

The Foundation of Registration and the Path to Shared Governance: A Systematic Framework for Urban Dog Ownership Management Policies

Lingyun Wu

*College of Humanities and Social Sciences, Nanjing University of Aeronautics and Astronautics,
Changzhou, Jiangsu, China*

Abstract: With the continuous advancement of China's urbanization process, the number of pet dogs has shown rapid growth, and the coexistence of humans and dogs has become increasingly common. However, issues such as public safety risks, frequent neighborhood disputes, environmental hygiene hazards, and the dilemma of stray dog management have become increasingly prominent, emerging as significant variables affecting the effectiveness of grassroots social governance. The current dog ownership management system suffers from structural shortcomings, including an incomplete legal framework, fragmented enforcement mechanisms, lack of supporting facilities, and insufficient public participation, making it difficult to achieve long-term governance goals. This paper adopts a modern social governance perspective, integrating policy analysis and comparative research methods to systematically examine dog ownership management practices in representative domestic and international cities. It distills a five-pronged policy optimization framework: registration and identification, population control, spatial governance, education and guidance, and enforcement oversight. Research indicates that only by strengthening legal safeguards, reinforcing primary responsibilities, promoting multi-stakeholder collaboration, and enhancing governance precision can a scientifically sound, equitable, and accessible urban dog ownership management system be established. The study further proposes institutionalizing animal welfare principles within public policy, advocating a humane governance model centered on TNR (Trap-Neuter-Return/Adoption), and

fostering a new framework for civilized dog ownership characterized by government leadership, social collaboration, and resident autonomy. This approach will advance the development of urban civilization based on harmonious coexistence between humans and animals.

Keywords: Dog Ownership Management; Social Governance; Animal Welfare; Policy Optimization; Civilized Dog Ownership

1. Problem Statement: Governance Challenges in Urban Dog Ownership Amidst Urbanization

1.1 Context: From "Pet Craze" to "Canine Concerns"

In recent years, as living standards rise and household structures shrink, pet ownership has shifted from functional needs to emotional companionship. According to the 2023 China Pet Industry White Paper, urban dog ownership nationwide has surpassed 58 million-nearly tripling over the past decade-with first-tier cities exceeding 18% penetration. As one of the primary companion animals, dogs have evolved from traditional roles of guarding homes to becoming family members and even emotional supporters. However, this transformation has also generated significant social tensions. Incidents arising from leash violations, failure to clean up after pets, barking disturbances, and dog attacks in community public spaces frequently make headlines. Some dog owners lack basic responsibility, leading to the abandonment of pets and the continuous expansion of stray dog populations. This not only threatens public health but also increases the burden on urban management. Worse still, extreme cases involving illegal activities such as dog fighting,

animal cruelty, and unlicensed breeding severely challenge societal moral standards.

Against this backdrop, balancing the legitimate rights of dog owners with the peaceful living environment of non-dog-owning residents has become an urgent challenge for urban governance. While an initial management framework has been established, it still faces multiple challenges in terms of institutional design, enforcement strength, and societal acceptance.

1.2 Institutional Bottlenecks: Governance Ineffectiveness Under Multi-Agency Management

Currently, urban dog ownership management in China primarily relies on regulations or ordinances issued by local governments, lacking unified higher-level legal support. This results in low legal hierarchy, weak authority, and inconsistent penalty standards. Most cities adopt a management model where "public security takes the lead, urban management cooperates, and agricultural quarantine assists." However, blurred boundaries between departmental responsibilities often result in buck-passing and bureaucratic wrangling. Furthermore, outdated information technology means dog identification still relies primarily on paper licenses, hindering dynamic tracking and data sharing. Weak grassroots enforcement capabilities, limited inspection frequency, low costs of non-compliance, and insufficient deterrence add to the challenges. Community-level education campaigns are monotonous, failing to effectively foster citizens' voluntary compliance. Compounded by the lag in developing pet-friendly public facilities-such as designated dog-walking areas and waste collection stations-these shortcomings objectively hinder the cultivation of civilized dog ownership practices.

