

Study on Governance Dilemmas and Countermeasures of Guangzhou's Urban Villages in the Post-epidemic Era

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Abstract: Using Kangle Village in Haizhu District and Beiting Village in Panyu District as case studies, this research employs field investigations, questionnaire surveys, and SPSS-based quantitative analyses to uncover governance challenges in urban villages across economic, political, and social dimensions. The findings reveal that unequal access to public services and insufficient social integration significantly constrain effective grassroots governance. To address these challenges, the study proposes innovative governance optimization strategies, offering valuable cross-scale insights for enhancing urban resilience and effectively responding to public emergencies in megacities.

Keywords: post-pandemic era; urban villages; governance dilemmas; countermeasures

1. Introduction

As a pioneer city in China's economic reforms, Guangzhou exemplifies the broader challenges and opportunities presented by urban villages. Although this model provides vital affordable housing solutions for migrants and lower-income residents, it simultaneously exacerbates urban management challenges, including fragmented governance, public infrastructure deficits, and adverse impacts on the city's image.[1] Recent scholarly attention to urban village governance in China has predominantly focused on areas: social integration challenges. Scholars such as Ye (2020) have highlighted "housing poverty" in urban villages, where monthly rent often exceeds 30% of income and per capita living space falls below 13m². Public service provision is severely lacking, with healthcare access reaching only one-third the level of central urban areas. Physical risks also remain acute: the average building density exceeds 62%, with limited firefighting infrastructure and weak emergency management. The COVID-19 pandemic brought these weaknesses to the forefront, revealing deficits in public health response capacity at the grassroots level.[2]

This study addresses that gap by asking:

- (1) How did grassroots governance structures in Guangzhou's urban villages respond to the COVID-19 crisis?
- (2) What are the persistent governance challenges in the post-pandemic era?

2. Methods

2.1 Basic Demographics of the two Urban Villages and the Respondents

2.1.1 Basic Demographics of Urban Village Respondents

Key demographics are detailed in Tables 1.

Table 1. Gender Distribution

Item	Option	Number of Participants	Percentage
Gender	Male	61	50.4
	Female	60	49.6

Table 2. Age Distribution

Item	Option	Number of Participants	Percentage
Age	18–30 years old	32	26.4
	31–50 years old	33	27.3
	51–65 years old	36	29.8
	65 years old and above	20	16.5

Table 3. Residential Duration Distribution in This Community

Item	Option	Number of Participants	Percentage
Residential Duration	Less than 1 year	5	4.1
	1–5 years	27	22.3
	More than 5 years	89	73.6

2.1.2 Population Mobility in Urban Villages

In 2018, the total population of Kangle Village reached 51,221, with approximately 48,084 migrant residents, accounting for 93.88% of the total population. During field visits, many respondents noted frequent population turnover in urban villages (see Table 4), with 54.5% perceiving significant mobility in their communities. Perceptions and data shown in Tables 4 & 5.

Table 4. Residents' Perception of Population Mobility in Their Urban Village

Item	Option	Number of Respondents	Percentage
Perception of Population Mobility	Frequent mobility	66	54.5
	Moderate mobility	52	43
	Virtually no mobility	2	1.7
	Not sure	1	0.8

Table 5. Statistics of Permanent and Migrant Populations in Kangle Village in 2018

Item	Number of People	Number of Households
Permanent Population	3,137	1,403
Village Registered Population	2,565	1,181
Non-village Population	572	810
Migrant Population	48,084	
Total Population in the Village	51,221	
Proportion of Migrant Population to Total Population	93.88%	

2.2 Grassroots Governance and Community Engagement during the Covid-19

2.2.1 Economic Forms of Urban Villages and Economic Development in the Post-Pandemic Era

Kangle Village in Haizhu District, Guangzhou, is a typical industrial urban village. Its development is deeply tied to the Zhongda Textile Business Circle, forming a composite economic structure with the textile and garment industry as the core, property leasing as the support, and the casual labor market as a supplement. It has a complete vertical supply chain for textiles and garments, with over 7,000 garment factories in the village adopting small-order, quick-turnaround, and flexible production modes. The economy of Beiting Village in Panyu District integrates traditional agriculture, urbanized commerce, and emerging industries. The village-level economy focuses on land and property, which is in line with Panyu's "Three Olds Renovation" policy, enhancing economic vitality and urban integration.

2.2.2 Cultural Preservation and Inheritance in Urban Villages

The survey findings indicate that residents in both Kangle Village and Beiting Village perceive the preservation of community cultural activities and traditional customs positively. As detailed in Table 6, approximately 35.5% of respondents rated the preservation of these cultural elements as "relatively good," and an additional 17.4% described it as "excellent."

