

Redevelopment of Underutilized Land in Cities Based on the Perspective of Relevant Stakeholders

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Abstract. As urbanization continues to advance, the issue of redevelopment of low utility land in cities has gradually become the focus of widespread attention. The existence of low utility land leads to irrational allocation of urban resources, low land utilization efficiency, and brings challenges to sustainable urban development. This paper comprehensively analyzes the main causes of low utility land in cities and analyzes them from the perspectives of stakeholders at different levels, and at the same time, it proposes a series of solutions tailored to the local conditions by comparing the problems in urban redevelopment in Guangzhou and London, because different cities have different policies, laws or development pattern which may infect the management of low utility land differently. Meanwhile, this paper also explores the solution to the problem of inefficient land use through effective urban planning, policy adjustment and cooperation among stakeholders to promote sustainable urban development. Finally, this paper gives some problems and challenges that need further attention in the future.

Keywords: Urban Redevelopment, Stakeholders, Property Rights, Land resources.

1. Introduction

On September 16, 2023, the Ministry of Natural Resources of the People's Republic of China gave instructions on the redevelopment of low utility land. For a long time, in some towns and rural areas, including urban villages and old factories, there are widespread problems such as scattered layout of the stock of construction land, sloppy utilization, and irrational use. Therefore, the Ministry of Natural Resources has decided to carry out pilot projects for the redevelopment of low utility land in 43 cities, including Beijing Municipality, exploring innovative policies and initiatives, and perfecting the mechanism of incentives and constraints.

As urbanization advances, the population gradually gathers in cities and the scale of cities continues to expand, at which time, for reasons such as the constraints on land resources, cities are also in urgent need of strengthening the development and utilization of their land stock and improving the level of intensive land use.

In the process of rapid urban expansion, the problem of low-density development is serious, mainly reflected in the irrational structure of urban land use, with too much industrial land and not enough land for the construction of public facilities; the low efficiency of urban land use, inappropriate land planning, and the chaotic layout of various types of land, with part of the developed land for construction being ineffective or wasted in idleness.

Against this background, this study addresses the issue of low utility land redevelopment in cities, and selects two cities, Guangzhou and London, for comparative analysis, and gives some forward-looking conclusions.

2. Literature Review

It is worth noting that, unlike in China, where land is more privately owned, with both ownership and use of land vested in individuals, few studies have been conducted to assess whether sites are "inefficient", although similar terms have been used, such as "brownfield" and "stock land". However, there are similar terms, such as "brownfield" and "stock land". Therefore, in the actual review, this study uses the studies of "brownfield" and "stock land" as a reference.

2.1. Current Status of Research

2.1.1. Current status of foreign research

The concept of "brownfields" was introduced as early as 1980 in the U.S. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which was introduced to address soil contamination on old industrial sites. While the U.S. Environmental Protection Agency gives the definition in 1994 that brownfields are abandoned, unused, or no longer used former industrial and commercial sites and facilities, and that the expansion or redevelopment of these areas is complicated by the impacts of environmental contamination. Regarding the causes of brownfields, McCarthy points out that, firstly, influenced by industrial restructuring, some large-scale iron and steel factories in the city have been closed down, deserted and left idle due to the transformation of the city's industries; and under the influence of environmental protection and the idea of sustainable development, some heavily polluting enterprises have been adjusting the location or switching to new production, and their former factory sites have also become brownfields [1].

As for the dilemma of brownfield disposal, Bardos et al. believe that the difficulties of brownfield transformation mainly include high risk, high technical difficulty, different views of the public, and difficult to solve the cost. The studies of these scholars mainly focus on the level of operational mechanisms [2]. As for the dimension of collective choice, it is pointed out by Bartsch. He argues that investors, developers, builders, private owners, etc., are seldom willing to get involved in brownfield reuse, mainly due to the fear that such land may be subjected to (industrial) contamination resulting in high investment, low returns, too many liabilities, too much risk, too long a development timeline, and many other problems [3].

With regard to brownfield disposal policies, according to Sousa's summary, the United States, with the Environmental Protection Agency (EPA) as the central force and highest guidance center on brownfield disposal, has issued a Brownfield Action Agenda to improve the investment climate, encourage private investment, and provide other financial incentives, such as preferential tax rates and subsidies [4]. EU countries, on the other hand, have been guided by the European Commission in the form of government assistance, large-scale regional planning, public-private governance, the establishment of quasi-government agencies to deal with abandoned properties, and large-scale funding of governance programs. In addition, David Adams et al, through a study of 20 regional development sites in four UK cities, argue that the role of government, especially taxes and financial subsidies, plays a key role in brownfield remodeling, and suggest that urban policies need to be sufficiently segmented to meet the needs of regional differences [5].