The interplay of these issues has plunged dog ownership management into an awkward predicament where "regulations exist but are difficult to enforce, orders are issued but ignored, and penalties are ineffective." There is an urgent need to reconstruct the governance logic from a systemic perspective.

2. Theoretical Foundations and Value Dimensions: The Dual Facets of Dog Ownership Management

2.1 The Social Function and Psychological Value of Pets

Dogs rank among humanity's earliest domesticated animals. In modern society, they have transcended their traditional utilitarian role to evolve into vital carriers of emotional connection. Psychological research indicates that dog ownership significantly reduces owners' loneliness, anxiety levels, and depressive tendencies while enhancing subjective well-being and life satisfaction. Regular dog-walking activities promote physical exercise and improve cardiovascular health, offering particularly positive interventions for the elderly. On the social front, pets serve as unique mediators. Shared pet ownership interests foster informal interaction networks among residents, strengthening community cohesion. The application of specialized dogs-such as service dogs and therapy dogs-further expands canine roles in disability assistance and psychological intervention, highlighting their irreplaceable social value. Notably, the trend of "pet domestication" reflects modern individuals' emotional compensation mechanisms for intimate relationships. As traditional kinship support networks weaken, pets often become vital emotional anchors for individuals. Therefore, simplistically condemning dog ownership or stigmatizing dog owners hinders the formation of social consensus and may instead exacerbate group polarization.

2.2 Management Challenges: Coexisting Institutional Shortfalls and Behavioral Deviance

As the most fundamental unit of urban communities, neighborhoods host large populations of both humans and dogs coexisting within shared public spaces. Conflicts arising from dog ownership practices in these communal areas are increasingly prominent [1]

As urban dog ownership communities expand and pets become increasingly integrated into family life, social conflicts over dog ownership frequently occur in high-rise residential areas. Due to a lack of responsibility among some dog owners, large populations of stray dogs inevitably emerge. This not only impacts the cityscape but also poses risks to public safety. [2] As pets become integrated into daily life, numerous issues have surfaced. Cases of

animal abuse, abandonment, and unsafe pet products have proliferated in recent years, bringing widespread animal welfare concerns into public view and triggering various social problems [3].

Despite the growing social functions of pet dogs, the corresponding regulatory systems remain relatively underdeveloped. Content analysis of dog ownership policy texts across 15 Chinese cities using an evaluation framework reveals that while phased progress has been made in urban dog ownership regulation, persistent issues include an incomplete legal framework, low digitalization levels, fragmented regulatory responsibilities, insufficient fiscal investment, lack of supporting facilities, and low public participation [4]. Currently, dog management in most Chinese cities relies primarily on local regulations or rules, lacking unified higher-level legal support. This results in insufficient legal authority and inconsistent penalty standards. Specific manifestations include: a fragmented legal system, with no dedicated legislation at the central level specifically addressing companion animal protection. While laws such as the Animal Epidemic Prevention Law and the Public Security Administration Punishment Law touch on relevant content, their focus is weak and fails to cover the needs of comprehensive management. Low digitalization levels persist, with outdated dog identification methods. Most regions still rely on paper dog licenses, hindering dynamic tracking and data sharing. Interagency coordination mechanisms are absent, as responsibilities overlap or remain undefined among public security, urban management, agriculture and rural affairs, and housing and urban-rural development departments, often resulting in "multiple authorities failing to take responsibility" or "each acting independently." Infrastructure support is inadequate, with a scarcity of pet-friendly public spaces and a lack of convenient designs such as dedicated dog-walking areas and waste collection facilities. Public engagement remains low, with limited and monotonous forms of publicity and education failing to effectively stimulate citizens' voluntary compliance with the law. Channels for social organization participation are also restricted.

The intertwined and compounding nature of

these issues has trapped dog ownership management in a vicious cycle of "uncontrollable, unenforceable, and unchangeable."

