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China's Environmental Governance in Transition: Lessons and Challenges

Licensed Commoning and the Authoritarian Commons: Governing Participation in China's Community Gardens

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ABSTRACT

China's environmental governance transition combines intensified vertical accountability and performance-based management with expanding calls for public participation. However, despite growing demand for civic engagement, there remains limited understanding of how participatory environmental initiatives are structured and governed in practice. Drawing on multi-sited ethnographic research on community gardens in Shanghai and Nanning, this paper argues that community-based environmental initiatives in urban China increasingly operate through *licensed commoning*, a mode of collective stewardship in which participation is formally authorised, procedurally regulated, and conditionally delegated by state actors. The analysis shows that community gardens are shaped by procurement contracts, performance indicators, and intermediary organisations that structure who may participate, how responsibilities are allocated, and how outcomes are evaluated. Licensed commoning enables rapid scaling, policy alignment, and short-term stability, but it also constrains relational autonomy and shifts long-term governance risks onto communities and civil society actors. Comparative evidence further reveals that more embedded forms of commoning, characterised by informal authorisation and dense relational practices, can sustain deeper collective engagement, yet remain institutionally fragile and vulnerable to administrative intervention. By conceptualising licensed commoning as a distinct governance modality, the paper contributes to debates on environmental participation, multilevel governance, and accountability in authoritarian contexts. Empirically, it demonstrates that participation in China's environmental transition is neither purely bottom-up nor simply co-opted, but actively produced and governed through auditable and revocable arrangements that shape both the possibilities and limits of collective environmental action.

1 | Introduction

Across diverse governance contexts, public participation has become a central policy instrument in environmental governance, mobilised to address challenges ranging from urban sustainability to climate adaptation and biodiversity conservation (Fung 2006; Newig and Fritsch 2009; Paloniemi et al. 2015; Sherman and Ford 2014). Yet growing reliance on performance metrics, short-term project funding, and delegated delivery through intermediaries has raised broader questions about how participation is authorised, evaluated, and

sustained over time (Van Meerkerk 2019; Xie et al. 2022; Zhang et al. 2022). Increasingly, participation is not simply enabled or suppressed, but actively designed, audited, and withdrawn, producing forms of collective action that may scale rapidly while remaining institutionally fragile (Cornwall 2008; Van Meerkerk 2019). These dynamics raise a central governance puzzle: participatory environmental practices may be formally enabled, yet administratively structured in ways that both facilitate and constrain collective autonomy. Drawing on an in-depth analysis of community garden initiatives in China, this paper investigates how state authority, policy experimentation,

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and participatory governance intersect in particularly visible ways.

Over the past decade, China's environmental governance has often been characterised by intensified vertical accountability and campaign-style enforcement under the broad framework of "ecological civilization" (Ran 2017; Van der Kamp 2021). These inspection- and target-driven arrangements have strengthened the state's capacity to deliver rapid environmental improvements in areas such as pollution control and ecological restoration (Liu et al. 2022), yet are widely criticised for privileging short-term compliance over long-term institutional capacity and adaptive governance (Kostka 2016; Wang et al. 2024). While this trajectory is often viewed as a consolidation of "authoritarian environmentalism" (Gilley 2012), such a reading risks obscuring the system's internal complexity. As Lo (2015) cautions, China's environmental governance is not monolithic; in practice it often generates hybrid outcomes shaped by decentralised implementation, local discretion, and uneven state capacity. It is within this space of local discretion, where rigid targets meet the practical need for low-cost and socially stabilising governance, that a distinctive, state-managed form of public participation has emerged (Kostka and Nahm 2017; Li et al. 2020). Policy documents at multiple levels increasingly invoke co-governance and social mobilisation, not as a retreat of state authority, but as a means of embedding participatory initiatives within administrative systems that retain strong oversight and control (Mao et al. 2021; Xie et al. 2022).

Community gardens have emerged as a prominent site where these tensions play out at the neighbourhood scale (Mai et al. 2023; Shao and Xie 2026). Across Chinese cities, gardens have been promoted as low-cost, visible, and socially integrative interventions that align environmental objectives with grassroots governance and urban renewal agendas (Ding et al. 2022; Mai et al. 2023). Existing scholarship highlights the potential of community gardens to cultivate environmental subjectivities, foster collective care, and reconfigure everyday relationships between residents and urban space (Hou 2017; Kou et al. 2019). Nevertheless, such outcomes are not inherent to community gardens themselves, but are contingent on how they are governed.

Eizenberg's (2012) study usefully shows that participatory outcomes in community gardens are produced through institutional design rather than participation rhetoric alone. When management structures displaced community decision-making, residents experienced gardens as spaces they used rather than collectively governed. This insight foregrounds a central analytical distinction for this paper: gardens can function as sites of *commoning* or as depoliticised service spaces, depending on how authority and responsibility are configured.

Research on community gardens in China suggests a similar, but distinct, governance dilemma. Empirical studies show that gardens are rarely spontaneous or autonomous initiatives; instead, they are often initiated, facilitated, or scaled through government programmes, service procurement, and intermediary organisations (Mai et al. 2023; Shao and Xie 2026; Xie et al. 2022; Zhang et al. 2022). While such arrangements expand the visibility and reach of community gardening, they also introduce a distinctive governance tension. They often rely on

mobilizing residents' relational commitment and everyday care but simultaneously subject these practices to regulated oversight. The paper therefore asks: how are participatory environmental practices produced and governed under authoritarian conditions, and what are the implications for collective autonomy and responsibility?

To address this question, this paper engages debates on urban commons and commoning. Classical commons scholarship, rooted in Ostrom's (1990) work, emphasises collective resource governance through shared rules, monitoring, and graduated sanctions. Subsequent scholarship has shifted attention from commons as institutional arrangements to *commoning* as a relational and processual practice, understood as an ongoing enactment of collective responsibility, care, and negotiation (Bresnihan 2015; De Angelis 2017). Recent work further conceptualises *commoning* as a set of relational and processual practices through which governance itself is constituted, foregrounding power, authority, and legitimacy as outcomes of situated interaction rather than formal property rights alone (Nightingale 2019; Partelow and Manlosa 2023). Empirical studies further show that commoning frequently unfolds through hybrid and negotiated arrangements involving public authorities, civil society organisations, and communities, rather than in opposition to the state (Li et al. 2020). This literature enables analysis of collective environmental practices as part of evolving and contested governance, rather than as activities external to it. Community gardens, in turn, offer a particularly insightful perspective on these dynamics, as they are not merely material resources but vibrant spaces where relationships of mutual care often intersect with administrative power (Eizenberg 2016; Florea 2025).

In authoritarian contexts, these insights require further conceptual refinement. Research on China has highlighted how the state may selectively delegate governance functions to communities and civil society actors while retaining control over resources, rules, and legitimacy (Kostka and Nahm 2017; Qiao 2023). However, how such arrangements reconfigure participation as a mode of collective action remains insufficiently conceptualised. These dynamics complicate the binary distinction between top-down control and bottom-up participation, instead pointing to state-mediated forms of collective action. Building on this insight, the paper introduces the concept of *licensed commoning* to capture a governance modality in which collective environmental practices are not only formally authorised but also actively produced and rendered auditable by state actors, yet remain conditional, revocable, and performance-oriented.