2.1.2. Status of domestic research in China

First of all, as for the definition of the concept of low utility land, some scholars believe that urban low utility land is the part of land that is not in line with the development of urban land; Zhao proposes that the type of urban low utility land is firstly the land for urban construction, and based on this, urban low utility land can be judged by the two indicators of building capacity and land output efficiency [6]. In 2016, the Ministry of Land and Resources (MLR) defined the concept of urban low utility land for the first time, which is the government's interpretation of the concept and definition of urban low utility land based on the national land survey. This is the government department's interpretation of the concept and definition of urban low utility land based on the national land survey.

For the reasons of inefficient land, Zhang believes that the formation of inefficient industrial land is mainly to attract the introduction of industrial projects to resist the risk of the ability to be too weak, the ability to innovate is not strong, resulting in the industry will soon be eliminated, coupled with uneven distribution of internal benefits within the industry to limit the further growth of the industry and ultimately lead to the formation of low utility land [7]. Zhang believes that the emergence of inefficient industrial land is due to the land at the beginning of the planning of the functional positioning of the land is not clear, and the later plus the urban land management department unreasonable land management and other reasons[8]. Xu et al believe that the formation of inefficient

land is mainly due to the lack of market supervision, the government's blind pursuit of economic interests and the results of backward planning ideas and methods [9].

For the identification and evaluation of low utility land, Zeng et al take the land function as the criterion to establish the evaluation index system applicable to different land functions and carry out the evaluation [10]. While Shao selects Anhui Fuyang Hi-tech Park as the research object and builds the evaluation system to identify low utility land in the park from four indicators, such as the total income of the enterprise, the average tax revenue of the land, the fixed inputs and the output value, and so on [11]. Qu and others evaluate the land use efficiency of industrial land at the micro plot scale, mainly considering the land output and social services at the micro scale, and explore the relationship between the land use structure and its efficiency. Qu et al. based on the micro-plot scale, mainly considered the evaluation of the land use efficiency of industrial land in terms of land output and social services under the micro-scale, and explored the relationship between the land use structure and its efficiency [12]. In this study, it is believed that it should be more reasonable to judge the efficiency from the level of output.

Regarding the redevelopment of low utility land, scholars such as Lin and Ye believe that efforts should be made on the planning system and policy system to crack the bottleneck faced by urban low utility land in the context of stock planning from the planning level [13]. Liu et al have systematically studied the problems faced by China's urban development, and proposed to improve the collective management system of construction land at the national level, establish and improve the regulations on land transfer, and carry out the redevelopment of inefficient land in accordance with the principles of market-oriented and scientific planning [14].

Although previous studies have given very detailed explanations of the problems of low utility land redevelopment, the solution to the problem of low utility land should ultimately be realized in the different situations of different regions. Therefore, this study will analyze the case of Guangzhou and London in order to come up with a more specific solution.

3. Research Methodology and Framework

3.1. Research Methodology

This paper mainly uses literature study and case study approach.

