



Local Environment

The International Journal of Justice and Sustainability

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/cloe20

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To cite this article: Thi-Thanh-Hiên Pham, Melody Lynch & Sarah Turner (2023) Creative counter-discourses to the “green city” narrative: practices of small-scale urban agriculture in Hanoi, Vietnam, *Local Environment*, 28:2, 169-188, DOI: [10.1080/13549839.2022.2162028](https://doi.org/10.1080/13549839.2022.2162028)

To link to this article: <https://doi.org/10.1080/13549839.2022.2162028>



Published online: 06 Jan 2023.



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Creative counter-discourses to the “green city” narrative: practices of small-scale urban agriculture in Hanoi, Vietnam

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ABSTRACT

As a central component of the “green city” narrative, urban agriculture is gaining importance in urban planning and global sustainability agendas. In Hanoi, the capital city of Vietnam, the “green city” is core to the state’s urbanisation agenda, with a green corridor envisioned as part of the city’s Master Plan for 2030. We investigate the patterns and processes of small-scale urban agriculture underway in this green corridor to better understand whether this type of agriculture actually intersects with, and is supported by, state plans. We frame our paper in conceptual debates around food safety and everyday governance, while supporting our analysis with data from interviews with resident gardeners and officials, as well as the mapping of urban gardens in seven wards in and alongside the green corridor. We pay attention to practices and motivations of residents who maintain small-scale vegetable and fruit plots (the most prevalent form of urban agriculture), and the challenges and constraints they face. Our work reveals the temporary and interim status of urban agriculture in Hanoi, highlighting the contradictions within Vietnam’s “green city” discourse. Nonetheless, urban residents still undertake urban agriculture, negotiating or compromising with state officials, to meet their demands for fresh and safe food.

ARTICLE HISTORY



Received 19 January 2022
Accepted 10 December 2022

KEYWORDS

urban agriculture; eco-urbanism; green city; everyday governance; Hanoi; Vietnam

1. Introduction

In the face of the global climate crisis, the “green city” narrative has taken a leading role in urban planning and policy discourses around the world (Chang 2017; Muller and Matissek 2018; Angelo and Wachsmuth 2020). More specifically, the “green city”, as well as its variants such as “eco-quarter”, “eco-town”, and “eco-city”, are often framed within eco-urbanism, one of the latest sustainability-inspired planning movements (Sharifi 2016). With roots in Ebenezer Howard’s Garden City movement of the early twentieth century, eco-urbanism ‘took off’ in the 1990s due to the UN Declaration on Ecologically Sustainable Development, following the Brundtland Report (1987) “Our Common Future”, often led by European governments and local movements (Sharifi 2016; Muller and Matissek 2018). Evolving over time, eco-urbanism has materialised into different eco-city models associated with progressive policies including urban ecological preservation, low-impact development, green infrastructure, and new green technologies (Chang 2017). Since the 2000s, eco-city models have become increasingly mainstreamed into global policy agendas (Joss 2011) with the assumption that such city models are a “sustainability solution” to today’s climate challenges. Proponents argue that cities are the relevant governance scale to address environmental problems and are important locations of ecologically progressive movements and visions (Angelo

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and Wachsmuth 2020). As such, many municipal governments and other urban actors in both the Global North and South are increasingly embracing eco-urbanism and eco-city models. In Asia, this has been the case in Singapore, China, and India especially (Sharifi 2016; Chang 2017).

Echoing this trend and responding to a desire to attract foreign capital and funding, while also needing to satisfy a growing educated middle-class seeking a higher quality of life, policymakers and urban planners in Vietnam have integrated different aspects of eco-urbanism into their planning since 2010 (Coe 2015; Leducq and Scarwell 2020). More specifically, a new discourse and corresponding green vocabulary¹ are circulating in urban planning circles in Vietnam highlighting aesthetic and environmental sensibilities and desires for the “pure and natural” (Schwenkel 2017). As part of this new vocabulary, the “green city” label has figured in the Master Plans of several Vietnamese cities including Hanoi’s “2030 Master Plan and Vision Towards 2050” (Ministry of Construction 2011). Yet, despite the pervasiveness of this green discourse and related vocabulary, there is relatively little work that examines the impacts of such discourses and policies on the ground in Vietnamese cities, except for Schwenkel (2017) and Leducq and Scarwell (2020). We wish to contribute to this small body of literature with a specific focus on how urban agriculture fits into narratives of “green city” urban planning in Vietnam.

Urban agriculture is drawing increasing interest globally from scholars, policymakers, and international development practitioners because of the multiple benefits this practice is claimed to provide. These include the possibly of helping cities achieve climate adaptation and resilience (Badami and Ramankutty 2015; Padgham, Jabbour, and Dietrich 2015; Langemeyer et al. 2021). Urban agriculture thus has clear links to broader eco-urbanism claims (Stanko and Naylor 2018; McClintock, Miewald, and McCann 2021). These benefits are important to consider, especially in Global South cities struggling to deal with environmental and food challenges. Indeed, in sub-Saharan, Latin American, and low-income Asian cities, urban agriculture is often framed in public policies as a means to combat food insecurity and poverty (McLees 2011; Battersby 2013). Yet, in middle income countries in Asia (with Vietnam in the lower-middle income category), recent research has shown that urban agriculture initiatives are often curtailed or thwarted by policy shortcomings and other governance failures (Padgham, Jabbour, and Dietrich 2015). These range from corruption due to unclear land tenure, weak or non-existent laws or regulations regarding urban construction, to poor coordination between state agencies. A lack of a transparent urban planning framework similarly frustrates such initiatives (ibid.). Moreover, recent authors have pointed to contradictory ways that governments and policymakers promote and then fail to increase the extension of urban agriculture, with and within sustainability and green discourses (McClintock 2014; Stanko and Naylor 2018). These complexities, combined with emerging state-supported “green city” discourses, create the need to examine how urban agriculture is being conceptualised and developed in Vietnamese and other Asian cities, and whether these approaches are having positive outcomes for residents.

As such, the aim of this paper is to investigate the patterns and processes of small-scale urban agriculture in the planned green corridor of Vietnam’s capital city Hanoi (population of 8 million), to better understand the degree to which this type of agriculture intersects with state plans for these areas. To meet our aim, we have three specific research questions. First, what is the extent and configuration of small-scale urban agriculture practices in or abutting Hanoi’s planned green corridor? Second, why do residents choose to undertake urban agriculture in these locales? And third, to what extent do residents’ urban agriculture practices align with or contest official plans, including plans for the city’s green future?