The paper proceeds as follows. The next section reviews scholarship on participation, community gardens, and commoning to foreground a central tension between relational stewardship and administrative auditability, and to position licensed commoning as a distinct governance modality. The methodology section then outlines the multi-sited comparative research design, followed by empirical analyses from Shanghai and Nanning that trace how participation is scaled, audited, and rendered conditionally through procurement and intermediary arrangements. The discussion synthesises these findings to specify how licensing enables scaling while producing revocability and shifting risks onto intermediaries and communities. The conclusion draws

out implications for theorising participation and accountability in China's environmental governance transition.

2 | Literature Review: Governing Participation and Commoning Under Constraint

We treat participation in environmental governance as relational and institutionally situated rather than inherently empowering. Participatory initiatives are shaped by how participation is authorised, resourced, and evaluated, and community gardens are a useful lens because they sit between everyday collective care and formal governance arrangements. Across literatures on participatory governance, community gardens, and the commons, collective practices may remain embedded in local relations or become stabilised through policy incorporation. This paper examines the trade-offs of such incorporation, foregrounding the tension between relational stewardship and administrative auditability. This tension grounds our analysis of licensed commoning: collective action enabled through state sanction yet institutionally fragile and politically bounded.

2.1 | Participation as an Instrument of Environmental Governance

Recent scholarship shifts focus from viewing authoritarian environmentalism as a centralised constraint on participation to examining how participation is designed, channelled, and operationalised within China's evolving environmental governance regime. Building on Lo's (2015) critique, which cautions against viewing state-led governance as uniform, studies show that discretionary implementation spaces are not governance voids but sites where new instruments of rule are assembled. Within these spaces, participation is incorporated less as a challenge to state authority than as a means of enhancing policy delivery, legitimacy, and implementation capacity.

This shift is particularly evident in environmental governance, where participation has moved away from episodic contention toward professionalised and state-curated forms of engagement. Huang et al. (2020)'s analysis of climate governance in Shenzhen demonstrates how participation is organised through state-led social mobilisation, with clearly defined roles, channels, and objectives. In such settings, participation functions less as deliberation and more as responsibilisation: societal actors are enrolled to undertake monitoring, maintenance, or behavioural change tasks that support policy goals, while strategic decision-making remains firmly centralised.

Marquis and Bird (2018) conceptualise this mode of engagement as “within-the-system” participation, in which NGOs and community groups operate through formalised administrative channels such as procurement, reporting requirements, and contractual partnerships. While this notion captures the shifting locus of participation, it risks overlooking the active role of the state in shaping its form through instruments like audits, performance metrics, and procedural formalization. A paradox emerges: the state promotes co-governance and civic engagement but does so through mechanisms that increase oversight, standardisation, and performance evaluation. Participation is

neither autonomous nor merely symbolic; it is selectively empowered, designed to fill implementation gaps without redistributing authority. This literature thus points to participation as a *governance technology*, requiring closer examination at the level of concrete practices and sites.

2.2 | Community Gardens as Infrastructures of Governed Participation

Community gardens offer a particularly revealing empirical lens for examining governed participation, as they sit at the intersection of environmental intervention, spatial production, and citizen engagement. Within debates on urban commons, the “city as a commons” framing expands commons beyond rural common-pool resources, emphasising that urban spaces and resources are constituted through contested governance arrangements rather than a simple public–private binary (Foster and Iaione 2015; Harvey 2011). This perspective has been especially influential in analyses of community gardens, often treated as “actually existing commons” where collective access to land enables the cultivation of social relations, political subjectivities, and claims to urban space. In this paper, *commoning* refers to the ongoing, relational work through which shared resources are produced and sustained through collective labour, rule-making, boundary negotiation, and everyday maintenance, rather than through ownership alone (De Angelis 2017; Florea 2025; Linebaugh 2009).

A key contribution of garden scholarship, however, is to caution against romanticising participation (Ghose and Pettygrove 2014). Gardens are not politically neutral spaces; they can function as sites of contestation, but also as projects of governance and subject-making shaped by wider urban political and economic agendas (Pudup 2008; Quastel 2009). Eizenberg (2012) sharpens this point by demonstrating that participatory outcomes are contingent on governance design—specifically, how authority, ownership, decision-making, and legitimacy are structured—rather than on the mere presence of “community participation”. Participation is not an inherent property of gardening practices but an institutional achievement.

This insight provides a critical baseline for examining community gardens in China, where much of the urban commons literature requires re-specification. Reviews of urban commons scholarship note that it is overwhelmingly grounded in liberal-democratic contexts, where civic autonomy, claims-making, and grassroots mobilisation are institutionally available (Feinberg et al. 2021). In Chinese cities, by contrast, collective stewardship of public space is rarely grounded in property-based claims or rights-oriented struggles. Access to land, the legitimacy of action, and the availability of resources are typically negotiated within governance structures in which the state retains strong authority over spatial production and regulation (Miao and Tan 2025). Under these conditions, the question shifts from whether community gardens enable participation to how governance arrangements shape participation in producing the garden.

Community gardens in China often develop through state-led urban renewal, “green community” or micro-regeneration programmes, rather than through grassroots land appropriation

or occupation (Ding et al. 2022; Shao and Xie 2026). Many are initiated through administrative designation and implemented by intermediary organisations rather than through bottom-up mobilisation. This makes community gardens less intelligible as autonomous commons and more analytically productive as infrastructures through which participation is governed. Participation is not external to governance but embedded within the technical, contractual, and professional arrangements that organise how gardens are designed, maintained, and used, and by whom.

A central mechanism in this process is the government purchase of services (*zhengfu goumai fuwu*). As Xie et al. (2022) show, procurement arrangements can reconfigure environmental NGOs from advocates or facilitators into service providers tasked with delivering predefined outputs under contractual conditions. In the context of community gardens, this translates into project-based funding cycles, technical guidelines, reporting requirements, and evaluation criteria that structure both spatial form and everyday practices. Participation becomes legible through indicators such as volunteer numbers, visual orderliness, and demonstrable environmental improvement, embedding collective action within regimes of measurability and performance. Importantly, what is being procured is not only environmental service provision but also capacities associated with commoning: mobilizing resident affect, relational labor, and collective care. The resulting tension is that situated, relational work must be rendered contractible and auditable.

These arrangements do not eliminate care-oriented practices or alternative environmental imaginaries, but they influence which participation is recognisable and supported. Expectations of civility, aesthetic improvement, and compliance structure who counts as a legitimate participant and which engagement types are encouraged or marginalised. Mai et al. (2023) show that gardening can cultivate alternative environmental subjectivities, but these are often aligned with neighbourhood governance, not autonomous experimentation. Community garden participation in China is therefore neither inherently emancipatory nor simply instrumental; it is actively manufactured through institutional designs that delimit who participates, under what conditions, and to what ends.

Conceptualising community gardens as governance arrangements and infrastructures of governed participation allows us to move beyond binary assessments of participation as either genuine or co-opted. It foregrounds the negotiated, conditional, and politically productive nature of participation under conditions of strong state presence. Community gardens become sites where environmental action, civic engagement, and state authority are not opposed but relationally constituted, offering a grounded way to analyse how urban commons are enacted within, rather than outside of, contemporary governance regimes in urban China.

2.3 | From Commons to Licensed Commoning

Existing commons and commoning theories aid the analysis of collective stewardship but need refinement to address

conditional and state-mediated arrangements. Classical institutional approaches emphasise durable systems of self-governance sustained through rule-making, monitoring, and adaptive institutional fit between resources and socio-political contexts (Dietz et al. 2003; Ostrom 1990, 2010). These perspectives underscore that commons are not defined by open access but by structured governance arrangements. At the same time, more critical and relational accounts reframe commoning as an ongoing practice of negotiation, collective labour, and care, often understood as resisting enclosure by both state and market forces (Bollier 2020; De Angelis 2017; Partelow and Manlosa 2023).

