

RESEARCH ARTICLE

Experimentation-based Policymaking for Urban Regeneration in Shenzhen, China

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Abstract

A growing appreciation of the potential benefits of experimentation to tame the complexities of urban transformation has led to an increase in related research activity. Building on a “practice-to-policy” experimentation-based framework, this paper investigates the adaptive policymaking process for urban regeneration in Shenzhen since the 2000s. It finds that “explorative experimentation” is used to identify a general direction in the absence of a clear route for the policy process, while “generative experimentation” is sequentially dedicated to specific issues for the improvement of the entire policy package within a particular reform. We argue that understanding the successive roles or hybrid functions of these two types of experiment adds new insights to the development rationales for Shenzhen’s urban regeneration and provides inspiration for an experimental model of urban governance. Governments and policymakers can benefit from the experimentation-based approach, as presented in the Shenzhen case, to pursue policy innovation embedded in local contexts.

摘要

通过实验来解决城市转型中复杂问题的潜在优势得到了越来越广泛的认可。本文通过构建“实践到政策”的实验分析框架，研究了 21 世纪初以来中国深圳市城市更新适应性的政策制定和发展过程。研究发现：“探索型实验”常应用于政策路径不明晰的情况下，以寻找改革的总体方向；而“生成型实验”则是在改革方向明确后逐渐优化改革中的各类具体问题，以提升整个政策系统。我们认为两种实验的连续作用或混合使用，为深圳市城市更新的发展理论提供了新的见解，并为城市实验式的治理模式提供了灵感。各地政府和政策制定者可以从深圳案例所展现的基于实验的方法中受益，以追求嵌入当地背景的政策创新。

Keywords: experimental governance; policy experimentation; explorative experimentation; generative experimentation; urban regeneration; Shenzhen

关键词: 实验式治理; 政策实验; 探索型实验; 生成型实验; 城市更新; 深圳

Experimentalism has extended from natural science to policy science¹ and has shifted from a narrow methodological term to encompass a particular pattern of governance.² Experimental governance serves as an adaptive way to bring about fundamental transformations or institutionalization.³

In China, policy experimentation, applied via implementation prior to legislation, is deeply rooted and has been a significant factor in the nation’s recent success.⁴ “Experimentation under hierarchy” was proposed to identify local innovations, which usually need higher-level support to

1 van der Heijden 2014.

2 Huitema et al. 2018; Voß and Simons 2018.

3 Heilmann, Shih and Hofem 2013; Raven et al. 2019.

4 Heilmann 2018.

be rolled out nationally.⁵ Although support from a higher authority is acknowledged in this patron-client relationship, bottom-up initiatives are emphasized owing to local officials' incentives to pursue economic development and promotion.⁶ However, extant literature based on Sebastian Heilmann's work converges on discussions of the central-local relationship⁷ and the revelation of a macroscopic trial-validation-expansion landscape where a pre-innovation environment created by the central state guides and encourages local practices.⁸ Little attention has been paid to how local policy innovations are generated.

In this study of policy experimentation, we focus on the municipal level to investigate the local institutionalization process using experimentation methodologies. We also add to the discourse by engaging with an emergent urban trend in China, urban regeneration, which is a complex city-specific issue that cannot be decided by a single entity or designed in any unified approach.

Using a case study of Shenzhen, where experimentalism is both prevalent and diverse, we explore the development of urban regeneration since the 2000s and find that it presents a practice-to-policy trajectory. First, Shenzhen's urban regeneration is based on an adaptive policy system that intentionally allows the coexistence of legal and provisional rules. Second, two kinds of experimentation, explorative and generative, are strategically adopted at different phases of urban regeneration in Shenzhen.

We start by briefly sketching experimental governance and move on to a review of experimentation with urban regeneration in China. We then build a practice-to-policy framework to logically illustrate the Shenzhen case and describe the study area and methods. Next, we concentrate on policy formulation and evolution in Shenzhen's urban regeneration. We close by summing up the Chinese government's adaptivity and by suggesting potential challenges when applying the experimental model across geographic spaces and policy domains.

Literature Review

Interpreting experimental governance

In pursuit of progress under uncertainties, experimental governance is a form of deliberation undertaken by city governments to exploit the unknown and doubt by mutual correction among relevant actors. It differs from classical experimentation, which is dedicated to causality verification through rigorous design, in several ways.

First, it is pragmatism-oriented rather than hypothesis-driven.⁹ In other words, experiments become creative attempts to solve problems, and hypotheses are secondary; instead, political goals become increasingly important.¹⁰ Second, the problem-solving experimentation associated with pragmatism signifies that the experiment may not necessarily follow the rigid rules of natural science: quasi-experimental methods are often adopted or a more flexible environment is granted.¹¹ Third, the role of experimenter is not confined just to scientists but rather is extended to various stakeholders,¹² making experimental governance a pattern of collective learning¹³ in which interaction and bargaining among stakeholders mutually influence the process and outcomes of experiments.¹⁴ Finally, cities have become a new laboratory, with experimentation becoming an

5 Heilmann 2008, 5.

6 Tsai and Dean 2014, 343.

7 Wang 2019; Zhu and Zhao 2021.

8 Lim 2017; Han and Mills 2021.

9 Overdevest, Bleicher and Gross 2010.

10 Guggenheim 2012.

11 Ansell and Bartenberger 2016.

12 Weiland et al. 2017.

13 Ostrom 2000; Norgaard 2004.

14 Han 2020a.

increasingly popular solution used by politicians and urban practitioners to address social, economic and environmental problems.¹⁵

Experimentation with urban regeneration in China

China's rapid urbanization has led to insufficient built-up space and a demand for regeneration, especially in highly urbanized areas. However, urban regeneration in China is in its infancy, with no previous domestic programmes to refer to. In addition, China's fragmented authoritarian regime, strong government-dominated ideology and economic-oriented regeneration models differentiate urban regeneration activities in China from those in other countries.¹⁶ Even within China, there is no universal or prescribed formula for urban regeneration owing to socioeconomic variables and disparate political priorities.¹⁷

