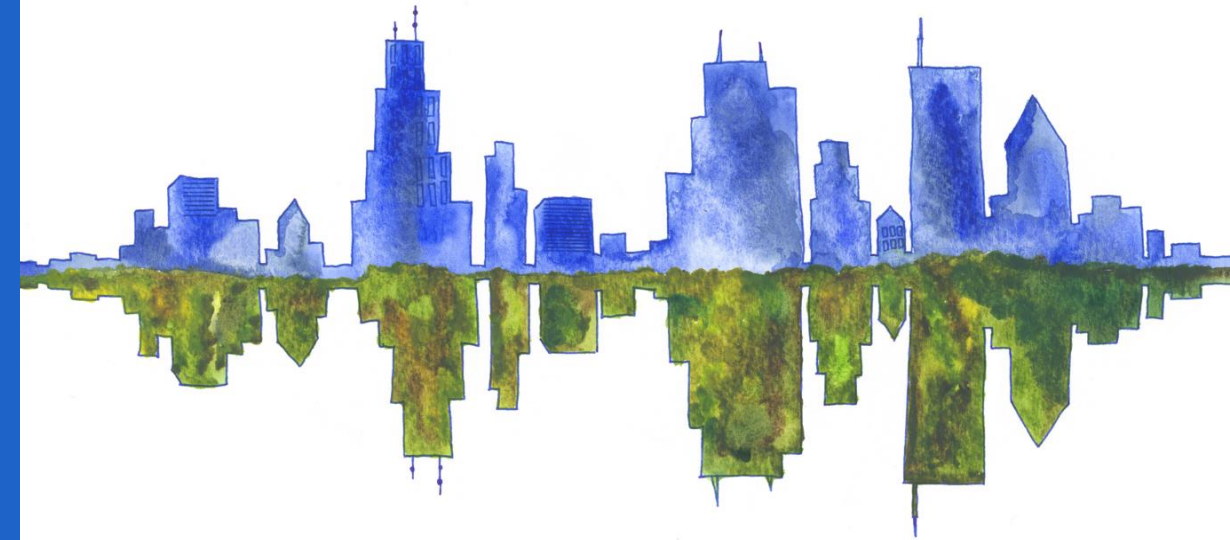


THE POLITICS OF URBAN AGRICULTURE

An international exploration of governance,
food systems, and environmental justice

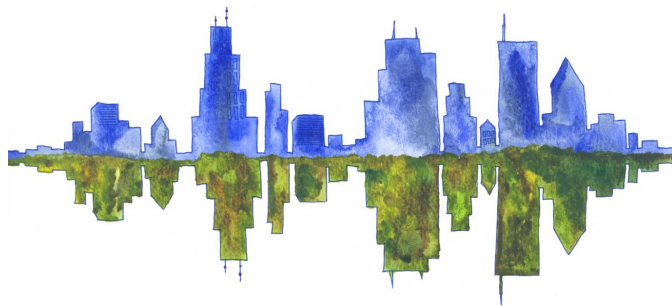


CHARLOTTE PROVÉ

The politics of urban agriculture
An international exploration of governance, food systems, and environmental justice

Charlotte Prové

2018



ISBN 978-9-4635707-4-9



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THE POLITICS OF URBAN AGRICULTURE

An international exploration of governance, food systems, and environmental justice

Charlotte Prové

Thesis submitted in fulfillment of the requirements for the degree of Doctor (PhD) in Applied
Biological Sciences

Dutch translation of the title:

STADSLANDBOUW ALS EEN POLITIEK VRAAGSTUK

Een internationale verkenning van governance, voedselsystemen, en milieurechtvaardigheid

Please refer to this work as follows:

Prové C., 2018. The politics of urban agriculture: An international exploration of governance, food systems, and environmental justice. PhD-thesis. Ghent, Belgium: Ghent University.

