN Yongtao. Dilemma and Strategy of Land Use in Peri-urban Areas of Pearl River Delta: Based on the Study of Land Rearrangement Practice in Nanhai, Foshan and Shenzhen[J]. Urban Development Studies. 2020,27 (01): 118-124.

[7] CHEN Jing, Ding Jing. Preliminary Study on Land Value Theory [J]. Friends of Accounting, 2011 (25): 127-128.

[8] ZHANG Kunlun. On "Value Radiation": Reflections on a Theory of Land Value [J]. Contemporary Finance and Economics, 2005 (02): 12-14 + 19.

[9] ZHANG Jun.Theory and System Framework of Chinese Urban Land Value Increment Distribution[J].Journal of Anhui Agricultural Sciences, 2007 (35): 11638-11639 + 11654.

[10] ZHU Daolin. Realistic Characteristics and Institutional Obstacles of Land Appreciation and Its Distribution Relationship in China[J]. Academia Bimestris, 2017 (03): 46-55.

[11] ZHAO Yihan. Research on the Mode of China's Rural Land Add Value Redistribution: Comparative and Reference Between “Village in Urban”Mode and “Homestead Exchange” Mode [J]. Industrial Economic Review, 2016,7 (06): 133-144.

[12] DAI Xiaoping, XU Lianghua, TANG Zixiong, CHEN Yiyong. Government Coordination and Contiguous Development: The Exploration and Innovation of District Overall Renewal Planning in Shenzhen[J]. City Planning Review. 2021,45 (09): 62-69.

[13] CHENG Hui, LAI Yani. Decision-making in the Stock-based Urban Renewal Process in Shenzhen City: A Perspective from Spatial Governance [J]. Urban Planning Forum, 2021 (06): 61-69.

[14] WU Huanyang, ZENG Siping. Planning Practice and Problem Thinking of Land Preparation and Interest Coordination Project --Taking Shuitousha Community in Shenzhen as an Example [J]. Future Urban Design and Operation, 2022 (09): 10-12.

[15] QIAN Kun, YE Xiaoling, LIN Hao, CHEN Ziyan. Exploring Integrated Development of Built-up Area in Shenzhen[J]. Planners. 2022,38(11):118-123.

[16] YANG Jiawen, DUAN Yang, LE Xiaohui. Land Preparation Under TOD Strategy: Case Studies of Shanghai, Shenzhen and Dongguan [J]. Urban Planning International. 2020,35(04):124-130.