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Market-driven urban regeneration and affordable housing: unpacking institutional barriers in Shenzhen

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Abstract

Urban regeneration has emerged as a critical strategy for addressing housing shortages and spatial inefficiencies in rapidly urbanizing megacities. However, many urban regeneration approaches are market-driven and often prioritize economic growth over social equity, leading to persistent gaps in affordable housing delivery. This study investigates the institutional barriers to affordable housing provision in Shenzhen, China—a pioneer in market-oriented urban regeneration—through a neo-institutional economics (NIE) lens. Combining policy analysis and 26 semi-structured interviews with government officials, developers, and residents, the research identifies three interconnected institutional obstacles: (1) ambiguous property rights rooted in the rural-urban dual land system, which prolongs negotiation and approval processes; (2) high transaction costs arising from fragmented governance and bureaucratic complexities; and (3) misaligned incentives among stakeholders that prioritize commercial gains over public welfare. Empirical findings reveal that over 80% of urban village regeneration projects face delays exceeding one year due to tenure disputes, while 70% of developers spatially marginalize affordable housing to maximize profits. These dynamics form a self-reinforcing “institutional trap,” where path dependency on land-finance regimes and weak regulatory constraints perpetuate housing inequity. The study contributes to urban scholarship by adapting insights from New Institutional Economics into an integrative tripartite analytical lens (“institutional structure–transaction costs–behavioural choices”, STB) that traces cascading transaction costs across project stages and links them to actors’ strategic, normative and reputational behaviours in Shenzhen’s market-driven regeneration regime. It challenges the assumption that market efficiency aligns with social goals and underscores the need for institutional reforms to reconcile growth with equity. Policymakers must address structural contradictions, such as rigid land ownership regimes and decentralized governance, to break the low-equilibrium trap. The findings hold global relevance for megacities grappling with similar tensions between market-driven regeneration and inclusive development.

Keywords Urban regeneration · Affordable housing · Neo-institutional economics · Institutional barriers · Shenzhen

Extended author information available on the last page of the article

1 Introduction

Affordable housing has become a pressing governance challenge in high-density cities. Rapid in-migration, constrained land supply, and escalating housing prices have intensified affordability pressures and widened socio-spatial inequalities, making affordable housing a central policy concern for urban governments (Vale, 2018). Beyond a social-welfare objective, affordable housing is increasingly tied to broader urban sustainability goals, including labour retention, inclusive growth, and the stabilisation of housing markets. Yet in many cities, the delivery of affordable housing remains persistently below policy expectations, raising the question of why widely endorsed targets are difficult to realise in practice.

In China, one important institutional channel through which affordable housing is delivered is urban regeneration, where redevelopment projects are often required to allocate a mandated share of land or floor area to affordable housing as part of the approval package (Sing, 2015). Shenzhen exemplifies this approach. While the city has promoted market-driven regeneration to upgrade dense built-up areas, affordable-housing delivery within regeneration projects has remained constrained. For example, between 2006 and 2020 Shenzhen completed only around 35% of the affordable-housing target expected to be delivered through urban renewal (SMG, 2021). This persistent shortfall motivates a systematic inquiry into how Shenzhen's URAH institutional configuration: rules, incentives, and multi-actor bargaining across project stages - shapes delivery outcomes. More specifically, the case foregrounds an internal policy tension: affordable housing is pursued as a redistributive goal, yet its implementation is embedded in a market-driven regeneration regime that depends on developer initiative, negotiated feasibility, and project-based risk management.

Institutionally, Shenzhen was the first Chinese city to adopt a comprehensive urban renewal regime (e.g., the Urban Renewal Measures introduced in 2009) and to develop an "urban renewal unit" mechanism through which developers may obtain development rights after assembling consent, negotiating with collectives and residents, and completing administrative procedures. In this context, affordable-housing quotas are not delivered through stand-alone projects, but are frequently embedded within regeneration projects, making project-level coordination, bargaining, and enforcement central to affordable-housing outcomes. Because affordable-housing quotas are embedded in the urban-regeneration approval package, the institutional frictions of regeneration become the key constraints on URAH outcomes. In this paper, we examine institutional barriers to affordable housing delivery through urban regeneration (URAH). Urban regeneration is treated as the institutional vehicle, while affordable housing delivery (quota levels and spatial/tenure outcomes within regeneration projects) is the policy outcome we explain; we do not attempt to analyse all barriers to urban regeneration in general.

Existing research in planning and housing scholarship has examined regeneration-related conflicts from multiple perspectives, including property-rights complexity, multi-actor governance, communicative and collaborative planning, and broader distributional struggles over land and housing (Davidoff, 1965; Healey, 1997; Innes & Booher, 2004; Fainstein, 2010; Adams & Tiesdell, 2010; Ball, 2010). These traditions have shown how planning processes mediate among competing stakeholders and how such mediation may reproduce or challenge power asymmetries. Yet they are less explicit about how rules-in-use, approval sequences, and incentive structures convert these conflicts into cumulative implementation frictions within project-based regeneration.

To address this analytical gap, we adopt a New Institutional Economics (NIE)-informed, process-based lens. We do not treat NIE as a substitute for communicative, consensus-building, or advocacy approaches; rather, we use it to complement them by specifying the institutional mechanisms through which a policy that seeks to combine market delivery with housing justice generates internal tension in practice. Organised around a triad of institutional structure, transaction costs, and behavioural choices (STB), our analysis traces how stage-specific frictions escalate across project stages and how actors respond through risk-hedging and selective compliance. Delays and stalled projects may also reduce the overall volume of delivery, but we treat this as a secondary pathway. This framing leads to our main question: How do institutional barriers impede affordable housing provision through market-led urban regeneration (URAH) in Shenzhen? By tracing these mechanisms, the paper shows what NIE adds to planning theory in this context: not only that stakeholders conflict, but how institutional arrangements translate conflict into recurrent bargaining, coordination, and enforcement burdens that systematically narrow redistributive outcomes.

The following sections of this paper are organised as follows: Sect. 2 reviews global challenges in affordable housing, the institutional specificity of urban regeneration in China, and existing theoretical gaps; Sect. 3 elaborates on the research methodology, including the rationale for case selection and the design of qualitative methods; Sect. 4 presents empirical results on the institutional barriers in the four stages of Shenzhen's urban regeneration; Sect. 5 summarises the research findings, discusses the dynamic institutional interactions and their theoretical implications, and outlines future research directions.

2 Literature review

This section situates Shenzhen's case within broader debates on affordable housing and urban regeneration and introduces the NIE-informed lens through which we analyse institutional traps in the city's market-driven, urban-village-led regeneration regime. Section 2.1 reviews global and Chinese challenges of affordable housing; Sect. 2.2 outlines the institutional configuration of urban regeneration in China and Shenzhen; and Sect. 2.3 synthesises key institutional barriers found in the literature. Section 2.4 then presents the Structure–Transaction–Behaviour (STB) framework that links these barriers to transaction costs and behavioural responses, providing the conceptual basis for our analysis of the institutional trap unpacked in Sect. 5.