We frame our paper in conceptual debates around food safety and everyday governance, outlined next. We then provide a brief contextual backdrop, summarising state-resident land rights and relations in Hanoi, before outlining our mixed-methods approach. Then we turn to focus on the spatial patterns of Hanoi’s urban agriculture that have emerged in or adjoining to the state’s planned green corridor. We analyse our interviewees’ motivations for urban agriculture and examine the tensions and conflicts they negotiate to maintain their gardening practices. We

conclude by highlighting the contradictions within Vietnam's "green city" discourse, noting that urban agriculture in Hanoi currently remains an interim, short-term act.

2. Conceptually framing urban agriculture: spatial patterns, motivations, and urban governance

Urban agriculture lacks a cohesive definition in academic literature due to the broad range of geographical contexts, either in the Global North or South (WinklerPrins 2017), and the range of conceptual and empirical directions from which one can approach this broad field (from public health and nutrition sciences, to planning and developmental studies). Some authors define urban agriculture generally as the production of food (mainly vegetables, fruit, and livestock) within and around cities or other urban environments, for the purposes of home consumption and/or income generation (Orsini et al. 2013). Other authors make a more precise distinction between agricultural activities occurring in urban versus peri-urban zones, sometimes defined by a somewhat arbitrary distance from the city core (e.g. Ayambire et al. 2019). There are also distinctions made between "uncontrolled" (e.g. backyard gardens) and "controlled" (e.g. greenhouses, hydroponics, or soilless agriculture) environments (Armanda, Guinée, and Tukker 2019). While recognising there are many types of urban agriculture within Hanoi's city limits, we concentrate this study on the *most frequently observed* forms. Common urban agricultural approaches in Hanoi are rather "uncontrolled", often taking place in public areas such as roadsides, lake-shores, or even in road median strips, as well as in residential gardens. These fruit and vegetable plots tend to be individual household operated, small-scale sites of food production, gardened for personal consumption, sharing, or barter, rather than for the market economy.²

2.1. Spatial patterns and forms

Discussions of the spatial patterns and forms of urban agriculture in the Global South are fairly limited in the academic literature to date, with most such studies based in sub-Saharan African cities. For example, the spatial distribution of urban agriculture in Dar es Salaam was found to be highly dynamic due to rapid urbanisation (Drechsel and Dongus 2009). A more recent study in Nakuru, Kenya, extended such findings, showing how urban agriculture increased as large-scale open plots were converted to intensive small-scale plots or greenhouses (Willkomm, Follmann, and Dannenberg 2021). In Asia, the mapping of urban agriculture to date has been based on coarse resolution data that only allowed the identification of large-scale plots (Brown and McCarty 2017). Fine-grain maps of small-scale urban gardens are scarce, with a few exceptions including Pham and Turner's (2020) work in a small upland Vietnamese city, Cook et al.'s (2015) research in Delhi, and Chandra and Diehl's (2019) study in Jakarta. Examples from urban agriculture mapping in Global North cities (Taylor and Lovell 2012; Oda et al. 2018) further inspired us to examine the spatial extent of this practice in Hanoi. Greater spatial understandings are vital for nuanced interpretations of the roles that urban agriculture can play for supporting residents, households, and green planning initiatives (McClintock 2018). Spatial studies also provide a baseline for policymakers regarding the locations where urban agriculture tends to be located, and where it might be the most contentious (Mackay 2018).

2.2. Motivations

The research on urban agriculture in the Global South has tended to pin-point food insecurity as a motivation for low socio-economic residents, often migrants, to establish urban gardens. Urban agriculture had thus been found to be a coping mechanism for gaining access to food and to augment other incomes (Battersby 2013; Poulsen et al. 2015). Yet, papers focusing on different sub-Saharan countries have revealed that urban food growers are not necessarily the poorest, nor the newest arrivals to cities, since food gardens require access to land and financial capital (McLees 2011; Mackay

et al. 2017; Omondi, Oluoch-Kosura, and Jirström 2017; Mackay 2018). Moreover, the literature on China and Vietnam has suggested that city gardeners tend to emphasise the quality and safety of their food over quantity or concerns regarding access (Pulliat 2015; Horowitz and Liu 2017; Kurfürst 2019; Pham and Turner 2020).

More specifically, two recent studies in Vietnamese cities have pointed to concerns over food safety as a key motivation for urban agriculture (Kurfürst 2019; Pham and Turner 2020). In Vietnam, the widespread cynicism regarding conventional food systems has fuelled alternative food movements as increasingly aware urban middle-class consumers search for trustworthy vegetable producers and distributors (Ehlert and Faltnann 2019). Scholarship on urban food in Vietnam has illuminated the volatility of food systems as a result of heightened food safety concerns and increased consumer demand for clean vegetables (Naziri et al. 2014; Kurfürst 2017; Hansen 2021).³ In response, mechanisms such as the certification of safe or organic foods have emerged in larger Vietnamese cities, though the high prices of such products make them unaffordable for many urban dwellers (Wertheim-Heck, Raneri, and Oosterveer 2019; Hansen 2021). Other strategies emerging to secure safe foods include local residents purchasing food exclusively from specific vendors whom they trust or from supermarkets (Figuié et al. 2019; Le et al. 2020). Residents also opt to grow vegetables themselves (Kurfürst 2017) which can be likened to the alternative food movement in the Global North with urban residents resisting industrialised agri-food systems (e.g. Naylor 2012, McClintock 2014). In addition, scholars have suggested that health and enjoyment are important motivations for initiating urban agriculture in Asia; sometimes as important as potential financial savings (Horowitz and Liu 2017; Kurfürst 2019; Pham and Turner 2020). Our study thus delves into possible gardener motivations in Hanoi, with an eye to whether they replicate this emerging regional literature.

2.3. Everyday governance

Since small-scale urban agriculture is not formally regulated in Hanoi, it is important to conceptualise the relationships and possible tensions that might arise as urban gardeners interact with officials and navigate food and land policies. We do this through the lens of everyday governance, which can be broadly understood as the practices and interactions between an assemblage of actors at the local scale that shape the socio-natural environment in both formal and informal ways (Cornea, Véron, and Zimmer 2017; Montefrio, Lee, and Lim 2020; McClintock, Miewald, and McCann 2021). These practices and interactions might include “conflicts, negotiations, alliance, compromise, avoidance”, amongst other relations (Blundo and Lemeur 2009, 7). In turn, these result in “more or less stabilised regulations, producing order and/or disorder” among the participants concerned (ibid.). Central to the everyday governance literature is the need to better understand how such actors produce, adapt, apply, and transgress norms and rules which, in turn, can be divided into state-sanctioned regulations, imaginaries, social norms, and unwritten codes of conduct (Cornea, Véron, and Zimmer 2017). As such, everyday governance highlights that the roles different actors have in governance, as well as the governable territories themselves, are fluid rather than static.

