



From the Evolution of the Waste Management System in Panyu District, Guangzhou City: Examining the Relationship between Public Participation and Institutional Reform

Chun Hei, SO

(MSSc, MSScSW), The Chinese University of Hong Kong

Email: sch1232010@outlook.com

Received: 27th August 2025

Accepted: 21st October 2025

Published: 5th December 2025

ABSTRACT

The waste problem in major cities in mainland China is severe, causing significant challenges for local governments. Faced with such a vast amount of waste, local governments often opt for incineration as a primary disposal method. However, incineration brings various issues to local residents, and the government's rigid enforcement has led to public backlash. Public dissatisfaction with government policies has driven efforts to challenge the absolute authority of decision-makers over the system. Various forms of public participation have emerged, and in the process of reforming the waste management system in Panyu District, Guangzhou, it is evident that public participation has provided significant space and impetus for institutional change. This study examines the relationship between public participation and institutional reform, observing how it prompts the government to alter established systems. In the context of mainland China's authoritarian regime, where public activities are not entirely free, notable achievements have still been made. The paper begins with a literature review, followed by a detailed exploration of the public's resistance to the waste management system in Panyu District, Guangzhou, and the government's responses, assessing whether public participation has driven institutional changes.

Keywords: Public Participation, Waste, China, Guangzhou, Panyu, Institutional Reform

INTRODUCTION

With rapid economic development, accelerating urbanization, and improvements in healthcare, urban populations have grown significantly. This population growth has led to an increase in urban waste, resulting in significant negative impacts on society and public health. Civil society organizations and governments worldwide have expressed concern about this issue. The United Nations' "Global Partnership on Waste Management" holds regular meetings to address this problem, identifying it as a global crisis (United Nations News, 2012).

The waste problem in major cities in mainland China is particularly severe, with metropolises facing the issue of being overwhelmed by waste. In Guangzhou alone, daily waste production exceeds 10,000 tons, with the growth rate of waste surpassing that of the local economy. Existing sanitary landfills are quickly becoming overloaded. The escalating waste issue has caused significant headaches for local governments, which often resort to incineration to manage the vast quantities of waste. However, incineration brings various problems for residents, and the government's forceful implementation has sparked public resistance.

Public dissatisfaction with government policies has led to efforts to challenge the absolute control of decision-makers over the system. Various forms of public participation have emerged, and in the process of reforming the waste management system in Panyu District, Guangzhou, public participation has provided significant space and momentum for change.

This study examines the relationship between public participation and institutional reform, exploring how it motivates the government to modify established systems. In the context of mainland China's authoritarian regime, where public activities are not entirely free, significant achievements have been made. The paper begins by conducting a literature review, then explores the public's resistance to the waste management system in Panyu District, Guangzhou, and examines the government's responses to assess whether public participation has driven institutional changes.

LITERATURE REVIEW

Public Participation in China

Public participation in China, including the involvement of non-governmental organizations (NGOs), covers a wide range of activities. Generally, non-governmental, non-profit, voluntary, and public-interest-oriented organizations are referred to as Chinese NGOs. From a legal perspective, these organizations can be categorized as follows: first, those

registered with the Ministry of Civil Affairs of the People's Republic of China as “social organizations,” “non-profit private entities,” or “foundations.” Second, there are groups not registered with the Ministry of Civil Affairs, such as non-profit organizations registered as businesses, grassroots rural organizations, urban community groups, and foreign NGOs operating in China, all of which are considered Chinese civil organizations. Notably, unregistered organizations are not necessarily illegal; they exist in a legal gray area. These groups lack official government recognition but are neither “legal” (i.e., successfully registered) nor “illegal” and can still operate and engage in various activities. However, grassroots organizations that are not officially registered often face challenges in collaborating with the government, and we can observe whether this situation has become more relaxed (Wang, 2007).

Chinese civil organizations, to promote their values and interests, are willing to engage with government officials to gain trust and carry out their work. They emphasize communication, negotiation, and cooperation. This process fosters collaboration between Chinese civil society organizations and local government institutions. Thus, Chinese civil organizations are not always in opposition to the government. When a significant issue arises that cannot be resolved by either the government or civil society alone, opportunities for collaboration in relevant fields emerge (He, 2006).

Both civil organization practitioners and government officials must recognize that cooperative outcomes are not achieved overnight. Such cooperation should be viewed as a long-term process that requires effort and commitment from both parties. Many Chinese civil organizations do not see themselves as pioneers of social resistance or entirely independent entities. Instead, they view their role as complementary and supportive to the government, which differs significantly from Western theories that suggest civil organizations are in constant opposition to the government (Fulda, 2012).

