Towards Resident-Led Renewal: Practical Exploration, Common Bottlenecks, and Institutional Innovation in the In-Situ Demolition-Reconstruction of Old Residential Buildings in Contemporary China

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Abstract: The Opinions of the CPC Central Committee and the State Council on Promoting High-Quality Urban Development explicitly propose support for "resident-led renewal and in-situ demolition-reconstruction of old residential buildings." Against the backdrop of weakening land finance and the limited capacity of comprehensive renovation in old neighborhoods to meet residents' needs, resident-led, in-situ demolition-reconstruction may become an important measure for transforming the urban development model, stimulating real domestic demand, and expanding effective investment. This paper compares the development trajectories and policy innovations of in-situ demolition-reconstruction in several Chinese cities and conducts in-depth investigation of eight typical cases. It finds that this renewal model is characterized by government leadership, state-owned-enterprise operation, mutual public-private benefits, limited physical improvement, and inclusive balancing, yet it is still insufficient to be defined as genuine resident-led renewal. The paper further identifies common bottlenecks at the levels of policy and law as well as value balancing, and proposes institutional designs in two respects: establishing a legal system that allows genuine resident-led renewal and releasing sustainable renewal momentum. The aim is to provide ideas for how old residential buildings can truly realize resident-led in-situ demolition-reconstruction.

Keywords: resident-led renewal; in-situ demolition-reconstruction; policies and regulations; financial balance; value capture

China gradually entered a period of large-scale housing construction and dilapidated housing renewal in the 1980s and 1990s. The "relocation and demolition" model relied on the state-owned land housing expropriation system and the paid use system for state-owned land. It used real estate development to drive the renewal of dilapidated housing, new towns to compensate old towns, new construction to offset demolition, and new debt to repay old debt. Objectively, this model continuously pushed up housing prices and macro leverage [1]. However, the fundamental changes in the real estate supply-demand relationship have shaken the established model that relies on land conveyance revenues to balance renewal costs, making it urgent to break the original path dependence [2-3].

At the same time, over the past decade or more, the comprehensive renovation of old residential communities, including structural reinforcement and maintenance, infrastructure upgrading, elevator installation, demolition of illegal construction, and environmental improvement, has been strongly promoted and financially supported by the central government. Yet this model has obvious limits. A large stock of low-standard housing built during the welfare-housing period to solve the basic problem of "having a dwelling" - including some early commercial housing - has limited design life, unit layouts that no longer meet current needs, and severe shortages in supporting facilities and parking. Mere repair, maintenance, and beautification do not generate a strong sense of gain among residents and make it difficult to establish a multi-party cost-sharing mechanism. Except where conservation of historical character is required, demolition and reconstruction are often the more reasonable renewal approach; comprehensive renovation may instead become high-effort and low-return.

Against this dual background, the 2025 Opinions formally proposed support for resident-led renewal and in-situ demolition-reconstruction of old residential buildings. "Resident-led renewal" and "in-situ demolition-reconstruction" are two parallel concepts. Some localities have begun to explore the latter and have attracted

extensive public and scholarly attention, but most such projects can hardly be called resident-led renewal. Existing architectural and planning studies have mostly focused on single cases [4-8], specific areas [9], the problems and experience of one city [10-11], comparison with comprehensive renovation [12], or one key issue such as renewal rights, collective-action dilemmas, or payment difficulties [13-16]. A systematic observation of the policies and practices of different cities is still lacking. Legal and management scholars, by contrast, have focused on the legal and financial issues behind this model [17], especially the still-incomplete rules governing the rights and obligations involved in the reconstruction of condominium buildings [18-21]. This paper reviews the development and policy innovations of in-situ demolition-reconstruction in several Chinese cities, further compares eight typical cases, summarizes the characteristics of the renewal model, and then identifies the general policy, legal, and value-balancing difficulties faced by resident-led in-situ demolition-reconstruction, before proposing corresponding countermeasures.

1 Related Concepts and Development Trajectory

1.1 Conceptual definition

There is as yet no official definition of in-situ demolition-reconstruction of old residential buildings. In this paper, the term refers to an urban renewal action in which old residential buildings on state-owned land are demolished and rebuilt on the original site, original residents return after reconstruction, and no real estate development sales are involved (Table 1). It has two typical features. First, the number of dwelling units on the plot does not increase before and after renewal, and original residents return. Second, the floor area ratio may increase after renewal, but the additional floor area is mainly used for kitchens and bathrooms, shared areas, and public facilities, without adding units for commercial sale; this is commonly described as “increasing capacity without increasing households.” The clear advantages of this model are that it maintains social networks, avoids inner-city gentrification, improves housing affordability, and does not increase the burden on public services. Its objects usually fall into three categories: the conversion of incomplete housing, usually public housing, into self-contained units; the elimination of dangerous housing; and old residential buildings outside the first two categories, namely self-contained, privately owned, non-dangerous housing. The first two categories account for the majority and are currently permitted and supported by policy. The third category already has some implementation cases, but no clear and unified implementation pathway exists.

Resident-led renewal also lacks a generally accepted definition. Some scholars understand it as a renewal activity in which residents submit an application to the government and, after approval, take the lead in implementation and financing, mainly through in-situ demolition and reconstruction [22]. It should therefore include four important features: autonomous decision-making by property owners, autonomous organization, autonomous funding, and autonomous distribution [23].

Table 1 Conceptual definition of in-situ demolition-reconstruction of old residential buildings

Land ownership	Renewal approach	Return on original site	Real-estate development sales
State-owned land; not collective land	Demolition and reconstruction; not micro-renewal	Yes	No

1.2 Development of in-situ demolition-reconstruction in different cities

The 2025 Opinions were the first central document to use the term in-situ demolition-reconstruction. Before that, several cities had already issued related policies and launched practices, including Shanghai, Beijing, Hangzhou, Nanjing, Guangzhou, Chengdu, Changsha, and Xiamen (Figure 1). Shanghai began to test the “demolish-and-rebuild-on-site” approach as early as about 20 years ago, whereas the special policies of other

cities have been concentrated in the past five years. Shanghai, Beijing, Hangzhou, Nanjing, and other cities already have several successful projects. Some cases underwent long rounds of negotiation and implementation, which in turn promoted the issuance and refinement of local policies; practice and institutions have reinforced each other. At the same time, some attempts in various localities have stalled. For example, more than 3,000 owners in Phase II of Central Garden in Chengdu proposed self-demolition and self-construction in 2018, but the project has been suspended because it did not fall within the scope of shantytown redevelopment and lacked policy support.