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ISBN-number 978-94-6357-074-9

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Acknowledgements

En dan mag je eindelijk je dankwoord schrijven... Zo'n intensieve onderzoeksperiode van vier jaar sluit ik af met gemengde gevoelens. Enerzijds euforie omdat het is afgerond, en de spanning van het nieuwe, het onbekende dat om de hoek loert. Anderzijds is er ook verwarring; want wat met de nieuwe ideeën, energie, en inzichten waar ik nog zoveel plannen mee had? Ik heb genoten van de intensiteit die het maken van een doctoraat vereist, van de talrijke werk- en leerervaringen, en van de vele inspirerende ontmoetingen. Mijn onderzoek leerde me op een andere, bredere manier naar de wereld kijken. Dat is voor mij het meest waardevolle dat ik uit het doctoraatsonderzoek kan meenemen. Deze verrijking en het feit dat ik tot hier ben geraakt, heb ik voornamelijk te danken aan een lange lijst van personen. Immers, tijdens een opleiding sociologie leer je dat een persoon voor een belangrijk deel de som is van zijn sociale omgeving. Dit heb ik meer dan ooit ervaren tijdens mijn doctoraatsonderzoek. Ik wil deze personen hier graag voor bedanken.

Eerst en vooral, bedankt Joost en Michiel. Jullie waren voor mij een bijzonder team als promotoren. Ik heb jaren mogen rekenen op jullie oprechte betrokkenheid en een openheid waarin alle bezorgdheden besproken konden worden. Er werd steeds - met een ongeziene reactiesnelheid - tijd vrijgemaakt om me al dan niet last minute te begeleiden. Joost, ik ben dankbaar voor het niet aflatend vertrouwen dat je in mij stelde, en om steeds achter me te staan bij mijn beslissingen, plannen en voorstellen. Ik ben ook blij dat je me regelmatig aanmoedigde om uitdagingen aan te gaan. Deze hebben me doen groeien doorheen het proces. Michiel, ik heb opgekeken naar je heldere en pientere geest. Jouw inzichten en feedback hebben me veel bijgebracht. Als ik snel vooruitgang kon boeken, was dat voor een belangrijk deel te danken aan jouw gedetailleerde, kritische, en zorgvuldige feedback. Ik zal de fijne discussies niet snel vergeten.

Dear members of the jury, I would like to express my gratitude for being part of my examination commission. It has been a true honor to have such distinguished scholars help me reflect deeper on the dissertation and improve it where possible. I have enjoyed the conversations very much.

I especially want to thank the numerous urban agriculture advocates and practitioners I have met during my research. Despite your busy agendas, I have felt extremely welcomed. I have truly enjoyed the many insightful and inspiring conversations. Your hard work and courage - not only in practicing urban agriculture, but also in tackling numerous barriers - are admirable. Luck was also on my side with the number of prominent scholars and professionals I have been able to meet or collaborate with. This was a crucial aspect for my motivation, but also to sharpen my focus in the research. Thank you all very much!

Ik wil ook graag al mijn collega's van Landbouw en Maatschappij op ILVO bedanken. Er hangt een aangename werksfeer waarin collegialiteit voorop staat, ik mezelf kon zijn, en waar ik de ruimte kreeg talenten te ontplooien. Ludwig en Elke, als wetenschappelijke directeurs heb ik me veilig onder jullie vleugels gevoeld. Jullie leiden ons team met volle overtuiging en dat is bewonderenswaardig. Ik ben ook heel erg dankbaar voor Team Ondersteuning: Sofie, Annick, en Natasja, jullie staan iedere dag

paraat om onze praktische en technische problemen op te lossen! Bedankt! Daarnaast wil ik enkele collega's in het bijzonder bedanken. Jeroen en Anouk, we zaten samen de rit naar de doctoraatstitel uit. We hebben elkaar onafgebroken aangemoedigd, maar ook pauzes genomen wanneer de concentratie zoek was. Jeroen, bedankt voor de vele lachbuien die je me bezorgde, maar ook voor de dagdagelijkse bespreking van de krantenkoppen (en vooral voor het delen van onze frustraties daarover). Anouk, ik heb er erg van genoten een bureau te delen met zo'n gedreven en oprecht persoon. Het was leuk om op de eerste rij te kunnen meegenieten van alle grote en mooie veranderingen in je leven de voorbije jaren. Fanny, je was een erg fijne collega en gesprekspartner. Onze bureau was dankzij jou een vertrouwde en gezellige plek om te werken. Tot slot, Linde en Maarten, ik heb zoveel van dit welslagen aan jullie te danken. Linde, al jouw goede raad rond de aanpak van een doctoraat, maar ook onze persoonlijke gesprekken hebben me iedere keer gemotiveerd om door te gaan. Maarten, ik heb enorm veel geleerd van jouw onuitputtelijke bron van politieke kennis, jouw gedrevenheid, maar ook van de verschillende malen dat we konden samenwerken.