3.2. Research Framework

The research framework of the article is shown in Fig. 1

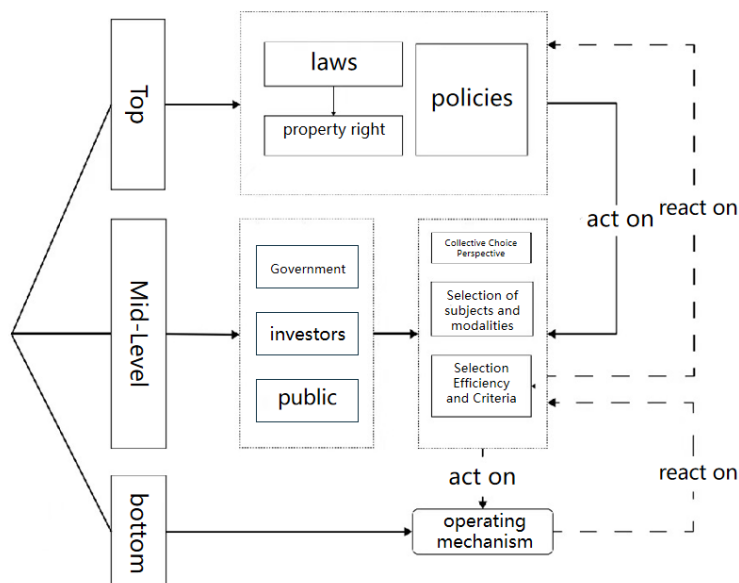


Fig. 1 Research Framework

4. Stakeholder Analysis

4.1. Key Stakeholders

Bardos et al. classified the stakeholders involved in the management process of low utility land redevelopment into eight categories based on the scale and influence of the stakeholders: governmental agencies, local authorities, landowners and developers, local communities, contractors, financial institutions, news media, and consulting organizations [15]. Other scholars have basically followed this classification of stakeholders. In this study, the stakeholders are divided into four categories: developers, government, local communities, and pressure groups.

In this study, a representative selection of key stakeholders was analyzed, and four key stakeholders were identified: the central government, the local government, the developer, and the residents, and the interests and interactions of each stakeholder were studied.

4.2. Stakeholder Claims

4.2.1. Central government interest claims

For the central government, the appeal is to ensure urban development. The redevelopment of urban low-use land is closely related to urban development. The government considers from the perspectives of urban development positioning and function upgrading, and formulates development plans so that redevelopment can meet the current land demand for urban development without overdrawing the land required for future development, thus promoting "good and fast" urban development.

Secondly, the central government has the expectation of building a harmonious society. Areas with poor living conditions in cities are the ones most in need of rehabilitation, and for these areas, the Government has formulated a programme for the redevelopment of low utility land to help residents of old districts to improve their living standards and quality of life.

4.2.2. Local government interest claims

Obtaining revenue from land concessions is one of the Government's interests. From the perspective of sustainable development, in addition to the land grant revenue, it is also possible to obtain increased government tax revenue and employment opportunities. In addition, the management objectives of the local government are consistent with the central government, but in the specific urban redevelopment process, it also needs to take into account its own financial allocations, limited governance capacity, etc., and the conflict between development and interests may make it lack of motivation for development and choose to be conservative and silent.

4.2.3. Developer interest claims

For developers, their primary objective is to secure commercial interests. The developer expects to acquire the right to use land with commercial value through redevelopment of low utility land, carry out real estate development, and realize the appreciation of the land, so as to obtain commercial profits. The primary goal of the developer in the process of moving and relocating is to ensure the realization of commercial interests.

Developers seek to maximize corporate profits, but in the specific projects they undertake, most of the original land-users are households with housing difficulties, and they usually demand huge amounts of compensation for demolition and relocation. The existence of a few "nail households" further affects the normal progress of redevelopment. Developers hope that through the implementation of reasonable government policies and advance planning, the chances of risk factors occurring can be reduced to ensure the smooth progress of real estate development.

4.2.4. Interests of evicted residents

Improving living conditions is the most direct motivation for demolished residents to support redevelopment. The redevelopment of urban low-use land should reflect the concept of people-oriented urbanisation, and its fundamental starting point is to improve the living conditions of the

residents and achieve a balance between the economic, environmental and social benefits of the redevelopment of low-use land.

However, in the process of low utility land redevelopment, residents often have an information gap with the higher levels, and this lack of the right to know increases residents' sense of self-protection and distrust of the government and developers, making redevelopment work difficult. A well-developed mechanism for resident participation can enable residents to fully understand the process of redevelopment of a site, which not only promotes communication between residents and the government and developers, but also mobilises residents' motivation to relocate.

4.3. Stakeholder Conflicts

The main stakeholders in the redevelopment of low utility land - the central government, local governments, developers and evicted residents - have different interests. A comprehensive analysis shows that the main problems that have caused the current dilemma of low utility land redevelopment are in the following areas.

4.3.1. Unequal status of the parties to the subject of interest

The organizational characteristics of the subjects of interest in the redevelopment of low utility land determine the unequal status of all parties, which is also the most important crux in the distribution of benefits. The government, as the policy maker and the main guide, occupies a strong position, while the developers, with strong financial support, are also in a strong position, and the residents are in a relatively weak position. This unequal status leads to conflicts.