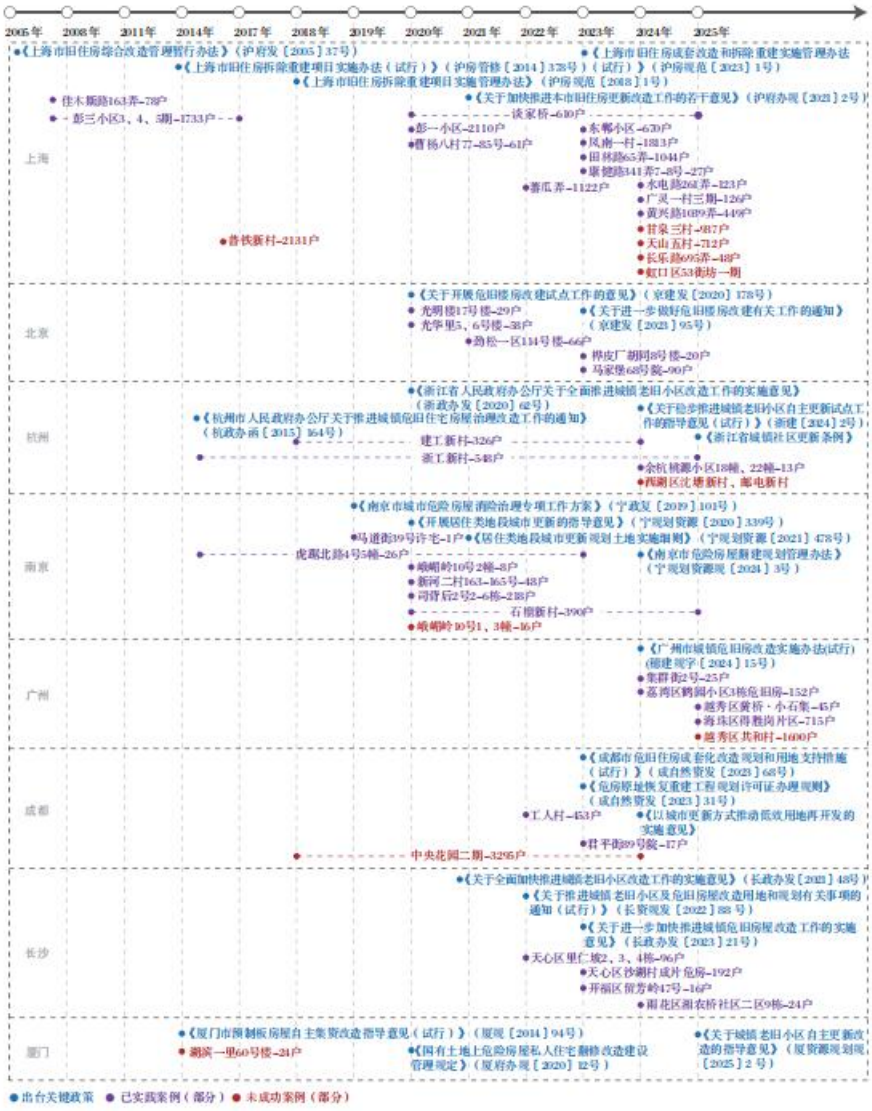

Figure 1 Key policies, major implemented cases, and unsuccessful cases of in-situ demolition-reconstruction of old residential buildings in selected cities

1.3 Key points of local policy innovation

1.3.1 Applicable objects: mainly dangerous housing and incomplete housing

Before the central document referred to in-situ demolition-reconstruction, local policies used different names for it (Table 2). In most cities, the applicable objects are clearly limited to dangerous housing or incomplete old housing; renewal is therefore usually conducted at small, point-based scales. Requirements for the level of dangerous housing differ among cities. Some strictly limit application to D/Dsu-grade dangerous housing, whereas others include B-, C-, and D-grade dangerous housing. Xiamen, Hangzhou, and Shanghai are

relatively flexible: private old housing more than 40 years old, or located in the same renewal area as public old housing and C/D-grade dangerous housing, may also be demolished and rebuilt together.

Table 2 Applicable objects of in-situ demolition-reconstruction policies in selected cities

City	Local term	Main applicable objects	Strictness
Shanghai	Demolition and reconstruction of old housing	Public old housing and private housing within the same renewal scope; multi-storey residential buildings identified as dangerous and without repair-preservation value.	Moderate
Beijing	Renovation of dilapidated old buildings	Dilapidated buildings with poor structure, long-term disrepair, damaged or missing infrastructure, and major safety risks; mainly simple public housing buildings without self-contained facilities, identified as lacking reinforcement value or as being severely affected by reinforcement.	Relatively strict
Hangzhou	Combined demolition-renovation of old communities	Buildings with generally poor quality, including some legally identified C/D-grade dangerous buildings; mainly non-self-contained housing without independent kitchens or bathrooms, including corridor buildings; and buildings with geological or other safety hazards.	Flexible
Nanjing	Reconstruction of dangerous buildings	C- and D-grade dangerous buildings that cannot be replaced or relocated.	Strict
Guangzhou	Urban dangerous old housing renewal	On state-owned land: B-grade dangerous housing may be renovated if owners wish; brick-timber and C/D-grade dangerous housing should be renovated where possible.	Relatively strict
Chengdu	Self-contained renovation of dangerous old housing	Low-rise independent-base housing on state-owned construction land identified as D/Dsu-grade dangerous housing, and incomplete dangerous old housing included in the project database.	Very strict
Changsha	Demolition and reconstruction of dangerous old housing	C- and D-grade dangerous housing on urban state-owned land with legal title and included in the municipal urban dangerous old housing renovation plan.	Strict
Xiamen	Resident-led renewal of old communities	Buildings more than 40 years old, structurally poor, functionally incomplete, and lacking repair-reinforcement value, or buildings identified as C- or D-grade dangerous housing.	Moderate