This approach enables an investigation into two key aspects of everyday power relations. First, it is important to understand the differential access to urban spaces and resources that urban residents have and why (Cornea, Véron, and Zimmer 2017), such as access to land and water for urban agriculture, especially when land tenure is not secure (McLees 2011; Chandra and Diehl 2019; Suchá and Dušková 2022). The concept of “access”, defined as the ability of people to benefit from land, rather than their legal right, is central here and “depends on the relationships of power that govern access to the land” (McLees 2011, 603). For example, it was found in Dar es Salaam that farmers had multiple and creative ways to gain access to land with regards to public landowners, private companies, police, and other residents (McLees 2011).

Second, it is important to recognise how different local social norms and discourses shape the practices and consumption of urban agriculture. Several studies in the Global North have shown how residential food gardens serve as visible symbols or “performances” of adherence to a particular

group identity and related set of environmental or aesthetic values (Daniels and Kirkpatrick 2006, Naylor 2012, McClintock et al. 2016). Regarding discourses, possible contradictions with and within sustainability and green policies that governments and policymakers use to promote urban agriculture need to be recognised. Stanko and Naylor (2018) argue that sustainability narratives – especially from those who want to facilitate and formalise urban agriculture– can omit small and grassroots organisations, and ignore food-insecure people as well as their needs in accessing food, housing and jobs. As such, sustainability narratives may increase existing inequalities. Similarly, McClintock (2014) points to the need to situate urban agriculture in a broader framework of political economy to better understand its capacity and limits in addressing sustainability and justice. How food gardeners comply, negotiate, or resist such norms and discourses is a question of governance (Montefrio, Lee, and Lim 2020), especially relevant in a context such as Hanoi, where “green city” and sustainability discourses are becoming dominant. In sum, conceptual ideas from the everyday governance literature will help us to better interpret if and why urban gardens are inconsistently and unevenly tolerated by local authorities.

3. Vietnam’s urban planning and Hanoi’s “green corridor”

Vietnam’s urban planning is state-driven, top-down, and strongly motivated by modernist policies and planning tools, especially from the 2000s onwards (Boudreau, Gilbert, and Labbé 2016). Following socialist conventions, and as in neighbouring China and Laos, the Vietnamese state owns all land, with citizens only having use-rights that are often insecure. This provides numerous avenues for the state – and large, state-friendly private corporations – to grab land when it is deemed “essential” for development (Labbé 2016).

The city of Hanoi has invested in a number of large infrastructure projects over the past 20 years, and has recently experienced two waves of real estate booms in 2009 and 2012 (Labbé and Musil 2017). Hanoi’s Master Plan 2030 and Vision Towards 2050 (approved in 2011 by the central government) prioritises new urban areas, infrastructure, and specific green spaces, including a green corridor - *hành lang xanh* - created along the Đáy, Tích and Cà Lồ rivers (Ministry of Construction 2011) (see Figure 1). Within this corridor, there will be a green belt (*vành đai xanh*) along the Nhậ River and numerous green wedges (*nêm xanh*) that connect open spaces with urban parks. Together, these will create a buffer zone to separate the old urban core from new urban areas, with the aim to constrain urban sprawl. Construction density will remain low in this corridor, and the only new developments permitted will be public “ecological infrastructure”, the planting of trees, and the preservation of water bodies. The so-called green belt and wedges will have multiple functions, ranging from controlling urban expansion, preserving natural landscapes, villages, and cultural heritage, to mitigating environmental risks, especially flooding (Ministry of Construction 2011). In reality however, as of 2021, the emerging green belt is crisscrossed by five highways and several large boulevards as well as a planned future monorail and subway lines (vietnambiz 2021a). In 2015, a detailed urban plan (spanning 6,661 ha) in the green belt was approved by the city, including seven large real estate projects to be built by the most influential and powerful real estate corporations in Vietnam (vietnambiz 2021b). Nonetheless, the municipal government has also limited construction in certain areas of the green belt by cancelling eight housing and infrastructure projects (Hanoimoi n.d.). Such complex land-use dynamics caused by the broader green corridor policy, political manoeuvring of certain corporations, and influential power relations in Hanoi, provide a dynamic context within which to study urban agriculture.

4. Methods

4.1. Site sampling

We employed a sampling strategy that enabled us to closely examine a range of small-scale gardens in or abutting the city’s green belt or wedges (Figure 1). During preliminary scoping trips, we noted

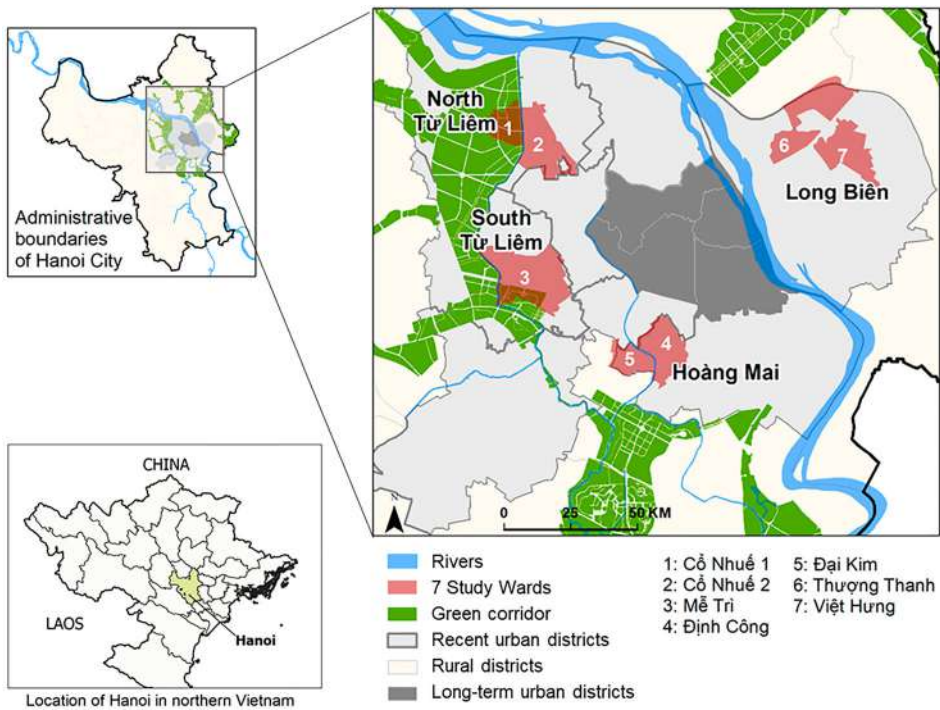


Figure 1. Locations of the studied wards and their proximity to the green corridor.

types of vegetable and fruit gardens in those areas and from these observations, we chose seven wards (the smallest administrative units in Vietnam) having a diversity of small-scale vegetable and fruit gardens on public or “private” land, and different types of the latter.