Papa, en mama, zoveel dank voor het bieden van eindeloos veel kansen en ervaringen. Jullie hebben me steeds ondersteund in alle gekke en minder gekke keuzes die ik maakte. Hoewel papa zichzelf graag "de stille supporter" noemt, heb ik niettemin jullie ondersteuning ononderbroken gevoeld. Mama, jouw levenslange ervaring in het helpen en ondersteunen van mensen zijn een bron van inspiratie geweest in mijn doctoraat. Jef, bedankt om altijd om de eerste rij te staan bij het supporteren, maar ook voor het vele plezier en alle onnozelheden doorheen de jaren. Bonnemama, de vanzelfsprekendheid en het doorzettingsvermogen waarmee jij je inzet voor de goede zaak laten mij al heel mijn leven in verwondering. Bedankt voor alle moeite om te proberen mij de goede richting uit te sturen. En ook bedankt voor de krantenknipsels over stadslandbouw. En bij uitbreiding de Prové's en Van Oudenhoves, wat is het fijn om zo'n goede band te hebben en in zo'n warme families te mogen vertoeven. Jet, Rien, en Esther, bedankt voor alle oprechte interesse, zorgen en gezelligheid. De vele weekendjes in Nederland - die ik al dan niet slapend doorbracht - gaven de nodige ontspanning, afwisseling en energie.

Wat me het meest heeft rechtgehouden tijdens lastige of eenzame periodes, zijn alle grappige, ondersteunende, pientere, en inspirerende vrienden. Jullie maken mijn leven zoveel kleurrijker en avontuurlijker. Ik leer van jullie dat wat je ook doet, het belangrijk is dat je dat met passie doet. Bedankt aan de "bende van Gent" voor alle gezelligheid en absurditeit. Ook Daphne, Eliza, Ine, Wendy, Elsie, Karen, en in het bijzonder, Larrie en Kevin: bedankt voor de jarenlange, bijna levenslange, vriendschap. Soepcafé is een belangrijke bron van inspiratie en motivatie geweest. Ik leerde er een hele groep fijne en enthousiaste mensen kennen. Dankzij jullie is soepcafé een project geworden waar we nooit van hadden durven dromen. Bedankt voor alle vriendschappen en warmte die er ontstaan zijn. And to all friends from further away, Marjolein, Peter Paul, friends from Dordrecht and Rotterdam, Abby, Katie, Rachel, Trudy, Margie, Thea, Chris, Andrew, and Tom, thank you for your friendship and for making my world a bit bigger, now or in the past. It is very enriching and inspiring to have you in my life.

Thank you also Michiel, Elsie, Kevin, Jasmien, and Tom for helping me with spelling, lay out, or by reading parts of the thesis. Laurien en Evert, en op de valreep ook Roos en Robin, bedankt dat ik me mocht opsluiten in jullie huis om in alle rust aan mijn doctoraat te werken!

Michiel, tot slot. Ik voel me iedere dag gesterkt door jouw oprechte interesse in wat ik doe, voel, en denk. Met een wonderlijke opgewektheid en portie geduld stond je de voorbije jaren altijd voor me klaar om me te helpen en moed in te spreken. Na tien jaar vertoeven in academische sferen, moet ik toegeven dat ik nog steeds het meeste bijleer van jou. Jij staat met zoveel wijsheid in het leven. De voorbije vier jaren waren een uitdaging, maar het waren tezelfdertijd spannende jaren waarin zowat ons hele leven een experiment werd: soepcafé, liften naar Georgië, Noorwegen, en Marokko, het bouwen van ons eigen minihuis, en zoveel meer. Ook dit doctoraat zag je als een uitdaging waar we samen voor stonden. Ik kan me niet meer geluk bedenken dan met iemand samen te zijn die het leven ook als één groot avontuur beschouwt. Ik kijk nieuwsgierig uit naar wat de toekomst ons zal brengen. Bedankt voor alles wat je doet voor mij en voor ons.

