

Classified Implementation Approaches of Guangzhou's Special Plan for Urban Renewal

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Abstract: The determination of what to retain, renovate and demolish is the urban renewal process in a mega city. The Guangzhou Urban Renewal Special Plan (2021-2035) allows observing the renewal process on a project basis. It has 497 schemes listed in its appendices which include 206 renewal projects in industrial clusters, 291 in old villages and old towns. The two appendices reveal that each project is carried out regarding district, land area, approach to renewal, type of project, strategic location and period of implementation. Three patterns can be identified in comparing the processes of renewals. Comprehensive redevelopment prevails in the industrial clusters with 116 out of the 206 projects taking up 66.4% of the land area. Micro renewal consists of 70 projects and takes up 481.4 hectare. Demolition is not necessarily the way the city goes. The differences between the old villages and the old towns are striking. It has 252 comprehensive redevelopment schemes all of which are old village projects; 15 of the total number of old town projects take the mixed renewal approach. This same reasoning can be applied to the planning of the renewal process. The number of projects scheduled to occur in 2021-2025 is 104 and they are concentrated in the central districts. Conghua has 14 out of its 18 projects implemented in the long term and all the 65 Huangpu projects are implemented throughout the period. The strategy fits well in the access to the site and the ability of the district. Integrated conservation, renovation and selective demolition is operationalized in the renewal plan.

Keywords: Urban Renewal Plan; Categorized Approaches; Guangzhou

1. Introduction

The urbanization rate of China has been carried

to 67 percent for decades of growth. The old growth model has run its course. Cities now rework existing stock rather than expand outward. The *14th Five-Year Plan (2021 - 2025)* and *Long Range Objectives to 2035* turned scattered local experiments in urban renewal into a national program. In a mega city, renewal reaches further than the physical fabric. It redistributes space, housing and transport capacity at the same time [1]. Guangzhou has close to 19 million permanent residents and an urbanization rate over 87 percent. Few Chinese cities started renewal planning as early. Its renewal policy dates from the 2009 "Three-Olds" program, covering old towns, old factories and old villages. Two further phases followed. Institutional consolidation ran from 2015 to 2018. Since 2019 the emphasis has been on high-quality renewal, in which preservation, renovation and selective demolition are weighed together rather than treated as three separate options [2-4].

The *Guangzhou Special Plan for Urban Renewal (2021-2035)* was issued in January and is regarded as the guiding principle for tangible project arrangements. The plan lists 497 renewal projects in village-town industrial clusters, urban villages, and old towns, providing a basis for examining how these projects are distributed in relation to the urban rail transit network.

Previous studies on urban renewal in Guangzhou have focused on policy making, institutional change, redevelopment of urban villages, micro-renewal practices and stakeholder participation in governance [5-7]. The principle of integrated preservation, renovation and selective demolition has not been given as much consideration in terms of how it is translated into tangible arrangements of project management in the Guangzhou Special Plan of Urban Renewal. In particular, the interrelations between project classification, spatial planning and implementation schedules have not been investigated in detail [8,9].

This study examines the 497 projects listed in the *Guangzhou Special Plan for Urban Renewal*. Policy documents and project data are analyzed to explore the relationships between renewal approaches, project area, project type, spatial distribution, and implementation schedules. The analysis also considers how these project characteristics reflect the planning rationale behind differentiated urban renewal strategies.

2. Policy Evolution and Analytical Framework

2.1 From “Three-Olds” Redevelopment to Urban Renewal

Guangzhou's urban renewal policy has evolved through three main phases since the late 2000s. From the years 2009 to 2014, the city renewed the cities under the “Three-Olds” redevelopment program. This program focused on the renewal of old towns, factories, and villages in Guangzhou. During this period, the market forces played a leading role in the implementation of projects. Real estate developers carried out projects individually, with an aim to bring underused land back into productive use.

The city strengthened the institutional environment of urban renewal in 2015-2018. It established a special administrative framework, offered facilitating laws and improved coordination of the renewal plans. Micro-renewal was also policy recognized during this period. The renewal process slowly moved to government direction, planning coordination and market involvement.

Since 2019, urban renewal policy has been paying more attention to high-quality development. The focus has not only been on redevelopment of land but also legal safeguarding, social interests and improvement of the cityscape. Integrated preservation, renovation and selective demolition is now a guideline for regeneration projects, affecting assessment of different sites and intervention options.

2.2 The Framework of Integrated Preservation, Renovation, and Selective Demolition

Preservation, renovation and selective demolition are not three alternative options but different degrees of intervention techniques. The physical condition of a site, the urban

environment in which it is located and the role that the site should play in the development of the city define the adoption and implementation of various approaches.