2.1 Affordable housing challenge

The supply of affordable housing is a long-standing governance challenge in the global urbanisation process. The *laissez-faire*, market-dominated housing commodification model (Boelhouwer & Hoekstra, 2012), with its excessive pursuit of capital appreciation, commonly faces the triple dilemmas of land scarcity, public funding shortages, and social exclusion (Anacker, 2019; Debrunner & Hartmann, 2020; Tian et al., 2020). The provision of affordable housing in urban areas across the world is hindered by a range of interconnected challenges, reflecting the complexity of balancing economic, social, and spatial dimensions in urban governance. A significant obstacle lies in the escalating costs of land and construction, driven by high urban land demand, restrictive zoning policies, and limited

land availability, which collectively inflate housing prices and constrain development (J. Chen & Wu, 2022). Compounding this issue is the persistent underfunding of public housing programs, as fiscal pressures and competing policy priorities often leave governments unable to allocate adequate resources for affordable housing initiatives, resulting in delays and quality compromises (Pawson et al., 2019). Furthermore, community opposition, often framed as NIMBY-ism, creates additional resistance to affordable housing projects, fuelled by perceptions of potential negative impacts on property values and neighbourhood congestion (Han et al., 2021). Combined with regulatory and planning systems, marked by prolonged approval timelines and fragmented policy coordination, exacerbate these difficulties, slowing down the housing development process (Chen et al. 2022a, b, c, d). While various countries have attempted to alleviate these contradictions through subsidies, tax incentives, or public-private partnerships (Beswick & Penny, 2018; Kleit & Page, 2015; Lord et al., 2022), the fiscal unsustainability of public housing (Kim, 2020) and the inherent conflict with market profit-seeking have led to a persistent lag in affordable housing supply relative to demand growth.

In China, affordable housing programmes and their governance logics have been extensively examined in the literature, including the evolution of policy instruments, local implementation incentives, and distributional outcomes (Chen, 2021; Deng et al., 2019). Building on this established scholarship, we highlight one institutional feature that is central to our research question: in land-scarce megacities, a growing share of affordable-housing obligations is delivered through project-based urban regeneration, where quotas are embedded in redevelopment approvals and implemented through multi-actor bargaining. This shift makes the institutional configuration of regeneration, rather than affordable-housing policy design in general, a critical determinant of URAH outcomes in practice.

2.2 Urban regeneration institutions and affordable housing outcomes

Internationally, a substantial body of research has examined how affordable housing can be delivered through urban regeneration and redevelopment, including mechanisms such as planning obligations, negotiated development gains, land value capture, and public-private partnerships (Debrunner & Hartmann, 2020; Kim, 2020; Lord et al., 2022). Across these settings, a recurring finding is that the existence of affordable-housing targets does not in itself guarantee delivery. Outcomes depend on how obligations are specified, negotiated, and enforced under changing market conditions, and on whether governance arrangements can credibly monitor compliance and resolve disputes (Ma & Liu, 2024). Regeneration-led affordable housing therefore often involves tensions between project feasibility, distributional fairness, and spatial integration, with risks of dilution or displacement when social objectives are weakly enforced (Zhou et al., 2024).

This literature implies that URAH is best analysed as a process of staged exchanges rather than a single policy instrument. Regeneration projects require the assembly of rights and consent, the coordination of multiple approvals, the negotiation of compensation and relocation, and the eventual delivery and allocation of affordable units. At each stage, institutional rules shape the transaction costs of searching for information, bargaining among actors, and enforcing agreements (Yuan et al., 2022). These costs, in turn, influence behavioural strategies—such as risk-hedging, renegotiation of obligations, or spatial packaging

of affordable units—that can cumulatively weaken affordable-housing outcomes even when projects formally proceed (Yuan et al., 2024).

In China, these processual challenges are amplified by institutional characteristics that are directly relevant to URAH. The dual land system and the coexistence of state and collective land rights can increase uncertainty in rights clarification and bargaining (He et al., 2024). Meanwhile, the shift from more state-led renewal to more market-involved arrangements reallocates initiative and risk to non-state actors, expanding the number of stakeholders and raising the coordination and enforcement burden across project stages (Wang et al., 2021). Because affordable-housing quotas are frequently embedded within regeneration approvals, the effectiveness of URAH hinges on how these multi-actor negotiations unfold and how administrative fragmentation and incentive structures shape compliance (Chen et al. 2022a, b, c, d).

Shenzhen represents an analytically useful setting for examining these mechanisms because its market-driven, urban-village-led regeneration regime places particularly heavy bargaining and coordination demands on developers, collectives, and multiple government bureaus (Feng et al., 2024). To avoid conflating background with theoretical review, detailed institutional features of Shenzhen's regeneration system are described in the Introduction and Sect. 3.1; here, we use the literature to motivate a stage-based NIE perspective on how institutional arrangements translate into transaction costs and behavioural responses that shape URAH outcomes.

Building on this literature, we distinguish analytically between more state-led and more market-driven regeneration regimes in China. Early rounds of Shenzhen's renewal were largely state-led, whereas the current urban-village-led regeneration model is predominantly market-driven, with developers and village collectives bearing much of the initiative and risk (Feng et al., 2024). In the discussion (Sect. 5), we return to this contrast to show how different institutional arrangements shape the configuration of transaction costs and stakeholder behaviours, and how Shenzhen's market-driven regime intensifies specific negotiation and coordination frictions around affordable housing.

2.3 Multidimensional institutional barriers in urban regeneration

Planning and housing scholarship has long shown that regeneration is shaped by conflicts among stakeholders, contested claims to land, and unequal capacities to influence outcomes (Davidoff, 1965; Healey, 1997; Fainstein, 2010). Communicative and consensus-building approaches direct attention to participation, deliberation, and the management of conflict, while advocacy traditions foreground representation and distributive justice (Innes & Booher, 2004). These are indispensable starting points for analysing affordable housing in regeneration. However, in a developer-led regime such as Shenzhen's, the central problem is not only whether actors disagree, but how formal rules and approval procedures structure the costs of acting on those disagreements (Li, 2019). We therefore sharpen the analytical focus around one core tension: the policy seeks to deliver housing justice through a market-based redevelopment mechanism whose institutional design continually re-prioritises feasibility, speed, and value extraction. From an NIE perspective, this tension becomes visible in the transaction costs and behavioural adaptations generated across project stages.

First, complex property-rights structures in urban regeneration, especially in urban villages, generate high transaction costs. Collective ownership, overlapping or poorly docu-

mented claims, and the coexistence of formal and informal buildings make it difficult to clarify who is entitled to what, and under which legal basis (He 2019; Lai et al. 2017; Chen et al. 2022a, b, c, d). Existing research has shown how property-rights ambiguity inflates these transaction costs, prolongs negotiation, and creates delays and deadlocks in project implementation, which often undermines social objectives such as affordable housing provision (Fan et al., 2020; Liu et al., 2019).

Second, land, fiscal and incentive structures can bias regeneration outcomes against affordable housing. Much of the literature has emphasised local governments' dependence on land-based revenues and the tendency to prioritise high-yield commercial and luxury residential projects over lower-return affordable housing (Liu, 2020; Chen & Kung, 2016). Recent studies, however, underline the heterogeneity of "land finance" across cities and point out that in places such as Shenzhen, where the tax base is relatively strong, the key mechanism is less aggregate fiscal dependence and more the high opportunity costs of allocating scarce, centrally located land for affordable housing (Hu et al., 2019; Wang et al., 2021). These opportunity costs are reinforced by project-based performance indicators and by regulatory and approval risks, which together encourage local officials and developers to favour standardised, revenue-maximising land uses over complex schemes with strong affordable-housing components.