1.3.2 Increment rules: moderate capacity increase with no increase in households

At the national level, moderate capacity increases are supported for the renewal of old communities, but detailed rules remain unclear. Localities generally justify additional floor area by reference to minimum national standards for kitchens and bathrooms, and also allow supplementation of public service facilities. Some cities set an overall cap of 20%-30% on floor area increases, while describing increases in internal floor area only vaguely as “moderate.” Others set baseline dwelling standards according to local living conditions, such as 70 m2 or 90 m2, and do not permit additional internal area above that baseline. Some cities explicitly prohibit an increase in the number of households, whereas Shanghai, Beijing, and Hangzhou allow added dwellings to be used as affordable housing, including public rental housing, government-subsidized rental

housing, shared-ownership housing, or housing for relocation from old-area renewal (Table 3).

Table 3 Allowable floor-area gains for in-situ demolition-reconstruction in selected cities

City	Internal area gain	Overall area gain	Household gain
Shanghai	May increase moderately.	Where public elements such as urban public space and affordable housing are provided, and conservation requirements are met, land use, development capacity, and building height may be adjusted moderately.	Additional units may be used for district resettlement and various forms of affordable housing.
Beijing	Incomplete housing and self-contained units ≤70 m2 may be increased to kitchen 4 m2 and bathroom 3 m2; self-contained units >70 m2 should generally not increase.	Above-ground floor area increase should generally not exceed 30%; increases over 30% require district government approval.	Affordable rental housing, public rental housing, or shared-ownership housing may be added.
Hangzhou	Residential floor area may increase moderately, with additional public service facilities.	May add residential area and public service facilities.	Affordable housing may be added.
Nanjing	May increase moderately, e.g., kitchen 4 m2 and bathroom 2 m2; underground space may be developed.	Rebuilding should generally follow the original site, area, and height; moderate increases may be allowed within the site to improve basic public facilities and meet basic living needs.	No increase in households.
Guangzhou	Incomplete housing and self-contained units ≤90 m2 may increase to kitchen 4 m2 and bathroom 3 m2; units >90 m2 should generally not increase.	Qualified projects may add public activity space and public service facilities; above-ground area increase should generally not exceed 30%.	No increase in households.
Chengdu	Area may be added for kitchens, bathrooms, and other facilities to meet minimum current national standards.	Elevators, parking, property-management space, public service facilities, squares, and green space may be added; the added building scale should not exceed 20% of the certified original floor area.	No increase in households.
Changsha	Under the “four originals” principle - original site, area, height, and use - missing kitchens and bathrooms may justify moderate increases in height and extension; kitchen area should generally not exceed 6 m2 per household and bathroom area 4 m2 per	Not specified.	Not specified; presumed no increase.

City	Internal area gain	Overall area gain	Household gain
	household.		
Xiamen	Area expansion per unit should not exceed 10% of the original area.	Total added floor area should not exceed 20% of the original area.	Not specified; presumed no increase.

1.3.3 Fiscal subsidies: differences between public housing and privately owned housing

The degree of fiscal subsidy varies across localities. The strongest support is full funding through special fiscal funds, usually in cities where public housing is the main object. A second type provides reconstruction subsidies according to the level of danger. A third type establishes a multi-party financing mechanism: fiscal subsidies are given at a fixed amount based on the original area, while social organizations are encouraged to participate in financing and later operation. In cities with broader applicable objects, such as Hangzhou and Xiamen, including privately owned housing, original owners are generally expected to raise funds according to the proportional area of each household; some localities allow the transfer of public facilities to offset costs. Such projects are not included within the scope of central fiscal support for the renovation of old urban communities (Table 4).

Table 4 Funding sources and subsidies for in-situ demolition-reconstruction in selected cities

City	Funding feature	Funding source	Subsidy level
Shanghai	Full fiscal subsidy	Special funds arranged by municipal and district finance.	Very high
Beijing	Multi-party financing with fixed subsidy	Municipal and district fiscal subsidy of 5,786 yuan/m2 within the original property area; residents pay the shortfall within the original area and added area at not less than the comprehensive reconstruction cost or 70% of ordinary commercial-housing price.	Medium-high
Hangzhou	Owner contribution plus public-service transfer to offset cost	Residential construction funds are generally borne by owners according to original floor-area proportions; transfer of government affordable housing or public-service facilities may offset construction cost.	Low-medium
Nanjing	Owner contribution plus government subsidy	For C-grade dangerous buildings, municipal finance, district finance, and owners share costs at 2:2:6; for D-grade, at 3:3:4.	High
Guangzhou	Self-financing plus market cooperation	Housing safety responsible parties self-finance; market entities may be lawfully introduced for cooperative renewal.	Low
Chengdu	Not specified	Not specified.	Not specified
Changsha	Fixed subsidy plus special assistance for very poor households	Fiscal reward/subsidy within original property area: 400 yuan/m2 for detached buildings, 1,000 yuan/m2 for apartment buildings; unit-managed property follows 70% of private-property standard.	Medium-high
Xiamen	Self-financing	Homeowners negotiate contribution shares, generally based on original floor-area proportions.	Low

1.3.4 Implementing entities

In cities where public housing is the main applicable object, the property-rights unit generally acts as the implementing entity, or the government may designate one. In some cities, all owners or the owners' committee must entrust an implementing unit to organize implementation. Hangzhou, Guangzhou, and Xiamen further propose that owners may establish a resident-led renewal committee and entrust a construction unit, giving residents a more explicit subject position.

1.3.5 Thresholds for resolutions and options

Most cities adopt majority decision-making. Some cities arrange two rounds of consultation, with the final effective threshold set above 95%. Chengdu and Xiamen require unanimity. For public-safety reasons, Nanjing lowers the threshold for D-grade dangerous buildings to two-thirds. Zhejiang has issued local regulations allowing local governments to decide on and organize the demolition of dangerous housing in response to emergencies.