4.3.2. Difficulty in determining the standard of compensation for demolition and relocation

The conflicting interests of the parties involved in the demolition and relocation process are reflected in the specific standards of compensation and rehousing for demolition and relocation. The amount of compensation and rehousing is directly related to the interests of the residents of the low utility land redevelopment, which is their most concerned issue. The amount of compensation and rehousing will also affect the cost and profit of the developer. The government, as the party that sets the compensation standards, wants to meet the needs of all parties at the same time.

Therefore, an important issue in the distribution of benefits among the three parties is the formulation of a reasonable compensation and resettlement scheme and the establishment of specific criteria to ensure the realization of the interests of all parties.

4.3.3. Lack of tracking and monitoring of the project (profit-making by the developer and the plight of the residents' resettlement)

At present, the redevelopment of low-utility land usually focuses only on the implementation of moving and relocation, without paying attention to the preliminary planning and the follow-up feedback at the later stage. On the one hand, due to the divergence between the interests of developers and the government, developers may select high-yield projects for profit-making, causing urban planning to deviate from the initial goal; on the other hand, the government does not pay attention to the follow-up resettlement issues, and after moving out, residents encounter many social security problems such as living, employment, health care, and other issues that are difficult to be solved. All these have led to conflicts between residents and local governments, and between residents and developers in the process of relocation. The government is also often caught in a dilemma when dealing with the fairness and efficiency of low utility land redevelopment.

4.3.4. Central-local goal drift (principal-agent problem)

In the process of low utility land redevelopment, on the one hand, due to the principal-agent relationship between the local government and the central government, the interests of the central government and the local government are not completely aligned, which may result in the failure of policies to be implemented when they are transmitted to the bottom, and due to the constraints of management capacity and budgetary constraints, the local government may choose to avoid the problem of dealing with the redevelopment of low utility land or develop a perfunctory attitude.

5. Problems in Redevelopment - A Comparative Case Study

5.1. Background and Status of Redevelopment in Guangzhou and London

5.1.1. Guangzhou's "Three Olds" Rehabilitation

Guangdong's "Three Olds" transformation refers to the transformation mode unique to Guangdong Province, namely the transformation of "old towns, old factories and old villages". The "Three Olds" transformation is an important measure for the Ministry of Land and Resources to cooperate with Guangdong Province to promote the pilot demonstration province of saving and intensive land use. The project of "three old" transformation must be in line with the overall urban land use planning, urban and rural general planning, included in the "three old" transformation master plan, annual plan, has been included in the provincial "three old" transformation supervision database [16]. "Three Olds" transformation supervision database, need to formulate the transformation program, and through the municipal (county) people's government approval.

The "Three Olds" transformation is a special policy granted by the Ministry of Land and Resources to Guangdong Province [17]. The implementation of the "Three Olds" transformation has made six major breakthroughs in the current land and resources policy. Since this is a special policy on a trial basis, only three years, until 2012, have been given to improve the procedures for historical land use [18].

5.1.2. Redevelopment of King's Cross, London

The London Borough of King's Cross has undergone a complete urban regeneration, transforming it into a mixed-use, modern city centre. The regeneration programme began at the end of the 20th century and has been progressing since the beginning of the 21st century. King's Cross has been a major success with major initiatives in the areas of housing, residential and recreational facilities.

Overall, the regeneration of King's Cross aims to improve the overall quality of life in the area, attracting more people to live, work and play, whilst retaining some of the historic buildings to maintain the unique charm of the area.

5.2. Multi-Perspective Comparison

5.2.1. Bottom-Level Comparison

Through the analysis of the relevant information, we can see that there are problems in the transformation of the "three olds" in Guangzhou as follows:

Firstly, there is the problem of funding. In the process of urban and rural renewal, there is a lack of funding for the "three olds" because government departments do not deeply understand the seriousness of the renewal process and do not ensure a regular supply of funds for the renewal process. The "three olds" transformation will definitely involve the issue of farmers' demolition and relocation fees, and therefore requires a large amount of capital investment.

Secondly, there is the issue of compensation. Since the expropriated persons generally consider that the compensation rates for expropriation do not meet their expectations, and the expropriated persons, especially the stores, consider that the compensation rates are on the low side, they have engaged in a heated game with the Government around the issue of compensation rates [19].

And there are problems with the transformation of London's King's Cross neighborhood as follows:

The first is the uncertainty of attracting investment. Due to the lack of information (price signals), there is uncertainty as to who will invest first and who will buy the land at what price, which invariably adds to the complexity of the overall planning project for the area.