Despite differences, both strands tend to presuppose a degree of autonomy, whether legal, spatial, or relational, which allows commoners to stabilise governance arrangements over time. This assumption becomes problematic in authoritarian governance contexts, where collective action is rarely grounded in durable rights and where the state retains strong authority over access, legitimacy, and institutional continuity. In the Chinese context, commons governance has historically combined strong public authority with practices of sharing-in-common, rendering the state endogenous rather than external to the commons (Zhang 2019). Recent scholarship on the “authoritarian commons” begins to address this gap. Qiao’s (2023) analysis shows that the Chinese state may tolerate or encourage collective governance arrangements, such as homeowners’ associations, when they reduce administrative burdens and boost local stability. Crucially, however, these arrangements are typically anchored in property ownership, which affords participants a degree of bargaining power, durability, and leverage vis-à-vis the state.

Collective stewardship over public or semi-public environmental spaces presents a different governance problem. In these settings, commoners lack ownership-based claims and operate instead through administrative permissions that can be revised, withdrawn, or allowed to lapse. Consequently, urban commoning is better understood not as autonomy granted or tolerated, but as a mediated and conditional practice structured through institutional interfaces that regulate access, responsibility, and legitimacy (Pikner et al. 2020). What is at stake, then, is not the existence of collective action, but the terms under which it is authorised and made governable.

To capture this configuration, this paper introduces the concept of *licensed commoning*. Licensed commoning refers to a mode of collective environmental practices that are formally authorised, procedurally regulated, and conditionally delegated by state actors, through which participation itself is actively produced and governed as an auditable and revocable object. Unlike embedded or insurgent forms of commoning that evolve through informal negotiation and relational autonomy, licensed commoning operates through explicit permissions, time-bound projects, and performance-based evaluation. Access to the resource and the right to govern it are granted through a “license”, an administrative authorisation that is revocable and contingent on continued compliance with administrative objectives.

This concept is analytically distinct from four dominant frameworks used to interpret participation under hierarchical governance: co-optation, token participation, co-governance, and state-mediated participation. Unlike co-optation, which

implies the absorption of existing social forces to eliminate dissent (Toepler et al. 2020), licensed commoning reveals a generative logic in which the state actively produces participation through administrative permissions and contractual mechanisms where none previously existed. It represents not merely the procurement of greening services but the licensing of the act of commoning; furthermore, it is not reducible to token participation or symbolic inclusion (Arnstein 1969). Licensed commoning retains the relational core of stewardship—maintaining green spaces and mediating conflicts—yet disciplines this labour through temporal limits and performance audits. This discipline is often achieved by instrumentalising intermediaries. Specifically, bureaucratic contracting entails the alienation of their role, reconfiguring them from community facilitators into executors of administrative will who translate participation into auditable metrics.

Whereas co-governance implies relatively stable, negotiated power-sharing arrangements between state and non-state actors (Ansell and Gash 2008; Emerson et al. 2012), licensed commoning does not presume symmetry or durability. Participation is granted as a conditional authorisation embedded within administrative hierarchies; what is granted is a temporary, revocable permission to enact commoning under state-defined terms. While state-mediated participation captures the structuring effects of public authority, it often leaves under-specified the form of authorisation at stake—how participation is constituted as an object of administration that can be granted, withdrawn, and governed. Licensed commoning foregrounds this licensing logic.

By framing participation as a conditional license, this concept shifts analytical attention from whether participation exists to how participation is structured as a governable activity. Licensed commoning helps explain why some community-based environmental initiatives scale rapidly under government patronage, benefiting from institutional resources, legitimacy, and professional support while remaining fragile once administrative backing is withdrawn. More broadly, the concept offers a framework for analysing how environmental responsibility is delegated and managed in authoritarian contexts not through the suppression of collective action, but through the careful design of the institutional terms under which commoning is permitted, evaluated, and sustained.

3 | Methodology

This study draws on multi-sited ethnographic research from 2021 and 2025 in Shanghai and Nanning, focusing on three community garden initiatives as empirically grounded sites for examining collective environmental stewardship under conditions of state mediation. The research design combines longitudinal engagement with comparative and contrastive analysis, allowing the study to trace how community gardening practices are authorised, governed, and transformed across different urban and institutional contexts in China.

3.1 | Case Selection and Analytical Logic

Shanghai and Nanning were selected to capture variation across Chinese cities while remaining grounded in everyday

practices of neighbourhood-level environmental governance. Shanghai, China's economic centre and a long-standing pioneer in urban governance and policy experimentation, has frequently served as a testing ground for participatory planning, community governance, and environmental innovation (Den Hartog et al. 2018; He and Wu 2009; Liu 2008). Community gardening initiatives in Shanghai have therefore evolved through successive rounds of experimentation and institutionalisation, providing a longitudinal view of how grassroots environmental practices are progressively incorporated into formal governance frameworks. In this context, Clover Nature School (CNS)—a Shanghai-based environmental NGO established in 2010, specialising in community gardens and nature education—has played a central intermediary role in translating participatory ideals into scalable governance programmes (Liu et al. 2022).

Nanning, the capital of the Guangxi Zhuang Autonomous Region, provides a contrasting provincial context to examine how such governance models operate beyond leading metropolitan centres. While often overlooked in urban theory in favour of coastal megacities, Nanning exemplifies the “ordinary city” conditions under which the majority of China's urban environmental transitions unfold (Robinson 2013). Despite possessing fewer fiscal resources and a less professionalised civil society than Shanghai, Nanning has actively adopted national ecological mandates, including designation as a “National Ecological Garden City” and a “Sponge City” pilot (Lin 2016). This combination of policy ambition and institutional constraint makes Nanning a critical site for examining policy mobility—how governance models developed in pioneering cities encounter friction, adaptation, and institutional fragility when transferred to the hinterland.

Within Nanning, two community garden initiatives emerged under similar policy discourses and organisational involvement but diverged markedly in governance. The LoveU Garden—a municipal programme introduced through government procurement and implemented by professional intermediaries—serves as the primary empirical site for theorising *licensed commoning*, characterised by formal authorisation, procurement contracts, performance indicators, and time-bound administrative support. Its implementation involved collaboration between CNS, local government agencies, and the Luobo (Beijing) Consulting Company—a professional public-deliberation and community-governance organisation specialising in participatory rules, meeting facilitation, and capacity-building for resident self-governance, contracted to design and operationalize the “Laoyou Deliberation Council” (*laoyou yishihui*) framework in Nanning.

By contrast, the Rooftop Garden, developed through collaboration between the community committee of Xinzhu Neighbourhood and Green Life (*lvshenghuo*)—a locally rooted environmental social work organization focused on low-carbon lifestyles and volunteer mobilization—initially relied on informal cooperation, trust-based arrangements, and resident self-organisation. It serves as a contrast case illuminating the boundaries, vulnerabilities, and consequences of state-mediated authorisation. These two cases demonstrate how similar policy framings can produce divergent forms of collective stewardship under different institutional contexts.

The comparative logic proceeds sequentially from Shanghai to Nanning. This design enables the analysis to trace how organisational models, policy rationales, and governance instruments travel across cities and are selectively reworked through local administrative arrangements and community dynamics.

