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Practical challenges of urban regeneration in China

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1. A brief introduction: from urban modernization to urban regeneration in Chinese cities

The first transition to modernization, which began with the industrial revolution, shifted most advanced economies from traditional rural societies to modern urban ones. The corresponding historical process spans the initial and accelerating stage of urbanization in the Northam curve (Northam, 1979). After World War II, the endogenous development demand of the industrial economy gave birth to the new technological revolution, later supported by the internet and other information technology as the core. It drives the second transformation of modernization, corresponding to the late stage of urbanization in the Northam curve. Compared to the rapid urban modernization process in developed economies, China's modernization was delayed and occurred in the late 1980s (Cheshmehzangi and Chen, 2021). This was reflected in the rapid urbanization stage of contemporary China, known as the "economic reform and market-led urbanization era" from 1978 (Gu et al., 2017). More than 600 million people moved from rural areas to cities, with a tremendous growth in the urbanization rate from 17.9 to 64.72% in this period, known as "China's growth miracle" (Zhao and Zhang, 2018; Chen et al., 2022). However, many socioeconomic problems such as the obstacles of environmental degradation, severe traffic congestion, fast-rising housing prices, and urban vulnerability remain major challenges in Chinese cities. Meanwhile, they face numerous challenges in meeting inelastic demands for a more high-quality living space. Urban regeneration has become a critical approach to alleviate these problems and improve life quality to meet these growing demands (Chen et al., 2008). This is a process of planned reconstruction for neglected urban areas, which are adapted to modern urban social surroundings (Deakin and Allwinkle, 2007). This process not only upgrades the urban structural function system and industrial structure but promotes the development and evolution of cities (Tan and Altrock, 2016; Naseri and Safari, 2018).

Since 1978, China's modernization process can be divided into three main stages based on its urbanization process and macro-level policy changes (Qiao, 2020). From 1978 to 1991 was

1 The development of the new system parallels the unreformed old system. China's rapid economic growth can be attributed mainly to the dynamic development of the "new track non-state sector" which consists of private and semi-private enterprises, community-owned rural industrial enterprises, foreign joint-ventures and individual businesses (Gang, 1994).

“bottom-up urbanization” under the dual-track gradual reform.¹ The legal system of urban planning was initially established, and large-scale urban reconstruction was successively carried out in this first stage. From 1992 to 2012 was the “floating urbanization” under the reform of the market economic system. With the establishment of a market economy system reflected in the rapid use of land, the development of the real estate industry, and the investment of considerable foreign capital, urban redevelopment was transitioned from a single old building or street in the second stage. From 2013 to now is “new-type urbanization” under comprehensive deepening reform. As the rapid urban expansion and large-scale urban redevelopment buried potential crises in the environment, society and economy, urban regeneration was proposed in the last stage.

Furthermore, China’s urban regeneration as a political task was unplanned and hysteretic in the previous two stages, which was at variance with the leading function of planning. The national governance with a series of urban regeneration policies has been strengthened in this stage. A typical example is that urban regeneration has been elevated to long-term strategic planning in the 14th Five-year Plan (State Council, 2020). Furthermore, many local governments have published adaptive plans for urban regeneration, such as *General Planning of Guangzhou Urban Regeneration (2018–2035)*. Nevertheless, China’s socio-political context and policies related to existing urban regeneration paradigms are still bottlenecks to genuine urban regeneration practices. In this article, we argue that there are four practical challenges of urban regeneration in the present stage in China.