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List of abbreviations

CSA	Community supported agriculture
DVRPC	Delaware Valley Regional Planning Commission
EPA	Environmental Protection Agency
FAO	Food and Agriculture Organization
FPAC	Philadelphia Food Policy Advisory Council
FPC(s)	food policy council(s)
GEG	Gent en garde
LFS	Local food strategy
UA	urban agriculture
UAP(s)	urban agriculture practice(s)

Chapter 1

Introduction



"Ferme Urbaine", Le début des haricots, Brussels

1.1 The rise of urban agriculture

In recent years, Ghent has witnessed the emergence of a range of remarkable projects. In 2011, inhabitants of the dense and impoverished neighborhood Rabot collectively decided to set up a temporary community garden on a former industrial site. The project was supported by the local municipality and coordination of the project was granted to the independent organization Samenlevingsopbouw for about 7 years. The blighted space has been converted to a public food production and recreational site. One hundred sixty individual plots of 4 m² serve about 68 families, mainly with an immigrant background, as a source of access to healthy food. Two community plots of 3000 m² enhance the short food chain in the neighborhood with a focus on access to that food. The food growing and other activities have also turned out to be a success story for encounter, social interaction, community development, marketing for social restaurants and grocery shops, and job skills training. On the other side of Ghent, Sabien is one among the first in Belgium to develop a rooftop farm in 2014. As a young entrepreneur, her business plan includes a vegetable garden of 500 m², a chicken run, and a composting site. Her dream is to engage businesses and their employees in the local food system by preparing vegetarian lunches, and organizing catering and team buildings with produce from the roof. In 2015, farmer and city-dweller Benny starts a community supported agriculture project (CSA) in Gentbrugge, on the fringe of the city of Ghent. It is an organization in which families pay for their share of vegetables upfront. It thus ensures a fair and secured income for the farmer, even when there is little to harvest or when the harvest is lost. After the second year, the organic farm has expanded, employing three people and feeding 300 families. Benny is taking his farm seriously and is engaged in many networks that advocate local sustainable agriculture and food systems here and elsewhere in the world. These people and their projects are part of what is called the urban agriculture movement.

This thesis' central focus is on urban agriculture (UA). It studies the latest resurgence of urban food production in Western cities, which started to pick up again slowly from the 1970s onward. As early as the 1970s, the concept UA pops up in various media sources to describe the growing trend of urban horticulture and animal husbandry. In 1975, the New York Times announces the Big Apple Farm and Food Conference with a focus on UA, or "*the innovations*

and techniques that constitute a new surge in city horticulture” (New York Times 1975). At that moment already, UA is reported as a solution to long distance transportation of food for cities, vacant urban land and organic urban waste. However, it is not until the late 1990s that UA as a concept is adopted across the globe to point at the growing food production activities and techniques in and around cities.

The term UA is fraught with definitional challenges and continues to be debated. It is not defined everywhere or by everyone in the same way. In more narrow understandings, UA refers to professional farms located in or near urban areas. In broader conceptualizations, it also includes other food growing activities such as private gardens, community gardens, educational gardens, healing gardens, peri-urban farms, composting, chicken or animal husbandry (e.g. pigs), beekeeping, forestry, as well as more technological projects such as container farming, rooftop farming, indoor farming, using the techniques of aquaponics, led-farming, hydroponics or mushroom growing (McClintock 2014).



Figure 1.1 Forms of urban agriculture (LTR and TTB): **a** Mushroom farm © Andrew Bossi; **b** Sheep grazing © Derek Harper; **c** Powell kids pulling beets © U.S. Department of Agriculture / CC BY-NC-SA 2.0; **d** Rooftop green house on supermarket © Lufa Farms; **e** Beekeeping © Michael Gäbbler, **f** Agriculture Tower © curbed SF / CC BY-NC-SA 2.0; **g** Window farm © Jon Kalish / CC BY 2.0 , **h** Aquaponics © Ryan Griffies, **i** Hydroponics, **j** Rooftop farm © Wim de Jong / CC BY 2.0, **k** Peri-urban farm.

Figure 1.1 illustrates the diversity. Among the many differences between these activities, they all (1) engage in food production, and are (2) integrated in or interact with the urban ecosystem. Some conceptualizations of UA are more systemically approached and also take the

processing and distribution activities into account, as they together support the integration of UA in the urban fabric. Farmers markets, vegetable schemes, on-farm sales are in this case also included in the study.