Unlike relocation-and-demolition, in-situ demolition-reconstruction in most cities generally no longer offers monetary compensation, off-site resettlement, or other exit options. It also defaults to the principle of "one household for one household," thereby avoiding additional burdens on supporting facilities. Only Beijing explicitly permits application-based lease withdrawal for public housing.[1]

1.3.6 Property registration and land conveyance fees

There is no upper-level legal basis for how land-use-right conditions should change during in-situ demolition-reconstruction, how newly added floor area should be counted, whether and how land conveyance fees should be supplemented, how real-estate registration information should be changed, or whether land-use rights may be renewed. Local policies are therefore vague, inconsistent, and rarely specific. The route related to public housing is relatively clear, often referring to the housing reform policies of the 1990s, whereas privately owned housing remains poorly defined.

1.4 Typical local practice cases

Existing and ongoing local projects each have distinct characteristics. To represent old residential buildings in the general sense, the cases selected here exclude old housing located in historic urban areas or subject to strict conservation requirements. To focus on the key blockages faced by in-situ demolition-reconstruction, cases rebuilt under the "three originals" principle - original site, original area, and original height - are also excluded. This study selects eight cases in representative cities for in-depth investigation (Figure 2), drawing on news reports, on-site public notices, and interviews with original residents to understand implementation details.

The cases are analyzed in terms of original housing conditions, the choices of subjects, property-rights reallocation, and cost sharing (Figure 3). Their initial housing conditions differ substantially, but they share at least one of two features: incomplete units or dangerous housing, and all include public housing in varying proportions. In terms of residents' subject choice, the cases are relatively similar and are still insufficient to be called resident-led renewal. In property reallocation, total capacity increases often exceed local policy caps. In cost sharing, public funding, including funding by state-owned enterprises (SOEs), is associated with public-interest in-kind contributions and also relates to the share of public-housing households; the participation of social capital remains low. Local practices may in some respects exceed the general scope permitted by local policies, often relying on flexible application and case-by-case approval. Yet in other respects they are more cautious. For example, Beijing's policy does not strictly limit applicable objects, but practice has mainly involved single-building demolition and reconstruction of D-grade dangerous housing. Although policy allows additional affordable housing, this has not been implemented. While local thresholds for resolutions vary from two-thirds to 95%, all of the above cases were implemented only after achieving 100% resident consent.

Figure 2 Before-and-after changes in eight in-situ demolition-reconstruction cases

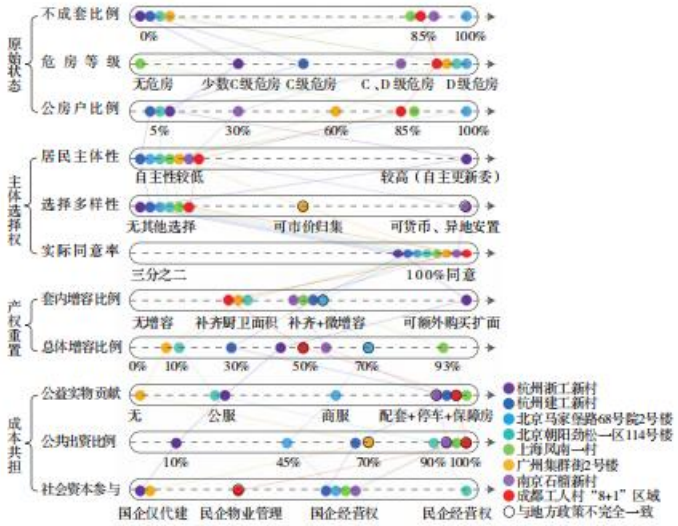

Figure 3 Summary of renewal-mode characteristics in eight in-situ demolition-reconstruction cases

2 Main Characteristics of Local Practice

2.1 Government leadership: an alternative when the “expropriation-storage-supply” chain cannot be balanced

Government leadership is the most important common feature of the above cases. Even where individual projects originated in residents’ demands and were described by the media as self-demolition and self-construction, they were in essence government-led. Every successful case required special policy support and credit endorsement from government departments, as well as coordination and mobilization by subdistrict and community-level grassroots governments.

The above local policies all exclude areas already included in expropriation and land-reserve plans. This indicates that in-situ demolition-reconstruction and the “expropriation-storage-supply” path are coexisting but mutually exclusive routes. The survey shows that, from the perspective of local governments, in-situ

demolition-reconstruction is often an alternative when the economic calculation of expropriation, land reserve, and supply cannot be balanced; that is, when future land conveyance revenue cannot cover expropriation costs and the resulting loss may even exceed the fiscal subsidy needed for in-situ demolition-reconstruction. In combination with considerations of safety responsibility and livelihood improvement, the government then makes the decision to pursue in-situ demolition-reconstruction and consults the original right holders. If consultation fails, the project is suspended. Residents, meanwhile, often calculate potential benefits by reference to expropriation standards for similar locations. If either monetary compensation or off-site resettlement yields greater benefits than in-situ demolition-reconstruction, consensus becomes difficult. In Figure 4, where X > Y and P_original < P_monetary or P_off-site, in-situ demolition-reconstruction easily falls into deadlock. Shanghai has many unsuccessful cases (Figure 1), because per-household expropriation compensation can reach 5-7 million yuan; even when in-situ demolition-reconstruction is almost fully fiscally funded, residents still prefer to wait for demolition compensation.[2]

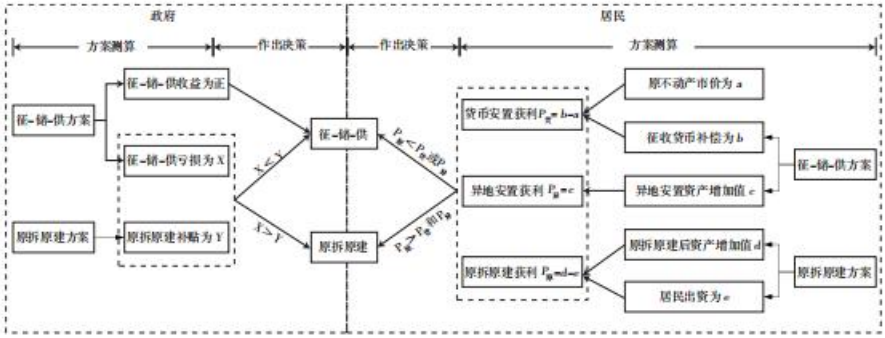

Figure 4 Decision-making process for in-situ demolition-reconstruction from the dual perspectives of government and residents