Consequently, experimental governance has been prioritized within China's urban regeneration landscape.¹⁸ In 2021, Huang Yan 黄艳, vice-minister of the Ministry of Housing and Urban–Rural Development (MHURD), announced: “we will continue experimenting with urban regeneration to find suitable solutions and will launch a number of pilot programmes in an orderly manner.”¹⁹ Following this, the MHURD confirmed the first batch of pilot projects, involving 21 cities, for urban regeneration.²⁰

Our study area, Shenzhen, was one of the earliest cities to engage in urban regeneration in China, and its experimental trajectory within the framework of market reforms has received substantial attention.²¹ It has had a significant influence on the “three olds regeneration” (old towns, old villages and old factories) (*sanjiu gaizao* 三旧改造) policy of Guangdong province²² and has even become a national reference by virtue of measures that have led to reductions in transaction costs and an overall improvement in efficiency.²³ The focus of this study is on decoding the process of local institutionalization.

Conceptualizing experimentation-based policymaking

Experimental practices in China's urban regeneration have revealed a particular pattern of pilot project-oriented or experience-based policymaking, a practice-to-policy process that favours and allows space for experimentation.²⁴ The results and effects of experimental practices help the government to gain more certainty about subsequent actions and to form urban regeneration strategies.²⁵

This practice-to-policy process takes place within an adaptive policy system that emerges from the adaptation of the social-ecological system. Adaptation lies with the capacity to respond to unexpected challenges with considerable uncertainties.²⁶ The adaptive policy system mainly describes a

15 Karvonen and van Heur 2014; Evans, Joshua 2016; Sabel and Victor 2022.

16 Li, Ling Hin, et al. 2014; Wu 2016; Zhang, Chen and Tochen 2016; Yao et al. 2021.

17 Zhou 2014.

18 Cheng 2012; Lin, Hao and Geertman 2015.

19 “Nuli shixian quanti renmin zhuyousuoju” (Ensuring housing for all the Chinese people). *Scio.gov.cn*, 31 August 2021, <http://www.scio.gov.cn/xwfbh/xwfbh/wqfbh/44687/46680/index.htm>. Accessed 22 February 2023.

20 “Guanyu kaizhan diyipi chengshi gengxin shidian gongzuo de tongzhi” (Notice on launching the first batch of pilot urban regeneration projects). *Gov.cn*, 4 November 2021, http://www.gov.cn/zhengce/zhengceku/2021-11/06/content_5649443.htm. Accessed 22 February 2023.

21 Li, Xiang, Wu and Han 2021.

22 Li, Bin, and Liu 2018, 1401.

23 Lai and Tang 2016; Lai et al. 2021.

24 Schoon and Altröck 2014.

25 Li, Yong, et al. 2018.

26 Evans, James P. 2011.

gradual, continuous process of institutionalization that builds the resilience to maintain fixed institutions while altering unfixed ones for favourable outcomes.²⁷ In other words, not all arrangements in a particular reform are formalized at one time and so a policy package is created that combines legalized and provisional arrangements. In general, measures with a high degree of certainty and main principles are codified first, whereas those with opposite features are usually implemented as provisional regulations (*zanxing guiding* 暂行规定) and formalized gradually only after sufficient practical experience.²⁸ The coexistence of formalized and interim arrangements results in strong adaptability, ensuring that programmes can be carried out in compliance with the policy package while leaving leeway for policy rectification to cope with external changes.

In the practice-to-policy process, two types of experiments are conceptualized: “explorative experimentation” and “generative experimentation” (Figure 1).

Explorative experimentation retains the main principles of Darwinian and parallel experimentation.²⁹ It operates at the initial stage, where levels of diversity are emphasized and the modus operandi of project initiators are tolerated to test potential innovative policy options as much as possible. Once urban regeneration is included in the government’s agenda (Figure 1, I), various experimental projects are conducted concurrently in the absence of clear regeneration strategies and detailed rules (Figure 1, II). To avoid unanticipated outcomes and maintain political stability, the government issues a broad directive granting experimental projects an expanded strategy space that prompts related actors to interpret the government’s guidelines in divergent ways.³⁰ Even informal behaviour may be tolerated by the government if it serves the specified goals without undermining the regime’s legitimacy.³¹ Consequently, different options are generated by a large number of trials, followed by a determination of the general reform direction by the government (Figure 1, III).

Generative experimentation is the process of generating and iteratively refining a solution for a particular problem based on continuous feedback at the policy implementation stage.³² The adaptive policy system is introduced to explain the proliferation of regulations which result from the first-stage experimentation. Certain policies, particularly those concerning the direction of reform, are formally legislated, whereas others regarding details are usually presented as prototypes. With the formation of a policy package that aims to serve the selected option, policies are diffused across the city and full-scale operational programmes are rolled out within the established policy spectrum (Figure 1, IV). Policy impact assessment by the government is based on policy implementation outcomes and affects policy development. It can be also influenced by relevant stakeholders’ exchanges with the government (Figure 1, V). Provisional arrangements might be revised several times and finalized by formal legislation, in accordance with the feedback (Figure 1, VI). Responsively, the adaptive policy system will be updated constantly with policy iteration. Thus, a policy circuit (Figure 1, IV, V, VI) is formed. New interim policies to deal with emerging issues might be issued by the government during this stage and circulate likewise.