3.2 | Data Collection and Analysis

Data were collected through three primary sources: participant observation, semi-structured interviews, and document and policy analysis. These methods were combined to capture both formal governance arrangements and the everyday practices through which participation and stewardship were enacted.

Participant observation involved repeated site visits and sustained engagement with all three community garden initiatives. This included observation of meetings, gardening activities, training sessions, and everyday interactions among residents, NGO practitioners, and community committee members. The research involved varying degrees of proximity to practitioner organisations across cases to balance empirical depth. In the Rooftop Garden case, participant observation was complemented by a programme-tracking workflow co-developed with Green Life to support systematic documentation and reflexive learning. This engagement did not include decision-making authority over garden governance and served solely as a research and documentation tool. In Shanghai, participant observation took the form of longitudinal, non-interventionist engagement with Clover Nature School's activities since 2021, namely site visits, guided tours, and participation in public events. These varied modes of observation enabled the study to capture both real-time governance dynamics and longer-term processes of institutionalisation.

Semi-structured and informal interviews were conducted with a range of stakeholders. In Nanning, 16 interviews were conducted between June 2023 and December 2025, using a combination of face-to-face and online formats. Interviewees included representatives from CNS, Green Life, LoveU Garden, the Luobo Consulting Company, community committee members, volunteers, and residents not directly involved in the community garden programmes. In Shanghai, 10 interviews were conducted, including members of CNS, a certified community planner, the head of a residents' association, an active resident participant, and practitioners involved in the Herb Garden Reawakening Initiative. Sampling followed a purposive and snowball strategy, beginning with key organisational actors and expanding to include community participants. Interviews provided triangulated perspectives on how governance arrangements were co-produced through both formal policy structures and informal everyday practices. All interviews were conducted with informed consent, audio-recorded, and transcribed. Interviews typically ranged from 30 to 90 min and were conducted in Mandarin Chinese. Transcription was supported by AI-assisted tools and subsequently verified manually to ensure accuracy.

Document and policy analysis provided an additional layer of evidence on institutional design and public framing. Materials included national and municipal policy documents, programme

guidelines, procurement contracts, internal KPI memos and performance evaluation forms, community- and neighbourhood-level regulations, promotional materials, and media coverage. These documents were treated as “technologies of licensing” that define the boundaries of legitimate participation and translate residents' relational labor into auditable metrics. Social media content from official and unofficial accounts (e.g., WeChat public accounts) was also analysed to examine how community gardens were narrated, legitimised, and evaluated in public discourse.

Throughout the study, analysis triangulated interviews, observations, and documents to validate findings by cross-referencing formal institutional claims with everyday practices, maintaining critical distance while enabling close empirical access.

Data analysis followed an iterative and abductive approach. Fieldnotes, interview transcripts, and documentary materials were coded thematically, focusing on governance arrangements, forms of authorisation, intermediary roles, performance evaluation mechanisms, and participation practices. Comparative analysis identified how similar policy framings and organisational actors produced divergent trajectories of collective stewardship, especially through participation structured by licensing, revocability, and auditability. This analytical strategy informed the conceptual distinction between licensed commoning and more embedded, relational forms of collective environmental practice.

4 | From Experimental Commoning to Licensed Participation

4.1 | Shanghai: From Experimental Community Gardens to Procured Participation

Shanghai provides a longitudinal view of how community gardens evolved from experimental, loosely institutionalised initiatives into routinised instruments of neighbourhood governance. Central to this trajectory is CNS, a Shanghai-based environmental NGO specialising in community gardens and nature education (Mai et al. 2023; Shao and Xie 2026). Originating from a landscape design practice established in 2010 with a critical stance toward large-scale, standardised modes of urban landscape production, CNS was formally founded in 2014 and registered as a civil society organisation in 2016, bringing together expertise in urban landscape design, architecture, and ecology (Liu et al. 2022). From the outset, CNS approached community gardens as a bottom-up experiment in landscape governance, conceived not only as environmental interventions but as spatial and participatory pathways through which community engagement could be gradually expanded and potentially scaled through selective collaboration with state actors (ibid).

Early projects initiated by CNS illustrate the experimental logic. Initiatives such as small-scale edible landscapes in Century Park and the *Train Track Garden* developed in 2014 on an abandoned green strip in Baoshan District, Shanghai, were characterised by low administrative attention and limited capital involvement, creating room for flexible design, experimentation, and learning through practice (Liu et al. 2022; Xiang 2022). These initiatives

blurred boundaries between designers and participants and prioritised iterative engagement over predefined outputs. In this phase, gardens functioned as exploratory sites of commoning, where practices of collective stewardship, informal negotiation, and care-based engagement could take shape without being tightly specified in advance (Liu et al. 2024; Liu et al. 2023).

However, this dynamic began to shift with subsequent projects. The 2200m² Knowledge & Innovation Community Garden (KICG) in Yangpu District developed with corporate support in 2016, further consolidated CNS's model of community gardens as open, publicly accessible spaces, setting the groundwork for later institutionalisation under procurement-based governance arrangements (Liu et al. 2023; Liu et al. 2019). As community gardens gained visibility and policy relevance, their governance context in Shanghai shifted. From the mid-2010s onward, the city's broader turn toward refined urban management and community governance generated growing administrative interest in community gardens as tools for neighbourhood improvement, social mobilisation, and place-making (Shao and Xie 2026). This shift coincided with the increasing use of government procurement mechanisms, through which street-level governments, often with independent fiscal capacity, contracted third-party organisations to deliver community garden projects as service packages with specified budgets and deliverables (Interview with a CNS co-founder, April 2023).

Empirically, this transition was mediated through a series of pilot collaborations that progressively aligned community gardens with urban renewal and community governance agendas. Projects such as *Baicao Garden* and the continued operation of KICG unfolded alongside district-level programmes including the *Beautiful Home (meili jiayuan)* initiative, which channelled public funds into comprehensive environmental upgrading. These collaborations provided institutional resources and legitimacy, but also required intermediary organisations such as CNS to absorb substantial administrative overhead and adapt working methods to administrative expectations, as several practitioners noted in interviews (Interview with a CNS co-founder, April 2023; Interview with a former CNS staff member, November 2024).

Under procurement-based arrangements, the role of intermediary organisations was progressively reconfigured. Rather than primarily facilitating open-ended experimentation, organisations such as CNS became responsible for translating participatory ideals into auditable outputs. Community gardens were increasingly evaluated through measurable indicators, such as the resident support rate and activities organised, aligning garden-making with broader performance management logics in urban governance (see Shanghai Municipal Bureau of Ecology and Environment 2025). Participation remained central to project rhetoric but was embedded within contractual and professional frameworks that prioritised predictability, scalability, and administrative accountability.

This process of institutionalisation reshaped, not eliminated, commoning practices. Gardens continued to generate spaces of care, learning, and social interaction, yet opportunities for improvisation and long-term relational commitment were increasingly constrained by project cycles and funding structures

(Shao and Xie 2026). Tensions emerged around maintenance and accountability, especially where they were often devolved to community committees, property management parties or volunteer groups once the project cycle ended (Interview, former CNS staff member, March 2022). The mismatch between short-term funding and the sustained commitments required for relational care meant that, in many cases, gardens gradually deteriorated into ordinary green spaces, with original participation mechanisms fading over time. The issue worsened as community gardens scaled rapidly across the city. Moreover, in such licensed commoning practices, participation is often mobilized through incentives and reliance on familiar volunteer networks (Interview, Herb Garden practitioners, November 2025), which may produce rapid and visible results but fall short of fostering durable forms of collective engagement and care.