Third, multi-actor governance and stakeholder complexity create significant coordination problems in urban regeneration. The shift from state-led to more market-driven arrangements has increased the number and diversity of actors involved, including multiple government departments, developers, financial institutions, village collectives and residents (Gao et al., 2017; Chau et al., 2022). Fragmented mandates and overlapping responsibilities make it difficult to establish clear lines of authority, resulting in lengthy consultation processes and iterative plan revisions. These governance features translate into high negotiation and enforcement transaction costs, as stakeholders struggle to align objectives and to implement agreed plans.

Fourth, path dependence and social resistance shape the stability and direction of regeneration institutions. North (2009) and others have emphasised that institutions evolve in path-dependent ways: once certain rules and practices are established, they create expectations and vested interests that are costly to overturn. In the context of urban regeneration, this can reinforce unequal outcomes when existing rules favour growth coalitions over low-income residents (Barbier & Homer-Dixon, 1999; Li & Shen, 2022). Accumulated experiences of displacement and dispossession generate distrust and resistance from affected communities, further increasing negotiation and enforcement costs and limiting the political space for more redistributive reforms.

Taken together, these dimensions suggest that URAH under-delivery is not simply the outcome of isolated barriers. It arises because a redistributive policy goal is embedded in an institutional process that repeatedly rewards actors for protecting feasibility and minimising exposure. The literature has said less about how this tension unfolds sequentially across regeneration stages, how costs cascade from one stage to the next, and how actors adapt strategically within a specific governance regime such as Shenzhen's. This gap motivates our NIE-informed operational lens in Sect. 2.4, which links institutional structures to stage-specific transaction costs and behavioural choices.

2.4 New institutional analytical framework

To operationalise this argument, we adopt an NIE-informed, process-based lens that focuses on how rules-in-use shape exchange conditions, transaction costs, and behavioural adaptation (North, 2009; Williamson, 1991). Our Structure-Transaction-Behaviour (STB) model is not proposed as a rival planning theory. Rather, it complements communicative, consensus-building, and advocacy traditions by shifting the analytical question from how conflict is voiced or negotiated to how institutional arrangements make some settlements more costly, more credible, and more likely than others. In this sense, NIE helps explain why a formally stated commitment to housing justice may be narrowed during implementation even when no actor openly rejects it.

We define institutional structure as the configuration of formal rules, approval procedures, land-rights arrangements, and administrative jurisdictions that organise regeneration-led affordable housing delivery. In Shenzhen, these structures matter because they distribute veto points, allocate implementation risk, and determine whether affordable-housing obligations remain binding when project feasibility comes under pressure. The key issue is therefore not merely the presence of multiple stakeholders, but the institutional architecture through which bargaining power is exercised over time.

We conceptualise transaction costs as the costs of initiating, negotiating, and enforcing exchanges among governments, developers, collectives, residents/tenants, and intermediaries involved in URAH (Williamson, 1991). Following NIE, we distinguish three analytically connected types: (i) search and information costs, such as clarifying entitlements and interpreting regulatory requirements; (ii) negotiation and bargaining costs, such as consent building, conflict mediation, and repeated plan revisions; and (iii) enforcement and coordination costs, such as monitoring compliance, implementing compensation and relocation, and resolving disputes. Production costs and market risks also affect feasibility, but we treat them separately because they are not themselves costs of exchange and governance (Williamson, 1991; North, 2009).

Behavioural choices refer to the strategic and normatively inflected responses actors adopt under bounded rationality and uncertainty. In Shenzhen's market-driven regime, these include risk-hedging, strategic anticipation, selective compliance, and the reputational management of relations with regulators, village collectives, and affected residents (Williamson, 1991; North, 2009). Such behaviours matter because they reveal how actors cope with the internal tension between market delivery and redistributive obligation.

The analytical value of STB lies in treating URAH delivery as a sequential process in which costs and behavioural responses accumulate and feed forward across four stages - initiation, planning approval, demolition negotiation, and construction/benefit distribution. This allows us to explain what NIE adds to broader planning scholarship in this case: not simply that regeneration is conflictual, but how the institutional design of a market-driven regime converts distributional conflict into recurring bargaining, coordination, and enforcement burdens that systematically weaken affordable-housing outcomes (Fig. 1).

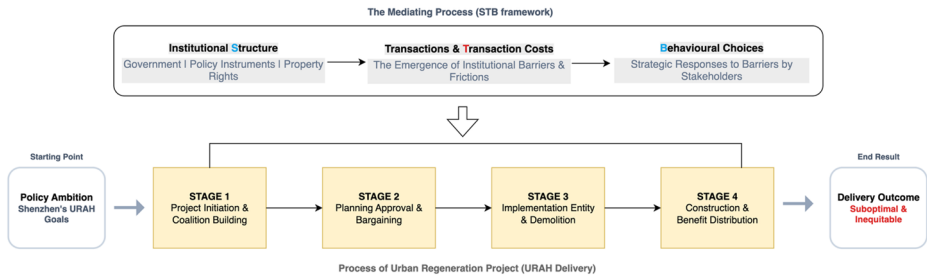


Fig. 1 Analytical framework in STB structure

3 Research approach

3.1 Scope and transferability

While Shenzhen's urban regeneration encompasses a range of typologies – including industrial parks, commercial complexes, former work-unit housing and large-scale residential estates – our empirical focus in this paper is on urban-village-led regeneration projects. Urban villages constitute a critical component of Shenzhen's affordable housing landscape, providing low-cost rental accommodation for migrant workers and low- to middle-income households. At the same time, they are characterised by fragmented collective property rights, dense informal construction and complex stakeholder constellations, which make them particularly prone to institutional frictions and high transaction costs. The institutional barriers and behavioural strategies analysed in the following sections therefore speak most directly to urban-village regeneration under Shenzhen's market-driven regime. We expect that some mechanisms – such as governance fragmentation, path-dependent incentives and the externalisation of transaction costs to weaker actors – will resonate with other regeneration typologies (e.g. industrial or commercial projects), but their manifestation and intensity are likely to differ given simpler property-rights structures and fewer resident stakeholders. Accordingly, the transferability of our findings to other regeneration types and city contexts is conditional rather than universal.

3.2 Research method

This study employed a policy text analysis and semi-structured interviews, guided by a deductive analytical framework rooted in New Institutional Economics (NIE). The three-dimensional framework—institutional structure, transaction costs, and behavioural choice—served as the conceptual scaffold for data collection, coding, and interpretation, enabling systematic deconstruction of institutional barriers in Shenzhen's urban renewal processes.

The collection of empirical data for this study was conducted in two phases. The first phase, carried out in 2023, involved collecting and analysing publicly available data from Shenzhen, including policies on urban renewal and affordable housing, as well as specific urban renewal and affordable housing projects. The selection of policy documents followed a systematic, purposive approach. We focused on municipal-level regulations, measures, and implementation rules issued by the Shenzhen government between 2009—the year of the landmark *Urban Renewal Measures*—and 2023. The key inclusion criteria were policies

that (1) formally govern the urban regeneration process, and (2) explicitly stipulate requirements for the provision of affordable housing within these projects. This resulted in a corpus of over 100 key documents, which were analysed to trace the evolution of the institutional rules governing URAH.