As the case studies later demonstrate, after engaging in intense resistance, the Chinese public often returns to rational dialogue and attempts to cooperate with the government, showing that there is room for collaboration between the public and the government.

Social Forces and Local Rule of Law

In recent years, the Central Committee of the Communist Party of China (CPC) has advocated for the rule of law, emphasizing that public support is essential for achieving a state

governed by law. This highlights the CPC's recognition of the importance of public support. Public participation has a positive impact on promoting the rule of law.

First, it enables oversight of public power, preventing those in authority from abusing their power. Public participation constrains government actions and helps prevent corruption. By engaging in policy matters, the public serves as an external check on the power structure.

Second, public participation in government decision-making ensures that decisions better safeguard the interests of the general public, reducing the likelihood of strong public backlash.

Third, and more importantly, public participation allows issues within the system to be identified quickly and corrected promptly, ensuring that public expectations are met and the system remains efficient (Cui, 2012).

Public Resistance to Incineration Plants—From NIMBY to Public Participation

Globally, the first to oppose public facilities like waste incineration plants are typically nearby residents. While such infrastructure may benefit society as a whole, it poses varying degrees of threats to local residents, leading to opposition. This is known as the NIMBY (Not In My Back Yard) effect, with larger projects typically facing stronger opposition.

The NIMBY effect is often the initial stage. Looking at examples from developed countries opposing incineration plants, in the 1960s, increased consumption led to a surge in waste production. With limited environmental awareness at the time, governments sought to address the issue through incineration. Opposition primarily came from residents near the facilities, driven by simple objections to the disruption of their lives. Other members of society showed little sympathy for these concerns, partly due to the lack of environmental awareness and partly because they preferred such facilities to be built elsewhere.

This self-interested mindset persisted for about two decades until the 1980s when changes began to emerge due to technological advancements, which increased public confidence. However, even advanced technology carried risks to the environment and health. Over the next two decades, knowledge about these risks became more widespread, and developed countries began incorporating public input into decision-making processes.

By the 1990s, environmental movements became a global focus, shifting public thinking from incineration to recycling. The public began to believe that incineration alone

could not solve the problem and that waste reduction and recycling required widespread participation. Mainland China has followed a similar path, but while developed countries took decades to reach this stage, China progressed rapidly within a decade or less (Li, 2012).

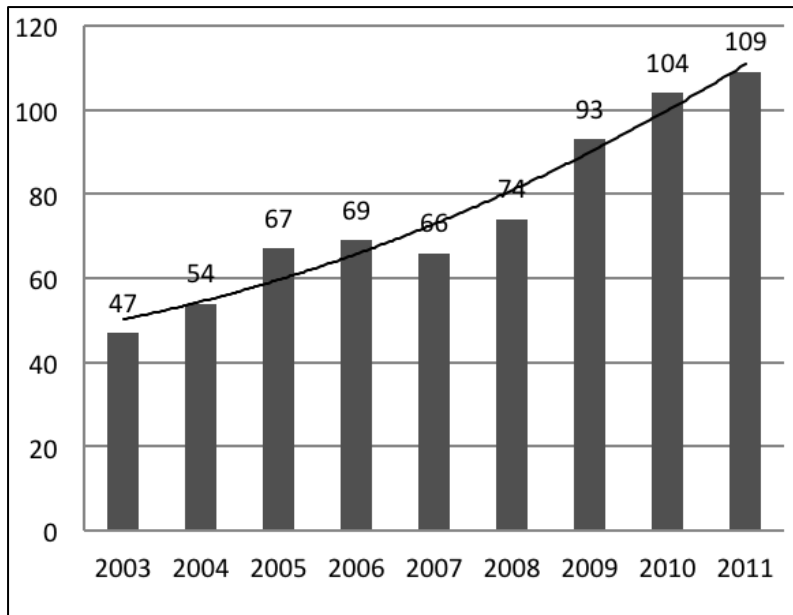


Figure 1: Number of Incineration Plants Built in China Annually (2003–2009) (Hou, 2014)

RESEARCH METHODS

This study employs a qualitative research approach, using the evolution of the waste management system in Panyu District, Guangzhou, as a single case study. The research primarily relies on secondary data, including academic literature, newspaper reports, official documents, online resources, and historical event records. The data collection process involves a systematic literature review and content analysis to explore how public participation influences institutional reform. Specifically, a timeline analysis of events is conducted, comparing government policy changes before and after public protests to identify causal relationships. The study does not involve primary data collection, such as interviews or surveys, but focuses on publicly available data to ensure objectivity.