Both kinds of experimentation comply with the logic of discovery rather than the justification of causality. However, explorative experimentation is employed to seek a general direction for reform where there is a lack of a clear route for the policy process, and therefore it focuses less on details.³³ Its core lies in increasing the number of experimental units, because it relies on successful innovation arising from probability.³⁴ By contrast, generative experimentation is adopted to improve the innovation produced in the initial experiment by refining details. It concentrates on a single

27 Schoon 2014; Engle 2011.

28 Heilmann 2008, 6.

29 Ellerman 2014, 262.

30 Leutert 2021.

31 Schoon and Altröck 2014.

32 Ansell and Bartenberger 2016, 68.

33 Han 2020b.

34 Nair and Howlett 2015.

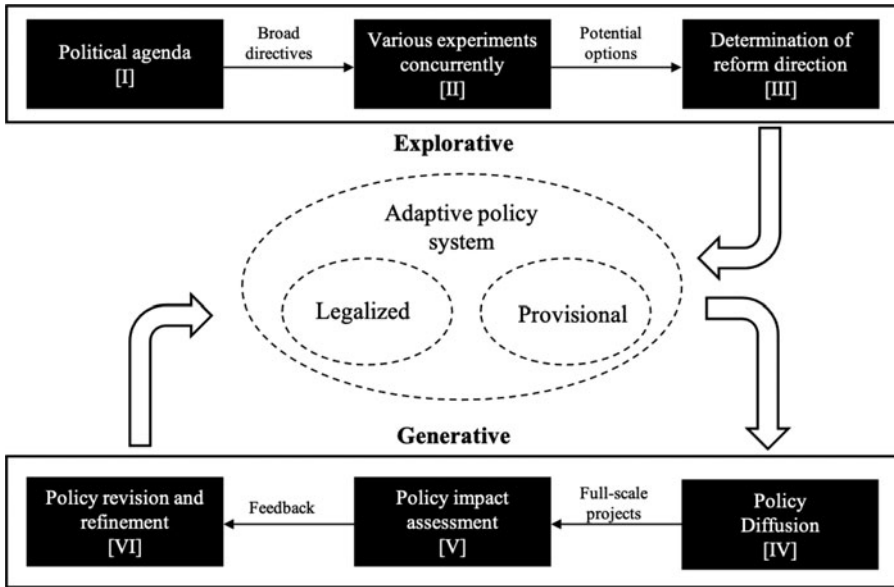


Figure 1. Conceptual Framework of Experimentation-based Policymaking

experiment at a time through constant intervention to seek a solution to a particular issue through accumulated knowledge and experience. It demonstrates a strong time-series characteristic.³⁵ The two types of experimentation thus present a functional sequence in the framework. The turning point lies in the selection of the general direction of reform from multiple options and the generation of a set of policies accordingly. Generative experimentation then embarks upon the improvement of the prototype solutions to detailed issues through policy implementation following the determined direction. The two experimentation types may also coexist when there emerges a new political call for a new round of policy experimentation. The premise is that newly initiated experimentation does not substitute for the established policy system but is complementary or parallel to it.

Case Overview and Methodology

Why Shenzhen?

The innovations of local governments in China are always tightly linked to higher-level governments. On the one hand, local innovations hinge upon a loose political environment provided by the upper-level authorities; on the other hand, higher-level support is necessary when local innovations are incorporated into nationwide institutions. Shenzhen, the first Special Economic Zone (SEZ) (*jingji tequ* 经济特区) that pioneered China’s opening-up (*gaige kaifang* 改革开放) policy and market reforms is such a city enjoying these two distinct advantages granted by the central state. Strong national backing has greatly facilitated Shenzhen’s policy innovations, which have usually been transformed into local formal institutions and have simultaneously exerted a profound influence on national legislation in many aspects. For example, land auctions and labour market liberalization, both launched initially in Shenzhen, have been rolled out across the country. The city has always been an active laboratory in terms of policy innovations in China, and policy experimentation with urban regeneration is no exception.

35 Stoker and John 2009.

Shenzhen is the first city in China to introduce a market-leading urban regeneration strategy to optimize existing land resources and has achieved great success on many fronts. By 2020, 928 projects had been included in Shenzhen's urban regeneration plan, which covered a demolition-and-redevelopment (*chaichu chongjian* 拆除重建) area of about 75 km². Included in this area, projects targeting urbanizing villages (a unique Chinese habitat of rural settlements scattered in a disorderly way in urbanized areas) (*chengzhongcun* 城中村) and industrial parks each accounted for approximately 35 km². Additionally, 436 projects were completed, under construction or ready for implementation, covering an area of almost 25 km². The abovementioned statistics only refer to demolition-and-redevelopment programmes (physical regeneration). Retrofitting (*zonghe zhengzhi* 综合整治) has become another important aspect of the later stages of Shenzhen's urban regeneration. In this study, urban regeneration can be defined as a combination of these two patterns, and we use the urbanizing village as the research object.

Data collection and analysis

First, we gathered and reviewed policies regarding Shenzhen's urban regeneration dating from 2001 to 2020 to gain a holistic picture of this lengthy and complex policy process. We divided the development trajectory into three phases: before 2009, 2009–2016 and 2016–2020. These time periods were chosen because many attempts were made at Shenzhen's urban regeneration prior to 2009, the city then officially started market-led urban regeneration on a large scale in 2009 and, more recently, delegated authority for urban regeneration to district level in 2016.

We then identified key policies at each stage and created a series of surveys around these nodes. We conducted 11 interviews from 2017 to 2020. The interviewees mainly included officers from municipal and district planning and natural resources bureaus in Shenzhen, policymakers from Shenzhen's Planning and Land Development Research Centre, and planners from the Urban Planning and Design Institute of Shenzhen. Interview questions primarily covered the policy evolution process, crucial policy changes, factors that drove these changes, and the effects of the changes. We also carried out seven interviews with major developers, including Vanke, Gemdale, Kaisa and the China Resources Company Limited (CR), to examine their influence on policy evolution. Questions to those actors concentrated on limitations enforced by policies and reactions to policy resistance. Additionally, we conducted eight field visits to typical projects that played crucial roles in policy evolution and collected extensive data concerning planning schemes and profit sharing.