The second phase, conducted between February and June 2024, involved 26 semi-structured interviews with actors engaged in Shenzhen's urban-village-led regeneration projects. Rather than focusing on a single flagship case, we purposively sampled interviewees whose portfolios covered multiple urban-village regeneration projects in different districts, alongside selected experience with industrial-park and commercial-street renewal where relevant. The sampling strategy was designed to capture a triangulated perspective on the URAH regime across project typologies and stages, including exposure to initiation, planning approval, demolition negotiation, and construction and benefit distribution. Our aim is therefore not statistical representativeness of all Shenzhen projects, but analytical pattern regarding the institutional mechanisms that shape affordable housing outcomes in urban-village-led regeneration.

- Public sector officials (SZ-1 to SZ-9) were selected from key municipal and district departments responsible for urban renewal, planning, land and housing. Collectively, they oversee or directly manage several urban-village regeneration projects in different districts and, in some cases, also supervise industrial or commercial renewal schemes. Their interviews provide insight into policy design and implementation across project types, as well as the challenges of inter-departmental coordination and performance evaluation throughout the URAH project cycle.
- Original Rights Holders (SZ-10, SZ-11) were included to capture the perspective of collective and individual property owners in urban villages who are directly involved in property-rights clarification, demolition negotiation and benefit distribution. Their accounts illuminate how fragmented rights structures, internal village governance and perceptions of fairness affect the acceptability and outcomes of regeneration schemes.
- Original Rights Holders (SZ-10, SZ-11) were included to capture the perspective of collective and individual property owners in urban villages who are directly involved in property-rights clarification, demolition negotiation and benefit distribution. Their accounts illuminate how fragmented rights structures, internal village governance and perceptions of fairness affect the acceptability and outcomes of regeneration schemes.
- Private sector actors, including developers, investors and project managers (SZ-20 to SZ-26), were selected because of their direct involvement in the preparation and implementation of urban-village regeneration projects. They have managed or invested in at least three anonymised projects (Projects 1–3) in different districts. These interviewees offer detailed accounts of how institutional arrangements, transaction costs and market conditions shape their on-the-ground behavioural choices at different stages of the regeneration process.

All interviews were conducted under strict confidentiality. Interviewees are identified only through anonymised codes (SZ-1 to SZ-26), and the names of specific projects, districts and organisations are withheld or generalised. A confidential coding key linking interview IDs to project roles and typologies is stored securely by the authors and is not reported in this paper. Quotations have been lightly edited for clarity while preserving the original meaning.

Interview questions explicitly probed the three theoretical dimensions (e.g.) semi-structured interview protocols:

Institutional structure “How does policy ambiguity affect project implementation?”

Transaction costs “Which approval procedures caused the longest delays?”

Behavioural choice “How do developers balance profit motives with affordable housing quotas?”

The interview protocol was developed deductively based on the core tenets of our NIE framework, with specific question clusters designed to probe these three dimensions.

Qualitative analysis was conducted using abductive coding in ATLAS.ti, iterating between pre-defined theoretical categories and emergent empirical patterns. Building on the STB framework, we operationalised “transaction costs” into three NIE-consistent sub-codes:

Search/information, negotiation/bargaining and enforcement/coordination. For each of the four URAH stages, we first identified interview segments describing delays, additional efforts or frictions in project implementation. We then assessed whether these passages referred primarily to (i) search and information problems (e.g. clarifying property rights, interpreting changing regulations), (ii) negotiation and bargaining processes (e.g. multi-party meetings, conflict mediation, protracted demolition compensation talks), or (iii) enforcement and coordination difficulties (e.g. implementing agreed plans, coordinating across departments, resolving disputes). References to construction inputs, engineering risks, financing conditions or market absorption were coded separately as production or market risks rather than as transaction costs. This coding scheme allowed us to systematically trace how institutional arrangements translate into concrete patterns of transaction costs and how these patterns shape stakeholders’ behavioural choices across the project lifecycle.

Policy documents were analysed in parallel to trace institutional constraints (e.g., ambiguous clauses in urban renewal regulations) and their evolution over time. To ensure reliability, coding discrepancies were resolved through team discussions, and representative quotes were triangulated with policy texts and project timelines (Table 1).

4 Institutional barriers in URAH in Shenzhen

Based on 26 semi-structured interviews with stakeholders involved in Shenzhen’s urban regeneration projects, this section explores the barriers that have hindered the delivery of affordable housing through urban regeneration. This analysis aims to provide a deeper understanding of how urban regeneration, as a potentially critical channel for affordable housing supply in megacities, faces unique challenges.

One fundamental difference between urban regeneration projects and greenfield real estate development lies in land ownership in China. In land publicly auctioned by the government, ownership is fully transferred to the state, allowing developers to acquire the entire plot’s land use rights upon purchase. In contrast, urban regeneration projects involve

plots with pre-existing ownership rights and pre-existing buildings, which must be resolved before entering the project planning and approval stage, after which the process becomes more similar to that of publicly auctioned land.

One interviewee summarised the relationship between urban regeneration and affordable housing delivery as *“The government provides the land, developers provide the funding, and the original owners provide the permits.”* This statement outlines the main responsibilities of the key stakeholders. However, the reality is far more complex. In fact, the length and difficulty of urban regeneration projects in Shenzhen often surpass expectations, and the distribution of responsibilities among stakeholders is more diverse than this statement implies. Formally, urban regeneration is divided into six stages: project initiation, detailed planning approval, identification of the implementing entity, demolition, reconstruction, and benefit distribution. However, for the purpose of analysing the most critical institutional barriers impacting affordable housing, this study consolidates these into four key phases where the most significant negotiations and transactions occur: (1) project initiation, (2) detailed planning approval, (3) identification of the implementing entity and demolition negotiation, and (4) construction and benefit distribution.

4.1 Project initiation stage

This refers to the application process for the project’s inclusion in the Urban Renewal Unit. During the project initiation stage, the main tasks include site selection and project acquisition, assessing the functionality and profitability of the project, surveying plot boundaries and land use types, gathering ownership information, clarifying property rights, and collecting consent for redevelopment from original owners. Finally, an application is submitted to government departments to establish the project.

In Shenzhen, urban regeneration projects are usually initiated by either the original owners or developers. Private developers are generally driven by economic interests when selecting potential projects. As one interviewee from a private developer remarked, *“Whether it’s a private enterprise or a state-owned enterprise, as long as the project has high economic value, it will be considered for development.”* This reinforces the finding that profit motives often overshadow the social objectives of affordable housing provision in urban regeneration context.

State-owned enterprises may also consider social value and government objectives, such as meeting district or municipal government annual targets, when deciding whether to develop a project. Additionally, policies in different districts, such as subsidies and demolition compensation, also influence developers’ annual project targets and their project selection. Aside from economic interests, policy arrangements are another important factor determining whether a project is initiated. As a real estate investor noted, *“We assess whether a project is of high quality not just based on its return on investment, but more importantly by looking at policy support... If there are no policy barriers, the approval process can proceed much more efficiently, which has a huge impact on saving project costs.”* Additionally, approval processes vary between districts, so developers use informal networking to understand district-specific approval systems and prioritise districts with relatively easier approval processes.