INCINERATION SYSTEM AND PUBLIC PROTESTS IN PANYU

The waste-related civic movement in Guangzhou originated from the anti-incineration campaign in Panyu. Since being incorporated into Guangzhou in 2000, Panyu has experienced rapid development and population growth, leading to a significant increase in waste production. The figures are striking: by around 2009, annual waste production had reached over 600,000 tons, and by 2010, it had risen to 700,000 tons, averaging approximately 2,000 tons of waste

per day (Panyu Daily, 2009). Panyu District has only one large sanitary landfill, capable of processing about 1,000 tons of waste daily. Even with an additional smaller landfill and several incineration facilities operating at full capacity, they cannot handle the daily average of 2,000 tons of waste. When Panyu was first merged into Guangzhou, the local government anticipated that existing facilities would be insufficient to handle the future increase in waste. Thus, in 2001, it formulated a future waste management plan. This plan adhered to the philosophy of incineration and landfilling, designating over a dozen sites for future waste processing facilities, essentially preparing to build landfills and incineration plants. Due to public opposition, the government repeatedly changed the construction sites, first facing resistance near Lingbian Village in Qizhen, then shifting plans in 2006 to the vicinity of a sewage treatment plant in Dashi Town. In 2007, the “National Urban Solid Waste Harmless Treatment Facilities Construction Plan for the Eleventh Five-Year Plan” was issued, altering the original plan. Initially, only one landfill and incineration plant were planned for the district, but the new plan mandated the use of “advanced” incineration technology. Additionally, the old plan was deemed to require too much land, leading to the decision to build a large-scale incineration power plant. In February 2009, the Guangzhou Municipal Government announced plans to construct this incineration power plant between Huijiang Village in Dashi Town and Xie Village in Zhongcun Town, with operations to commence a year later (Panyu Daily, 2009) (Zhou, 2010).

Over the three years from planning to final approval, although the government made some disclosures, the information provided was incomplete. Starting in August 2009, the public in Panyu began expressing concerns about the proposed incineration power plant. Online platforms became a space for residents near the planned site to vent their dissatisfaction, and these sentiments were quickly picked up by newspapers, drawing public attention to the issue. The Guangzhou Municipal Environmental Sanitation Bureau later stated that construction would begin as soon as the environmental assessment was completed. The government’s announcement was then shared by residents and property owners on various Panyu forums, with information about toxic emissions from incineration plants, such as dioxins, rapidly circulating. This led to various social movements, including collective visits to an existing incineration plant in Guangzhou’s Baiyun District, where residents found poor sanitary conditions, foul odors, and significant sewage. Local residents began organizing signature campaigns to express opposition to the incineration plant and sought assistance from the Chinese People’s Political Consultative Conference (CPPCC) and the National People’s

Congress (NPC). The issue quickly escalated, sparking widespread public outcry in Guangzhou (Ye, 2011).

Despite ongoing public protests, the Panyu government remained unmoved, bringing in four experts to endorse the incineration plant, claiming it used advanced technology with no environmental impact. The government's hardline stance fueled public discontent, leading to escalated actions. On November 23, large crowds gathered outside the Guangzhou Municipal Government to protest the government's unilateral approach, opposing the construction of the incineration plant in Panyu and demanding direct dialogue with officials. The government made concessions, promising that the plant would not be built if there was significant public opposition (Zheng, 2011). On November 25, the government changed its stance, with the Panyu local government and the Guangdong Provincial Environmental Protection Department issuing a notice to the district's over two million residents, stating they would listen to public opinion and involve the public in discussions regarding the incineration plant's environmental assessment and site selection. In mid-December, the government announced a delay in the project, and by the end of December, the Panyu District Party Secretary declared the project terminated. The government's capitulation halted the Panyu project, but public attention to the incineration issue did not wane; instead, it intensified and spread to other parts of Guangzhou. In mid-December, residents of Huadu District protested against a proposed incineration plant in the Fenshui Forest area (Southern People Weekly, 2010). Thereafter, public opposition was no longer limited to specific sites or individual incineration plants but extended to questioning the reliance on incineration as the primary waste management method. (Zheng, 2011) (Southern People Weekly, 2010)

Date	Specific Actions
January 2009	Residents wrote to Guangdong NPC representatives, requesting discussion of the waste issue during the "Two Sessions," but received no response.
March 2009	Residents drafted a proposal to the NPC, requesting a review of the current waste management system.
October 2009	Residents submitted petitions to the Guangzhou Environmental Sanitation Bureau and other government agencies, demanding attention to public opinion, opposing the incineration plant, and requesting transparency in the environmental assessment process and results.
October 2009	Residents launched a signature campaign to collect public opposition to the incineration plant.