In the south of the city, we chose Định Công Ward (Figure 1, # 4), whose housing stock has become increasingly dense since 1995. This ward is one of the earliest “new urban area” housing developments established after *Đổi mới* (the country’s economic reforms that began in 1986). The second ward in the south was Đại Kim (Figure 1, #5), a relatively new ward with new housing blocks and lower-socio-economic class housing-towers compared to Định Công. To the east, we selected Việt Hưng (Figure 1, # 7) which has been mentioned in planning documents since at least 2003, but was only developed after 2009 when two new bridges were built to connect the ward to the downtown area. Thượng Thanh Ward (Figure 1, #6) was chosen for its comparatively rural character, albeit, it has been slowly built up with housing blocks since 2007. Finally, in the west, we selected Mỹ Trì Ward (Figure 1, #3) and Cổ Nhuế 1 and 2 Wards (Figure 1, #1 and 2) with the last two wards having a recent and rapid pace of urban housing development, characterised by important road construction as well.

4.2. Garden mapping

Inspired by previous work on fine-grained mapping of urban agriculture (Taylor and Lovell 2012; Oda et al. 2018), we combined visual interpretation of satellite images and field-based mapping to map small-scaled gardens in Hanoi. During preliminary fieldwork we identified nine types of gardens that included fruit and/or vegetables (Figure 2). We then created an observation grid and mapping protocol, which three research assistants used to survey the seven wards by bicycle or motorcycle between January and July 2019. They recorded the geographical coordinates of all small garden plots using a GPS (between 1 and 3 m of accuracy). For larger gardens (more than 20 m² by

Institutional and individual private spaces with various land-rights holders

School yards



Residential yards

**Usually public spaces**

Near waterways



Expected sidewalk location



Along roads

**Public or private spaces, often ambiguous**

Unclaimed space with vegetables



Unclaimed space with fruit trees



Plot between buildings



Ponds



Figure 2. Different garden locations in the studied wards. “Along road” includes median strips and verges that are not paved but where a sidewalk also exists, while “Expected sidewalk location” refers to spaces where one would expect a sidewalk but there is no off-road room for pedestrians.

20 m²) the research assistants recorded several coordinates to map their full size. Using those coordinates, they digitised these larger gardens on Google Image, and then imported the maps into ArcGIS Desktop 10.7.1.

4.3. Semi-structured interviews

Two research assistants conducted interviews in Vietnamese with 51 gardeners (41 women and 10 men) from the seven chosen wards. The gender disparity in our sample reflects the fact that women are more present in food-related tasks and gardening in Vietnam (Figuíe et al. 2019). While initial mapping was being undertaken, the research assistants approached people working in their gardens for possible interviews. We also used chain-referral sampling to recruit others, to include the full spectrum of gardens that we had observed as the most frequent types. Respondents ranged in age from 25 to 74 years old, with an average age of 65. Our qualitative approach allows for an in-depth understanding of Hanoi gardeners’ motivations and negotiations, but of course is not generalisable.

As shown in Figure 3, 30 retirees were interviewed, eight of whom were previously farmers who had grown food crops. A further ten retirees had some agricultural knowledge and/or experience from having a rural background. The 13 interviewees who identified themselves as farmers had formerly grown rice or vegetables for sale but, in 2019 when we interviewed them, grew vegetables for their family’s consumption only. In other words, most gardeners whom we interviewed had long-term experience with agriculture. We also conducted interviews with officials of seven neighbourhood units (*tổ trưởng tổ dân phố*) in each of the chosen wards (all non-gardeners).⁴ Interviews

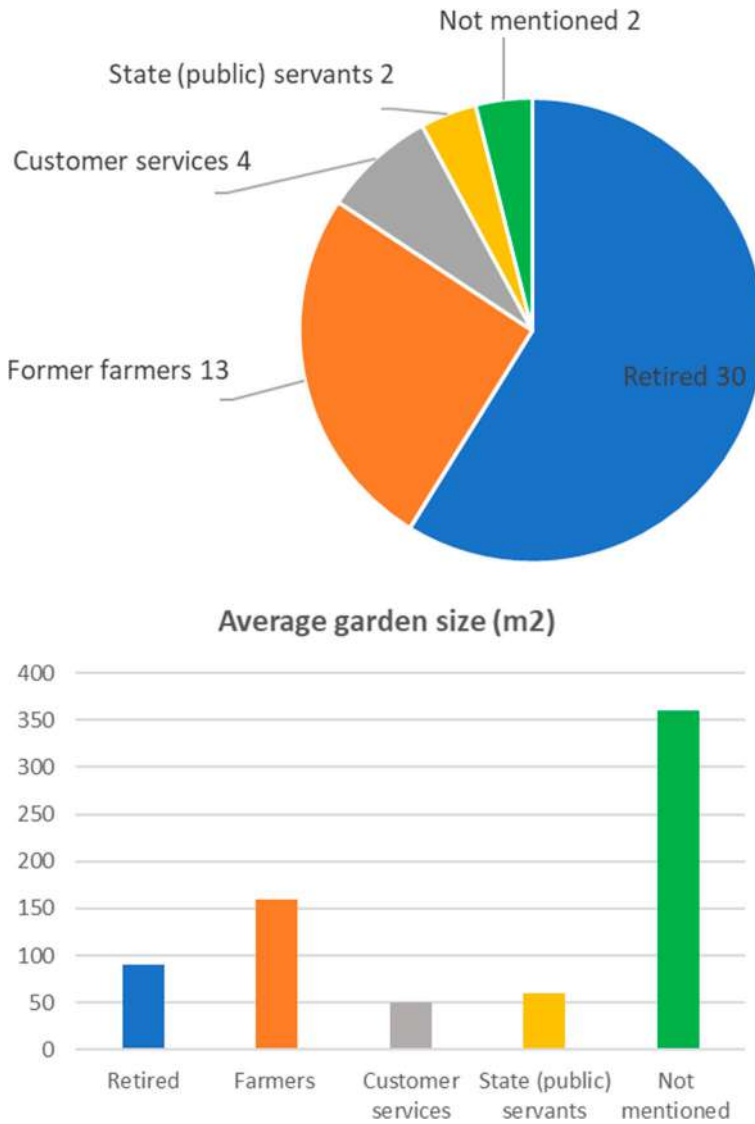


Figure 3. Interviewees’ professions and their garden sizes (“customer services” include food vendors, restaurant workers, hair and nail salon workers).

lasted 30 minutes on average. This research was approved by the Research Ethics Board of the first author’s institution (Number 2018-1659).