UA is increasingly popular with governments, academics, the media, and citizens². Their support further substantiates the UA movement. Governments at all levels eagerly seize UA practices (UAPs) as a strategy in a variety of policy issues and domains such as in education, poverty reduction, urban development, green space development, or health. The reemergence of attention for agriculture and food in Western cities occurs after a decades long disregard of agriculture in urban policy. From the 1950s onward, agriculture had acquired a rural image and was considered only fit for rural policy. Urban policy largely removed the topic from its agenda, as cities were then regarded as the places for consumption, innovation, living, culture, progress, and modernity. As a result, government support and attention for UA waned. Moreover, in many Western cities, UA farming practices such as composting, beekeeping, or raising livestock and chicken had become illegal or restricted for reasons of nuisance and public health (McClintock et al. 2014, Steel 2008). Within a few decades, animal keeping had largely disappeared in cities. In recent years, however, cities are again taking different initiatives to renew their support for UA, although they differ strongly in their history of policy making and to what extent they allow farming practices (McClintock et al. 2014, USA Today 2011). For instance, beekeeping in New York City had been illegal until the Board of Health in 2010 had reversed the ban (Het Laatste Nieuws 2010). In Belgium, by contrast, a regulation has been in place since 1886 that allows anyone to keep bees, on the condition that specific requirements are fulfilled. Animal keeping has been prohibited in cities such as Portland, USA (City of Portland n.d.), while in cities such as Ghent (Belgium), citizens and local authorities are experimenting to keep pigs on vacant land in certain neighborhoods³, even though this practice is strictly not allowed. Overall, a growing acceptance of animal keeping and its advantages is increasingly recognized. Thanks to the growing UA movement, the contingent spatial distinction in rural and urban policy that moved everything food-related to the rural areas, is well on its way to being reversed.

The UA trend is further stimulated by the growing attention from citizens, pioneers and academics. Urban researchers and citizens who are concerned with quality of life in their cities also understand UA as a way to make our future cities more livable. Increasingly, UA practitioners, government officials and researchers gather in national and international discussion platforms and networks exchanging expertise and supporting collaboration among

² In this thesis simply referred to as an inhabitant of a particular town or city.

³ See <http://www.hetspilvarken.be/>

cities. Among others, there is *MUFPP* (Milan Urban Food Policy Pact), an international protocol for development of food systems based on the principles of sustainability and social justice that is subscribed by more than 100 mayors in 2015 across the world; *RUAF* (Resource Centres on Urban Agriculture and Food Security), a global partnership that facilitates awareness raising, knowledge generation and dissemination, capacity development, policy design, and action planning for the promotion of sustainable UA and food systems; *Carrot City*, a traveling exhibit across the globe that explores the relationship between design and urban food systems; *Food for cities*, an online platform that is part of the initiatives of the Food and Agriculture Organization (FAO) to connect research and practice related to the challenges of urbanization related to food access; International Urban Food Network (IUFN), a research and cooperation hub on sustainable food systems for city regions that facilitates knowledge transfer and supports decision making; and *City Region Food Systems*, which constitutes a call to join the international community engaged for city region food systems and sustainable urbanization. In addition to these networks, there are also a growing number of conferences, public debates and seminars that cover UA or related topics organized in cities or countries where UA is picking up. Wageningen University organized the International Conference “Agriculture and Food in an Urbanizing Society” on 1-4 April 2012. The second edition was organized in Rome on 14-17 September 2015 and in 2018, the conference will be held in Porto Alegre, Brazil on 17-21 September. The RUAF Foundation celebrated its tenth birthday on 19-20 May of 2011 with the organization of the International Conference “Urban agriculture for resilient cities: Lessons learnt in policy, research and practice”. More recent, the Horticultural Society of New York hosted an annual Urban Agriculture Conference on May 28-29, 2015, and the 19th International Conference on Urban Agriculture will take place in Toronto, Canada in the summer of 2017. These events are only a small selection of the conferences and public events on UA that have been organized in recent years.

Media has also eagerly been picking up the enthusiasm for UA (Figure 1.2). Items in the news or newspapers, social media, and documentaries bring the topic under attention, largely depicting an image of young urbanites who engage in new projects or who emerge as entrepreneurs or pioneers in UA. This attention raises awareness about the role of agriculture and food in the city, but also supports a growing group of stakeholders who advocate UA.



Figure 1.2 “Urban agriculture is trendy”, Dutch newspaper article (Feb. 18, 2014).