Date	Specific Actions
November 2009	Residents protested at the Guangzhou Urban Management Committee, later moving to demonstrate outside the Guangzhou Municipal Government.

Figure 2: Public Protest Actions (Compiled by the Author) (Huan, 2013)

Name	Position	Achievements
Nie Yongfeng	Professor at Tsinghua University	Holds a patent for “Vertical Rotary Furnace Waste Pyrolysis Gasification Incinerator.”
Zheng Minghui	Researcher at the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences	In 2007, told media, “Dioxins have a half-life of over 10 years in soil and the human body... a chemical time bomb.” Later claimed dioxins are a “controllable tiger.”
Xu Zhencheng	Deputy Director, South China Institute of Environmental Sciences, Ministry of Environmental Protection	Worked on the environmental assessment for the Panyu project.
Shu Chengguang	Vice President, Chief Technology, Environmental, and Operations Officer, Covanta Energy (Asia-Pacific) Investment Co., Ltd.	Claimed, “Dioxins produced by barbecuing are 1,000 times higher than those from waste incineration.”

Figure 3: Background of the Four Experts Endorsing the Government (China.com, 2015)

Public Participation

The construction of the incineration plant was halted due to strong public pressure, but the waste problem remained unresolved and grew increasingly severe. Reflecting on past protests against the incineration plant, the government recognized that its closed decision-making approach lacked public support. It became clear that improving the waste management system required public support and participation, leading to a shift in the government’s relationship with the public.

As mentioned earlier, the public began questioning the reliance on incineration as the sole waste management method. After intense protests, the public shifted toward rational engagement, proposing policy recommendations and advocacy. Following the Panyu incident, online forums not only served as platforms for residents near the incineration plant to express dissatisfaction but also became spaces for sharing and exchanging knowledge about waste

management. As public understanding of waste issues grew, objections to the incineration-based system intensified. The Guangzhou Municipal Solid Waste Management Expert Consultation Report (2010) strongly supported incineration as the primary method, but Panyu residents disagreed, taking concrete actions such as collaborating with the media to interview experts and participating in television debates with proponents of incineration (Phoenix TV, 2009)

Beyond opposing incineration, the public also began advocating for a waste classification system. They argued that incineration was harmful to the environment and that addressing the waste issue required fundamental measures, such as source reduction. Reducing waste production at its source and implementing effective classification and recycling can significantly reduce waste output. Guangzhou and Panyu authorities launched the “Guangzhou Waste Management: Seeking Public Input” online opinion collection initiative (Dayoo.com, 2015), through which the public expressed opinions and suggestions on the existing system, such as waste classification methods, via legal channels. They also provided extensive input to CPPCC and NPC representatives to propose waste management system reforms during the “Two Sessions.”(Dayoo.com, 2015)

Government’s Proactive Response

After launching the “Guangzhou Waste Management: Seeking Public Input” online initiative, relevant departments analyzed and organized the collected data. Subsequently, the Guangzhou Municipal Government initiated the “Refined Urban Management, Cherishing Our Home: Guangzhou Government Online Policy Consultation” campaign (Dayoo.com, 2015), further collecting public opinions. The government also collaborated with environmental NGOs, inviting activists like “Basuo Fengyun” to work with Panyu authorities, collect opinions, and conduct field studies (Shan, 2011).

The government adopted the proposal for waste classification and quickly implemented it. The Interim Regulations on Guangzhou Municipal Solid Waste Classification Management were officially enacted in April 2011, categorising waste into four types for recycling (China News, 2012). In 2012, Guangzhou Mayor Chen Jianhua, drawing on Taipei’s experience, deepened reforms by experimenting with various methods and improving collection and processing systems (Apple Daily, 2014). The Guangzhou Urban Management Committee established the Guangzhou Waste Management Public Consultation and Supervision

Committee, inviting numerous public and civil society elites to join (Guangzhou Daily, August 4, 2012).