We supplemented the interviews and field surveys with data gathered from academic conferences, professional reports and scholarly papers. Primary and secondary data were sorted and analysed in three steps. First, the key policies of each policy phase were linked with the relevant supporting materials. Second, those materials were organized according to the reasons for policy formation or variation, the core contents of policy, and the policy implementation effects. Third, these data were placed in an ordered timeline to formulate narratives within the conceptual framework.

Explorative Experimentation on Urban Regeneration in Shenzhen before 2009

Urgent need for urban regeneration owing to a severe shortage of land resources [1]

In 2001, a review of Shenzhen city's Master Plan first warned of the issue of excessive land consumption in Shenzhen. According to the land use planning recommendations for Shenzhen, by 2020 the total scale of construction land should be confined to within 1,004 km². However, by 2004, it was predicted that all of the remaining land quota would be used up in approximately ten years if construction continued to grow at the same annual rate as it had in the previous five years. The shortage of land resources created an urgent need to optimize use of existing developed

land in Shenzhen. According to statistics, Shenzhen's urbanizing villages cover approximately 321 km² of land, occupying 31.9 per cent of the built-up area and half of the residential area. The government therefore prioritized the transformation of urbanizing villages.

In October 2004, the municipal government issued its "Provisional regulations for urbanizing village regeneration in Shenzhen" (Document No. 1 hereafter; henceforth all documents are numbered sequentially). It was the first specific policy document on urban regeneration issued in Shenzhen and contained details pertaining to regeneration goals, plans, compensation and incentives. In April 2005, the "Enforcement opinions on provisional regulation for urbanizing village regeneration in Shenzhen" (Document No. 2) was issued, which established the Shenzhen Office of Urban Regeneration as the authority in charge of regeneration affairs. The issuance of both of these documents marked the launch of urban regeneration in Shenzhen.

Owing to the lack of systemic strategies and regulations, Shenzhen's urban regeneration was to be carried out in an exploratory manner. Urbanizing villages are deeply contextualized in China's overall urbanization process and encapsulate a series of critical issues such as messy property rights, complex interpersonal relationships and dual-track land management systems.³⁶ The guidelines-oriented documents No. 1 and No. 2 did not adequately address these issues and so failed to accelerate the transformation of urbanizing villages. Thus, regeneration during this period centred on launching flagship or pilot projects in which relevant stakeholders were granted more space to bargain with each other.³⁷ Following what was termed the "one village, one policy" (*yicun yice* 一村一策), these projects were conducted in diverse ways and according to different criteria. This strategy suitably chimed with the government's temporal goals, as stipulated in Document No. 2, of "exploring feasible regeneration models and mechanisms, achieving pragmatic experience accumulation and establishing statutory systems of urban regeneration as soon as possible."

Multiple trials for urbanizing village regeneration [II]

The "one village, one policy" strategy prompted multiple trials of urbanizing village regeneration. These projects mainly experimented with the form that regeneration would take, who would be responsible for driving the regeneration project, and ways to determine and allocate land increments. Yunong village 渔农村, Dachong village 大冲村 and Huanggang village 皇岗村 are three typical examples of pioneer projects that made substantial progress, each representing a different regeneration model (Table 1). All three are located in downtown areas and were regenerated in a demolition-and-redevelopment way.

The Yunong project was driven by the government, which took charge of negotiations with the village's community share cooperative company (CSCC) (*cun jiti gufen gongsi* 村集体股份公司), the provision of a portion of the compensation and infrastructure construction. The developer, Gemdale, managed the demolition, reconstruction and the remaining amount of compensation. In the Yunong case, almost all the land increments were captured by the original villagers and the developer, as the government made significant concessions on the land price, cash subsidies, tax relief and compensation for most illegal buildings.

The Dachong case presented a different scenario. Much of the responsibility borne by the government in the Yunong project was transferred to the developers. The government acted as an intermediary between the developer (CR) and the Dachong CSCC, while the developer dominated the regeneration process. To meet the profit-seeking requirements of the developer and villagers, many preferential terms, such as an increase in floor-area ratio (FAR) and discounted land prices, were promised by the government. In return, apart from some reserved land, the government also received public amenities for free from the developer, including primary schools, kindergartens, public housing and bus terminal stations.

³⁶ Hao, Sliuzas and Geertman 2011.

³⁷ Altrock and Tan 2018.

Table 1. Comparison of Three Typical Regeneration Models

Representative Projects	Pilot Form	Dominant Actor	Division of Responsibilities	Reasons for Success
Yunong village	Chosen by the government	Government	<ol style="list-style-type: none"> 1. Government: regeneration plan making, negotiation with CSCC, most of the compensation, infrastructure construction 2. Developer: a small amount of compensation, demolition and reconstruction 3. CSCC: bargain with government to fight for interests on behalf of the whole village 	<ol style="list-style-type: none"> 1. Exemption of the land price (US\$20 million) 2. US\$25 million cash subsidy to the developer 3. 50% relief on taxes 4. 90% of illegal buildings eligible for compensation by the government
Dachong village	Chosen by the government	Developer	<ol style="list-style-type: none"> 1. Government: intermediary agent between developer and CSCC, and administrative manager 2. Developer: negotiation with CSCC, regeneration plan making, demolition, compensation and reconstruction 3. CSCC: bargain with the developer to seek as much profit as possible 	<ol style="list-style-type: none"> 1. FAR preference 2. Most buildings, including identified illegal ones, eligible for compensation at the rate of 1:1 or 11,000 yuan per square metre alternatively 3. Discounted land price 4. Public facilities and a certain percentage of land given to the government by the developer
Huanggang village	Voluntary participation by the collective	Villagers	<ol style="list-style-type: none"> 1. Government: administrative manager 2. CSSS: set up a real estate company or cooperate with Excellence Group to conduct regeneration, and maintain relationships within the village 3. Developer: cooperation with Huanggang CSCC 	<ol style="list-style-type: none"> 1. Located at the Shenzhen city axis 2. Social capital: a strong sense of collective consciousness 3. Brilliant leadership of village cadre exerting great influence on villagers 4. One of the richest villages among 330 CSCCs in Shenzhen

Source: Compiled by authors.