3. International Experience and Local Exploration: Comparing and Learning from Governance Models

3.1 Standardized Management Models in Exemplary Foreign Cities

3.1.1 Tokyo, Japan: combining strict access controls with detailed management

Japan enforces rigorous mandatory dog registration and rabies vaccination systems, with unregistered dogs facing substantial fines. Dogs are prohibited from enclosed public spaces like subways and shopping malls. Leashes are mandatory during walks, and owners must carry waste bags. Local governments operate dedicated "Animal Welfare Centers" responsible for sheltering and rehoming stray dogs, promoting the principle of "adopt, don't shop."

3.1.2 Singapore: high-cost constraints paired with technology-enabled solutions

Singapore implements a quota system for dog ownership, requiring substantial licensing fees per dog to economically curb excessive pet ownership. All dogs must be microchipped and registered in a national animal database. The government developed smart surveillance systems using AI to detect leash violations, enhancing enforcement efficiency.

3.1.3 London, UK: integrating responsibility-oriented approaches with community autonomy

The UK's dangerous dogs act clearly defines owners' legal liabilities, emphasizing the principle that "whoever keeps the dog is responsible for it." Communities widely establish "dog parks" providing enclosed activity spaces. Volunteer organizations actively engage in promoting responsible dog ownership and rescuing stray dogs, fostering a healthy ecosystem of government leadership and civic collaboration.

These countries share common characteristics: legislative precedence, clear delineation of rights and responsibilities, technological support, and social participation, reflecting highly institutionalized and refined governance features.

3.2 Shenzhen's Innovative Practice: A Model Path for Holistic Governance

In recent years, Shenzhen has focused on establishing a brand for civilized dog ownership and building a model city for responsible pet care. On December 21, 2020, Shenzhen held its annual Civilized Dog Ownership Awards. The city's dog registration rate surged to 96%, ranking first nationwide. Dog-related disputes have steadily decreased, and stray dogs are virtually absent from major neighborhoods. This has effectively safeguarded public health and safety, enhanced animal welfare, and earned full recognition from animal protection organizations [5].

As a pioneer in domestic dog ownership reform, Shenzhen has pioneered a demonstrative comprehensive governance approach through implementing the "Ten Ones" community self-governance model, the TNA (Trap-Neuter-Adoption) program, and establishing China's first civilized dog ownership volunteer service team. The closed-loop system of "Trap-Neuter-Adoption" for stray dogs is largely established; government-animal welfare organization collaboration is normalized, with frequent weekend adoption events; At the community level, a tripartite coordination mechanism involving property management, homeowners' committees, and residents has been established to integrate responsible dog ownership into community regulations and building access protocols. The model's success lies in its strategic shift from "end-of-pipe remediation" to "source prevention" and from "single-agency enforcement" to "multi-stakeholder governance," embodying the core principles of holistic governance.

4. Policy Optimization Pathway: Building a Full-Chain Governance System

4.1 Strengthen Registration and Identification Systems to Solidify Information Governance Foundations

It is recommended to implement a mandatory nationwide electronic registration system. All dogs over three months old must complete real-name registration and receive a microchip implant. Approximately half the size of a grain of rice, the microchip is implanted subcutaneously behind the dog's ear on the neck by veterinary professionals using

specialized equipment. This single implantation provides lifelong identification, containing both read-only and rewritable dog identification numbers for management purposes. The system offers secure, scientific, and convenient functionality. [6]. Simultaneously, establish a national-level pet animal information platform to integrate regional data resources and achieve interoperability. Implement a tiered penalty system for non-compliance with registration requirements, with severe cases subject to restrictions on future registration eligibility. Additionally, encourage insurance companies to integrate with this system and develop "pet liability insurance" to achieve shared risk management.