The Guangzhou authorities continued to engage with the public, with newspapers opening columns for public opinions, to which the government responded actively and made various policy commitments. For instance, they aimed to further reduce waste production within a year, achieving a 3% reduction by 2012, with kitchen waste collection increasing by 136% and resource recovery rising by 75% (Guangzhou Daily, July 11, 2012). The government also mandated that waste classification be implemented across all 131 streets in Guangzhou by the end of 2012 and in over 30 towns by the end of 2013 (China.com. (2015, April 8). By the end of 2012, the government's advisory committee, in collaboration with the Guangzhou Science Association and media organizations, held a waste classification forum with widespread participation from scholars, technology groups, and the public, broadcast live online for public interaction (Guangzhou Daily, July 11, 2012).

Concurrently, the Guangzhou Mayor held two symposiums to engage deeply with various stakeholders on waste issues, aligning with the CPC's approach of "promoting people's livelihood through democracy" and "consulting the people on governance, needs, and solutions, ensuring citizens' rights to information, participation, expression, and supervision to advance democratic decision-making" (Qiushi Theory, 2015).

After incorporating public input, the government decided to overhaul the previous waste management system and established a new framework. The previous reliance on incineration and landfilling was replaced with a dual approach of incineration and recycling, prioritizing recycling while using incineration as a supplementary method. The government did not abandon plans for incineration plants due to the large waste volume but committed to considering public opinions on site selection and ensuring the use of advanced technology to minimize impacts on residents and the environment. Simultaneously, a comprehensive waste classification and recycling program was implemented. Mayor Chen Jianhua reiterated that Guangzhou would prioritize recycling over incineration and issued the Opinions on Promoting Comprehensive Waste Classification (Quan, 2012), establishing guidelines for cooperation between government departments and the public.

In summary, the public and government transitioned from confrontation to cooperation, with public participation and advocacy receiving proactive government responses, demonstrating the existence of cooperative space.

Interaction of Actors in Institutional Reform—Fostering Top-Down Cooperation

The primary conflict in this case was a dispute over approaches, specifically which method to use to handle the massive waste volume. The government advocated incineration as the primary solution, while the public opposed sole reliance on incineration, favoring recycling. The two actors—government and public—engaged in continuous negotiation throughout the events described.

a. Public

From Confrontation to Rational Communication

Initially, opposition was limited to residents and property owners near the proposed incineration site, driven by the NIMBY mindset of “not in my backyard.” Over time, opposition spread to other parts of Guangzhou. The government’s decision to bring in four “experts” to endorse the project, claiming the use of Europe’s most advanced technology with no environmental harm, contrasted with public inspections of operational incineration plants in Guangzhou, which revealed poor sanitary conditions and ongoing pollutant emissions. This heightened public fear and led to the government falling into the “Tacitus Trap,” where repeated loss of credibility made it impossible to regain public trust regardless of endorsements (Apple Daily, 2013).

This fear of incineration plants and distrust in the government fermented, culminating in protest actions. After multiple rounds of protests, including signature campaigns, performance art, and public gatherings, the government made concessions. The public did not maintain aggressive resistance but shifted to political suggestions and advocacy while maintaining communication with the government. Through legal channels like online platforms and public forums, the public actively participated, strongly advocating for waste classification, which was eventually adopted and implemented in stages by the government. The public also proposed various institutional reform plans for waste management oversight through different channels. This reflects an evolving process: the public realized that protests alone could not solve the problem and that finding consensus through pragmatic, peaceful, and rational discussions with stakeholders was necessary. Blind opposition was unhelpful, and while not all public suggestions were adopted, a positive interaction between the public and government was established.

Several civil society elites, such as Guangzhou environmental activist “Basuo Fengyun,” agreed to cooperate with authorities. Local environmental organizations also connected with the government, providing various suggestions.

b. Government

From Refusing to Listen to Seeking Public Input

A major trigger of the Panyu incident was the government’s closed decision-making approach, which excluded public engagement. Reviewing the incineration plant project, from site studies in 2004 to plan confirmation in 2006 and land acquisition in 2009, no public notifications or hearings were held over the five to six years. Even residents near the planned site were unaware of the project until just before construction began.

It is not uncommon for Chinese local governments to exclude public participation in decision-making, often viewing the public as lacking knowledge and deeming discussions with them a waste of time and resources. During the 2009 protests, some government officials dismissed public concerns, accusing them of causing trouble. However, as protests grew, the government softened its stance, engaging with the public while maintaining its leading role and accepting public participation in the institutional reform process. In 2008, Beijing authorities abandoned plans for an incineration plant, but Guangzhou authorities did not entirely halt the project, instead promising to listen to public opinions. The Guangzhou government held multiple online “seeking public input” campaigns, providing residents with legal channels to express opinions, which were then organized and studied. Public opinion collection extended beyond the online realm, with the government holding multiple hearings and forums to involve the public in decision-making (Hu, 2010)

Balancing Enforcement and Public Opinion

The second aspect is the oscillation between rigid enforcement and listening to public opinion. The government’s actions reflect a shift in attitude. Initially, before public backlash, the government adopted a hardline approach. After facing protests, it softened its stance and conducted public consultations on the incineration plant’s location. However, due to strong public opposition to incineration policies, the public engaged in further discussions, raising questions such as whether incineration was necessary, whether alternative methods existed, and how oversight would be conducted. The aforementioned activist “Basuo Fengyun” demanded transparency in all procedures and public participation in oversight.