The Huanggang project was different again. It was managed by an autonomous organization as the Huanggang CSCC established a real estate company with strong financial resources and operational capabilities to facilitate the regeneration process. Naturally, the villagers benefited the most from land appreciation.

Determination of reform direction: market-oriented physical regeneration [III]

As Table 1 indicates, Dachong's market-driven model proved to be the most successful of the three models owing to its replicability. Excessive government intervention in Yunong led to low regeneration efficiency.³⁸ Replication of the Huanggang model was difficult owing to its distinct location, close clan network, strong leadership by village cadres and abundant financial resources.³⁹ In contrast, the Dachong model exempted the government from providing a massive amount of finance and human input, and the developer's acquisition of considerable benefits essentially pushed regeneration projects.

Apart from the replicability of the Dachong project, the Shenzhen government preferred the feasibility of a market-dominated approach:

Marketization has deeply permeated Shenzhen city's DNA. Shenzhen pioneered market-oriented reforms in China, and it was the reform of the market economy that transformed Shenzhen from a small fishing village into one of the most modernized cities in just a few decades.⁴⁰

Third, the global financial crisis of 2008 indirectly prompted the government to choose market-driven physical regeneration:

The increasing investment to stimulate the economy became a top priority for the Shenzhen government after the financial crisis. Market-oriented physical regeneration is still following China's land finance strategy, which is capable of attaining land resource accumulation and driving economic growth in a short period. It can resolve the issue of land shortage and alleviate the impact of the financial crisis simultaneously, so it is a crucial factor in our government's decision making.⁴¹

Finally, the support of higher-level authorities was pivotal in pushing the development of market-driven regeneration in Shenzhen:

The issuance of the "three olds regeneration" policy in Guangdong province in 2009 broke down institutional barriers and provided the room for local policy innovation. For example, it made collective land accessible to the market, which greatly facilitated market-driven regeneration.⁴²

These factors influenced the formal determination of the urban regeneration direction in Shenzhen. At the end of 2009, the municipal government issued its "Urban regeneration measures in Shenzhen" (Document No. 3). The first and most important law in Shenzhen's urban regeneration process, Document No. 3 outlined the core framework and confirmed the main approach to be followed in regeneration, which was defined as "government-guiding, market-leading" (*zhengfu yindao shichang yunzuo* 政府引导 市场运作). It legally indicated the government's role as coordinator, while endowing the developer with decision-making authority as the dominant player. In

38 Hin and Xin 2011.

39 Tong et al. 2021.

40 Interview with policymaker, Mr Miao, Shenzhen, 15 October 2021.

41 Interview with land reform expert, Mr Zhao, Shenzhen, 13 October 2021.

42 Ibid.

January 2012, the “Implementation rules of urban regeneration in Shenzhen” (Document No. 4), the second legal document regarding Shenzhen’s urban regeneration, specified the main implementation principles of urban regeneration in a market-leading way. The two legal documents outlined a standard market-oriented regeneration model similar to the one used in Dachong village, with a “shared-interest” mechanism for the allocation of the land increment. In other words, the developer should bear responsibility for regeneration planning, negotiations, compensation, reconstruction and provision of infrastructure and public facilities, and set aside no less than 15 per cent of the land for public interest (the “15 policy”), in return for being rewarded with discounted land prices and a generous FAR by the government.

Generative Experimentation on Market-oriented Physical Regeneration since 2009

The route to urban regeneration was not clearly mapped out until the market-oriented physical regeneration strategy was officially rolled out across the city following the release of Documents No. 3 and No. 4. Meanwhile, other relevant regulations were promulgated to deal with specific issues such as how to manage the FAR, how to handle illegal land and how to extract land for public amenity provision. Iterations on the prototype solutions to these matters have resulted in various generative experimentations during the process of citywide policy implementation. In this section, we focus on the ways in which illegal land (*hefa wai yongdi* 合法外地) within urbanizing villages was dealt with, with the study objective centring on generative experimentation (Table 2), one of the most crucial factors in the distribution of land increments in Shenzhen’s market-oriented physical regeneration.

Policy iteration on illegal land disposal to adjust allocation of land increment [IV, V, VI]

Shenzhen’s urbanizing villages encompassed a large amount of illegal land – that is, land developed by villagers without legal permission – largely owing to the lack of any proper administration during the process of rapid urbanization.⁴³ As such, ascertaining legality was a prerequisite for any reconstruction. To some extent, Dachong’s success can be attributed to the government’s willingness to compensate villagers for illegal constructions on the same basis as legal buildings. Although compensating villagers was the developer’s responsibility at the operational level, developers often sought preferential terms from the government to guarantee their profits, essentially making the government foot the bill for illegal development. Appropriately dealing with illegal land and maintaining the efficiency of regeneration have always been matters of major concern for the government.