Table 6. Perceptions on the Preservation of Cultural Activities and Traditional Customs in This Community

Item	Option	Number of Respondents	Percentage
How well are cultural activities and traditional customs preserved in this community?	Excellent	21	17.4
	Good	43	35.5
	Average	40	33.1
	Poor	14	11.6
	Very Poor	3	2.5

2.3 Governance Challenges in the Post-pandemic Era

2.3.1 The Economic Challenges Faced by Grassroots Governance in Guangzhou's Urban Villages in the Post-COVID Era

While this flexible employment model reduces costs, it also leads to issues such as unstable labor relations and lack of social security (see Table 7). The survey results show that the majority of respondents are garment factory workers and merchants. Although 60.3% believe the pandemic has been fully controlled (see Table 8), economic recovery with the speed. Forty-nine percent consider the economic recovery to be slow (see Table 9). indicating that recovery is complexity and long-term nature, uncertainty in market demand and vulnerability. In Kangle Village, challenges arise from slow economic recovery[4].

Table 7. Main Economic Forms

Item	Option	Number of People	Percentage
Main Economic Form in the Urban Village	Agriculture	5	2.6
	Industry	104	55
	Commerce	19	10.1
	Service	50	26.5
	Others	11	5.8

Table 8. Distribution of Perceptions on the Current Epidemic Situation

Item	Option	Number of People	Percentage
Perception of Current Epidemic Situation	Epidemic is completely controlled	73	60.3
	Epidemic fluctuates but is generally controllable	34	28.1
	Epidemic recurs and is unpredictable	6	5
	Not sure	8	6.6

Table 9. Distribution of Perceptions on Local Economic Recovery

Item	Option	Number of People	Percentage
Perception of Local Economic Recovery	Economic recovery is evident	10	8.3
	Economic recovery is progressing gradually	51	42.1
	Economic recovery is slow	60	49.6

Although Beiting Village has achieved progress in commercialization, persistent issues of agricultural vestiges and conflicts over urban-rural land rights. The village still retains traditional fish ponds and vegetable plots. Conflicts urban village renovation plans, necessitating a balance between development and conservation[5].

2.3.2 The Political Challenges Faced by Grassroots Governance in Guangzhou's Urban Villages in the Post-COVID Era

Kangle Village the political organization form. However, field visits reveal that 27.3% of respondents believe it is governed by a Villagers' Committee (see Table 10). This indicates disconnection between information transmission and villagers' cognition.

Table 10. Distribution of Political Organization Forms in the Community

Item	Option	Number of People	Percentage
Political Organization Form in the Community	Community Residents' Committee (Juweihui)	88	72.7
	Village Committee (Cunweihui)	33	27.3

As urban management structure. Taking public security during as an example, 71.1% of respondents believed that during the pandemic, epidemic prevention responsibilities shifted to individuals or communities, but communities struggled (see Table 11). This reflects shortcomings in governance mechanisms and resource allocation. Village collectives lack find it difficult to constrain social behaviors.

Table 11. Distribution of Perceptions on the Transfer of Epidemic Prevention Responsibilities during the Pandemic			
Item	Option	Number of Respondents	Percentage
During the pandemic, did you feel that epidemic prevention responsibilities shifted from the government to individuals or communities?	Yes	86	71.1
	No	12	9.9
	Not sure	23	19

2.3.3 The Social Relationship Challenges Faced by Grassroots Governance in Guangzhou's Urban Villages in the Post-COVID Era

As shown in Table 12, 47.9% of residents perceive community social relations as relatively harmonious, though nearly 20% still report tense dynamics. The survey identifies strained relationships stem from income and cultural-economic disparities between migrant workers and local villagers .During field interviews, many cultural and value conflicts balancing rights and promoting cultural integration.

Table 12. Evaluation of Social Relations in This Community			
Item	Option	Number of Respondents	Percentage
How would you evaluate social relations in this community?	Very Harmonious	14	11.6
	Harmonious	58	47.9
	Average	28	23.1
	Tense	20	16.5
	Very Tense	1	0.8

As shown in Table 13, 59.5% of villagers believe that introducing smart management systems can effectively improve community governance.