Preservation - least physical intervention. It seeks to maintain historic character, continuity of urban fabric and maintenance of existing community networks. Renovation is the process of improving the existing buildings and urban areas without necessarily transforming them. It may be applied on different levels including individual micro-renewal projects or area-wide upgrading and may also involve conversion of buildings to new functions without altering their structures. Demolition and reconstruction, however, may be required when there is a need to achieve a major spatial reorganization or infrastructure development or intervention in the public interest cannot be achieved through less intensive measures.

These intervention options enable the adaptation of the renewal projects to different conditions of the site, development needs and preservation requirements.

2.3 Analytical Framework

The paper is analytical in nature as it integrates the lenses of renewal strategies, strategic spatial positioning and implementation timelines. The framework analyses the various applications of renewal strategies to projects.

To compare the renewal approaches, the first step is to compare them on the basis of project type in order to identify differences in adoption of the renewal approaches. The analysis then goes to the spatial correlation of the renewal projects with other significant urban strategic factors. This involves strategic functional areas, development corridors, transport nodes and rail transit lines. Lastly, schedules of implementation are addressed based on the project phase (short-, medium- and long-term projects and overall planning period). These analyses show how the selection of projects, spatial planning and implementation were coordinated in the urban renewal plan of Guangzhou.

3. Data and Methods

The data used in this study were obtained from Appendices I and II of the *Guangzhou Special Plan for Urban Renewal (2021-2035)*. Appendix I lists 206 renewal projects in village and town industrial clusters, recording district, project name, land area, and renewal approach for each.

Appendix II lists 291 projects involving comprehensive or mixed redevelopment in old villages and old towns. The information provided for each project includes its district, implementation schedule, spatial location, project category, renewal approach, and project type.

Each listed project is treated as an independent observation, producing a total sample of 497 projects.

This study combines policy text analysis with descriptive statistics. For industrial-cluster

projects, renewal categories, project numbers, and land areas are compared across districts. For old village and old town projects, cross-tabulations are conducted for renewal categories, project types, strategic locations, and implementation schedules. Because the two appendices cover different types of renewal objects and use different variables, they are analyzed separately rather than merged mechanically. The project lists represent planned arrangements and should not be interpreted as evidence of actual implementation outcomes.

Table 1. Distribution of Renewal Approaches for Village and Town Industrial Clusters, by Number of Projects

District	Comprehensive Redevelopment	Micro-Renewal	Government Acquisition and Land Banking	Phase-out and Closure	Total Number of Projects
Haizhu	9	5	0	0	14
Liwan	7	2	1	0	10
Tianhe	8	3	2	0	13
Baiyun	6	8	11	0	25
Huangpu	16	0	0	0	16
Huadu	29	4	1	0	34
Panyu	16	20	0	1	37
Nansha	10	28	0	3	41
Zengcheng	15	0	0	1	16

Note: Numbers represent project counts.

Table 2. Distribution of Renewal Approaches for Village and Town Industrial Clusters, by Land Area

District	Comprehensive Redevelopment	Micro-Renewal	Government Acquisition and Land Banking	Phase-out and Closure	Total Land Area
Haizhu	41.7	6.5	0	0	48.2
Liwan	54.9	34.2	2	0	91.1
Tianhe	31.4	18.2	5.5	0	55.1
Baiyun	57.6	184.5	102.2	0	344.3
Huangpu	46.1	0	0	0	46.1
Huadu	376.5	29.1	1.4	0	407
Panyu	230.5	93.7	0	1.1	325.3
Nansha	124.7	115.2	0	8.4	248.3
Zengcheng	229.1	0	0	2.7	231.8

Note: Unit: hectares (ha).

4. Classified Strategies and Implementation Scheduling in Guangzhou's Urban Renewal Plan

The renewal plan defines several renewal approaches according to different site types, with each matched to specific spatial scales and implementation timelines. Renewal approaches, spatial scale, regional differences, and implementation timing are the key elements of renewal strategies and approaches; therefore, they are statistically analyzed in this section. The data are shown in tables 1-4 and figures 1-2. Specifically, renewal approaches of village and town industrial clusters are shown in tables 1-2

by number of projects and land area respectively.