Learning from past mistakes, the government actively listened to public opinions and incorporated public participation. It provided detailed explanations for various issues and extended the public consultation period to two months to comprehensively collect opinions. The government also invited environmental organizations to discuss the incineration plant's site selection, aiming to balance interests. While the public could not halt the incineration plant's construction entirely, they succeeded in increasing transparency in the process, ultimately leading the government to adopt a dual approach of recycling and incineration in response to public opinion. This reflects the oscillation between enforcement and listening to public input.

The above process shows an evolution in the government's attitude toward public participation. Initially, the government excluded the public from the process, but after intense protests, it recognized the need for mutual communication, incorporating the public into the institutional reform process. Both sides worked together, replacing confrontation with cooperative negotiation led by the government. The government fully realized that effective governance requires robust public participation (Qiu, 2011).

Subsequent Developments—Continued Public Participation in Institutional Reform

No system is perfect and requires continuous improvement. The government did not cease engaging with the public simply because waste classification was implemented or public discontent over the incineration plant was resolved.

The government continued to involve the public in institutional reform. Guangzhou environmental activist “Basuo Fengyun” and their organization, the “Guangzhou Livable Environment Protection Center,” regularly submitted proposals and consultation documents to relevant government departments. “Basuo Fengyun” noted that authorities have become increasingly serious about waste management, a stark contrast to the past.

Media reports indicate that the organization regularly meets with officials. For example, in February 2015, they met with Jing Jian, Deputy Director of the Hotel Management Division of the Guangzhou Tourism Bureau, to discuss waste management issues. Since 2013, the Guangzhou Livable Environment Protection Center has maintained correspondence with multiple Guangzhou departments, inquiring about policies and submitting suggestions, receiving positive responses from authorities. The organization's founder, “Basuo Fengyun,” stated in a report:

“In October 2013, we searched online for all departments potentially related to waste classification and sent out 39 consultation letters, receiving about a dozen responses. On January 22 this year, based on the plan released by the Guangzhou Solid Waste Management Office in February 2014, we sent consultation letters to 22 relevant departments.”(XKB News, 2015)

Thus, public participation has continued, with proactive government responses, reflecting a positive interaction and underscoring the importance of public participation in institutional reform.

RESULTS

Public participation and social movements are undeniably significant factors in driving institutional change. The public, dissatisfied with government policies, sought to challenge the absolute authority of decision-makers over the system. Various forms of public participation emerged, and in the process of reforming the waste management system in Panyu District, Guangzhou, public participation provided significant space and momentum for change.

The government in an authoritarian regime is not monolithic. The process described shows that public participation can achieve results even in such a system. Regarding waste management oversight, the public submitted various reform proposals through different channels. This reflects an evolving process: the public realized that protests alone could not solve the problem and that finding consensus through pragmatic, peaceful, and rational discussions with stakeholders was necessary. Blind opposition was unhelpful, and while not all public suggestions were adopted, a positive interaction between the public and government was established. No system is perfect and requires continuous improvement. The government did not cease engaging with the public simply because waste classification was implemented or public discontent over the incineration plant was resolved.

The case of the waste management system evolution in Panyu District, Guangzhou, illustrates a government-led, public-supported model of institutional reform. The local government accepted public opinions but did not entirely abandon its original plans. The transformation of Panyu's waste management system differs from Western theoretical perspectives, serving as a successful case of public participation and cooperation with an authoritarian government. Even in the absence of democratic reforms and within an authoritarian framework, various forms of public participation can prompt decision-makers to alter established systems.