2.2 SOE operation: balancing comprehensive renewal costs through preservation of state-owned assets

All of the cases use district-level functional SOEs as implementing entities (Figure 5). Although Hangzhou and Guangzhou propose that owners may establish resident-led renewal committees, such committees have no legal-person status and lack professional capacity and qualifications, so they must entrust SOEs to operate the projects. Local governments generally designate district-level functional SOEs related to housing or renewal businesses, approve projects, and allocate fiscal funds. Residents sign agreements with the SOEs to aggregate property rights and funds. The SOEs act as implementing entities, handle land-use and construction permits, and pay or advance costs. Comprehensive renewal cost includes not only demolition and construction costs, but also human costs for coordination, financing costs, transitional resettlement expenses, relocation and decoration subsidies, and other expenditures, often reaching 7,000-10,000 yuan/m2. In such renewal, local governments provide fiscal subsidies to varying degrees and obtain public-interest returns in the form of public service facilities or affordable housing. After renewal, these tangible assets are transferred to the government or held on its behalf by SOEs, balancing comprehensive renewal costs through the preservation and appreciation of state-owned assets. Affordable housing in particular has relatively high asset valuation. Although policies in cities such as Nanjing and Chengdu do not explicitly permit added affordable housing, practice cases have reserved dozens of units, with later use still pending. At present, private enterprises mainly participate by contributing funds in exchange for a fixed-term right to operate supporting facilities or property management, a light-asset model.

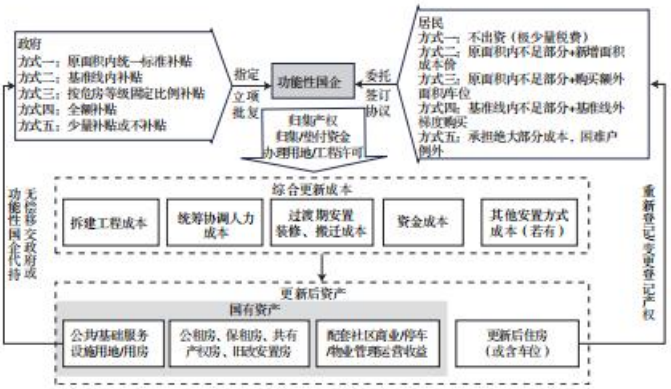

Figure 5 The role of functional SOEs in in-situ demolition-reconstruction of old residential buildings

2.3 Mutual public-private benefits: beneficiary payment balancing fairness and efficiency

Most implemented cases have formed a win-win situation of mutual public-private benefits. The government improves livelihoods, eliminates safety hazards, and completes affordable-housing tasks while receiving public in-kind returns. Residents obtain improved living conditions and appreciation of their housing assets. The eight cases share good locations and access to high-quality education and medical resources. Because old and dilapidated buildings have a substantial price gap from nearby new housing [15], and because a certain degree of added capacity is allowed, the expected appreciation of assets stimulates residents' motivation for renewal. Comparing the funding sources and public-interest in-kind contributions of the eight cases shows that residents' contribution ratio is generally inversely related to the degree of public-interest return, or contribution rate (Figure 6), and positively related to the per-household improvement in floor area (Figure 7). These relationships indicate that local innovations have generated advanced experience in "beneficiary payment that balances fairness and efficiency."

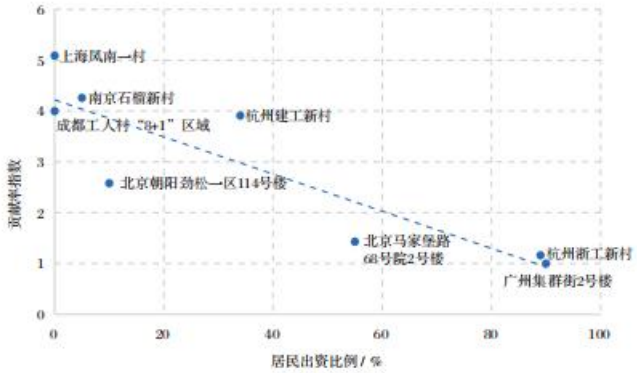

Figure 6 Relationship between residents' capital-contribution ratio and public-benefit contribution rate in eight cases

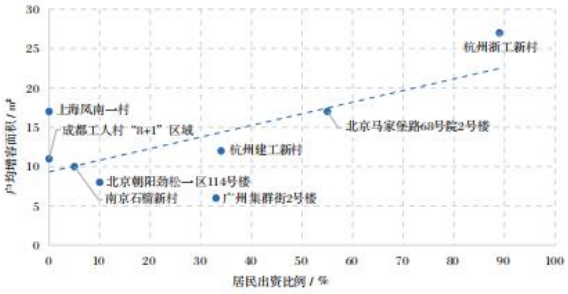

Figure 7 Relationship between residents' capital-contribution ratio and per-household floor-area increase in eight cases

2.4 Limited improvement: solving housing difficulties and safeguarding basic living rights

Overall, the starting point of this model is to solve housing difficulties and improve living conditions to a limited extent. All cases include fiscal input to some degree and can be understood as administrative benefits; the core of benefit administration is to guarantee basic living rights. The fiscal subsidy comes from the urban affordable-housing project subsidy fund,[4] and subsidized objects are limited to expenditures for the reconstruction, expansion, or in-situ rebuilding of C- and D-grade dangerous housing and incomplete housing on state-owned land. Almost all of the cases therefore fall within or at least touch this applicable scope. Before renewal, the average household floor area in the eight cases was concentrated between 24 and 60 m2. Through in-situ demolition-reconstruction, the average household area increased by 6-17 m2, representing a limited improvement in basic housing conditions. Average household contribution was mostly within about 300,000 yuan, within the affordability of ordinary households in first-tier cities, while Zhegong New Village was an exceptional case (Figure 8).