Shanghai thus illustrates a critical transition in the governance of community gardens: from sites of experimental commoning to infrastructures of governed participation. This trajectory provides the institutional and historical backdrop for the analysis that follows. It demonstrates how collective environmental practices can be actively enabled by the state, while simultaneously being reshaped through mechanisms of authorisation, professionalisation, and performance evaluation. Against this backdrop, the Nanning cases offer a closer examination of how these governance logics travel, intensify, and fragment outside pioneering sites.

4.2 | Nanning LoveU Garden: Licensed Commoning in Practice

4.2.1 | Authorisation, Procurement, and the Making of a “Service Project”

The LoveU Garden in Nanning emerged from prior community governance and urban regeneration efforts, rather than as a standalone environmental initiative. Since the late 2010s, Nanning's municipal authorities have been seeking participatory and low-cost mechanisms to address persistent challenges in old neighbourhood renewal, including limited resident engagement, coordination difficulties, and the absence of sustainable post-renewal management arrangements (Wei 2025; Zheng et al. 2025). The “LoveU Deliberation Council” (*laoyou yishihui*) was introduced in 2019 as part of a longer-term old neighbourhood regeneration, drawing on facilitation models from external governance consultancies and supported by the municipal Civil Affairs and Housing–Urban Development systems (Wei 2025).

Community gardens entered this governance landscape not as a primary goal, but as a practical extension of these deliberative and co-governance experiments. Through referrals by deliberation programme facilitators and intermediary organisations, CNS was invited to adapt its community garden model in Shanghai to Nanning's regeneration agenda. This collaboration led to the 2021 launch of the LoveU Garden programme, initially piloted in three districts and scaled rapidly as part of the city's urban micro-renewal efforts, reaching 1000 small gardens in 93 neighbourhoods (*xiaoqu*) by 2023 (Yin and Chen 2024; Interview with a former CNS staff member, December 2025). LoveU Garden was formalised as a contracted service programme through this



FIGURE 1 | Resident-managed planting units incorporated into the LoveU Garden programme under KPI-driven implementation. Informal planting areas located directly outside private homes were counted as individual “garden units”. Photograph taken by the authors: (a) December 2025; (b) June 2023.

intermediary-driven, project-based pathway, shaping participation and collective stewardship.

LoveU Garden was institutionalised through government service procurement, unlike conventional engineering or infrastructure projects that need detailed plans and approvals. Contracts focused on performance indicators, such as completed gardens, resident participation, consultation records, and post-construction visits (Interview with a CNS staff member, October 2025). As one CNS staff member noted, “what mattered most was not the design drawing, but whether the process and numbers could be verified” (Interview with a CNS staff member, October 2025).

The procurement framework thus constituted a formal license to commons. Access to public or semi-public space, the legitimacy to organise residents, and the authority to intervene in neighbourhood environments were granted conditionally through time-bound contracts. The right to steward space did not rest on ownership or long-term use rights, but on compliance with administrative procedures and the fulfilment of contractual indicators. Participation, while actively encouraged, was structured as an auditable activity rather than an open-ended collective practice.

4.2.2 | KPI Governance, Scaling, and the Auditability of Participation

The licensing of commoning through procurement enabled the LoveU Garden programme to scale rapidly. Project indicators specified a target of “1000 gardens”, operationalised through a modular accounting logic in which each five-square-metre area counted as one “garden unit” (Yin and Chen 2024). This abstraction allowed gardens of different sizes, forms, and durability to be aggregated into a single numerical target, facilitating reporting and performance evaluation across districts. Scaling, however, depended not only on counting gardens but on defining what could legitimately count as one.

Negotiations over the definition of a “garden” were therefore central to implementation. Municipal agencies initially

approached acceptance through an engineering and asset-management logic, treating gardens as fixed objects subject to post-construction verification—whether listed items still existed at the point of inspection. Project teams pushed back against this interpretation by emphasising the variability, seasonality, and growth of gardens as living spaces, ultimately persuading the contracting authority to adopt a more flexible and experiential definition aligned with everyday understandings of what constitutes a garden (Interview with a CNS staff member, October 2025). This accommodation reflected the relative openness of the Urban Renewal and Property Management Guidance Centre as project client, even as higher-level housing authorities remained sceptical, dismissing such interventions as “non-essential embellishments” (Interview with a CNS staff member, October 2025).

This KPI-driven logic reshaped how participation was organised on the ground. Project teams prioritised sites where rapid implementation was feasible, often locations where residents were already informally planting or where individual households were willing to assume maintenance responsibility (Figure 1). Such strategies may improve post-project maintenance outcomes but subtly redefine what counts as collective participation. In some cases, resident-managed planting areas directly outside private homes were incorporated into the programme and subdivided into multiple “garden units” to meet indicator requirements. For example, a single 15-square-meter plot could be counted as three separate gardens, each marked with its own LoveU Garden signage. Thus, individual communities could report dozens of “gardens” under the programme, despite limited spatial scale or collective involvement. In Ronghe Xincheng Community, a total of 35 LoveU gardens had been established as of October 2023 (China Construction News 2023), highlighting the inflationary effect of modular counting practices.

Meanwhile, this flexibility generated new forms of contestation. Some citizens questioned whether highly fragmented, ornamental, or household-adjacent gardens genuinely constituted collective public goods, criticising the programme as “messy”, “showy”, or an inappropriate use of taxpayer money (Interviews with citizens in 2023 and 2024). These reactions point to a less visible consequence of KPI governance: while auditability



FIGURE 2 | Post-project maintenance challenge in LoveU Garden sites. The same garden photographed in June 2023 (a) and in December 2025 (b), illustrating the difficulty of sustaining maintenance beyond initial KPI-driven installation. Photographs taken by the authors.

enabled rapid scaling, it destabilised shared understandings of publicness and fairness. What counted as a garden for administrative purposes did not always align with residents' normative expectations of collective benefit.

More broadly, the emphasis on quantification narrowed the meaning of participation itself. Engagement was evaluated primarily through auditable outputs, such as attendance records, consent signatures, and photographic documentation, instead of through the depth or durability of collective stewardship. Former project staff acknowledged that implementation decisions were sometimes driven by the need to complete indicators even when ecological or social sustainability was doubtful: “sometimes we knew the garden wouldn't survive the summer, but without completing the KPI there would be no project at all” (Interview with a former LoveU Garden staff, December 2025). As illustrated by the decline of a LoveU Garden site between 2023 and 2025 (Figure 2), participation thus became a measurable and verifiable activity oriented toward auditability and scale, not an open-ended relational process of commoning.

4.3 | Intermediary Governance and the Limits of Delegated Autonomy

The LoveU Garden programme relied heavily on intermediary organisations to operationalise licensed commoning. CNS and the Luobo (Beijing) Consulting Company played complementary roles: CNS provided expertise in community garden design and implementation, while Luobo specialised in participatory governance design, including the establishment of the “Laoyou Deliberation Council” framework and the training of community actors in meeting facilitation and rule-making (Wei 2025; Interview with a LoveU Garden staff member, October 2025).