5. Results I – spatial variations and gardener motivations

5.1. Spatial variations and diversity among gardens

In the seven wards we mapped 342 garden locations totalling 70.87 ha (min area: 8 m², average area: 2,072 m² and max area: 6.35 ha; Figure 4). A garden location was often shared by several gardeners; hence these urban gardens were used by more than 342 gardeners. As shown in Figure 5, the most extensive type of gardens in our study were fairly large spaces unclaimed for other uses with fruit trees (e.g. pomelos, jujubes, bananas), totalling 234,247 m², followed

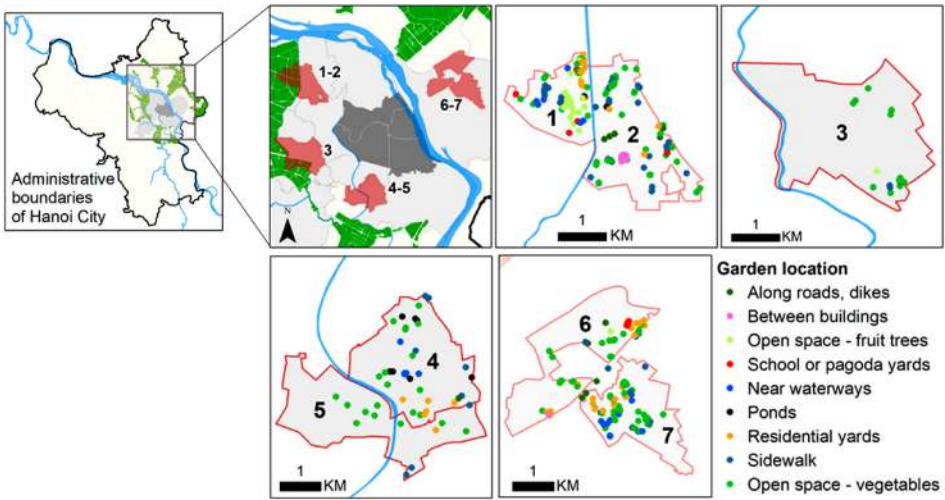


Figure 4. Locations of gardens in the seven mapped wards.

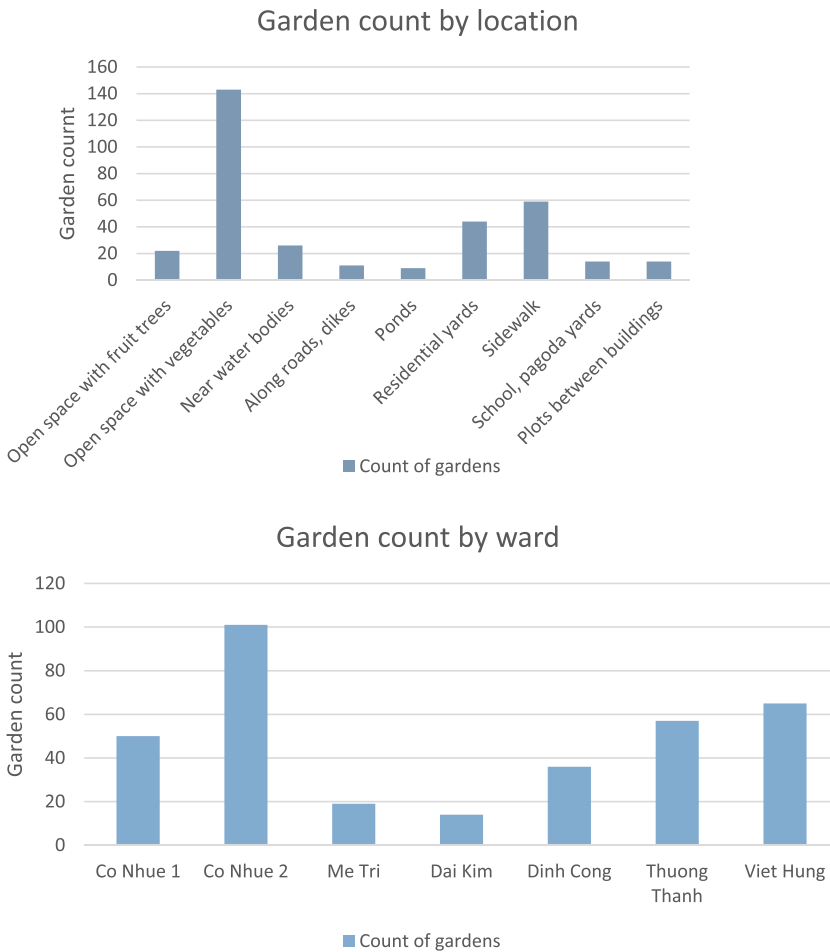


Figure 5. Garden count and size by location type (top) and by ward (below).

by fairly large unclaimed spaces with vegetables (192,003 m²). We mapped 26 locations of gardens near water bodies that totalled 65,788 m². The overall size of gardens along road and dikes was a little less than the previous category, amounting to 63,283 m². While individually small in size, gardens in expected sidewalk locations were numerous and totalled 30,909 m² in our study areas. We identified few gardens in school or pagoda yards, but those gardens that did exist were quite large, equating in total to 10,745 m². The smallest and least frequent garden type were plots between buildings (1,972 m²). We found that larger garden plots were – unsurprisingly – most often found in less densely built wards, such as Thượng Thanh Ward. Cổ Nhuế 1 and 2 Wards, that both contained land designated for future infrastructure projects, also housed a number of gardens. The most densely built wards contained the smallest sized gardens (Mễ Trì Ward and Đại Kim Ward).

5.2. Gardening practices and motivations

In total, our interviewees grew over 50 different crop varieties, while individually they grew four to five crops on average. The size of the interviewees' gardens averaged 105 m², with garden sizes ranging from 3m² to 1,080m² (Figure 3). Asking about their time undertaking urban agriculture, two-thirds of interviewees had been maintaining an urban garden for less than five years. Nearly one quarter had been gardening in this style for 5–10 years, while seven had been gardening even longer, the longest being twenty years. We asked gardeners to rank their motivations for undertaking urban agriculture and five core motivations emerged. These were food-system motivations, health reasons, livelihood security, enjoyment, and environmental benefits, detailed further next.

Food system-related motivations were noted by 24 of our 51 gardener interviewees (47%). More specifically, the most important motivation for growing their own vegetables was a fear and distrust of the conventional food system – including the quality of vegetables sold at both traditional markets and supermarkets – and a desire to know their vegetables were safe to consume. For instance, one retiree reasoned:

I don't think the veggies in the supermarket are clean. Of course, it's more credible than at the market, but with your eyes you can't see [how they have been grown] and how can you know [if it is clean/safe]? (retired soldier, 66-year-old woman)

Another respondent considered vegetables from marketplaces to be substandard, even for chicken feed, due to her concerns over chemicals in the food chain (child carer, 60-year-old woman). This distrust was closely linked to an aversion to buying Chinese sourced fruits and vegetables noted by the majority of interviewees.

The second core motivation that 11 interviewees cited was a range of broader health motivations, related mostly to improving their diet. Most respondents explained that they consumed only small quantities of meat, if at all, noting meat was not good to consume in old age.