RESEARCH LIMITATIONS

Despite providing deep insights into the relationship between public participation and institutional reform, this study has several limitations. First, it relies primarily on secondary data, which may introduce biases or incomplete information, lacking primary data such as interviews or field investigations to verify details. Second, the study focuses on a single case (Panyu District, Guangzhou), and its conclusions may not be universally applicable to other regions or similar issues. Third, the research data primarily covers up to 2015, while waste management systems continue to evolve. For instance, according to the latest information, by 2025, Guangzhou is advancing its “14th Five-Year Plan,” emphasizing enhanced harmless treatment capacity and increased resource utilization rates, which this study does not cover, potentially affecting its accuracy regarding current conditions. Finally, as a qualitative study, it lacks quantitative indicators to measure the specific impact of public participation, an area future research could address.

CONCLUSION

In summary, this study highlights the potential of public participation in driving institutional reform within an authoritarian regime through the evolution of the waste management system in Panyu District, Guangzhou. From initial protests to subsequent cooperation, the public not only broke the government’s decision-making monopoly but also prompted a shift from incineration-dominated policies to a dual approach prioritizing recycling. Despite limitations, this case demonstrates that public participation can effectively influence policy in mainland China. Looking forward, with the implementation of the “14th Five-Year Plan,” Guangzhou is expected to achieve a 99% harmless waste treatment rate and significantly improved resource utilization by the end of 2025, with continued public participation further strengthening sustainable development.

REFERENCES

- Apple Daily. (2013, August 1). Tasitu xianjing ji wu xin bu li [The Tacitus trap: No trust, no standing]. Apple Daily.
- Apple Daily. (2014, June 14). Lǜ shi caili: Guangzhou “Qili Zai” [Green is colorful: Guangzhou’s “Qili Zai”]. Apple Daily.
- China News. (2012, July 20). Guangzhou laji fenlei shishi shijianbiao gongbu [Guangzhou releases timetable for waste classification implementation]. China News Network. Retrieved September 15, 2025, from <http://www.chinanews.com/gn/2012/07-20/4046239.shtml>
- China.com. (2015, April 8). Bu zu wei qi! Fushuji Lǜ X Yi he laji fenran liyi jituan guanxi miqie [Not surprising! Deputy Secretary-General Lǜ X Yi has close ties with the waste incineration interest group]. China.com. Retrieved September 15, 2025, from http://club.china.com/data/thread/1011/2707/48/41/4_1.html
- Cui, J. J. (2012). Lun shehui liliang dui difang fazhi de tuidong zuoyong—yi Guangzhou Panyu laji fenran chang xuanzhi shijian wei li [On the role of social forces in promoting local rule of law: A case study of the Guangzhou Panyu waste incineration plant site selection event].
- Dayoo.com. (2015, April 8). Chengshi guanli jingxi hua zhen’ ai jiayuan qi xianji—Guangzhou shi zhengfu wangluo wenzheng huodong [Urban management refinement and collective planning for a cherished homeland: Guangzhou government’s online public consultation activity]. Dayoo.com. Retrieved September 15, 2025, from <http://news.dayoo.com/guangzhou/106218/>
- Dayoo.com. (2015, April 8). Guangzhou laji chuli zhengfu wenji yu min [Guangzhou seeks public input on waste management]. Dayoo.com. Retrieved September 15, 2025, from <http://news.dayoo.com/guangzhou/82479/>
- Fulda, A., Li, Y., & Song, Q. (2012). New strategies of civil society in China: A case study of the network governance approach.
- Guangzhou Daily. (2012, August 4). Guangzhou chengshi feiqiwu chuli gongzhong zixun jiandu weiyuanhui zhaokai chengli dahui [Guangzhou establishes public consultation and supervision committee for urban waste management]. Guangzhou Daily.
- Guangzhou Daily. (2012, July 11). Guangzhou laji huishou lv yi chao 35% shouge chi pangxie chengguo buyi [Guangzhou’s waste recycling rate exceeds 35%: Initial results of pioneering efforts]. Guangzhou Daily.
- He, Z. K. (2006). Zhongguo gongmin shehui zuzhi fazhan de zhidu xing zhang’ ai fenxi [An analysis of institutional barriers to the development of Chinese civil society organizations]. Zhonggong Ningbo Shiwei Dangxiao Xuebao [Journal of Ningbo Municipal Party School of the Communist Party of China].
- Hou, L. L., & Liu, Y. G. (2014). Gonggong sheshi xuanzhi de linbi xiaoying yu gongzhong canyu—Panyu laji fenran chang xuanzhi shijian de anli yanjiu [The NIMBY effect and public participation in public facility siting: A case study of the Panyu waste incineration plant site selection event].