2. Four practical challenges of urban regeneration in China

2.1. Lack of a long-term management mechanism

Unlike participatory urban regeneration in developed economies, China’s approach to urban regeneration is top-down and financially supported by the government (Sonn et al., 2017; Zhang et al., 2018). It is oriented around a robust centralized governance mechanism (Wang et al., 2020). The leading activities of the government play an important role in the regeneration projects. Undoubtedly, the formulation of plans and relative policies has made great progress. Numerous renewed areas, however, lack effective property management after project completion. Most residents in those renewed communities still keep the idea that paid management is unnecessary and thrifless as the prior unserved surroundings remained long (Liu et al., 2019; Zhang et al., 2020). Due to the contradiction between management demands and the residents’ willingness, it is hard for the government to bear this financial burden. Hence, their construction and reconstruction achievements face challenges in keeping up with long-term maintenance. Furthermore, there are difficulties in collecting property fees and maintaining facilities even though property management teams were introduced in the real-estate management system.

2.2. The unilateral pursuit of floor area ratio (FAR)

In recent decades, the property-led development pattern has prevailed and is touted in China’s urban regeneration projects (He and Wu, 2005; You-Tien, 2010). It undoubtedly brought considerable economic benefit in multiple ways, and the most significant one is the improvement of local floor area ratios (FARs). Since the main financing approach of urban regeneration during the period of incremental expansion, increasing the floor area ratio focuses on land finance (Shen et al., 2021). In other words, land capital is often obtained by increasing FAR. Owners, developers, and planning and design consultants participating in the projects form a set of mature working methods to obtain legal and compliant FAR and economic benefits after they are familiar with the rules. It may, however, damage the urban landscape and livable quality when higher FARs are blindly chased. Meanwhile, if increasing FAR fails to generate enough tax revenue, enormous pressure on future finance will be enhanced. Thus, there is a mismatch between rapid FAR increase and urban regeneration models in China.

2.3. Limited engagement between different stakeholders

Existing studies widely discussed the issues of public participation in China’s urban regeneration projects (Zhuang et al., 2019; Chen et al., 2020, 2021; Li et al., 2020). While residents, government, and developers are considered the three main actors in the project, scholars consistently consider that residents and their participating ways are the key to successful projects and put forward many available participating approaches (Yu et al., 2021; Zhao et al., 2021; Chen et al., 2022; Wang et al., 2022). A group of residents unquestionably plays a vital role in the projects as they are considered the main users. Nevertheless, they cannot directly participate in decision-making processes due to China’s top-down social governance mechanism, which is a degree of tokenism (Arnstein, 1969). Apart from this, the contribution of the government is exaggerated. The decision-making for the urban renewal process is related to whether a particular area is situated within an urban regeneration plan developed by the local government (Yung et al., 2014; Wang et al., 2022). In other words, other stakeholders have no right to launch an application of urban regeneration even if they consider it urgent. Thus, such limited engagement between different stakeholders could cause further problems and conflicts in the areas that may be left to deteriorate.

2.4. Lower differential inclusion

The renewed areas are mostly lived by low-income people or migrant workers (Wong et al., 2018). Urban regeneration can bring a high-quality living environment and cause expensive living costs. The residents cannot bear these costs and are replaced by those of higher social status, which is a typical process of gentrification (Sutherland, 2019). In this process, the residents are removed from

their arrival cities² to the outskirts (Saunders, 2010). Such a social Darwinism phenomenon³ seems to improve social progress but destroys multi-stakeholder diversity and integration in those areas, resulting in challenging social norms and civility (Furbey, 1999; Ye, 2017). As argued by Lees (2014), urban regeneration needs to re-establish the city as the driver of democratic politics, rather than the one that gets mired in a dystopic post-justice city. Consequently, the resettlement of those vulnerable groups becomes the key issue in defense of lower differential inclusion.

3. Responding to existing challenges: an overview

The problems discussed above are resolvable. Here, we list four corresponding strategies to address them.

3.1. Holistic operating management

Based on the characteristics of each area, long-term management measures can be added to the existing management mechanism. These could be residents' self-management, public welfare jobs for residents, and menu-based property management⁴ to increase the interaction between residents and their living areas. Furthermore, pilot communities can be selected to explore advanced long-term management modes, such as the trust-based property service pattern. In detail, the owners' committee is the mandator, the property enterprise and the trust company are the co-trustees, and all residents are the beneficiaries of the service trust. Through the trust system, community owners can effectively supervise various services of property based on the details of the use of account funds (Zhuang et al., 2019). In addition, the operation management plan should be advanced to planning, design, construction, and other links for holistic consideration to improve the rationalization and effectiveness of resources and facilities allocation.