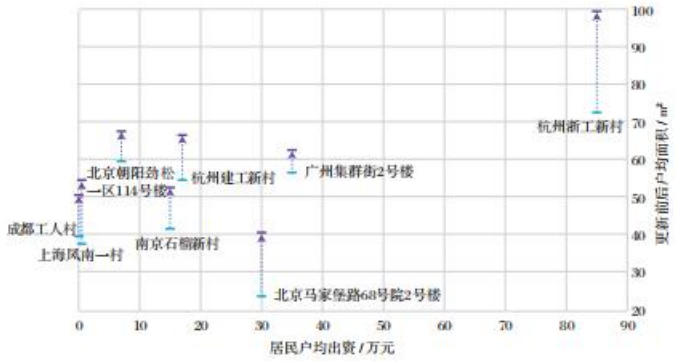

Figure 8 Average household investment and floor-area changes in eight cases

2.5 Inclusive balancing: lowering participation thresholds through stepped crowdfunding of comprehensive costs

Except for fully fiscally funded cases, residents' contribution rules can be summarized into two types. The first is absolute equality: each household follows the same contribution standard and pays roughly the same amount, with additional subsidies only for especially disadvantaged groups; this applies where original dwelling-unit sizes were basically similar. The second is relative equality combined with equity and segmented pricing: subsidies are provided equally within the scope of basic living guarantees, while beyond the original area or a defined baseline, households pay more to obtain more, according to willingness. The latter effectively lowers the threshold for participation. Stepped crowdfunding can also accommodate individual differences within a group and facilitate implementation. In Zhegong New Village, for example, within the range where internal area remained unchanged before and after renewal, original owners paid reconstruction costs of 1,350 yuan/m2. They could voluntarily purchase up to 20 m2 of expanded area at about 34,500 yuan/m2, approximately 80% of the surrounding housing price at the time, and purchase underground parking spaces at market price, 220,000 yuan. This financing plan lowered the participation threshold to several tens of thousands of yuan, avoiding dissent caused simply by insufficient payment capacity and allowing households with stronger willingness and ability to pay to obtain greater improvement.

3 Common Bottlenecks in In-Situ Demolition-Reconstruction

3.1 Policy and legal level: legality and procedural compliance

3.1.1 The legal system for building reconstruction remains incomplete

China currently has no special law or administrative regulation on building reconstruction, except for post-disaster reconstruction laws and regulations [21]. National provisions allow a whole building identified as a D-grade dangerous building to be reconstructed under the "three originals" principle with funds from the owners. The original intention is to avoid infringing the lawful rights of neighbors. Article 278 of the Civil Code gives right holders, from the perspective of private law, the right to alter or reconstruct condominium buildings by majority decision, but supporting legislation has not yet been issued. Important matters involved in alteration and reconstruction - objective conditions, adjustment of rights and interests among owners, funding sources, re-registration of construction land, and land conveyance fees - all remain legislative gaps [18]. How old a building must be before it can be reconstructed, whether added area may be obtained through payment or "taxation," and whether there is a right to apply for extension of land-use terms are urgent questions. No housing demolition-reconstruction case has yet appeared under a condominium building reconstruction system. Existing cases all rely on affordable-housing policy. Privately owned old housing that is completely unrelated to dangerous or incomplete housing but has a willingness for resident-led renewal has no clear pathway in practice.

3.1.2 Constraints of the incremental-era land system create obstacles

In-situ demolition-reconstruction mostly involves adjustment of the development intensity of residential land. The paid land-use system established in the era of incremental development clearly requires supplementary land conveyance fees when land-use nature or floor area ratio is adjusted. Yet residential land, as a land-use category that must strictly follow land reserve and tender-auction-listing transfer procedures, lacks policy rules on how conveyance fees should be supplemented, waived, or reduced. On this issue, local policies either treat the matter vaguely or avoid it, and practical operation faces numerous obstacles. The relatively clear land-operation route in current in-situ demolition-reconstruction is to aggregate land to an SOE implementing entity and supplement land conveyance fees when housing is delivered or listed again. This applies only to public housing and affordable housing that have not yet enjoyed housing reform policies. The difficult object is privately owned housing. Some cases seek flexible strategies: Hangzhou and Guangzhou, for instance, use floor-area-ratio incentives in the name of green buildings or prefabricated buildings,[5] and register added area as "gifted" space. Most localities, however, state only that property-right registration may be handled lawfully after land price is paid according to regulations, without specifying the regulations.

3.1.3 Collective-action dilemmas in condominium building reconstruction

Reconstruction of multi-owner apartment buildings is a typical collective action. Collective-action dilemmas generated in comprehensive renovation of old communities and elevator installation have already been studied extensively, and many general problems remain and become more complex. Each apartment building involves dozens of property owners whose actual needs, economic conditions, and willingness to contribute vary greatly; condominium building reconstruction therefore faces severe collective-action dilemmas.

Should unanimity or majority decision-making be adopted? How should the majority threshold be set? Article 278 of the Civil Code states that alteration and reconstruction are matters jointly decided by owners and should be voted on by owners representing two-thirds of both headcount and area, with approval by at least three-quarters of the participating voters in both categories. Although local policies set effective thresholds ranging from two-thirds to 95%, to avoid litigation and petitions the actual consent ratios in the eight cases almost all reached 100%, imposing a heavy coordination burden on grassroots governments. Legal scholars [24] argue that, given the characteristics of apartment buildings and especially factors affecting public safety such as dangerous housing, an individual private right should not have veto power over overall demolition and reconstruction. The deeper cause of the collective-action dilemma is the absence of exit paths. If dissenting owners had more equivalent alternatives,[6] such dilemmas could be effectively eased.