In practice, however, the deliberative infrastructure envisioned in the programme design struggled to align with the tempo and pressure of KPI-driven implementation. Project staff described competing administrative timelines, overlapping performance requirements, and limited capacity for sustained deliberation at the neighbourhood level. As one staff member reflected, “ideally, you need at least five rounds of meetings to build a stable

relationship, but under the project schedule, sometimes we were pushed to finish everything in one or two visits” (Interview with a LoveU Garden staff member, October 2025). Similarly, a Luobo facilitator noted that “both sides were under their own KPIs, so the time and energy left for real discussion was very limited” (Interview with a Luobo facilitator, October 2025).

While the deliberation framework was intended to anchor gardens within broader processes of resident self-governance, the urgency of meeting numerical targets often shifted attention toward expedient decision-making and direct implementation by project teams. Instead of functioning as a collective platform for negotiation, the “Laoyou Deliberation Council” increasingly operated as a procedural requirement that was difficult to sustain under compressed timelines.

This tension illustrates a key feature of licensed commoning: autonomy is delegated but tightly bounded. Intermediaries are authorised to mobilise residents and reconfigure space, yet their discretion remains constrained by procurement contracts, reporting obligations, and shifting administrative priorities. When fiscal pressures intensified post-pandemic and higher-level policy restrictions limited new non-essential construction, LoveU Garden rapidly lost its institutional foothold. As one community committee representative explained, “once the funding stopped, there was no mechanism to continue; it wasn't anyone's responsibility anymore” (Interview, October 2025). The programme was not renewed, the local operating company was dissolved, and its staff were laid off.

4.4 | Revocability, Fragility, and the Afterlife of Licensed Commoning

The termination of LoveU Garden since 2024 underscores the revocability at the heart of licensed commoning. After administrative support ended, most gardens lacked stable institutional backing for maintenance. Field visits in late 2025 revealed that many previously documented LoveU Gardens had disappeared or been absorbed back into conventional landscaping regimes, with few traces of collective stewardship remaining. Only a small proportion, estimated at less than 10%, continued to receive sustained external support or active collective maintenance

(Yin and Chen 2024). Those were mainly the gardens embedded in semi-private spaces with strong resident ownership.

For the resident, however, the significance of LoveU Garden lay less in material support than in administrative legitimation. As Auntie Chen (82) explained, “the garden itself is still a kind of informal occupation of public space, but when people ask, I can say it’s government-supported, and then neighbours don’t object so much” (Interview, December 2025). In this sense, licensed commoning functioned to formalise and normalise previously informal practices of everyday environmental care. Similar processes were observed in other neighbourhoods, including *Nanhu Biyuan*, where licensing reduced everyday contestation over space.

At the same time, this pattern reveals the limits of durability under licensed commoning. While gardens embedded in semi-private spaces with strong individual attachment were more likely to persist, sites located in more publicly accessible areas proved harder to maintain collectively. Existing research confirms this relationship between spatial openness and long-term stewardship, showing that the more public a LoveU Garden’s location, the weaker residents’ sense of spatial ownership and the lower the levels of sustained participation. In contrast, gardens that remain actively maintained often exhibit lower degrees of openness (Zheng et al. 2025).

Acknowledging the limits of contract-based collaboration, CNS experimented with an alternative support model. Beyond the formal contract, CNS and the Luobo team jointly launched the *LoveU Garden Seed Fund Program* to support more neighbourhoods and sustain community garden activities. The programme provided professional mentoring and worthwhile RMB 500 material packages for residents to build 200 mini community gardens (Yin and Chen 2024). By early 2024, 158 gardens had been supported (Interview with a LoveU Garden staff member, October 2025). Some neighbourhoods integrated the initiative with party-building activities organised by local Communist Party branches.

Taken together, the LoveU Garden case illustrates licensed commoning as a distinctive mode of environmental governance. Collective stewardship is not suppressed, but formally authorised, professionalised, and rendered auditable through procurement and performance management. This configuration enables rapid mobilisation and visibility, yet stabilises participation primarily through individualised, low-risk practices rather than durable collective arrangements. Licensed commoning thus foregrounds a central tension in China’s evolving environmental governance: participation is expanded not by granting lasting rights, but by carefully designing, and withdrawing, the terms under which commoning is permitted.

4.5 | Rooftop Garden as a Contrast Case: Embedded Commoning and Its Limits

The Xinzhu Rooftop Garden in Nanning offers a contrasting trajectory that helps clarify what licensed commoning enables and what it displaces. The garden was initially established between 2016 and 2020 as a collaborative project between the Xinzhu

Community Committee and Guangxi Open University, aimed at creating a demonstration base for community outreach and environmental education (Interview with Green Life representative, August 2024; Interview with Community Committee representative, 29 August 2024). After the initial project contract concluded, the Community Committee recognised the difficulty of sustaining the space through administrative management alone and sought to involve broader community actors through more flexible collaboration.

Green Life, a locally registered environmental social work organisation, entered the Xinzhu Community in 2019 through waste-sorting initiatives and gradually became involved in the garden’s development. Drawing on its volunteer base and experience in low-carbon lifestyle advocacy, Green Life identified the underutilised rooftop garden as a space for fostering community engagement and everyday environmental practice. From 2021 onwards, the collaboration between Green Life and the Community Committee operated largely on a trust-based basis, without formal contracts. The Committee provided access to space and basic facilities, while Green Life coordinated activities and facilitated resident participation, supported by limited and fragmented public welfare funding (Interview with Green Life representative, August 2024; Interview with Community Committee representative, August 2024).

This institutional openness allowed the Rooftop Garden to evolve as a more embedded form of commoning over time. Here, by *embedded commoning* we refer to commoning sustained primarily through informal relations, place-based routines, and negotiated tolerance rather than formal authorisation or contractual arrangements. Beginning in 2021, collective practices were incrementally reconfigured through repeated negotiation among Green Life, the Community Committee, residents and volunteers, enabling a shift from ornamental greening toward ecologically oriented planting and participatory governance. Through workshops, rule revision, and the gradual differentiation of responsibilities, residents increasingly assumed roles in coordination, maintenance, and decision-making. By 2023, volunteer co-management had become routinised, marking a transition from organisation-led facilitation toward resident-led co-governance (Interview with volunteer representative, August 2024). In this setting, commoning was sustained not through predefined performance indicators or contractual compliance, but through shared learning, negotiated responsibility, and collective attachment to place. As the founder of Green Life reflected, “in the end it’s not about the garden itself, but about people – whether they are willing to stay, take responsibility, and do things together over time” (Interview with Green Life representative, August 2024).

Nevertheless, this embedded mode of commoning was increasingly constrained as administrative expectations intensified. In October 2024, the Community Committee and Green Life formalised their collaboration through a two-year contract, a move driven by tightening regulatory requirements and heightened scrutiny over the use of community space and office facilities. In early 2025, the Committee unilaterally imposed performance requirements, including monthly task quotas and reporting obligations, framing these measures as necessary to safeguard state-owned assets. What had previously functioned as a

horizontal, trust-based partnership was thus reconfigured into a hierarchical relationship resembling administrative supervision (Interview with a Green Life representative, October 2025).

Faced with these conditions, Green Life withdrew from the office space provided by the community committee, judging that the new requirements undermined its professional autonomy and capacity for sustained, people-centred engagement. The organisation's retreat marked a turning point. In the absence of intermediary mediation, volunteers attempted to maintain garden operations but found their efforts increasingly constrained by unilateral interventions from the Community Committee. Interviewees described instances in which vegetables and fruit trees were removed without consultation, and planting choices were redirected toward fast-growing crops. By the time of our field visit in December 2025, ecological installations requiring external technical or infrastructural support, including the aquaponics system and composting facilities, had been dismantled, partly due to maintenance challenges, while residents continued basic planting activities (Figure 3).