Interestingly, six interviewees ranked “fun” (*cho vui*) as their primary motivation, while only five respondents noted that their gardening was to support their household livelihoods. These individuals had gardens that were several hundred square metres, and were motivated by the financial income they generated from producing fresh vegetables. One such gardener grew fresh vegetables and herbs for her restaurant, while the others grew vegetables to sell to help support their families. These respondents tended to be older, previously full-time farmers. During our field visits, we also saw other gardeners exchanging vegetables with neighbours or announcing that they sold “clean” vegetables (see Figure 6). Four gardeners mentioned broader environmental benefits of gardening, including improving the soil quality of marginal urban spaces and beautifying urban areas. Other motivations raised included happiness and relaxation; educating their children on the practice; and gifting produce to neighbours and family.



Figure 6. A sign announcing clean vegetable to sell.

6. Results II – everyday governance

6.1. Everyday access to land

Everyday governance, as a process that shapes the socio-natural environment can include conflicts between different actors, as noted earlier (Blundo and Lemeur 2009). Maintaining access to land was the most frequently mentioned threat and point of conflict facing the urban gardeners we interviewed, as well as this impacting other gardeners about whom they spoke. Only three respondents had secure land-use rights, having Land Use Right Certificates⁵ (*Giấy chứng nhận quyền sử dụng đất*) for the land they gardened. In contrast, the vast majority of interviewees had appropriated state-owned or privately-“owned” land that was in a transitory phase before being built on. These interviewees were aware that the land they were cultivating would be claimed when building began and acknowledged their gardening was an interim and transient act. For instance, a 66-year-old woman, who was a retired army veteran, explained:

This land is deserted, so I keep growing veggies. Right now, it belongs to no one, so I don't have to ask anyone. But the land's going to be managed by a project which will build a road around the lake. When they ask, we'll return the land.

Her statement that the land “belongs to no one” was often repeated by other interviewees, with gardeners arguing that land tenure was only secured by the land being actively used and with the clear presence of a titleholder. Others added that a lack of building activity or permanent buildings gave them user-rights. An 80-year-old farmer acknowledged that he was gardening a large plot of state-owned land, but argued his activity was permitted: “It's legal [for me to grow vegetables here] as I don't take the land. I only grow vegetables on the land”. Later in the interview he asked, rhetorically: “How can we have the rights to have a garden? You cannot have rights unless you have your own building”. Such quotes underscored the “fuzziness” or blurriness regarding legal rights to use urban vacant land, as well as class-based frustrations about access to such urban spaces.

Because of the likelihood of eviction, some gardener interviewees noted they invested less in their gardens than they wanted to. Others suggested that the only reason they were able to find land on which to garden in the first place was precisely because few people were willing to invest the time

and energy in improving the soil for it to be of use, due to tenuous use-rights. In other words, the unknown legal rights to access and use certain urban spaces had created opportunities for enterprising gardeners willing to take the risks involved, or those who felt they had no other option.

It should be noted that even the few gardeners with land-use certificates did not have tenure security because of the right of the Vietnamese state to seize land for “essential” urban development, such as infrastructure or housing (Labbé 2016). This has been made possible by broad regulatory changes, most notably a 2003 revision of the Land Law, decentralisation of expropriation powers, and the 2002 Law on the State Budget (Wells-Dang 2013). Some gardener interviewees had had land appropriated by the state and argued that they were not compensated fairly, particularly considering the profits then made from the land’s development. For instance, a 70-year-old woman gardener stated:

Before, we had a large garden where we grew and raised a lot of animals [...], but the government took my land in 2004. At that time, they paid us only 130,000VND per square meter (5.6USD in 2021). Now they’ve built houses and sold them for lots of money.

Similarly, a 69-year-old woman lost 2000 m² when the land for which she held land-use certificates was appropriated by the government for a condominium complex. She complained that the compensation was far below the market value (she received 240,000VND per m², or 10.40USD per m²) and described the process as “savage” and “terrible”. These events were confirmed in interviews with heads of neighbourhood units. Higher socio-economic class respondents were similarly unable to hold onto their land-use rights, but they *were* able to bribe authorities to receive much higher prices (millions of additional VND per m²) for their plots. This leads us to focus on how gardeners were negotiating access to their plots.

6.2. Everyday negotiations amongst gardeners

Relationships and negotiations amongst urban gardeners were generally reported as friendly, with land access well-organised through informal processes of everyday governance. When large open spaces were available (for instance, spaces pending building construction), neighbouring gardeners explained that they had discussed amongst themselves how to divide the land for gardening. Gardeners tended to then adopt plots nearest to their house. A 70-year-old army veteran explained her neighbourhood’s approach, which we found to be similar in other areas where we interviewed:

We don’t fight each other for the garden. Some families who can grow more veggies, can then share [the produce] with the ones who grow less or who don’t have any garden, so we all have the chance to eat organic vegetables.

When there were smaller areas of land available, allocations were often made in relation to each household’s need and willingness to actively garden. For instance, in small pockets of land beside lakes or along dikes, neighbourhood gardeners gave priority to families with small children who were deemed most in need of access to safe vegetables. While there tended to be strong social cohesion among gardeners overall, there were still rare cases of conflict between neighbouring gardeners, with the heads of neighbourhood units confirming this. These incidents included one gardener appropriating the land that another had already been cultivating, and competition between two neighbourhood gardeners over customers for their produce.

More notable, in terms of conflicts amongst residents, was the theft of garden produce. Most respondents cited previous occasions when their crops had been stolen. Interviewees frequently assumed that the thieves had seen them gardening and hence judged the vegetables to be clean and safe, pointing to the value of and demand for such home-grown produce. One respondent explained that the lack of official land-use rights contributed to this problem, “because we borrow this area, it’s not our own land, so the local [ward] security doesn’t take any responsibility. If we can protect our veggies, we have veggies to eat” (74-year-old retiree). A few interviewees had developed security measures such as building fences with locking gates around their gardens. In some instances, this involved the collective organisation of gardeners creating shared protective barricades, like those shown in [Figure 7](#).



Figure 7. Fences and barricades to project gardens against theft.

6.3. Everyday governance negotiations and compromises with local authorities

Interviewees noted a broad range of informal negotiations with local authorities that they had undertaken to establish or maintain access to urban gardening plots. Six individuals made informal agreements with state officials to use land without penalty during interim periods when the land was “sitting idle” prior to development, or was not being used for its designated purpose. For example, one retired teacher planted vegetables in state-constructed flowerbeds that had been abandoned by the authorities and that were growing weeds and accumulating rubbish, including needles from local drug users. After removing her vegetables twice, state officials then agreed to let her garden, realising that her garden’s presence had positive externalities. In this instance, officials perceived the retired teacher’s garden to be a more acceptable use of public space than the alternatives. This reveals the fluidity of land governance in Hanoi, where state planning and practice do not always neatly align.