Under the dual pressures of pursuing economic growth and protecting state benefits, the “70–30” policy was proposed, within an internal file (Document No. 5), to facilitate regeneration. This document stipulated that areas with more than 30 per cent illegal land would be barred from regeneration projects until the illegal ratio was lowered to the prescribed level via a supplementary payment for the illegal land. Seemingly, this policy was a compromise between formal titling and full endorsement of illegal property. The “30 per cent” limit was chosen because it roughly equated to the average illegal to legal land ratio for the projects of great interest to the developers at that time.⁴⁴ As such, the “70–30” policy was more of a concession to the market and the urgent needs of urban development as well as the illegal land holders, and it attracted much criticism for laundering illegality as a result.⁴⁵

To appease public opinion and establish a more reasonable profit distribution mechanism, illegal land development was penalized in the “Interim measures on strengthening and improving the implementation of urban regeneration by 2012” (Document No. 6). This document clearly specified that 20 per cent of illegal land and no less than 15 per cent of all the remaining land should be set

43 Tong, Yuan and Wang 2021.

44 Interview with manager of urban regeneration department of Vanke, Mr Yang, Shenzhen, 4 July 2021.

45 Interview, Mr Miao.

Table 2. Policy Iteration of Illegal Land Disposal

Issue Year	Policies	Document No. in Paper	Legal Status	Reasons for Issuance	Main Contents
Before 2012	“70–30” policy	No. 5	Internal document	A compromise between market needs and the need to protect national benefit	Projects with more than 30% illegal land barred from access to regeneration
2012–2018	“Interim measures on strengthening and improving the implementation of urban regeneration (2012)”	No. 6	Optimize No. 5	To appease public opinion and establish a more reasonable profit distribution mechanism	Comply with “70–30” policy and propose “20–15” policy (20% of illegal land and 15% of all remaining land to be transferred to the government unconditionally for public use)
2014–2015	“Interim measures on strengthening and improving the implementation of urban regeneration (2014)”	No. 7	Replace No. 5 and No. 6	Scarcity of projects with illegal land ratio of less than 30%	Lower the threshold by adjusting “70–30” policy to “60–40” policy to facilitate more regeneration projects
2016–2012	“Interim measures on strengthening and improving the implementation of urban regeneration (2016)”	No. 8	Replace No. 7	Scarcity of projects with illegal land ratio of 40%; regeneration of crucial areas overlooked because of land legality limitation	Regeneration projects divided into ordinary projects or major ones: “60–40” and “20–15” policies maintained for ordinary projects; gradient management of illegal land applied to major projects
After 2016	Other measures	—	Patch up No. 8	To increase the legal land ratio of regeneration projects	Regeneration projects allowed to link public-interest land to form a new project

Source: Compiled by authors.

aside for public use. This was called the “20–15” policy, which was an extension of the “15 policy.” The penalty for illegal land development was the price that the villagers paid for illegal construction and was also a timely response to social criticism. By contrast, the tolerated portion of illegal land could be seen as the cost that the government had to shoulder to avoid the transaction costs of titling the land and to expedite the regeneration process.⁴⁶ The “70–30” and “20–15” policies did improve the system of market-oriented physical regeneration in Shenzhen. Fixed investment by urban regeneration accounted for 15 per cent of the city’s total sum in 2013, and land supply through urban regeneration reached approximately 4 km² within only two years of policy implementation.

However, it was found that projects whose illegal land ratio was not larger than 30 per cent became scarcer with policy diffusion. This meant the developers had to pay extra to bring the proportion of illegal land down to the required level. Naturally, the developers were reluctant to take on the additional cost. The major developers, such as Gemdale and Kaisa, joined together in several rounds of negotiations with the government in an attempt to waive the land premium for excessive illegal land.⁴⁷ Swayed by the achievements made over two years and compelled by market force requirements, the government agreed a new compromise and moved to slightly lower the illegal land threshold in an effort to protect state assets as much as possible and to maintain the rapid pace of urban regeneration. In 2014, Document No. 6 was replaced by the “Interim measures on strengthening and improving the implementation of urban regeneration (2014)” (Document No. 7), which retained the “20–15” policy and changed the “70–30” policy into a “60–40” policy, to facilitate regeneration activities.

The same issue cropped up again as projects which met the legal/illegal land ratio criterion began to run out within two years. In addition, the threshold-based policy inevitably influenced which projects developers would select, which meant that some crucial areas the government was keen on redeveloping to provide region-wide public facilities were overlooked owing to their high illegal land ratio. Thus, the government realized that a gradual blind reduction of the threshold was not the final answer to the problem; rather, it merely placed the government in a more passive position.⁴⁸ To reverse this trend, the government issued the “Interim measures on strengthening and improving the implementation of urban regeneration (2016)” (Document No. 8), which divided Shenzhen’s regeneration projects into either ordinary regeneration units or major regeneration units (mainly for the provision of large-scale public facilities). The government did not make any concessions for ordinary regeneration units and adhered to the “20–15” and “60–40” policies. The bar of legality was, however, lowered for major units, but illegal land was dealt with on a sliding scale. Any major project with less than 70 per cent illegal land could be redeveloped without extra payment, but the penalty for illegal land differed. Specifically, the lower the proportion of the project’s legal land, the higher the proportion of land that would be handed over to the government for free. Document No. 8 was the refinement of a solution based on the threshold and penalty for illegal land. It remains in effect to date.

The game between the developers and the government has, however, not stopped since the implementation of Document No. 8. This is particularly evinced in terms of the limitations of land legality on the access to regeneration for ordinary projects and the amount of land contribution for major projects, as paying more to lower the illegal land ratio or handing over more land would bite into developers’ profits. The government did not make any adjustments to the existing regulations; instead, it took steps to help developers increase the proportion of legal land by introducing auxiliary measures. For instance, a regeneration project was allowed to link public-interest land away from the village site to form a new project with a higher percentage of legal land in order to obtain redevelopment rights at a lower price.

46 Interview, Mr Zhao.

47 Interview with Kaisa investment manager, Ms Qin, Shenzhen, 25 May 2021.

48 Interview, Mr Miao.

The policy evolution from Documents No. 5 through to No. 8 traverses a process of generative experimentation on illegal land disposal to facilitate market-oriented physical regeneration, essentially implying the allocation of land increments among the government, market and villagers. First, the “70–30” (“60–40”) policy indicates that by skipping the proper titling of property with its high transaction costs, the government is willing to sacrifice land-interest benefits to some extent to speed up the regeneration process for more land resources. Second, under pressure from society, a more reasonable profit distribution mechanism (more public interest) has been achieved with the combination of “70–30” (“60–40”) and “20–15” policies.