4.1 Regional Differences in Renewal Approaches for Village and Town Industrial Clusters

Of the 206 industrial-cluster projects recorded in Appendix I, 116 adopt comprehensive redevelopment, 70 micro-renewal, 15 government acquisition and land banking, and 5 phase-out and closure (see Table 1). Comprehensive redevelopment reorganizes space substantially through demolition and reconstruction, land consolidation, or ecological restoration. Micro-renewal, by contrast, keeps most existing buildings and improves spatial

quality by adjusting functions, renovating structures, and upgrading facilities. Government acquisition and land banking follows a different approach. The government takes over the land, coordinates land consolidation and compensation and resettlement, and prepares the land for later development. Phase-out and closure, the smallest category, ends industrial use on the site without redeveloping it.

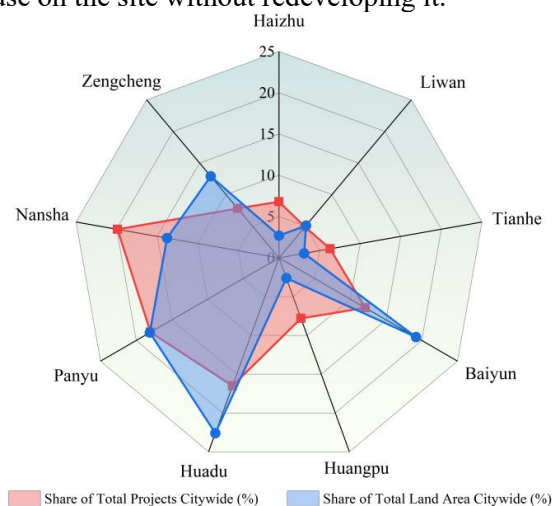


Figure 1. Comparison of District-Level Shares of Total Projects and Land Area for Village and Town Industrial Cluster Renewal in Guangzhou

Overall, the figure indicates that there is a general redevelopment which prevails with 116 of the total 206 projects (approximately 56.3%). Micro-renewal takes up another 70 (34.0%), meaning that renewal of existing industrial areas is also a significant component of the renewal plan in Guangzhou. The need to have a complete redevelopment may be linked to such problems as inefficient land utilization, outdated industrial utilization and parcel fragmentation. Micro-renewal is more suitable where there are still viable industries, land tenure is very fragmented or redevelopment on a large scale would be costly and disruptive. The two approaches suggest that the plan will include different levels of intervention rather than just demolishing and rebuilding.

The other visible differences that can be observed in Figure 1 are the number of projects and land area by districts. Nansha has the highest number of projects (with 41 projects) with 28 being micro-renewal projects. The second largest (37 projects) are located at Panyu, where there are 20 micro-renewal and 16 comprehensive redevelopments. Huadu is not the same, 29 out of 34 projects are undergoing a

thorough redevelopment. Huangpu and Zengcheng are more homogeneous since all their projects employ that route as do all those of Huangpu. Baiyun stands out in yet another way, with 11 of its 25 projects being subject to government acquisition and land banking.

These distributions may be indicative of the variations in industrial structure, land-use conditions and redevelopment priorities. The large number of micro-renewal projects in Nansha and Panyu indicate a propensity towards incremental upgrading with existing industrial activities considered to be worth preserving as well as spatial upgrading. The emphasis on general redevelopment in Huadu and Zengcheng might be associated with an urge to restructure and reorganize land use. The emphasis on overall redevelopment can be related to the fact that Huangpu pays attention to technological innovation and industrial modernization. The fact that Baiyun enjoys greater government acquisition and land banking means that there is a necessity of coordinated assembly where property rights are fragmented and urban-rural patterns of land-use are complex. It is a different story with land area. The overall redevelopment of the land (66.4% of the total land area) needs the total land area of 1,192.5 ha. Micro-renewal covers 481.4 ha, government acquisition and land banking 111.1 ha; and phase-out and closure 12.2 ha, respectively (Table 2). Because its land-area share exceeds its project share, comprehensive redevelopment projects are on average considerably larger, and better placed to restructure space across a whole area. Nansha shows the reverse: the largest project count, but only 13.8% of total land area (Figure 1). Huadu and Baiyun sit at the other end, at 22.7% and 19.2% of land area against project shares of 16.5% and 12.1%. Project counts measure how widely renewal is spread; land area measures how much space is actually reorganized. Neither indicator is sufficient on its own.

4.2 Classified Strategies and Spatial Coordination in Old Village and Old Town Renewal

Table 3 indicates the number of 291 renewal projects by type of project in old villages and old towns. Out of these projects, 276 are old village projects and 15 are old towns. In 252 projects total redevelopment is adopted and in the other 39 projects mixed redevelopment is followed. There are several distributions of different types

of projects. All the 252 comprehensive redevelopment projects include old villages and another 24 old village projects adopt a mixed redevelopment strategy. By comparison, all the 15 old town projects use mixed redevelopment. This implies that there are two ways of renewing the plan of old villages and old towns.