By late 2025, although core volunteers remained active in garden maintenance, the relational foundations of the initiative had weakened following these interventions (Interview with a Green Life representative, October 2025; Interview with a volunteer representative, August 2025). Previously active volunteer groups had largely dissolved and collective governance arrangements became more limited, suggesting that embedded commoning, while generative under conditions of institutional openness, can be difficult to sustain under renewed administrative control.

The Rooftop Garden illustrates the limits of embedded commoning in the absence of durable institutional support. Its early phase shows how relational, care-based stewardship can emerge outside formal licensing arrangements, while its later trajectory demonstrates how such practices become difficult to sustain once administrative expectations intensify. Without secure use rights or recognised autonomy, commoning practices remain contingent on local tolerance and susceptible to incremental reclassification, supervision, and unilateral intervention.

Read alongside the LoveU Garden case, the Rooftop Garden highlights a central tension of licensed commoning. Formal

authorisation can provide visibility, legitimacy, and opportunities for scaling, yet does so through time-bound and performance-contingent arrangements. Embedded commoning may cultivate deeper relational commitment and adaptive governance, but offers limited protection when administrative priorities shift. Together, the cases show that participation in China's urban environmental governance is neither simply suppressed nor freely enabled, but structured through institutional designs that shape how, on what terms, and for how long commoning can persist.

5 | Discussion

Instead of revisiting established debates on commons or participation, this discussion advances three empirically grounded arguments about how collective environmental action is governed under conditions of constraint. Drawing on longitudinal evidence from Shanghai and comparative analysis of community gardens in Nanning, it conceptualises licensed commoning as a mode of governing participation, explains why rapid scaling and institutional fragility co-exist, and reinterprets intermediary organisations as instruments of delegation rather than autonomous partners. Together, these arguments clarify how participation is actively produced, managed, and withdrawn in China's evolving environmental governance landscape.

5.1 | Licensed Commoning as a Mode of Governing Participation

The first contribution of this study is to conceptualise "licensed commoning" not as a subtype of commons, but as a mode of governing participation. Much commons scholarship centres on how shared resources are accessed, managed, and sustained over time (Agrawal 2001; Ostrom 1990). In this literature, the analytical focus typically rests on the configuration of rights, rules, and collective capacities that enable durable stewardship, exemplified by Ostromian institutional design (Ostrom 1990, 2005) or practice-oriented accounts of commoning as a verb (De Angelis 2017; Linebaugh 2009; Stavrides 2016). Conversely, the cases examined here show that what is being governed is not the resource itself, but the conditions under which collective action becomes permissible.

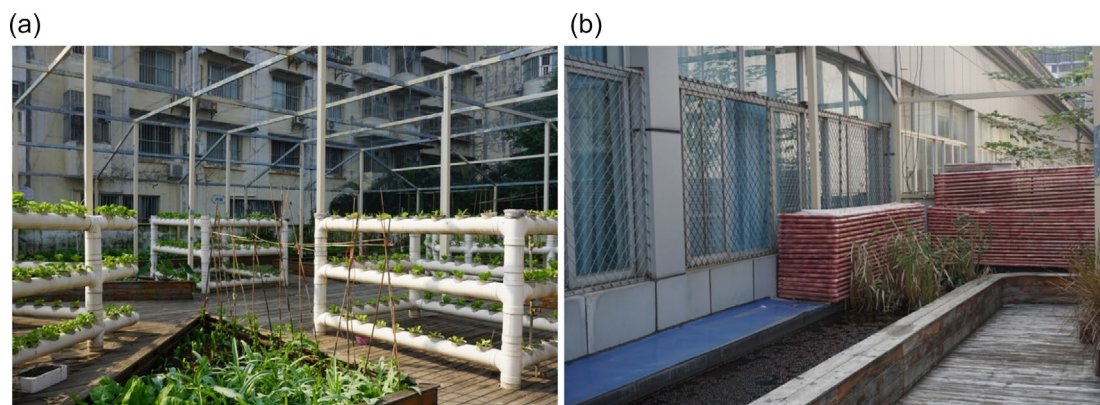


FIGURE 3 | Divergent maintenance trajectories in Xinzhu Rooftop Garden. (a) Resident volunteers continuing routine planting activities; (b) dismantled aquaponic infrastructure that previously relied on electricity and technical support. Photographs taken by the authors, December 2025.

This distinction becomes clearer when read against established work on urban green commons. Studies such as Colding et al. (2013) demonstrate how collective stewardship can emerge within hybrid ownership regimes, where management and use rights are partially shared, despite formal public or private control. While such arrangements may be fragile, they nonetheless presume a degree of relative stability in access and governance that allows collective practices to consolidate over time. The LoveU Garden case complicates this framework. Rather than reallocating or stabilising rights, licensed commoning operates through time-bounded, revocable authorisation, enabling collective action without institutionalising it. What is modularised and rendered governable is not land or access per se, but participation itself.

This finding also diverges from normative accounts of the commoning of governance, which frame commoning as a counter-hegemonic project aimed at reclaiming democratic agency through invented or autonomous spaces of participation (Leitheiser et al. 2022). In such accounts, commoning is oriented toward transforming governance from below, positioning citizens as active co-producers or “sparring partners” in decision-making. The cases analysed here point to a different configuration. Participation did not emerge through the invention of autonomous governance spaces, but was actively produced by the state through procurement contracts, performance indicators, and authorised intermediaries. Commoning practices were not opposed to administrative rationalities; they were selectively enabled through them.

In the LoveU Garden programme, the “license” did not grant ownership or long-term use rights over space. Instead, it authorised a delimited set of collective practices, such as organising residents, transforming space, and mobilising care, within clearly defined temporal and procedural boundaries. Procurement contracts, performance indicators, and reporting requirements specified not only what could be built but how participation should be enacted, documented, and evaluated, making legitimacy conditional on administratively auditable formats (Zhao et al. 2016).

In these cases, collective space did not translate into an automatic collective entitlement to act. Rather, participation was channelled through state-mediated procedures and actively produced as a governable object (Marquis and Bird 2018). Licensed commoning thus activated “commons-like” spaces not by formalising ownership, but by conditionally legalising particular practices in exchange for auditability; legitimacy functioned as revocable permission rather than a durable right. Although the specific forms of legitimate participation vary across localities based on governance priorities (Kostka 2016; Ran 2017), this underlying metrics-driven logic often renders collective consolidation uneven. The Rooftop Garden case clarifies the contrast: where no formal license existed, commoning practices initially flourished through trust-based arrangements, yet remained contingent on administrative tolerance and were easily reconfigured once expectations shifted.

5.2 | Scaling Without Durability: Why Participation Becomes Fragile

A second contribution lies in explaining a paradox that runs across the cases: participation scales rapidly precisely because it

remains institutionally fragile. In both Shanghai and Nanning, community gardens expanded quickly once embedded within procurement frameworks and performance management systems. Numerical targets, modular definitions of what counts as a “garden”, and simplified verification procedures enabled rapid replication across neighbourhoods, making participation legible and administratively manageable at scale.