In addition, an asymmetric relationship between the government and market has also been implied. On the one hand, the market has great influence on policy changes that fall within the government’s tolerance in Shenzhen’s market-oriented regeneration, which is proved by the issuance of the “70–30” policy and the shift from the “70–30” policy to the “60–40” policy. On the other hand, the issuance of Document No. 8 makes clear that the government has the absolute right to stop unlimited market-friendly practices once market demands cross the government’s bottom line. Rather, the government will facilitate the market in other ways to achieve its political goals, without further sacrificing the state’s interest.

Concurrence of Explorative and Generative Experimentation since 2016

Since 2016, the policy package for Shenzhen’s market-oriented physical regeneration has matured further. However, it is difficult to encompass the different developmental needs of each district. Against this backdrop, much of the authority over urban regeneration has been devolved to district governments to ensure that they can adjust the existing policy system of physical regeneration according to the different realities of each district, thus bringing about decentralized generative experimentation. Meanwhile, the shift in the national strategy from high-speed to high-quality development (*gao zhiliang fazhan* 高质量发展) has raised new requirements for urban regeneration, particularly in response to President Xi Jinping’s 习近平 speech declaring that urban regeneration is not intended for rushed success and immediate benefits but to retain the unique memory and character of a city. Therefore, a new round of explorative experimentation on retrofitting has been proposed simultaneously.

Decentralized generative experimentation on market-oriented physical regeneration [IV, V, VI]

In October 2016, the “Decision on the reform of urban regeneration” (Document No. 9) was issued by the Shenzhen municipal government in a bid to improve the efficiency of urban regeneration. The decision was mainly about administrative decentralization by the municipal government and endowing district-level authorities with more power at the operational level (*qiangqu fangquan* 强区放权). Specifically, administrative power over regeneration projects, such as administrative examination, approval, punitive measures and inspection, would be exercised by district governments.⁴⁹ By contrast, the municipal government would focus on city-level affairs involving organization and coordination, research and policymaking, and resource allocation. This granted district governments a certain degree of freedom to make targeted adjustments to meet local needs within the scope of the established ecology. By 2018, every district had formulated its own district-level urban regeneration documents under the municipal policy framework.

This section takes Pingshan 坪山 district as an example. According to the “60–40” and “20–15” policies, an ordinary project with 40 per cent illegal land should contribute at least 21.8 per cent of its total land to the government. Following administrative decentralization, this figure was increased to over 40 per cent in Pingshan district.⁵⁰ The action taken by the Pingshan government can be

49 Interview with Shenzhen Municipal Urban Regeneration Bureau official, Ms Liu, Shenzhen, 7 June 2020.

50 Interview with Planning and Natural Resources Bureau of Pingshan District official, Mr Gao, Shenzhen, 20 July 2021.

explained in two ways. First, prior to 2009, Pingshan was a large-scale industrial zone. As an independent administrative district, there were huge gaps in its public facilities, especially schools. Second, Pingshan district was dominated by secondary industry, which accounted for over 60 per cent of the land. The government thus demanded plenty of reserve land to attract continuous investment.⁵¹ In recent years, however, the regeneration schedule for Pingshan district has been greatly slowed down by the adjustment, with a dramatic reduction in developers' profits. To tackle this, the Pingshan government held several internal meetings, mainly to discuss whether and to what extent this figure must be lowered.

Although the final answer remains as yet unclear, the Pingshan case indicates that there has been a constant process of gaming between the government and market in terms of the allocation of the land increment. Despite the government's dominant authority, the increase in the proportion of land that had to be allocated to the government crossed the developers' line, which in turn hampered the accumulation of land resources. Adjustments to balance the interest relationship between the government and market needed to be made by Pingshan to address its pain points.

Explorative experimentation on retrofitting [I, II]

In accordance with the guidance on high-quality development for the new era and the instruction of President Xi on urban regeneration, "Measures on furthering urban regeneration to promote city high quality development" (Document No. 10) was issued in 2019. It demanded a shift from "pro-growth strategy" to "quality priority" and from "physical regeneration" to "multiple regeneration measures." Retrofitting was put on an equal footing with physical regeneration. In response, the "Master plan of urbanizing village retrofitting in Shenzhen (2019–2025)" was released to cover 56 per cent of urbanizing villages in Shenzhen (see [Figure 2](#)), thus initiating a new round of explorative experimentation.

Three main trials concerning retrofitting were launched. One was the village renovation plan under which urbanizing villages would be funded by the government every year to improve their living conditions. Improvements generally included painting building façades, sanitation updates, fire control, road repairs and public space creation. The second was the incorporation of urbanizing villages into an affordable housing system. Shuiwei village 水围村 is a typical example. The state-owned enterprise Shenye Group 深业集团 was fully involved in renovations, with the policy and financial support of the Futian 福田 district government, and the renovated area was transferred to the government for affordable housing provision.⁵² Developing large-scale renting was the last trial type and included projects such as the "Van Village Plan" (*wan cun ji hua* 万村计划), which was promoted by Vanke, one of the largest developers in China. According to the conditions of this trial, the property owner is paid and the rental market for urbanizing villages is operated by the developers.

These trials exposed numerous issues. First, the village renovation plan required sustained financial input, which was a considerable test for the government. Second, welfare-nature projects, such as Shuiwei village, meant a long investment return cycle for the market. Even with the government's all-round endorsements, Shenye announced that it would no longer be involved in such programmes.⁵³ Finally, gentrification occurred in line with the rent increases triggered by the developers' profit-seeking actions in the "Van Village Plan," provoking a public outcry. In brief, the most appropriate ways of implementing retrofitting in general and for specific cases have yet to be found, and explorative experimentation will continue, but these trials signal a shift in urban regeneration in Shenzhen towards a more considerate process rather than just the pursuit of redevelopment.