Another respondent had a similar experience, and detailed the negotiations of his informal agreement with authorities by highlighting the shared benefits of his garden:

After the first year our veggies were destroyed by the Lake Environment Management [Authorities] who did not allow us to grow our veggies. But the weeds were growing fast. The workers had to remove them, and a truck had to come to throw the weeds away ... so we went and talked with the Lake Management. We reasoned that that if they grew plants such as bonsai or flowers we’d agree [not to garden there], but if there were a lot of weeds, it’d cost them a lot for workers to clean the area monthly, so why didn’t they let us grow veggies? So then they let us grow veggies. (68-year-old veteran)

An additional example of such informal state-gardener compromises was explained by a restaurant owner. The state had purchased farmland close to this interviewee’s restaurant from the previous land-use certificate owners, yet the land remained undeveloped and had become a site for illegal waste dumping. As a result, officials agreed to let the interviewee use the land for gardening, and to plant banana trees to provide shade for the restaurant customers’ parked cars. Curiously, the interviewee’s restaurant was frequented by state officials, suggesting a positive relationship existed prior to this arrangement, and highlighting the relational nature of everyday governance practices regarding gardens in Hanoi.

Informal negotiations and compromises were also made between gardeners and land developers through ward authorities. For instance, a retired former-farmer of 67 years-old explained:

[The owners of the land] destroyed our garden to get flat ground. The gardeners here had a meeting and [went] to the ward authority and asked them to give us a permit to grow veggies here until the land was really needed to be used and then we would give it back. So many people [went] to the ward authority ... They [the authorities] told the land's owner to let us grow for now.

Another retired woman, also in her mid-60s, eloquently interwove her negotiations for land access with patriotic discourses regarding previous national wars:

Before, when we started doing gardening here [in an unused construction site], the company security guard didn't want us to. He said: "my boss doesn't allow you to grow here and if you do, we'll have to destroy it". I told him: "if you only knew that making an individual rich is to make the country rich". People like my husband and this [guard] used to be in the army and they took back land for the nation. If the boss let the land remain unused, he would be guilty to the people, to the country ... After listening to me, the security guard didn't destroy our vegetables anymore.

Concerning norms in relation with the city's "green city" discourse, the gardener interviewees were quick to point out the irony of officials using the state-approved "green and aesthetic" discourse in discussions with gardeners to justify decisions to *either* permit or remove gardens depending on the degree to which the gardens aligned with normative visions of the "green city" model. In other words, the state's green discourse is subjectively mobilised in the everyday governance of urban agriculture in Hanoi. Officials either temporarily approved gardens to improve the local environment and provide more green spaces, or they argued that urban agriculture was not the aesthetic approach that the state was aiming for. Interviewees were also aware that there were often individual benefits for the officials with whom they negotiated. The informal nature of these agreements meant that authorities maintained a high level of control over land use decisions. While being temporarily successful in their negotiations to varying degrees, gardeners remained vulnerable to having their access to specific land revoked as soon as the construction of new buildings or infrastructure began, or when state officials decided that urban agriculture was no longer appropriate in a specific space.

In their governance relations, it is interesting to note that gardeners were also willing to avoid larger conflicts with the authorities and give up their gardens if the spaces they were using became active building sites, or started to be used for other state-approved purposes. Interviewees were well aware of urban land prices and were cognisant that any arguments for the importance of maintaining their gardens were likely to fall on deaf ears with the authorities. As one veteran noted: "Now it is hard to even have land for car/motorbike parking. How can you find land to grow vegetables? One metre of land costs hundreds of million *dong* [Vietnam currency]. How can you have land to grow vegetables?" (74-year-old man). Many interviewees also relayed the saying, "a piece of land is a piece of gold" (*tấc đất tấc vàng*, in Vietnamese).

Finally, we noted that gardeners did not mention any tactics to overtly resist state authorities in the removal of their urban gardens in liminal state-owned spaces. Forms of resistance such as "guerrilla gardening" as found in a number of Global North cities (Hardman et al. 2018) had not emerged in this socialist state context. Instead, more subtle forms of land use negotiations and compromises occurred. In their everyday governance interactions, our interviewees designed a range of innovative and clever approaches to negotiate the use-rights to their gardens with other actors, including those in positions of authority.

7. Discussion and concluding thoughts: a "green city" not so keen on spontaneous urban agriculture

The patterns and processes of small-scale urban agriculture in the planned green corridor of Hanoi are both complex and diverse. Returning to our first research question regarding the extent and configuration of small-scale urban agriculture practices in or abutting Hanoi's planned green

corridor, we found a multitude of garden forms. The size and type of gardens varied according to local population and building densities, as well as local ecological features (such as waterways or ponds). This diversity of forms and sizes of gardens corroborates previous studies on small-scale urban agriculture in Thailand, India, and Sub-Saharan African countries (Cook et al. 2015; Mackay 2018; Chandra and Diehl 2019; Jantakat et al. 2019; Willkomm, Follmann, and Dannenberg 2021). In areas undergoing intensive development in Hanoi, gardens were smaller and most frequently found on sidewalks and between buildings. These findings reinforce the relevance of our field-based mapping methods rather than automatic mapping or image interpretation, so as to be able to distinguish these forms of food gardens.

Turning to our second research question regarding why residents in or abutting this green corridor undertook urban agriculture, we noted that our interviewees had diverse profiles. More than half were retirees and one quarter were former farmers. In contrast to what has been found in literature on urban agriculture in sub-Saharan Africa (Battersby 2013), food insecurity was not the main motivation for these gardeners. Instead we found food gardeners in these parts of Hanoi primarily motivated by food safety – specifically fear and distrust of the conventional food systems in Vietnamese cities (Kurfürst 2019; Pham and Turner 2020). These gardeners deemed vegetables grown at home to be “safe” because their origins and inputs were known. This raises an important point for future research on urban agriculture, namely the need for researchers to be aware of the centrality that local context can play for gardening motivations, whether it be due to food insecurity (Battersby 2013), dietary regimes (Mackay et al. 2017), other motivations related to health (Horowitz and Liu 2017), or food safety concerns, as in our case. We are also aware that a context-sensitive understanding of motivations requires an attentive eye to broader processes such as the political economy of food and the environment, as cautioned by previous authors (McClintock 2014; Stanko and Naylor 2018).

This also leads us to the third question of this paper, namely the extent to which urban agriculture practices of residents align with or contest official plans. Although interviewees noted very few conflicts among gardeners, or between them and their neighbours, we found that gardener relationships with local authorities and land developers were not always harmonious. This was often because the gardener interviewees did not have formal land-use rights to the land on which they gardened. These findings extend those found in a small upland city in Vietnam’s northern borderlands, Lào Cai City (Pham and Turner 2020), as well as studies on urban agriculture in Delhi (Cook et al. 2015), Jakarta (Chandra and Diehl 2019) and Dar es Salaam (McLees 2011). Our findings thus highlight that examinations of the practices of small-scale food gardening in urban Vietnam, or elsewhere in the Global South, need to pay attention to land *access* not just *land tenure* (see also McLees 2011).