After identifying suitable plots based on the criteria mentioned above, developers engage with original landowners to discuss potential redevelopment. Gathering initial consent from

Table 1 Code and information of interviewees

ID	Stakeholder type	Interviewee description	Primary role	Project Exposure & Typology	Key Stage Coverage
SZ-1	Public Sector	Municipality Housing & Construction Bureau	Policy formulation for affordable housing allocation	Oversees quota enforcement across all regeneration typologies (city-wide)	Project Initiation; Construction & Benefit Distribution
SZ-2		Municipality Urban Regeneration Bureau	High-level approval and regulatory supervision	Reviews major plans; exposed to systemic bottlenecks across multiple districts	Detailed Planning Approval
SZ-3		District Urban Regeneration Bureau	Frontline approval and conflict mediation	Directly manages a portfolio of 10+ active urban village projects	Detailed Planning Approval; Demolition Negotiation
SZ-4, SZ-5		Planning & Natural Resource Bureau	Land use planning and technical review	Technical approvals for complex urban village sites with fragmented rights	Project Initiation; Detailed Planning Approval
SZ-6		SOE Manager (Urban Regeneration)	Leading large-scale regeneration projects	Managing 2 flagship urban village projects and 1 industrial renovation	Construction & Benefit Distribution (Financing focus)
SZ-7		SOE Manager (Urban Regeneration)	Project implementation and liaison	Responsible for a comprehensive renovation (urban village+historic)	Detailed Planning Approval; Demolition Negotiation
SZ-8, SZ-9		SOE Manager (Affordable Housing)	Developing mandatory affordable housing	Coordinates handover across multiple regeneration projects	Construction & Benefit Distribution
SZ-10	Original Rights Holders	Original owner (Villager)	Representative of family interests	Owner of multiple informal buildings in a large-scale urban village	Project Initiation; Demolition Negotiation
SZ-11		Original owner (Collective Shareholder)	Collective bargaining representative	Represents collective land interests in a specific urban village	Identification of Implementing Entity; Benefit Distribution
SZ-12	Third Party	Urban Design Institute Principal	Feasibility studies and conceptual planning	Proposals for over 20 projects; balancing profit vs. regulation	Project Initiation; Detailed Planning Approval
SZ-13		Urban Design Institute Planner	Technical communication with bureaus	Specializes in urban village transformations and departmental dynamics	Detailed Planning Approval
SZ-14		Urban Regeneration Consultant	Strategic advisory and risk assessment	Advised on 5+ stalled urban village projects regarding failure mechanisms	Project Initiation; Demolition Negotiation
SZ-15		Urban Regeneration Consultant	Financial modeling and policy interpretation	ROI comparison between industrial and residential (village) projects	Project Initiation
SZ-16		Urban Regeneration Lawyer	Dispute resolution and contract drafting	Handled legal disputes for multiple stakeholders across districts	Identification of Implementing Entity

Table 1 (continued)

ID	Stakeholder type	Interviewee description	Primary role	Project Exposure & Typology	Key Stage Coverage
SZ-17		Urban Planning Expert	Academic and practical advisory	Long-term observer of Shenzhen's urban village evolution	Detailed Planning Approval
SZ-18, SZ-19		University Scholars	Housing policy analysis	Longitudinal studies on Shenzhen's housing market inequality	All stages (Macro perspective)
SZ-20	Private Sector	Project Investor	Capital allocation and strategy	Invested in 3 urban village projects; experienced in funding halts	Project Initiation; Construction (Financing)
SZ-21		Private Developer (Executive)	Corporate strategy and relations	Portfolio includes residential, commercial, & village projects	All stages (esp. Planning Approval)
SZ-22		Private Developer (Director)	On-site execution and coordination	Managing a high-density urban village project in central district	Demolition Negotiation; Construction
SZ-23		Project Manager (Project 1)	Operations and conflict resolution	Project 1 (Urban Village): Stalled due to collective property rights	Identification of Implementing Entity
SZ-24		Project Manager (Project 2)	Planning coordination	Project 2 (Urban Village): In approval pipeline, departmental delays	Detailed Planning Approval
SZ-25, SZ-26		Project Managers (Project 3)	Construction management	Project 3 (Urban Village): Construction phase, delivery pressures	Construction & Benefit Distribution

these owners is crucial, as it influences whether developers proceed with formal agreements for demolition. For industrial sites, where there are usually only one or a few owners, the negotiation process is relatively straightforward. However, because developers prefer residential projects, land originally designated for residential use is more conducive to project development. In Shenzhen, this type of land is mainly concentrated in urban villages. These areas are characterised by high residential density and unclear property rights. In an urban village project, developers may need to communicate with 200 to 500 original property owners¹ to gather consent for redevelopment.

The prevalence of illegal structures further complicates matters, making it difficult to define the legal boundaries of ownership and delaying the process. The number of property owners significantly slows down the consent-gathering process.

Some large urban villages establish village shareholding companies to facilitate urban regeneration. These companies appoint respected members of the village or professionals with relevant experience to negotiate with developers. Stakeholders face significant challenges in establishing consensus among fragmented property owners in this stage. One interviewee from urban regeneration bureau noted, *“Initial communication of redevelopment intentions is crucial, especially in urban villages or original residential areas... In urban villages, for example, one floor might belong to one family, while the second floor belongs to someone else, making coordination very difficult. Illegal construction further complicates property rights confirmation.”* As a legal counsel explained, *“The core problem is that many properties claims in urban villages lack a clear legal basis in the formal system. We spend months just trying to create a defensible chain of title before any real negotiation can begin. It’s a legal minefield.”* This fragmentation, compounded by informal networks and ambiguous legal boundaries, increases transaction costs and delays project viability, influences the developer’s assessment of the project’s viability.

An interesting finding is that, at this stage, small private developers mainly operate by forming informal relationships with village collectives (e.g., through gift-giving, attending weddings and funerals, hosting dinners, smoking, and drinking) to sign agreements at lower costs, securing initial redevelopment consent before selling the project to larger developers for large-scale development. Large developers use this outsourcing model to avoid potential transaction costs, while small developers profit from short-term involvement in the early stages of urban regeneration.

Since local authorities’ preferences on project type and consent gathering greatly influence the completion of this stage, changes in either of these factors can delay or suspend the project. For example, if the municipal government introduces new policies during this stage, such as tightening restrictions on converting industrial land to residential use or encouraging industrial land to be converted into new office spaces, or if property ownership confirmation proves difficult, the project may be paused or shelved. Furthermore, in the current changing economic environment, small developers may struggle to find larger real estate companies to take over their projects and may opt to suspend the project to avoid losses.

This stage faces significant institutional barriers, particularly property rights ambiguities in urban villages with fragmented ownership and informal property arrangements. These ambiguities not only complicate the verification of legal ownership but also create signifi-

¹ It is important to distinguish between the total number of residents in an urban village, which can be many thousands, and the number of original, indigenous villagers holding property rights, which is a much smaller group with whom developers must formally negotiate.

cant transaction costs as developers negotiate with multiple stakeholders to secure consent. Additionally, misaligned incentives between stakeholders emerge at this stage with the shifting local government policies. Developers prioritise profitability, while local governments frequently revise land-use policies, creating uncertainty that discourages long-term investments. What's worth noticing more is that small developers, often reliant on informal networks to establish initial agreements, face heightened risks in transferring projects to larger firms. This strategy increases both financial and operational uncertainty, as delays or policy shifts can undermine project feasibility. These barriers underscore where institutional inefficiencies discourage efficient resource allocation during urban regeneration.

4.2 Detailed planning approval stage

This stage refers to the preparation and approval of the **Urban Renewal Unit Plan**. During this process, the applicant first applies to the relevant authorities to verify land and building information of the plot, then engages in in-depth communication with the planning and land departments, submits a proposal, and makes necessary revisions to secure favourable public interest contribution indicators.