4.2 Optimizing Management Standards for Dog-Keeping Facilities to Safeguard Animal Welfare

A unified "Urban Dog Facility Establishment and Management Standard" will be formulated, specifying concrete requirements: First, minimum activity space per dog must be met, such as no less than 2 square meters for medium-sized dogs, ensuring adequate room for movement. Second, indoor environments must satisfy basic animal health needs, including appropriate temperature, good ventilation, and sufficient natural light. Third, facilities must undergo daily scheduled cleaning and disinfection, equipped with independent sewage systems to maintain sanitation. Fourth, prohibit practices that restrict canine freedom, such as prolonged caging or chaining. Fifth, ensure all dogs for sale undergo vaccination, deworming, microchip implantation, and health assessments to guarantee their well-being. Concurrently, relevant authorities will intensify regular inspections and unannounced spot checks of pet stores, kennels, and breeding facilities. A blacklist system will be established to shut down non-compliant and illegal operations, standardize market practices, and safeguard animal welfare.

4.3 Deepening Community Education and Behavioral Intervention to Foster Responsible Dog Ownership Culture

Integrate responsible dog ownership principles into community-based new-era civilized practices. Organize specialized lectures,

scenario-based simulations, and parent-child interactive experiences to enhance public awareness and participation. Introduce "Harmonious Coexistence Between Humans and Animals" courses in primary and secondary schools to cultivate children's values of respecting life and caring for animals, laying the foundation for responsible pet ownership. Promote "Pet Behavior Training Open Classes" led by professional trainers, covering basic command training and socialization to assist owners in managing pet behavior. Utilize short-video platforms to produce and distribute educational content on dog ownership knowledge and emergency skills, expanding societal influence. Establish "Pet-Friendly Community Pilot Zones" equipped with dedicated dog walking paths, water stations, and waste disposal bins to provide physical infrastructure support. Advocate for homeowners' associations to incorporate responsible dog ownership regulations into management bylaws, fostering self-regulation. Through multi-tiered education campaigns, cultivate a culture of "law-abiding dog ownership, civilized walking practices, and proactive waste cleanup" to build harmonious community environments.

4.4 Strengthen Enforcement Oversight and Coordination Mechanisms to Enhance Policy Implementation

Clarify the lead responsibility of the competent authority, with the comprehensive urban management enforcement department coordinating efforts to ensure orderly implementation of all measures. Each department should fulfill its duties to form a cohesive force. Establish dedicated "Dog Ownership Supervisors" equipped with body cameras and mobile terminals to ensure documented patrols, conduct routine inspections, and promptly identify and address violations. Establish a closed-loop "complaint-response-feedback" mechanism and launch an online reporting platform to enable citizens to report issues anytime, anywhere. Encourage public participation in supervision to foster a positive atmosphere of shared management across society. Include repeat offenders in the credit management system and implement joint disciplinary actions. Through multi-departmental coordination, increase the cost of violations to create an effective

deterrent. Increase fiscal investment for kennel construction, equipment upgrades, personnel training, and public welfare project funding to enhance management standards and public service capabilities. Promote the establishment of a cross-departmental liaison meeting system to regularly report work progress, assess potential risks, and deploy specific actions, ensuring orderly advancement of all tasks. Only by establishing a normalized, institutionalized law enforcement mechanism that ensures the effective implementation of all policies and measures can we truly achieve standardized and sustainable dog management. At the same time, governments at all levels should strengthen oversight of dog ownership management, establish corresponding assessment criteria for quantitative evaluations of grassroots management departments, and conduct unscheduled inspections of relevant departments' work progress to ensure effective implementation of these measures [7].

5. Ethical Reflection and Future Outlook: Toward a Governance Vision of the Life Community

5.1 Institutional Embedding of Animal Welfare

We should actively incorporate the internationally recognized "Five Freedoms" principle—freedom from hunger and thirst, discomfort, pain, fear, and the ability to express natural behaviors—as the core concept of China's pet animal welfare legislation [8]. On March 20, 2010, Chinese academia released the "Anti-Animal Cruelty Law of the People's Republic of China" (Expert Draft Proposal). This draft stipulates: "The term 'pet animal,' also known as companion animal, refers to any domesticated animal owned or intended to be owned by individuals for personal entertainment or companionship in certain settings, particularly households. This includes cats, dogs, birds, horses, parrots, and others. Once an animal not prohibited by law from being kept as a pet is kept as a companion animal, that animal shall be regarded as a companion animal for life." [1].