Returning to the second part of our aim, to better understand the degree to which urban agriculture intersects with state narratives of the “green city” model and plans for our studied areas of Hanoi, three findings of our study stand out. First, we shed light on the everyday governance of urban food gardens in Hanoi. Local state officials mobilise the state’s “green city” discourse in contradictory ways, frequently leaving gardeners needing to negotiate temporary access to marginal urban lands. Among the forms of everyday governance of urban agriculture discussed by McClintock, Miewald, and McCann (2021), overt resistance or the re-envisioning of alternate futures for urban agriculture were not observed in the Hanoi case. Instead we found negotiations and compromises were the most important everyday governance routes utilised by resident gardeners in Hanoi. These gardeners negotiated norms of “civility”, “modernity”, and green aesthetics dictated by local authorities, despite the fact that formal political power remained in the hand of state authorities. In other words, even in this context, there was the possibility for flexibility, negotiations, and concessions with individual officials, and private developers; assuring gardeners’ access to land. Hence, we have highlighted how the everyday actions of a range of governance actors – gardeners, neighbours, security guards, heads of neighbourhoods, and local authorities at higher levels (e.g. district level) – culminate in the highly contextualised and nuanced governance of urban gardens in this capital city. We underline the agency of urban gardeners in mobilising a range of innovative and rather clever

approaches, including creating “counter-discourses” to the state’s “green discourse”, such as the need to use “wasted space”, to “better allocate resources” (in this case vacant land), and to appeal to “nationalistic sentiments”. The multiple paths of negotiations that we show here enrich the literature regarding urban land access in the Global South (McLees 2011; Chandra and Diehl 2019).

Second, we bring to the forefront possible contradictions with the use of the “green, clean” discourse, and more broadly with eco-urbanism, since this discourse was often used by officials to prohibit and remove food gardens. This contradiction was based on a specific aesthetic vision of what makes a “green city”, a tension also noted elsewhere in Asia, including in Ghertner’s work on slums in Delhi (2015) and Montefrio et al.’s (2020) work on community gardens in Singapore. In Hanoi, this aesthetic discourse is closely linked to a state desire to promote modernity, civility, and green urbanism (Coe 2015; Schwenkel 2017). The irony, therefore, is the production of a 2030 Master Plan for the city, complete with objectives to create the green belt and wedges, while the very form of urban use that could signify (productive) deployment of such green spaces, namely urban agriculture, is not officially promoted and, indeed, is barely tolerated. “Growing vegetables is not civilized”, a woman in her mid-twenties explained to us. As such, Hanoi’s urban agriculturalists are transgressing modernity as envisioned by the Vietnamese state (although not as overtly as other green activism movements elsewhere of course, such as guerrilla gardening (Hardman et al. 2018)).

Third, we highlight the multifunctionality of urban agriculture, echoing the findings of authors working elsewhere in the Global South (Duvernoy et al. 2005; De Bon, Parrot, and Moustier 2010; Zasada 2011). The fact that numerous food gardens in Hanoi are in and near the green corridor shows the importance of conceptualising urban agriculture as creating both important green spaces *and* productive spaces for urban food planning. Indeed, urban gardeners are addressing an important gap in Hanoi’s food system as they offer their families, each other, and neighbours, safe food from a trustworthy source while rectifying trustworthy relationships between cultivators and consumers. We hence also contribute to the literature detailing the importance of trust in urban food provisioning networks by showing that the in-situ small-scale production of food is another way to overcome anxieties related to food safety, along with other possible practices such as nurturing trust relations with specific vendors (Turner and Schoenberger 2011; Figiúé et al. 2019; Le et al. 2020).

Finally, some policy lessons and suggestions can be learnt from this case. With regards to the types of small-scale, often household-level, urban agriculture that we have studied in the Vietnamese context, land scarcity and the lack of land tenure and land access are the main factors preventing an extension of urban agriculture. The multiple benefits of food gardening raised by gardener interviewees utilising open spaces can be used as an argument to allow them more secure, state approved ways to negotiate access to unused land held by local authorities or land owners (McLees 2011). In the context of Vietnam, promoting the multifunctionality of urban agriculture in planning policy, notably by conceptualising it as a green infrastructure or a nature-based solution (Artmann and Sartison 2018), could be extremely positive, especially if sustainability is a genuine desire of the state. For example, agreements to secure land access (albeit not tenure) could be facilitated by local authorities, between gardeners and land owners. Then, if local authorities were approached by potential gardeners, officials could decide if the land was temporarily suitable for urban agriculture and land owners could then be required to accept the temporary use of their unused land for gardening. They would then be obliged to inform gardeners ahead of time, of the need to remove their gardens, while gardeners would accept to return land to owners when given advance warning. In sum, if urban agriculture is to be encouraged and developed within Hanoi, it should be formally recognised as a productive green practice and integrated into urban and food planning, as is the case of other Asian countries (Hou 2018; Diehl et al. 2020). Such steps would work to ensure that the “green city” narrative actually becomes a genuine instrument transforming Hanoi into a sustainable city, while ensuring residents’ access to fresh and socially accepted food.

Notes

1. This green vocabulary is often paired with “eco” (*sinh thái*, in Vietnamese). See Schwenkel (2017) for more details.
2. Community gardens are uncommon in Hanoi. Collective gardens are also fairly rare across urban Vietnam. As these are not part of our study, and to keep our review of the literature manageable, we do not draw on work regarding these urban gardening forms.
3. There is also an increasing literature looking at this elsewhere in the broader Asia-Pacific region, such as Zhang, Mankad, and Ariyawardana (2020) focusing on food safety and consumer confidence in Australia.
4. Urban wards and rural communes are the smallest administrative units in Vietnam that are clearly demarcated and mapped. Each urban ward is further divided into neighbourhood units (*khu phố*). The heads of these units (*tổ trưởng tổ dân phố*) are the only people in the entire state administrative hierarchy in Vietnam chosen directly by local residents, and are often a long-term retiree resident (Gibert 2018).
5. The 1993 Land Law granted five rights to land users – transfer, exchange, lease, inherit and mortgage – and extended lease terms through Land Use Rights Certificates (Wells-Dang 2013).

Acknowledgements

We specially thank Nguyễn Thị Hạnh, Đặng Hữu Liệu, Đinh Thị Diệu and Nguyễn Mạnh Hùng for their assistance in interviewing and mapping. This research was funded by Social Sciences and Humanities Research Council of Canada (grant number: 435-2022-0679).

Disclosure statement

No potential conflict of interest was reported by the author(s).

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