Special planning approval is the process in which developers negotiate with the government regarding floor area ratio and affordable housing allocation requirements. According to regulations, this stage should be completed within two years after the project is established, but in practice, it typically takes 2–5 years. Both the government and developers agree that the most important topics of negotiation during this stage are the proportion of affordable housing and the construction area of public facilities. In Shenzhen, relocation housing and affordable housing must be delivered in the early stages of the project; otherwise, developers cannot sell the project or obtain presale permits. Developers usually ensure that these two components meet the requirements so that they can proceed with the project and make a profit.

In interviews, developers mentioned that affordable housing is a key government target, and they strive to meet the requirements despite hoping for flexibility on the floor area ratio to ensure profitability. One private developer explained, *"We calculate planning indicators based on current policies and affordable housing regulations... We tend to adopt a conservative strategy by allocating the maximum amount of affordable housing, and based on that, we conduct economic calculations to decide whether to proceed with subsequent planning and design."* Although developers appear to make concessions for the smooth progress of the project at this stage, the negotiations with government departments—particularly on the number and types of affordable housing units, the location and size of land transfers, school allocations, road networks, green spaces, temples, kindergartens, and shops—are complex and involve many details.

Developers must hire qualified planning and design institutions to prepare the planning proposal, which is then submitted to various levels of joint meetings for review. It is worth noting that, at this point, the government departments involved in negotiations with the developers include not only the **Urban Regeneration Bureau** but also other departments that may have a stake in the project, such as the **Education Bureau, Transportation Bureau, Urban Management Bureau, Landscaping Bureau, Fire Department, and Public Security Bureau**. Before the formal meetings, the developer submits the planning proposal to the Planning Department, which forwards it to the relevant departments based

on the infrastructure involved in the project to seek feedback and revisions. Given the complexity of the proposal, disagreements and disputes are common. In joint meetings, which typically involve at least six rounds of discussions, any opposition from one department may stall the process. Furthermore, inconsistent schedules, low approval efficiency, and misunderstandings between departments can lead to delays. As one interviewee from the planning and design institution stated, *“If a department suggests changing a parameter, the entire architectural plan must be revised. Once the architectural plan is adjusted, all subsequent drawings must also be modified. It’s not uncommon for projects to be stuck in meetings for months or years, with no progress made.”*

An urban regeneration consultant described the process bluntly: ‘The joint approval meeting is where projects go to die. You get the Transportation Bureau wanting a wider road and the Education Bureau wanting a bigger school, and neither will sign off until the other is satisfied. The developer is caught in the middle, and every revision cost time and money.’

In the 2–5 years that it typically takes for projects to go through this stage, government regulations and the external economic environment may change significantly. As mentioned earlier, over 1,000 urban regeneration projects have been initiated in Shenzhen, but fewer than 50% have reached this stage. Based on interviewee feedback, the main reasons for project withdrawal include: failure to complete approval within the planned timeframe, unsuccessful planning negotiations, failure of specific types of regeneration projects to pass approval, and developers deeming continued investment in the project unprofitable under current economic conditions. In addition to project withdrawals, delays are common. Reasons include unforeseen issues, such as underground water and electricity pipelines that developers must resolve themselves, the COVID-19 pandemic, and discrepancies between projected and actual housing market conditions, which have resulted in some projects being delayed avoiding financial losses.

The barriers in this stage are mainly expressed as high negotiation and coordination transaction costs generated by governance fragmentation and misaligned priorities across departments. The requirement to circulate planning proposals among numerous bureaus and to repeatedly revise drawings inflates bargaining and enforcement costs, even when formal regulations are clear on paper. Developers respond by adopting conservative planning strategies—such as calculating affordable-housing quotas on the basis of maximum obligations and sequencing design work to minimise the risk of late-stage revisions—while officials rely on iterative joint meetings and informal signalling rather than issuing binding, cross-departmental rules. These micro-level strategies show how institutional fragmentation is translated into accumulated negotiation and coordination costs that directly shape the location, timing and substance of affordable housing commitments.

4.3 Identification of the implementing entity stage

This stage involves forming a single implementing entity through the signing of a *Relocation Compensation and Settlement Agreement* with the original rights holders. Developers must first sign this agreement with the original rights holders and then apply to the district’s urban renewal department for certification of their implementing entity status. At this stage, the main stakeholders shift from the government and developers to the original owners and developers. Negotiations and agreements regarding demolition compensation are the most critical parts of the process. Developers can only proceed with the project once these agree-

ments are in place and the implementing entity has been confirmed. However, demolition negotiations are fraught with uncertainty, particularly in village regeneration projects in Shenzhen, where original owners often demand high monetary compensation or multiple housing units. These demands, while seemingly reasonable from the owners' perspective, make it difficult for developers to balance their own interests. Factors such as personal financial disputes among villagers, incapacitated owners, absentee owners, or a weak village collective authority further complicate the negotiations.

As one project manager pointed out, "The demolition compensation process is lengthy and unpredictable, potentially taking three to four years or even up to ten years, depending on the scale of the project, the number of rights holders, and the influence of the village collective on individual villagers' opinions." Another investor added, "The greatest challenge during the demolition compensation process is building relationships with the villagers, respecting their status and rights, and spending time and energy integrating into the community to understand each villager's needs and preferences. Once a demolition agreement is signed, developers must remain vigilant for any remaining owners who have not yet agreed, controlling the period during which they might change their minds, while also offering reasonable compensation."

Generally, 80% of owners can reach agreements within two years, while the remaining 15% may take three to five years to reach a consensus with developers. The timeline largely depends on the project's scale and the complexity of the owner group.

This stage is marked by significant institutional barriers that take the form of prolonged negotiation and enforcement transaction costs. Demolition compensation talks in village projects generate intense bargaining costs, as developers confront heterogeneous and sometimes conflicting demands from hundreds of rights holders, while weak internal governance within village collectives raises the enforcement costs of any agreement that is reached. To cope with these frictions, developers invest heavily in relational work and informal agreements, selectively prioritising "key households" whose consent unlocks broader village support, and sequencing cash payments in ways that hedge against the risk of last-minute defection. Original rights holders, for their part, use individual hold-out strategies and internal alliances to maximise compensation, even when these further delays project progress. These micro-level interactions illustrate how institutional complexities in demolition rules and compensation standards are converted into high bargaining and enforcement transaction costs, which ultimately squeeze the budgetary and political space available for affordable housing provision.

4.4 Construction and benefit distribution stage

At the housing construction and project delivery stage, urban regeneration projects differ from typical real estate development in that urban regeneration projects must first allocate housing to original owners through a relocation housing selection process. Affordable housing is either sold or rented to the government according to policy, and the government then distributes or rents these units to eligible individuals. Only after these two housing categories are delivered can developers obtain the rights to sell the commercial housing units and begin presales.