51 Ibid.

52 Li, Tong, et al. 2021.

53 Interview, an employee of Shenye, Shenzhen, 8 June 2019.

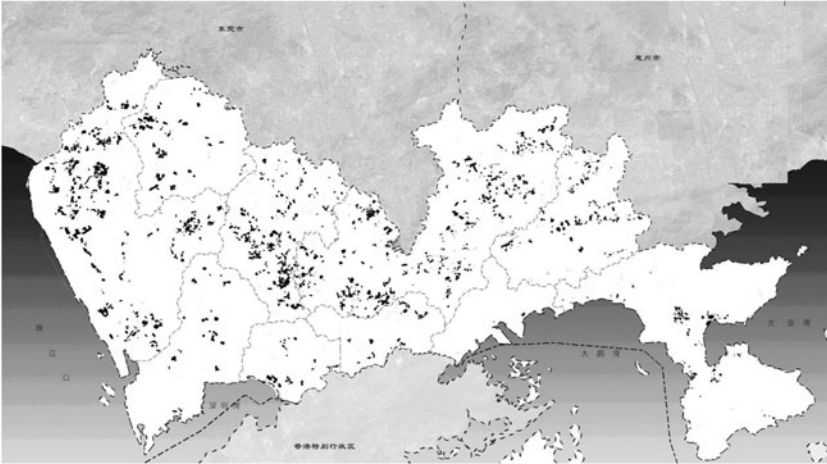


Figure 2. Master Plan of Urbanizing Village Retrofitting in Shenzhen, 2019–2025

Source: Shenzhen Municipal Bureau of Planning and Natural Resources.

Notes: The black dots represent urbanizing villages to be retrofitted.

Conclusions

This paper presents the experimental policy trajectory of Shenzhen's urban regeneration that is well serving the governments' targets during the urbanization transition. The policy evolution comprises three stages. First, the Shenzhen municipal government explored different approaches, via pioneer projects, to alleviate the shortage of land and finally settled on a market-led demolition-and-redevelopment solution. The second stage concentrated on constant policy adjustments to facilitate the full-scale implementation of projects. The process of disposing of illegal land offered an example of the complex and changeable process of benefit distribution. The third stage extended to two regeneration strategies. New experiments with retrofitting, along with further adjustments to urban regeneration projects by the district governments, have indicated a more inclusive regeneration trend in Shenzhen.

Beyond this case analysis, Shenzhen's experimentation-based institutionalization in urban regeneration demonstrates an adaptive policy system which adequately explains the levels of Chinese governments' adaptive capacity. The adaptivity is interpreted as the gradual and continuous process of institutionalization, which is found not only in the urban restructuring in the Pearl River Delta (Zhu sanjiao 珠三角)⁵⁴ but also in economic reforms throughout China.⁵⁵ The many provisional regulations guide practices to achieve greater efficiency and are adjusted constantly according to actual practice in the meantime to maintain resilience. Such prudent institutionalization resonates with a widespread guideline: "wading across the river by feeling the stones" (*mozhe shitou guohe* 摸着石头过河). Accordingly, reforms are implemented step by step.

Within the adaptive policy system, the two-stage policy experimentation is conceptualized to specify the gradual and continuous policy formation process of first finding the general direction needed to tackle the key difficulty of reform, and then refining relevant details through iterative approaches. First, explorative experimentation allows open-ended exploration under uncertain conditions to innovate from scratch. The relevant actors are provided with a loose pre-innovation environment by the government to try out various possibilities, including rule-breaking innovation. The government has the ultimate power to select the option that most complements its political ambition.

54 Schoon 2014.

55 Heilmann 2008.

Second, generative experimentation aims to refine details through a continuous feedback process. It is conducted through policy implementation, highlighting the essential process of policy iteration by “learning by doing.” This process can improve the government’s capacity to tailor a policy in response to changing circumstances or actors’ reactions to identify an optimal strategy. Even though relevant actors exert considerable influence over policymaking, the government still maintains the authoritative position on deciding in which way and when the policy evolves.⁵⁶ As such, the government can maintain stability while simultaneously pursuing institutional innovation and development.

This study contributes to the literature in several ways. Focusing on the municipal scale, it enriches the literature on policy experimentation by introducing two kinds of experimentation within an adaptive policy system to explain the micro-scale process of Chinese local policy innovation. This two-step experimental approach might also be extended to explain macro-scale policy experimentation. Second, new insights are provided by policy experimentation to gain a better understanding of the logic of the full-cycle development of urban regeneration in Shenzhen, illuminating an emerging approach to policymaking for urban transformation. Finally, yet importantly, our findings strengthen the implication that experimental governance seems to be more practical and feasible for transitional economies where policy solutions often need to be more contextualized and efficient to suit development needs.⁵⁷

This study also raises some questions for more in-depth research. First, while demonstrating the potential adaptivity to meet manifold challenges, experimental governance in China implies the possibility of a capricious policy system that may undermine the government’s credibility and legitimacy. China’s success lies in its authoritarian regime, which grants the governments ultimate authority over tolerance for and regulation of informality and volatility during the trial-and-error journey.⁵⁸ The application of an experimental lens in the urban domain critically needs to engage with the interrogation of the city’s underlying politics and ideologies.⁵⁹ Second, although experimental governance can be understood as a process of collective learning, it presents a strong political trait.⁶⁰ In Shenzhen’s case, the government initiates and dominates policy experimentation to either well serve its political goals or immediately respond to the call of superior governments. However, how to deliver a voice to subjects that are usually implicit in experimentation remains rather underexplored. Finally, tactical employment of explorative and generative experimentation provides us with an alternative to cope with urban transformation in Shenzhen; nevertheless, additional data collection and case analysis are needed to evaluate whether the findings of this study could extend to a wider set of policy domains.

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⁵⁶ Leutert 2021.

⁵⁷ Mukand and Rodrik 2005.

⁵⁸ Schoon 2014.

⁵⁹ Caprotti and Cowley 2017.

⁶⁰ Savini and Bertolini 2019.

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