The choice of the approach might be connected with the variations in the environment created and land-use situation. Ancient villages are typically designed in a compact manner; there is no abundance of public facilities and land ownership is complicated. Comprehensive redevelopment can help to resolve these issues, which entails coordinated reorganization of land, delivery and enhancement of social services. The fact that it was utilized in 252 out of 276 old village projects implies that the plan is giving much importance to more comprehensive intervention in such areas. Old towns are not however usually located outside existing street networks and communities but some have historic buildings or urban areas of cultural interest. Mixed redevelopment may be employed to integrate selective reconstruction with building renovation and environmental improvement that offers a solution to upgrading these spaces without losing significant elements of the current urban fabric.

The number of projects awarded to districts also varies widely. The highest number of old village and old town renewal projects (65 projects) are in Huangpu with 53 being comprehensive redevelopment projects. Huadu is the second largest in terms of the number of projects (31), 30 of which are comprehensive redevelopment projects. Baiyun has 28 projects, out of which there are 26 comprehensive redevelopment projects; Nansha has 28 projects with 24 of them being comprehensive redevelopment projects. Conghua has all the 18 projects as comprehensive redevelopment projects. The statistics show that in a number of districts there is widespread redeveloping on a large scale but the reason why this is so should be investigated. One of the theories is that the decision on approach can be influenced by the availability of land, development priorities and conditions to renew. Where large-scale redevelopment might be more viable is where there is a possibility to reconfigure land on a larger scale and where major changes to the built environment are required. Mixed redevelopment may offer greater flexibility in more established urban

areas with buildings, streets and community activities more interwoven and includes selective demolition as well as repair and refurbishment. The necessity to enhance the functions of the urban area and the urban fabric itself, along with the need to preserve the existing urban fabric, can thus be one of the motivations behind the application of mixed redevelopment in the central districts (Yuexiu, Haizhu, Liwan and Tianhe).

4.3 Phased Implementation Scheduling

It is possible to note in Table 4 and Figure 2 that the amount of projects that are likely to take place within the short term (2021-2025) is 104 or 35.7% of the total number of projects. Twenty (60) of the projects will be implemented in medium term (2026-2030) and 62 (21.3) are to be implemented in long term (2031-2035). The remaining 65 projects (22.3%) will be executed throughout the entire planning period (2021-2035). But the greatest percentage of the three is that of short term projects. This shows that the plan is very much concerned with renewal activities to be carried out in the first five years. Medium and long-term projects and those that span the whole planning period can have later time frames and implementation plans.

Districts vary in implementation time. The central districts have a relatively higher number of short term projects. In this phase, Yuexiu has six out of eight projects and the figures are 11 out of 14 in Haizhu, 14 out of 23 in Liwan and 13 out of 19 in Tianhe. This may be an act of addressing the necessity to correct the shortcomings of the public facilities and built environment of the old urban areas. Huadu, Panyu and Nansha, on the other hand, have more projects to be carried out in medium and long term which means that there is greater focus on implementation following the initial planning period. Conghua is highly concentrated in the long-term as 14 out of 18 of its projects will occur in 2031-2035.

Huangpu possesses another scheduling pattern. Table 4 indicates that all the 65 projects awarded to the entire planning period are located in this district. This emphasis might be related to the scale and complexity of industrial change and spatial reconfiguration in Huangpu, which might have to be carried out in a coordinated way over a long time. The general distribution of projects during the implementation periods shows that the plan does not occupy one schedule but

various schedules in various districts. However, more information on project-level plans would

be needed to determine the particular causes of these scheduling choices.

Table 3. Renewal Approaches by Project Type for Old Village and Old Town Renewal Projects

District	Old Village: Comprehensive Redevelopment	Old Village: Mixed Redevelopment	Old Town: Comprehensive Redevelopment	Old Town: Mixed Redevelopment	Total Number of Projects
Yuexiu	3	1	0	4	8
Haizhu	13	0	0	1	14
Liwan	20	0	0	3	23
Tianhe	13	5	0	1	19
Baiyun	26	1	0	1	28
Huangpu	53	9	0	3	65
Huadu	30	1	0	0	31
Panyu	29	2	0	1	32
Nansha	24	4	0	0	28
Conghua	18	0	0	0	18
Zengcheng	23	1	0	1	25

Note: Numbers represent project counts.