Secondly, there is the issue of preservation of historical sites: for example, in the process of the transformation of the King's Cross area, the developer intended to demolish the Carruthers Building and the Stanley Building in order to build a highway for the two bus routes and a large number of cabs, while ignoring their important historical and cultural value as industrial-era workers' residences.

Through comparative analysis, we can see that the common problem of both is the difficulty of demolition and relocation. In the transformation of the "three olds", demolition, relocation and

resettlement are mainly determined by negotiation between the market entity and the original rights holders, which makes negotiation and negotiation difficult and conflicts prominent. In the case of the King's Cross redevelopment, most of the original residents are low-income citizens who do not want to move out of the lower cost of living and more familiar environment, while the local merchants are demanding that the plan bring more business opportunities.

5.2.2. Mid-level comparison

For the middle level, that is, the local government, investors, Guangzhou "three old" transformation problem for the entrustment-agent problem. The management of the local departments pursues self-interest or comfort:

On the one hand, there is goal bias, local governments may seek excess profits, the central government and local governments are typical of the principal-agent relationship, in the pursuit of the different interests of the two goals, the local government will largely use the power given to them by their superiors to seek excess profits. On the other hand, there is asymmetric access to information. Compared with the central government, local governments have the advantage of private information, which leads to the central government being in a passive position from time to time.

The following are problems with the transformation of London's King's Cross neighborhood:

First, there is the problem of the supply of public goods, as evidenced by the lack of public spaces or public transportation and the neglect of remediation of contaminated land. Secondly, there is the problem of low public participation. In the development of King's Cross, a degree of public participation was achieved, i.e. informing the plans that had been drawn up, but it was confined to the bottom rung of the public participation ladder. There are also issues of commercial viability. Urban regeneration projects need to be commercially viable in order to attract private investment. The extent of commercial viability of the land to be developed needs to be determined prior to development.

And the same problem exists between the two places as follows.

The first is the phenomenon of profit-seeking: In the "three olds" transformation, "industrial to commercial and residential" is overheated, while "industrial to industrial" and "industrial to public welfare" are cold. Local governments in King's Cross renovation pursue short-term gains at the expense of long-term development.

The second is the lack of local planning awareness: The contradictions and conflicts between the "three olds" land use master plan and the city master plan are obvious.

The developers of the King's Cross neighborhood have made repeated adjustments to the development plan, and random changes in environment and function have severely impacted the lives of residents.

5.2.3. Top-level comparison

The problems of the "three olds" transformation in Guangzhou are as follows:

First of all, the top level of planning and policy issues, Guangzhou City on the technical aspects of the introduction of the number of policy texts is obviously insufficient, combined with the frequency distribution of key words in the policy, the "mapping library" work process is very slow, and did not come to fruition.

Secondly, there is the legal problem that the "three olds" transformation lacks the support of superior laws. This has led to the dilemma of land transfer agreements and the voluntary transfer of collective land to the State.

There is also the issue of property rights, which is mainly reflected in the difficulty of registering historical land and houses without title registration. This means that it is difficult to register historical land and to register historical buildings.

And there are problems with the transformation of London's King's Cross neighborhood as follows:

With regard to top-level planning and policy issues, the policy issue for the transformation of King's Cross is primarily one of planning risk and uncertainty, which encompasses the risks inherent

in the planning system, inefficiencies in the public procurement process, and the additional risks posed by political decision-making.

With regard to legal and property rights issues, the process of land assembly is made more difficult by the fact that adamant landowners will drive up the cost of assembly even before planning permission is granted.

The analysis shows that there are top-level planning and policy issues, legal and property rights issues in both places, but the specific manifestations are different.

6. Conclusion

Based on the logical framework of "top-middle-bottom" and different stakeholders, this paper summarizes the problems and reasons of urban land development and reuse in Guangzhou and London through the comparative analysis of the two cities and provides a reference scheme for urban land use in China. It summarizes the problems and causes of urban land development and reuse in Guangzhou and London, and provides a reference program for urban land use in China.

Urban land development and reuse is a topic that has always existed and needs to be solved in the process of urban renewal. We need to learn from the excellent cases abroad, and more importantly, we need to combine with the basic conditions of China, analyze the specific problems, and continue to improve the efficiency of land use on the basis of the development of the previous generation, and strive for a higher-quality development in the new era.

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