Yet this scalability rested on the time-limited and administratively contingent nature of licensed commoning. Because participation was tied to time-bound contracts, project cycles, and short funding horizons, its withdrawal carried limited political and administrative cost. When fiscal pressures intensified or policy priorities shifted, programmes could be discontinued with minimal institutional disruption, as illustrated by the termination of the LoveU Garden initiative and the uneven afterlife of its sites. Participation was thus mobilised as a provisional achievement rather than a long-term commitment. Seen in this light, the LoveU Garden case resonates with recent accounts of urban commoning under adverse governance conditions, where collaboration with public authorities enables participation while simultaneously narrowing its scope, durability, and transformative potential (Zielke et al. 2021). While licensing logic is central to this configuration, its effects are mediated by organisational capacity, neighbourhood socio-economic conditions, and pre-existing relational networks that shape whether authorised participation consolidates into durable collective practice.

This dynamic also clarifies how power operates within licensed commoning. While commoning scholarship increasingly foregrounds power as central to governance processes (Cleaver and De Koning 2015; Partelow and Manlosa 2023), the LoveU Garden case specifies a particular modality of power in practice. Rather than operating primarily through overt exclusion or repression, power is exercised through *conditional authorisation*. Participation is enabled as “power to” and “power with” only insofar as it remains compatible with administrative performance metrics, audit requirements, and reporting cycles (Xie et al. 2022). Collective action is thus expanded, but only within carefully delimited parameters.

From this perspective, fragility is not simply an implementation failure but presents a dual character. Political revocability functions as a design feature: time-limited authorisation lowers the risks associated with participatory experimentation, allowing governments to demonstrate responsiveness and innovation without committing to long-term institutional obligations. Conversely, durability, understood as sustained collective stewardship, becomes difficult to achieve when responsibility is devolved without secure rights or ongoing support. However, the resulting ecological and social fragility—manifested in dying plants and the rapid dissolution of community ties—emerges as a by-product of the mismatch between short-term fiscal cycles and the long-term horizons required for ecological and social maturation.

The contrast with the Rooftop Garden further sharpens this insight. Embedded commoning initially fostered stronger relational commitment and adaptive governance but proved equally vulnerable once administrative oversight intensified. Together,

the cases suggest that under licensed commoning, scaling and fragility are not opposing outcomes but mutually constitutive ones.

5.3 | Delegation Without Autonomy: Intermediaries as Governance Devices

The third contribution concerns the role of intermediary organisations. Much of the environmental governance literature treats NGOs and facilitators as partners that bridge state and society, enabling co-governance and capacity-building across institutional boundaries (Donaghy 2011; Garnett and Cooper 2014; Xie et al. 2022). The empirical evidence here suggests a more ambivalent role. Under licensed commoning, intermediaries function less as autonomous actors and more as governance devices through which participation is delegated and contained.

In both Shanghai and Nanning, intermediary organisations were essential to operationalising community gardens. They translated abstract policy goals into concrete practices, mobilised residents, and managed everyday coordination. However, their authority was delegated rather than inherent. Procurement contracts and reporting requirements oriented intermediaries upward, toward administrative compliance, rather than outward, toward community-defined priorities (Zhao et al. 2016).

The LoveU Garden case illustrates how delegation through procurement can narrow intermediary discretion. Organisations tasked with fostering participation may be pushed to prioritise KPI fulfilment over slower relational work, thereby reconfiguring intermediaries from facilitators of collective capacity into implementers of auditable outputs. By contrast, the Xinzhu Rooftop Garden case suggests that intermediaries can function as important *relational anchors*: when Green Life withdrew from day-to-day facilitation, collective routines weakened and volunteer coordination became more vulnerable to administrative intervention. The critique of licensed commoning, therefore, is not that it involves intermediaries per se, but that bureaucratic contracting can reshape intermediary roles in ways that undermine the relational infrastructure on which durable commoning depends.

At the same time, this instrumentalization is not one-sided. Intermediaries are not merely constrained actors; programmes like LoveU Garden often reflect a pragmatic alignment between state actors seeking legible deliverables and intermediaries seeking legitimacy, opportunities, and organisational survival under resource scarcity. Practices such as subdividing garden plots to meet targets can be read less as simple compliance than as a form of negotiated adaptation under time and capacity pressures. Outcomes were thus co-produced through conjunctural compromise: the state's demand for measurable results intersected with intermediaries' pursuit of continued funding and authorisation. Licensed commoning operates through this negotiated alignment, in which intermediaries may also reproduce, sometimes strategically, the constraints that bind participation.

These dynamics complicate optimistic accounts of co-governance and capacity-building. They suggest that delegation under authoritarian governance often redistributes

responsibility without relinquishing control (Sun 2022). Intermediaries absorb the labour and risk of participation, while the state retains the power to redefine objectives and terminate programmes. Licensed commoning thus operates through intermediaries, but not necessarily in their interest.

In sum, licensed commoning illuminates a distinctive configuration of environmental governance in which participation is neither spontaneous nor autonomous, but actively designed, mobilised, and revoked. By foregrounding participation as a governable activity, this concept helps explain why collective environmental initiatives in China can be both highly visible and deeply fragile, and why governing through commoning has become an increasingly attractive strategy in contexts of political and administrative constraint.

6 | Conclusion

This paper has examined community gardens as sites where environmental participation is not merely expressed, but actively governed. Drawing on longitudinal evidence from Shanghai and comparative analysis of Nanning, it introduced the concept of *licensed commoning* to capture a mode of governance in which collective environmental action is formally authorised, procedurally structured, and conditionally withdrawn. Rather than treating commons as either autonomous alternatives or instruments of co-optation, the analysis shows how participation itself becomes an object of institutional design.

Empirically, the findings demonstrate how licensing enables rapid mobilisation, visibility, and policy alignment, while simultaneously producing participation that is time-bound and fragile. The Shanghai case traced a broader trajectory of institutionalisation through procurement, while the Nanning cases revealed how licensing operates on the ground, shaping what counts as participation, who may act collectively, and for how long. The contrast between LoveU Garden and Rooftop Garden underscored that fragility is not incidental but built into this governance configuration: rapid scaling is enabled through standardised targets, modular metrics, and administrative endorsement, while the resulting participation remains conditional, time-bound, and therefore vulnerable to withdrawal.

Theoretically, *licensed commoning* refines debates on commons, commoning, and participation under constraint by shifting attention from resources to the governance of collective action itself. While developed through the Chinese case, the concept is not intended as China-specific; rather, it identifies a governance configuration likely to emerge where participation is administratively authorised, performance-evaluated, and embedded within hierarchical accountability systems. It complements emerging work on authoritarian and hybrid governance by showing how the state governs not only through enforcement or tolerance, but through calibrated permission mediated by intermediaries, performance metrics, and contractual delegation. In doing so, it highlights intermediaries less as partners than as devices through which responsibility is devolved without relinquishing control.

For environmental policy and governance, these findings carry broader implications. As governments worldwide experiment with participatory instruments to address climate change, biodiversity loss, and urban sustainability, licensed forms of collective action may proliferate in contexts characterised by strong state steering, project-based funding, and audit-driven accountability pressures. Recognising the contingent and politically revisable nature of such arrangements is crucial for avoiding overly celebratory readings of participation and for designing policies that support more durable forms of collective stewardship. Future research could extend this framework to other policy domains and political contexts, tracing how licensing logics reshape participation beyond the Chinese case.

In highlighting both the possibilities and limits of governing through commoning, this paper contributes to a more realistic understanding of participation in contemporary environmental governance, one that takes constraint, design, and fragility seriously rather than treating them as residual problems to be solved.

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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