3.2 Value balancing: implementability and sustainability

3.2.1 Short-term internal balance: fair and equitable rule design

Within a residential community, the core difficulty of in-situ demolition-reconstruction lies in the fairness and equity of demolition-reconstruction rules and subsidy rules. Old communities contain a mixture of housing rights, including use-right housing such as public-housing tenancy (system-managed public housing and directly managed public housing), housing purchased after public-housing reform, unit-built housing, and early commercial housing. Different prior costs for different housing types lead to different "bundles of rights," and differentiated rules are needed to maintain fairness of rights. Moreover, in-situ demolition-reconstruction is an exchange of physical property for physical property. It may involve changes in unit type, area, floor, orientation, and other factors. Quantifying explicit value and reasonably converting implicit value before and after property-right changes are urgent difficulties. Meanwhile, old housing often actually serves the basic-living needs of migrants, middle- and low-income groups, and elderly groups. Subsidy rules that incorporate social equity are therefore also needed, including minimum supplementation of basic housing conditions and hardship subsidies.

3.2.2 Long-term overall balance: comprehensive value-balancing tools

In-situ demolition-reconstruction cannot be separated from public financial support. How to achieve long-term overall balance and improve fiscal sustainability is another core difficulty. Subsidy policies in some regions are difficult to sustain.[7] Given current demographic and housing trends, the traditional model of using new towns to subsidize old towns and new construction to offset demolition is also unsustainable. For original residents of old housing, a one-time supplementary land-price payment may be infeasible. The above cases mainly form a social sharing mechanism through in-kind contributions such as public service facilities and affordable housing, but whether these contributions can balance long-term social costs remains unsupported by reliable fiscal and tax instruments. It should be noted that some case practices and resident demands seek to raise renewal costs through additional commercial-housing sales. Under the current system this would create serious unfairness: the added floor area ratio would not be publicly returned through land conveyance fees but would directly subsidize private residence, while the infrastructure and public service costs generated by additional households would still be borne by the government, that is, by all taxpayers. This is legally controversial.

4 Institutional Innovation for Resident-Led In-Situ Demolition-Reconstruction

4.1 Policy and legal level: establishing a legal system for resident-led renewal

4.1.1 Broaden applicability and gradually move toward resident-led renewal

China's large stock of old residential buildings cannot rely on government leadership alone. Some localities already face demolition-reconstruction demands from early commercial housing. In the near future, reconstruction of old residential buildings will become an unavoidable social issue. It is therefore urgent to empower applicable objects and subjects and move toward genuine resident-led renewal. Current Civil Code provisions on the right to reconstruct or alter condominium buildings do not restrict the building itself, so in theory all buildings can undergo resident-led renewal. Given the complexity of apartment buildings, the applicable scope of resident-led in-situ demolition-reconstruction should be broadened by comprehensively considering safety factors, building age, design service life, and the willingness of right holders. It should be noted that although some scholars [14] call for allowing original right holders to establish legal-person organizations and assume independent civil liability, such groups in fact have difficulty possessing the necessary capacity and qualifications. Meanwhile, the "capacity increase" allowed in this renewal model is in substance a state-owned asset. Using district-level SOEs as implementing entities is currently the appropriate method. Governments should proactively carry out comprehensive surveys and identification of housing

safety hazards, further smooth the channel by which original right holders form resident-led renewal committees and submit applications, clarify rights and obligations, and strengthen the participation and autonomy of original right holders in demolition-reconstruction design and funding estimates and collection, thereby gradually moving toward resident-led renewal.

4.1.2 Reconstruct a stock-land use system suitable for in-situ demolition-reconstruction

In-situ demolition-reconstruction of old housing with renewal momentum often involves the adjustment of stock residential land use and intensity. Capacity increase is equivalent to the government encouraging resident-led renewal through spatial-policy betterment,[8] based on the comprehensive social value of ensuring residential safety and basic living standards. If handled according to the logic of the incremental-era system, projects face complex procedures and institutional costs, including planning adjustment approval, issuance of land-use conditions, cancellation of original property rights, supplementary land conveyance fees, and initial registration of new property rights. The government should consider moving beyond the old logic and reconstructing a parallel paid stock-land use system and project construction-permit system. Subject to managing negative externalities such as health and safety impacts, and following the principle that what is not prohibited by law is permitted [24], original right holders should be allowed to apply for planning adjustments to the nature, compatible mixed-use proportion, and intensity of residential land. For example, building height may be increased where sunlight standards for adjacent residential land are met. Joint demolition-reconstruction of multiple buildings and plots and addition of service facilities should be encouraged; procedures for land subdivision, parcel consolidation, and planning adjustment should be simplified; and various costs attached to construction-land permitting should be removed [24]. Land-price collection rules should be optimized so that land returns to its basic function as an element securing livelihoods. Special rules should be issued for paying renewal fees for residential land within ordinary housing standards, allowing voluntary stepped renewal and land-price reductions or exemptions according to contributions. In addition, innovative solutions to historical legacy issues in stock land and housing should be formalized.

4.1.3 Lower decision-making thresholds and design exit paths

Reconstruction of old residential buildings concerns shared benefits rather than public welfare. Unless public safety is involved, such as dangerous housing, it should apply private-interest collective decision-making [25] and use a majority system. When dangerous housing is involved, the project becomes public-interest oriented and may apply the mandatory legal principle of public-interest priority, with resolution thresholds further lowered according to urgency. Zhejiang has already issued local regulations holding that dangerous housing falls under the principle of emergency avoidance: to ensure public safety, local governments may decide on and organize demolition in accordance with emergency-response rules. Under current Chinese conditions, the key is to stabilize expectations and narrow the benefit gap between in-situ demolition-reconstruction and relocation-and-demolition,[9] so that right holders make choices based only on their own needs. Those who oppose merely because of insufficient payment capacity can be supported through financial innovations such as low-interest loans, pre-mortgages on reconstructed housing, and deferred payment. Those who oppose because the scheme does not match their own needs can be offered diversified exit paths, such as a “sell-out request right” allowing dissenters to transfer their property rights at market price to consenting owners, social entities, or investment institutions, or to exchange them for idle commercial housing held by investment institutions.

4.2 Value-balancing level: releasing sustainable renewal momentum

4.2.1 Grant “development rights” to stock residential land and design property-right conversion rules

Across jurisdictions with zoning systems, renewal and alteration of private housing often occur where existing

development intensity is lower than the intensity permitted by zoning, that is, where residual development rights exist. Original right holders and builders determine post-renewal physical distribution proportions according to their contributions, including rights value and funding, and jointly bear renewal costs, while the government obtains real estate tax after land appreciation and new public facilities. In countries with development-permission systems, such as the United Kingdom, “permitted development rights” exist [26]. Housing alterations and extensions that comply with the rules do not require new permission, and neighborhoods may decide housing and supporting-facility construction rules through neighborhood plans or neighborhood development orders. After implementation, council tax is paid to return public value [14].