Only through comprehensive scientific consideration and the establishment of pet animal welfare legislation can this legislation achieve both theoretical and practical significance. Concurrently, emphasis must be

placed on strengthening owner responsibilities, ensuring owners fulfill corresponding obligations, and employing reasonable rescue measures to address urban stray animal issues. Finally, the system for assuming responsibility when pet animal welfare is compromised must be prominently emphasized [1].

5.2 Pathways for Humane Care of Stray Animals

Abandon traditional "culling-based management" and shift toward sustainable solutions centered on TNR (Trap-Neuter-Return/Adoption). Support social organizations in stray dog rescue efforts, with government funding secured through service procurement. Explore establishing a "Community Guardian Dog" system, permitting healthy, docile stray dogs to receive targeted feeding and health management in their original habitats, thereby reducing disturbances to residents while preserving their ecological niche. Additionally, plan and construct centralized stray animal shelters in urban fringe areas, equipped with functional modules for veterinary care, behavioral correction, and adoption display to enhance professional management standards. Integrating animal rights theory with practical application, the principles of respecting life, treating life kindly, and revering life should guide efforts to care for and protect stray animals. Implementation should follow three guiding principles: ethical thought as a compass, the establishment of rescue organizations, and continuous exploration of new models for stray animal care. This approach ensures stray animals receive compassion and ultimately achieves the goal of ending their homelessness [9].

5.3 Advancing Toward a Human-Canine Coexistence in Urban Civilization

Future cities should not be spaces that exclude animals but rather inclusive habitats where diverse forms of life coexist. Through a tripartite effort integrating institutional design, spatial planning, and cultural shaping, we should progressively build a new human-canine relationship characterized by "dogs having secure spaces, people enjoying convenience, and cities maintaining order." It is recommended to incorporate "pet-friendly city development" into the evaluation criteria

for civilized cities, incentivizing proactive local government initiatives. Concurrently, new urban districts should reserve dedicated pet activity spaces, promoting the "pocket park + pet corner" composite green space model to embody urban warmth and humanistic care. China's urban dog ownership legislation should fully draw upon advanced international concepts and practices, adhering to the principle of "high standards, low fees, strict management, severe penalties, while consistently safeguarding the legal rights and welfare of pet dogs. Outdated management models should be discarded. Efforts must be made to align management approaches with international standards while ensuring that management philosophies and concepts are also brought into line. This involves striving to balance the interests of dog owners and non-dog owners, individuals and society, and institutions and individuals. Only then can the root causes of dog-related issues be addressed, laying a solid foundation for building a society where humans and animals coexist harmoniously [10].

6. Conclusion

Dog ownership management is far more than mere "dog control"; it serves as a mirror reflecting a city's level of civilization, social governance capabilities, and civic literacy. Faced with increasingly complex urban human-dog dynamics, it is imperative to break free from piecemeal governance habits and shift toward a new paradigm of systematic, rule-of-law-based, and humane comprehensive management. This paper advocates for a coordinated advancement of policy, technology, ethics, and culture, anchored by registration systems, driven by population control, safeguarded by venue regulations, guided by education, and enforced by oversight. Only through such an approach can we achieve a transformative leap from "dog nuisance management" to "civilization co-creation," enabling every city to become a living community that harmoniously blends the beauty of order with the warmth of compassion.

Future research may further focus on differentiated governance pathways for diverse urban types, evaluating the effectiveness of digital governance tools, and conducting long-term tracking of public attitude evolution.

This will provide theoretical underpinnings and practical guidance for building more adaptive and inclusive urban animal governance systems.

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