The main barriers to project progress at this stage are related to developers' financial conditions. Since 2022, even when demolition agreements have been successfully completed,

projects may face issues such as construction halts, slow progress, or the misappropriation of regulatory funds, all of which led to delays or stalled progress, preventing timely completion and the delivery of affordable housing. As one private developer noted, “*The current discussions around policy adjustments are not about whether they are favourable to developers, but rather that developers simply lack the capacity to advance the projects.*” Another SOE developer mentioned, “*Before 2022, this never happened... Once the demolition agreements were signed, the process was essentially over. But now there are too many issues with the financial chains, along with pessimistic forecasts for the housing market, leading to halted construction and unfinished projects.*”

There have been instances of conflicts between residents of affordable housing and those of commercial housing, leading to numerous petitions. The government requires that affordable housing units be of the same quality as commercial units, and that facilities be shared without artificial segregation or regional management. While the government does not mandate that affordable housing and commercial housing be built on the same plots, in practice, some districts require that each plot includes affordable housing. Original owners also exert pressure regarding the number and location of affordable housing units, as the allocation of affordable housing is closely tied to the original owners’ potential benefits from the project. Developers tend to locate affordable housing at the edges of plots or in less desirable areas, reserving land near metro stations or with better views for commercial housing to ensure better sales performance.

The construction and benefit distribution stage is characterised by substantial enforcement and coordination transaction costs layered on top of mounting financial pressures. Regulatory requirements that prioritise the delivery of relocation and affordable housing before commercial presales are intended to protect social equity, but they also require sustained coordination among developers, financial institutions and government departments. In a volatile housing market, these enforcement and coordination costs become harder to bear: as our interviewees noted, disruptions to financing chains, pessimistic price expectations and stricter control over regulatory funds have led to halted construction, slow progress and unfinished projects (Interviewee 6, 2024; Interviewee 20, 2024). Developers respond by rationing investment in those components that are less visible to regulators or the market, which often means delaying or scaling back affordable housing commitments when monitoring is weak (Interviewee 25, 2024).

At the same time, spatial strategies employed during this stage reinforce existing segregation in the built environment. To hedge against planning and market risks, developers frequently relegate affordable housing to less desirable locations within a development—such as peripheral plots or sites farther from metro stations—while reserving prime land for commercial units (Interviewee 12, 2024; Interviewee 21, 2024). Local governments, under pressure to meet quantitative targets, often tolerate these layouts as long as headline numbers are achieved, even when they conflict with the stated principle of “equal quality and shared facilities” (Interviewee 13, 2024). These behaviours exemplify how actors’ risk-hedging strategies, driven by their experience of transaction and market costs, feed back into everyday planning and regulatory practices. The result is a pattern of spatial marginalisation and delayed delivery of affordable housing that both reflects and reproduces the institutional trap identified in the next section.

5 Discussion

This study has examined why Shenzhen's urban-village-led, market-driven regeneration regime struggles to deliver adequate affordable housing. Based on policy document analysis and 26 semi-structured interviews with government officials, developers, third-party experts, and representatives of urban-village collectives, we traced the four-stage process of urban-village regeneration and identified the institutional barriers that arise at each stage. Analytically, our main contribution is not to displace existing planning theories of participation, conflict, or justice, but to complement them with an NIE-informed STB lens that specifies how rules, approval sequences, and incentive structures convert distributional tensions into cumulative implementation frictions.

From this perspective, the central tension in Shenzhen's URAH regime is clear: affordable housing is pursued as a public and redistributive objective, but delivered through a market-driven redevelopment process that depends on negotiated feasibility, developer initiative, and project-level bargaining. Applying the STB lens reveals that institutional barriers do not appear as isolated obstacles. Rather, they accumulate across the project lifecycle. Uncertainties in property-rights consolidation and early-stage negotiations raise bargaining costs at initiation; multi-department approval processes intensify coordination and enforcement costs during planning; and these cost pressures then shape later risk-hedging and feasibility adjustments, with downstream implications for affordable-housing quota fulfilment and spatial outcomes. Table 2 provides a systematic summary of these stage-specific barriers, identifying the key stakeholders involved and the direct impacts on affordable housing outcomes.

A key insight from this analysis is the cascading nature of these transaction costs. Transaction costs serve as the critical mediating variable between institutional structures and behavioural choices. Our findings demonstrate that institutional failures in one stage generate frictions that are carried forward, compounding difficulties in the next. For example, the high search costs and uncertainty created by property rights ambiguity in the initiation stage heighten the developer's sensitivity to risk. This heightened risk perception makes developers more likely to engage in protracted, cost-cutting negotiations with government departments during the planning stage.

As these frictions accumulate, they fundamentally alter stakeholder strategies. The immense bargaining costs and delays accumulated during planning approvals often deplete the developer's financial reserves and patience. Consequently, this incentivises them to take a harder line in demolition negotiations or, as a final resort, to minimise quality and locational value in the affordable housing units they ultimately deliver. This cascading effect creates a cumulative burden of transaction costs across the project lifecycle, systematically eroding the viability and substance of affordable housing provision.

The persistence of this inefficient system can be best understood through the concept of an "institutional trap." We define this as a self-reinforcing configuration of rules, expectations, and behaviours that keeps affordable housing provision in a low-level equilibrium despite repeated policy adjustments. Our findings suggest that the URAH regime in Shenzhen reproduces this trap through three interrelated mechanisms, which work in concert to lock in suboptimal outcomes.

The first mechanism is path dependence rooted in rule rigidities and accumulated expectations. Local officials learn that prioritising land-based revenues, project speed, and

Table 2 Institutional barriers, involved stakeholders, and impacts identified in urban regeneration

Stages	Institutional barriers	Stakeholders	Impact on URAH
Project initiation	<ul style="list-style-type: none"> - Ambiguity in property rights (unclear collective land ownership, illegal constructions) - Policy volatility leading to uncertainty - Informal negotiations dominating preliminary agreements 	Developers, original property owners (villagers), local government	<ul style="list-style-type: none"> - Prolonged negotiation period and increased transaction costs - Elevated risks of project transfer
Detailed planning approval	<ul style="list-style-type: none"> - Governance fragmentation across multiple departments (e.g., conflicting goals among the planning bureau, education bureau) - Prolonged approval processes (2–5 years) - Rigid policy enforcement 	Local government departments, developers, planning and design institutions	<ul style="list-style-type: none"> - Repeated adjustments to affordable housing quotas, delaying implementation - High transaction costs reducing developers' willingness to invest
Identification of the implementing entity	<ul style="list-style-type: none"> - High compensation demands (original property owners seeking high compensation) - Weak internal governance of collective ownership - Risks associated with informal agreements (e.g., villagers reneging) 	Developers, original property owners, village collectives, local government	<ul style="list-style-type: none"> - Negotiation duration extends from 3 to 10 years, delaying project progress - High compensation costs constraining affordable housing budgets
Construction and benefit	<ul style="list-style-type: none"> - Financial pressure on developers (priority given to resettlement housing delivery) 	Developers, local government, affordable housing residents, commercial housing buyers	<ul style="list-style-type: none"> - Delays in affordable housing construction or quality reductions
Distribution	<ul style="list-style-type: none"> - Spatial segregation (marginalisation of affordable housing) - Inadequate policy oversight 		<ul style="list-style-type: none"> - Spatial inequalities exacerbating social tensions (e.g., protests and petitions)

This table summarises the main institutional barriers identified in Shenzhen's market-driven, urban-village regeneration regime. Some of these barriers (such as property-rights ambiguity and departmental fragmentation) also arise in more state-led renewal, but the locus of project initiation and risk-bearing, as well as the incentive structure, differs, which changes the configuration of transaction costs and behavioural responses (see comparative discussion in Sect. 5)

visible physical upgrades is rewarded, whereas experimenting with stricter affordable housing requirements is risky and time-consuming. As interviews with planning and renewal officials indicate, departments gradually routinise informal coordination practices to “get projects done” within the existing framework rather than pushing for more ambitious redistributive reforms. Over time, these routines make it increasingly costly for any individual department to deviate from the established pattern.