China may also draw on these practices by granting stock residential land a certain degree of development rights, stimulating residents to self-finance improvement needs and reducing dependence on public finance. Such rights should be granted on the principle that the sunlight, access, and other rights of neighboring parties are not impaired, while reasonable compensation within an allowable degree of impact should be permitted, achieving Kaldor-Hicks improvement.[10] Local governments may conduct surveys and justification reviews upon application and grant implementation approval without setting one-size-fits-all limits. Property-right conversion rules for renewal schemes may refer to the mature rights-conversion system, ensuring fairness through proportional conversion of property value, while using segmented pricing, differential subsidies, and progressive calculation to guarantee equity and form differentiated assistance schemes according to necessity and difficulty.

4.2.2 Innovate value-capture tools by category to achieve long-term fiscal sustainability

At present, most in-situ demolition-reconstruction relies on government investment and SOE cost-based agency construction. If governments, residents, and implementing entities are all to benefit, value-capture tools for long-term balancing are required. Innovation can be attempted under two circumstances, and the two types of communities may also form reciprocal mechanisms. One type involves communities where in-situ demolition-reconstruction brings substantial improvement and households have relatively strong payment capacity. Here value capture can take the form of annual rent, development tax, or similar instruments to feed back into facility and environmental improvements in surrounding areas. The other type involves communities that mainly guarantee basic living conditions and have ordinary payment capacity. These may rely primarily on in-kind transfers of public facilities, commercial and service facilities, and affordable housing for value capture, generating a batch of space resources available for coordinated use. The demand for basic public facilities is limited. Moderately profitable life-service facilities may be added, spatial elements may be used to incentivize social investment, trust structures may be adopted to introduce private enterprises and non-profit organizations, and lease-term limits on state-owned real estate may be relaxed. Long-cycle operation and management of these space resources can then generate returns to relieve fiscal pressure and cover community maintenance costs.

5 Conclusion

In-situ demolition-reconstruction of old residential buildings is not entirely new. In the 1980s and 1990s, some localities had already attempted to rebuild and reconstruct housing and improve housing quality through cost sharing. Over the past two to three decades, government-dominated old-area redevelopment and land-finance models have gradually weakened awareness of resident-led renewal based on the principle that “who benefits should pay.” Against the current decline of land finance, the central government’s proposal of resident-led renewal and in-situ demolition-reconstruction for old residential housing is both a necessary measure to ensure people’s housing safety and living standards and a potential pathway for transforming the real estate development model, stimulating real domestic demand through urban renewal, and expanding effective investment. This study observes the development trajectories and main

characteristics of policies and practices in different localities, extracts common bottlenecks in procedural legality and compliance at the policy and legal level and in implementability and sustainability at the value-balancing level, and proposes future institutional innovation. It aims to provide useful ideas for how old residential buildings can truly realize resident-led in-situ demolition-reconstruction and how a sustainable urban renewal model and policy-legal framework can be established.

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Notes

1. In practice, some cities have flexible exit and replacement paths in individual cases, but these are not explicitly mentioned in policy.
2. Compensation for residential housing expropriation on state-owned land in Shanghai includes assessed price, price subsidy, unit-area subsidy, and various incentives for signing and moving; the actual compensation unit price may be several times the market price of the dwelling.
3. Residents' contribution ratio refers to the share of residents' contribution in total renewal cost. Public-benefit contribution rate = increase ratio of total area, including underground area, divided by increase ratio of original residents' residential area. For cases contributing public-interest land, this is converted into building area according to the benchmark floor area ratio. A larger value indicates that the public-interest contribution, namely area increase for other functions, is greater than the improvement of original residents' housing conditions.
4. Based on Article 7(4) of the Measures for the Administration of Central Fiscal Subsidy Funds for Urban Affordable Housing Projects (Cai Zong [2024] No. 15).
5. In practice, Zhegong New Village used green buildings as the basis for floor area ratio incentives, while Guangzhou's "Hongqiao-Xiaoshi Collection" used prefabricated and modular buildings. The policy basis is the central government's recent encouragement of local support measures in planning approval, land supply, and fiscal-financial policy for promoting green and prefabricated buildings. Localities flexibly applied this path to pilot projects, without issuing generally applicable support policies.
6. Localities have already explored innovations. For example, original owners of No. 2 Jiqun Street in Guangzhou who were unwilling to participate transferred their rights to the district SOE implementing entity at market price, while Shiliu New Village in Nanjing designed multiple options such as return and off-site resettlement.
7. Taking Beijing as an example, the city has nearly 120 million m2 of existing old housing. If all were subsidized at 5,786 yuan/m2, fiscal input of about 690 billion yuan would be required. The implementation period of this subsidy policy has already ended.
8. Theoretically, land value appreciation may be divided into natural appreciation caused by socioeconomic development and population agglomeration, artificial appreciation caused by individual investment and operation, and policy appreciation caused by macro-policy regulation or changes in use control.
9. This means strictly limiting the applicable scenarios for expropriation and relocation, no longer using expropriation outside narrowly defined public interest, changing social perceptions, and reducing the expectation of becoming wealthy through demolition. For example, in Ganquan Third Village, Putuo District, Shanghai, the district government planned in 2024 to invest 1.29 billion yuan entirely from public finance for in-situ demolition-reconstruction. Because resident consent did not reach the required level, the project was

suspended. In September 2025, the district government decided to include the community in the old-area redevelopment expropriation scope, and 937 households were expected to receive about 4 billion yuan in resettlement compensation. This case triggered public debate and may make future in-situ demolition-reconstruction in Shanghai more difficult.

10. Kaldor-Hicks improvement is a welfare-economics criterion proposed by the British economist John Hicks in 1939. It holds that if the gains of beneficiaries from a change can compensate the losses of those harmed and still leave a surplus, overall social welfare has improved.

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