- Hu, D. (2010). Gongzhong yiti canyu zhuti de hudong chuanbo—xi “Panyu laji fenran xuanzhi” shijian [Interactive communication among public issue participation actors: An analysis of the Panyu waste incineration site selection event]
- Huang, Y., & Yang, F. (2013). Shenyi minzhu de difang xing shijian—Guangzhou laji fenran yiti de zhengce changyi [Local practice of deliberative democracy: Policy advocacy on the Guangzhou waste incineration issue]. *Huanan Shifan Daxue Gonggong Guanli Xueyuan Gonggong Guanli Xuebao* [Journal of Public Administration, South China Normal University].
- Li, Q. (2012). Gongzhong weishenme ba laji fenran wei “hongshui mengshou” [Why the public regards waste incineration as a “flood beast”].
- Liu, Z. S. (2020). Zhongmei maoyizhan dui Zhongguo jingji fazhan yu yingdui qihou bianhua de yingxiang ji yingdui [The influence of the trade war between China and the United States on China’s economic development and its response to climate change and relevant countermeasures]. *Shijie Huanjing* [World Environment], 2020(1), 43–45.
- Panyu Daily. (2009, October 30). Guangzhou Shi Panyu Qu shenghuo laji fenran fadian chang huanjing yingxiang pinggu gongzhong canyu gongshi [Public participation notice for the environmental impact assessment of the Panyu District municipal waste incineration power plant]. Panyu Daily.
- Phoenix TV. (2009). Jianshe chengshi shenghuo laji fenran chang, li dayu bi, haishi bi dayu li? [Is building a municipal waste incineration plant more beneficial or harmful?]. *Yihu Yixi Tan* [One Tiger, One Forum].
- Qiu, D. W. (2011). Jiyu laji fenran shijian de huanjing kangzheng zhong liyi tuanti hudong fenxi [An analysis of interest group interactions in environmental protests based on waste incineration events].
- Qiushi Theory. (2015, April 8). Yi minzhu cu minsheng: Tigao yunyong minzhu fangfa xingcheng gongshi kaizhan gongzuo de benling [Promoting people’s livelihood through democracy: Enhancing the ability to build consensus and carry out work through democratic methods]. Hangzhou Municipal Committee of the Communist Party of China. Retrieved September 15, 2025, from http://www.qstheory.cn/zxdk/2010/201009/201004/t20100426_27876.htm
- Quan, J., & He, Y. S. (2012). 2015 niandi qian jiben shixian laji fenlei [Garbage classification to be basically achieved by the end of 2015]. *Guangzhou Daily*.
- Shan, G. N. (2011). Guanmin liangxing hudong [Positive interactions between government and citizens]. *Nanfang Zhoumo* [Southern Weekly].
- Southern People Weekly. (2010, January 8). Guangzhou laji fenran chuli chang shijian zhong de Panyu lilian [Panyu forces in the Guangzhou waste incineration plant event]. *Nanfang Renwu Zhoukan* [Southern People Weekly].
- United Nations News. (2012, November 6). Huanbao shu: Chengshi shenghuo laji wenti zheng ri yi ehua wei quanqiu weiji [Environmental Protection Agency: Urban waste issues are escalating into a global crisis]. United Nations News.
- Wang, M. (2007). Zhongguo NGO de fazhan xianzhuang jiqi zhengce fenxi [The current state of Chinese NGOs and policy analysis]. *Disan Bumen Xuekan* [Third Sector Journal], 8, 1–28.

- XKB News. (2015, February 9). Guangzhou duidai laji fenlei yuelai yue renzhen duoge bumen gei women zuochu zhengmian huiying [Guangzhou takes waste classification increasingly seriously: Multiple departments respond positively]. XKB News. Retrieved September 15, 2025, from <http://news.xkb.com.cn/gongyi/2015/0209/373087.html>
- Ye, F. F. (2011). Xin meiti shidai de gongzhong canyu hecong hequ—cong Panyu laji fenran shijian kan xin meiti qudong xing gongzhong canyu [Where does public participation go in the era of new media: A case study of new media-driven public participation in the Panyu waste incineration event]. In *Zhongguo Chengshi Guihua Nianhui* [Proceedings of the China Urban Planning Annual Conference]. Nanjing, China.
- Zheng, Z. C., & Wang, L. Z. (2011). Panyu laji fenran chang xuanzhi: Yichang meiyou niaoyan de minyi boyi zhan [Panyu waste incineration plant site selection: A smokeless battle of public opinion]. *Nanfang Dushi Bao* [Southern Metropolis Daily].
- Zhou, H. L. (2010). Jujiao Panyu laji fenran zhengyi [Focusing on the Panyu waste incineration controversy]. *Boshi Wencui* [Boshi Collection].