The second mechanism involves the systematic externalisation of transaction costs onto weaker actors. Protracted negotiations and approval delays consume developers’ organisational resources, but these costs are ultimately passed on to village collectives, tenants, and future residents through reduced compensation, lower-quality or marginalised affordable housing, and extended waiting times. Local governments often tolerate this pattern because it reduces their own bargaining and enforcement burdens under tight fiscal and staffing constraints. In this way, the stakeholders most affected by housing unaffordability bear the heaviest negotiation and coordination costs.

The third mechanism is a recursive feedback loop whereby risk-hedging strategies become normalised and inform subsequent regulatory decisions. Developers respond to planning uncertainties and financial risks by spatially marginalising affordable housing or sequencing delivery to protect cash flow. Officials, in turn, tacitly accept such arrangements as long as quantitative targets are met, transforming these coping strategies into de facto norms. Subsequent projects then adopt these precedents as reference points, further entrenching a pattern in which affordable housing is quantitatively delivered but qualitatively and spatially marginalised.

Positioned within the broader planning literature, these findings suggest that NIE complements rather than duplicates communicative planning, consensus-building, and advocacy approaches. Those traditions illuminate how conflicts are articulated, whose voices are represented, and why power asymmetries matter in planning arenas (Davidoff, 1965; Healey, 1997; Innes & Booher, 2004; Fainstein, 2010). Our analysis adds a different explanatory layer: even where affordable housing is formally mandated, the institutional design of a market-driven regeneration regime can transform distributional conflict into escalating search, bargaining, and enforcement costs, making redistributive commitments progressively harder to sustain. What appears as a failure of consensus or justice is therefore also a problem of institutionalised feasibility management.

It is important to situate this argument in a comparative governance perspective. The institutional frictions documented above are not unique to China’s hybrid governance structure; they are endemic features of regeneration politics across institutional settings. In Western European and North American contexts, anti-development coalitions, NIMBY opposition, statutory public participation requirements, environmental impact assessments, and legal challenges by affected residents routinely delay urban redevelopment for years or even decades (Roberts et al., 2017; Adams & Tiesdell, 2010; Han et al., 2021). These procedural safeguards, while serving democratic accountability, generate substantial search, bargaining, and enforcement costs that mirror some of the frictions we observe in Shenzhen. In democratic regeneration regimes, then, it is the political and procedural costs of contestation—rather than property-rights ambiguity or administrative fragmentation—that most visibly inflate transaction costs and prolong implementation.

What distinguishes Shenzhen’s case—and what makes the NIE lens particularly revealing—is the specific configuration rather than the mere presence of institutional barriers.

Three features are structurally distinct. First, the dual land system produces property-rights ambiguity that is embedded in the formal legal architecture rather than arising from procedural delays or political opposition; collective and state land rights coexist without a unified adjudication mechanism, making rights clarification itself a major source of transaction costs. Second, local governments simultaneously act as rule-makers, land-interest holders, and regulators of the regeneration process, creating incentive conflicts that democratic systems typically mitigate through separation of powers and independent judicial review. Third, the absence of statutory public participation rights for tenants and migrant residents means that the transaction costs of negotiation are not distributed through formalised deliberative channels but are instead absorbed through informal bargaining and relational networks, which systematically externalise costs onto weaker actors. Stronger state bargaining capacity and weaker civil veto opportunities may therefore compress some forms of contestation, yet the hybrid governance structure of collective land rights, developer-led implementation, and fragmented administrative authority generates its own distinct configuration of barriers—one that communicative or advocacy planning frameworks, designed primarily for democratic institutional settings, do not fully anticipate.

The comparative implication is that the underlying tension between market feasibility and housing justice is broader than any single governance system, but the specific transaction-cost profile through which it is reproduced is strongly conditioned by governance context. Our analysis therefore suggests that while the broad categories of institutional barriers—governance fragmentation, departmental misalignment, and path dependence—resonate across settings, the mechanisms through which they generate, distribute, and accumulate transaction costs differ substantially between democratic and hybrid regimes. This distinction carries consequences for policy transfer: reforms that have shown limited effectiveness even in democratic contexts are unlikely to directly address the structural property-rights ambiguity and incentive misalignments that sustain the institutional trap in Shenzhen, where these dynamics are further compounded by hybrid governance conditions. Conversely, the cascading transaction-cost dynamics we identify may manifest in other market-driven regeneration regimes even where the specific institutional sources differ, suggesting that the STB lens offers a transferable diagnostic tool for comparing how governance arrangements mediate the tension between regeneration and redistribution.

While this study offers a novel theoretical lens, its scope has limitations. First, the analysis focuses on urban-village-led regeneration in a single city, Shenzhen, meaning the transferability of the “institutional trap” concept to other regeneration typologies or cities is conditional. Second, our empirical evidence is qualitative; future research could integrate quantitative indicators to measure the magnitude of transaction costs. Third, the perspectives of tenants and vulnerable groups are less systematically represented. Future scholarship should address these gaps by examining the micro-dynamics of institutional change—specifically, what external shocks or coalition shifts might be required to break the low-efficiency equilibrium identified here.

6 Conclusion

This study set out to investigate why market-driven urban regeneration, despite its potential to unlock land resources, frequently fails to deliver adequate affordable housing in high-density megacities. By applying an NIE-informed Structure-Transaction-Behaviour (STB) framework to the case of Shenzhen, we show that the shortfall is not simply a matter of economic viability or insufficient policy intent. Rather, it reflects an internal institutional tension: housing justice is pursued through a redevelopment regime organised around market feasibility, negotiated implementation, and risk transfer.

Our process-based analysis shows that the institutional frictions of regeneration are cumulative. Ambiguities in the initiation stage do not remain contained; they cascade into planning, demolition, and construction, inflating transaction costs to a point where developers and officials systematically trade off redistributive objectives to keep projects moving. The affordable-housing quota, while legally mandated, thus becomes the variable most readily adjusted in quality, location, or timing when the system's other frictions intensify.

Theoretically, the paper contributes by positioning NIE alongside, rather than against, established planning theories. Communicative, collaborative, and advocacy approaches explain why regeneration is politically conflictual and normatively contested; our STB lens explains how those conflicts are translated into recurring bargaining, coordination, and enforcement burdens within a market-driven institutional setting. In this sense, the paper offers a mechanism-based account of how governance arrangements suppress social outcomes through the accumulation of processual frictions.

For policymakers, the implication is that simply mandating higher affordable-housing quotas within regeneration projects will not suffice if the institutional process continues to reward feasibility over redistribution. Breaking the institutional trap requires a realignment of rights clarification, cross-departmental coordination, and enforcement capacity so that social obligations are not treated as the residual adjustment item of project delivery. More broadly, the Shenzhen case suggests that the tension between market-led regeneration and housing justice is widely relevant across governance systems, but its concrete barriers are shaped by locally specific institutional arrangements.

Author contributions S.W. collected the data and wrote the main manuscript text. J.H. and M.E. reviewed and supervised the manuscript.

Data availability No datasets were generated or analysed during the current study.

Declarations

Competing interests The authors declare no competing interests.

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