Table 4. Implementation Schedule of Old Village and Old Town Renewal Projects

District	Short Term	Medium Term	Long Term	Entire Planning Period	Total Number of Projects
Yuexiu	6	2	0	0	8
Haizhu	11	3	0	0	14
Liwan	14	8	1	0	23
Tianhe	13	4	2	0	19
Baiyun	17	7	4	0	28
Huangpu	0	0	0	65	65
Huadu	10	9	12	0	31
Panyu	9	14	9	0	32
Nansha	10	5	13	0	28
Conghua	2	2	14	0	18
Zengcheng	12	6	7	0	25

Note: Numbers represent project counts. Short term = 2021-2025; medium term = 2026-2030; long term = 2031-2035; whole period = 2021-2035.

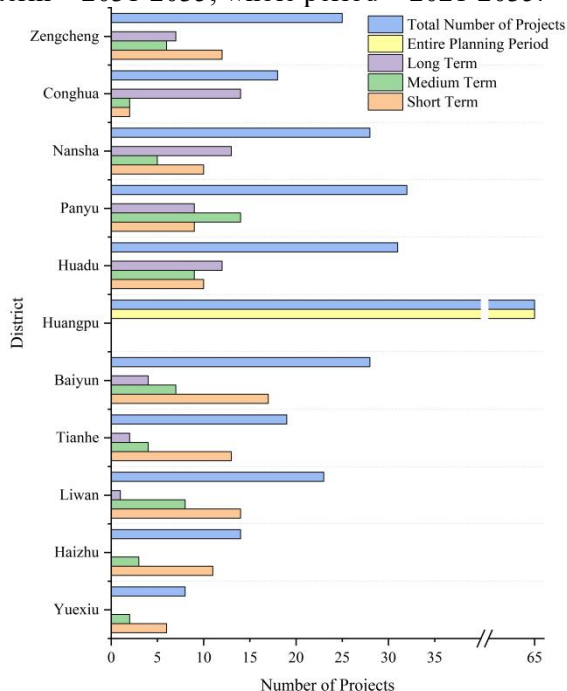


Figure 2. Phased Distribution of Old Village and Old Town Renewal Projects by District

5. Conclusions

The *Guangzhou Urban Renewal Special Plan* (2021-2035) has 497 renewal projects. This paper examined the adopted renewal strategies, their distribution in the districts and their intended implementation timelines. The findings show that the plan will have different strategies to different types and sites of projects rather than adopting a typical redevelopment model.

The plan consists of four strategies of village and town industrial cluster renewal which include comprehensive re-development, micro-renewal, government acquisition and land banking and phase-out and closure. The most frequent type of redevelopment is comprehensive redevelopment with over three out of every four projects falling under this category being micro-renewal. This distribution means that it is a combination of large scale spatial reconfiguration and small scale space renovation. Differences between districts also

exist in the volume of projects and their scale (ratio of projects to land area).

There are also certain tendencies in the selection of renewal strategies in old village and old town projects. Among 291 projects in these two categories, 276 are old village projects and 15 are old town projects; 252 of the old village projects are full redevelopment projects, and all 15 of the old town projects are mixed redevelopment projects. These variations are associated with the variations in conditions of the two types of areas. The overall redevelopment provides an opportunity to balance land use, infrastructure and communal facilities of the old villages, whereas mixed redevelopment allows selectively reconstructing and enhancing the environment of already developed urban areas. However, the project distribution does not show what are the particular factors that determine the choice of approach in every case.

There are also differences in the District level implementation plans. The majority of the total is short term projects, but the time frame for implementation can be quite different from district to district. A relatively high number of projects are planned for 2021-2025 in a number of central districts and Huadu, Panyu and Nansha have more projects planned to medium and long term. In Huangpu, all 65 projects that will be implemented during the whole planning period. These show that there will be different timeframes for the plan in districts. More data on projects is needed to determine the impact of local renewal requirements, industrial development and land and infrastructure provision on scheduling.

These results illustrate the application of the principle of integrated preservation, renovation and selective Demolition to the different kinds of projects, renewal strategies and time frames. It is most useful in documenting the way these aspects are organized in a citywide planning process. The findings can be utilized as an important source of information to other large cities which desire to align redevelopment and improvement of the existing urban regions. The success or otherwise of this strategy will however be decided by execution of the planned projects.

This study has several limitations. The projects and planning information recorded in the plan and its appendices will be analyzed. These materials describe interventions to be carried out,

but do not specify whether they are carried out and/or the result of the intervention(s). In particular, they do not provide sufficient information about whether the projects were completed, how much money was spent or how many people were displaced. Further research can trace the development of the project according to the revised planning and implementation papers, compare planned and actual changes in land-use and the effects of renewal on the households concerned. This evidence would help in determining whether their differentiated strategies which they identified in this study can achieve their planning objectives.

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