Table 13. Can the introduction of a smart management system effectively improve community governance levels?			
Question Item	Options	Number of Respondents	Percentage (%)
Can the introduction of a smart management system effectively improve community governance levels?	Strongly Agree	27	22.3
	Agree	45	37.2
	Neutral	38	31.4
	Disagree	7	5.8
	Strongly Disagree	4	3.3

As shown in Table 14, nearly a quarter of villagers have proposed creating a resident interaction platform for informatization in urban villages.

Table 14. Preferred Areas for Community Informatization Enhancement			
Question Item	Options	Number of Respondents	Percentage (%)
What aspects do you hope the community will strengthen in informatization?	Community Announcement Dissemination	75	23.7
	Resident Interaction Platform	80	25.2
	Security Surveillance System	113	35.6
	Property Management	49	15.5

3. Discussion

3.1 Summary of Key Findings

Notably, substantial improvements were observed in public infrastructure, sanitation management economic transformation, cultural preservation, and smart governance. However, critical governance gaps remain in residential sanitation, fire safety management, population mobility, economic resilience, political coordination, and social cohesion. Previous research lacks systematic discussion on during public health crises. Taking the "post-pandemic era" as temporal dimension, this study reveals governance vulnerabilities .This study integrates multidisciplinary approaches including economics, sociology, and public health, transcending the explanatory limitations of single disciplines through interdisciplinary analysis. It constructs a three-dimensional analytical framework for understanding the complexity of grassroots governance

in megacities.

3.2 recommendations

3.2.1 Improve Public Infrastructure and Optimize Regional Sanitation Environment

During the survey, the villages focus on improving public sanitation in urban villages and related infrastructure, including long-term planned relocation and renovation of "handshake buildings," short-term safety hazard remediation, and sanitation issues at waste sorting stations and other areas.

First, the government should take the lead in formulating detailed scientific decision-making and renovation plans. It is essential to "inventory illegal constructions in urban villages, clarify demolition and reconstruction standards for legally recognized unauthorized handshake buildings, and strengthen demolition efforts. During this process, the government should coordinate multi-stakeholder interests, improve regulatory guidance, implement refined management of compensation standards across districts to avoid one-size-fits-all policies, and reasonably determine villagers' resettlement quantities while refining cost accounting rules for infrastructure development." Proper building spacing should be planned to ensure adequate fire lanes and public spaces.

Second, to address potential fire safety hazards in handshake buildings, the village committee should first strengthen daily construction and maintenance of firefighting facilities, conducting regular inspections of fire hydrants and other equipment to ensure sufficient fire lanes and functional facilities in all areas. The government should establish strict law enforcement mechanisms to promptly rectify illegal constructions and fire hazards. Second, the village committee can invite professionals to install smoke alarms and temperature-humidity sensors in stairwells of handshake buildings, uploading real-time data to the street command center. Abnormal conditions should automatically trigger alarms to ensure the timely activation of sprinkler systems and enhance intelligent monitoring of fire risks. Finally, regular fire safety inspections, drills, and education programs should be conducted to raise residents' awareness of fire safety.

3.2.2 Empowering Grassroots Governance with Digital Tools to Advance Modernization and Intelligence

First, village committees should create electronic personnel information archives on the platform to implement routine population management. This involves leveraging the platform to store and manage basic information, health records, employment status, and daily entry/exit data of permanent residents, while improving archives for migrant workers and regularly updating relevant data. The platform must strengthen data security and privacy protection measures to ensure the safety and reliability of the electronic archive system. Training should be provided to enhance administrators' operational skills and ensure effective utilization of the system. For short-term workers, the platform can simplify registration procedures by generating dynamic "health-employment" QR codes, which serve as access credentials for community entry/exit and job applications. This complements conventional population management to address governance disorders caused by frequent population mobility.

Second, the establishment and proper use of smart platforms can effectively promote internal communication among residents, enhancing community cohesion, while also facilitating direct communication between village committees, property managers, and residents to improve public service levels.

In terms of platform functionality: Villages can develop multi-functional community interaction applications on the platform, including instant messaging, community announcements, event calendars, resident feedback channels, and emergency notifications.

In terms of platform applications: Village committees can regularly organize online and offline community activities, particularly cultural events such as webinars, online health lectures, cooking competitions, and art exhibitions, to attract residents of all ages and interests.

3.3 Concluding Marks

This study highlights substantial progress and persistent challenges in grassroots governance within Guangzhou's urban villages in the post-pandemic era. By providing a detailed empirical exploration, it significantly contributes to academic understanding, practical governance strategies, and policy formation. Future governance improvements should prioritize enhancing governance frameworks, digital innovations, and multi-stakeholder collaborations to foster sustainable development and comprehensive resilience in urban villages.

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