3.2. Comprehensive assessment framework with socio-cultural categories

It is impossible to persuade the developers not to mainly focus on GDP, FAR, and other economic factors. Therefore, a comprehensive assessment framework can be a reference to remind them that socio-cultural aspects should be given attention in urban generation projects. The significance of socio-cultural aspects and their instrumentalised functions have been verified in existing studies (Chan and Lee, 2007; Shin and Stevens, 2012; Rius

Ulldemolins, 2014). In other words, socio-cultural factors can also bring economic benefits, such as tourism after industry heritage regeneration. More importantly, further attention to different categories based on a comprehensive assessment framework could benefit the urban landscape and sustainable development.

3.3. The platform for application and consultation

Residents and other stakeholders can submit applications about urban regeneration projects on the platforms from application consultation. A committee can be formed to gather residents' ideas and submit their applications to relative agencies (Li et al., 2020). Community asset evaluation reports, community participation transformation guides, relevant policy compilation, and case sets can be shared on such platforms. In doing so, the authorities can provide information to support engagement between different stakeholders. Moreover, a consultative mechanism for urban regeneration can be arranged to ensure the expression and consultation of opinions.

3.4. Housing guarantee for urban vulnerable groups

Migrant workers contribute to urban economic construction and are primary providers of essential urban services (Chen and Wang, 2019). However, their living space is being greatly reduced. The urban housing security system fails to include them while considerable informal housing is rapidly disappearing. Based on this phenomenon, multiple stakeholders can actively explore the feasibility of transforming parts of buildings into public rental houses to alleviate their housing pressure and provide them with an affordable but decent living environment. This consideration would reflect the inclusiveness of the city and has the benign function of maintaining the urban social ecology.

4. Discussions and future research directions

In summary, the current development trends are mostly oriented around urban renewal approaches, which have minimized the values and effectiveness of regeneration strategies in a context where urban redevelopment is still one of the main drivers of economic development. China's socio-political context and policies related to existing urban redevelopment paradigms are still bottlenecks to genuine urban regeneration practices. We summarized four main practical challenges of urban regeneration in the present stage in China: lack of long-term plans, unilateral pursuit for FAR, limited engagement between different stakeholders, and lower differential inclusion. Correspondingly, four strategies are put forward to address these challenges: holistic operating management, a comprehensive assessment framework with socio-cultural categories, a platform for application and consultation, and a housing guarantee for vulnerable urban groups.

2 A settlement formed by migrants from rural areas in a large city.

3 Human groups and races are subject to the same laws of natural selection as Charles Darwin perceived in plants and animals in nature.

4 Residents can determine what services they need, such as whether the corridors are swept once or three times a day, and whether the security guards are patrol every hour or every two hours. There are different prices for different services.

We conclude with some directions for future research. Firstly, the difference in the spatio-temporal distribution of those challenges can be verified. Their characteristics can provide a more comprehensive understanding of China's urban regeneration policies and practices. Secondly, the application efficiency of those strategies could be tested. Nonetheless, they may have different effective levels on different types of urban regeneration. Lastly, more issues for specific stakeholders in urban regeneration projects can be further clarified. Thus, more refined research can provide more accurate solutions. Overall, future research directions should align with urban retrofitting and renovation strategies, reforms on current policies, and new opportunities for alternative urban design and planning paradigms.

Author contributions

AC developed the concept and paper structure and did the final edit. WC did literature review and wrote the sub-sections. EM and TH helped with revisions and edits. All authors contributed to the article and approved the submitted version.

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Conflict of interest

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