The strong public support for UA has also resonated with local businesses and commerce. For example, it can be noticed that new gardening stores - or stores that have expanded to offering gardening supplies - emerge in the center of cities, courses on gardening are taught and many restaurants and cafés use local produce as a branding strategy. But other commercial businesses that are not directly involved in UA further stimulate the trend, such as bookstores that successfully expand their collection on urban gardening books. For instance, in the center of Paris, the showcase of a bookstore exclusively displays books on gardening (for beginners), permaculture, food growing on small spaces etc. (see Figure 1.3), while spaces for food growing are not so evident in that area of Paris. Even LEGO, the Danish company for construction toys offers a collection of farm and farm tools in a series called “city farm”. The boxes display common farm attributes such as cows, pigs, barns, sheds, tractors and fields against the background of a city scape.



Figure 1.3 Books on gardening and food growing in storefront of the book store “Gibert Joseph” in Boulevard Saint-Michel, center of Paris.

A focus solely on the recent media attention for UA gives the impression of the emergence of UA as a new phenomenon. However, this limits a thorough understanding of UA. In order to understand UA, it is necessary to elaborate on its temporal and spatial contingency.

First, UA has a long history and is not to be understood as an entirely new phenomenon (Steel 2008). Recent research about the extent of farming in and around cities has shown that on a global scale, agricultural activities within 20 km of urban centers (minimum 50 000 inhabitants) represent a surface the size of the 28 EU nations, including UK (Thebo et al. 2014). These results indicate that UA has in fact been an ongoing and larger phenomenon than expected. That is, however, when only distance to the city is considered to be labelled as UA which, as will be demonstrated in chapter 2, is not the approach in this thesis. Attention for the prevalence of UA had been scant and not measured before the research of Thebo and colleagues. The researchers also conclude that UA will continue to grow in importance, since urban populations - just like the global population - are growing steadily as well (i.e. it is expected that about 70% of the world population will live in cities by 2050).

Second, UA has followed a different historical trajectory in developing countries or the “Global South”. In developing countries UA has been a livelihood strategy on much larger scales. Food security and access to healthy food for poor urban dwellers are UA’s largest assets in these countries. The well-communicated figure of 800 million people who practice UA across the globe (FAO n.d.) and the contribution of 15-20% of global food supply produced in urban areas (Armar-Klemesu 2000) should be largely attributed to poorer cities in developing countries. It is estimated that in Asia as much as 80% and in Africa 40% of the urban population is involved in UA (Corbould 2013). The city of Hanoi, Vietnam, is calculated to be for 80% self-sufficient in vegetables. In more exceptional cases, it is the government who coordinates a nationwide program. In Cuba, economic crisis and international isolation after trade sanctions have pushed the island to rethink its food provision system, leading to a nearly self-sufficient sustainable agriculture system with a focus on access to healthy produce. In the cities, gardening activities turned into state supported urban farming programs (Bourque and Cañizares 2001), and Havana has become an exemplary model worldwide to discuss the scale at which UA may be practiced successfully.

Third, in European and North American contexts, attention for urban food production has known different cycles and periods of revival and waning, always corresponding with social, political or economic trends (see chapter 2). There was always more attention and support for urban food production during wars or economic crises. Also recent surges in UA development in cities of Detroit (USA) and cities in Spain and Greece have much to do with the latest economic and financial crises. However, UA is now picked up by a long list of cities in North America and Europe which are not necessarily facing severe economic issues. In these cities, UA is primarily promoted as a strategy in sustainable development.

Having made clear that UA is a new term to refer to historical practices of urban food production - although they are now supported by a range of technological innovations, by multiple stakeholders, and for multiple purposes -, and that the largest portion of UA for food security purposes is practiced in developing countries, we can argue that today's context of UA in the cities discussed and visited for this research is indeed for the largest part different from historical motivations for UA and from other geographical areas. This time, UA in Western cities can be characterized as a global social movement. UA is practiced for a variety of purposes which, taken together, all contribute to the goal of sustainable (urban) food systems. No longer is it only practiced for food security purposes or to respond to imminent food shortages, but it is in most cases, as we will see below, a critical answer to the shortcomings and side effects of neoliberalism that has produced unequal and unsustainable cities and a globalized capitalist agri-food system.

It is clarifying to hold the rise of UA and the underlying concerns about the current agri-food system against the light of the emerging role of cities as political leaders in global problems. The withdrawal of the state from food systems issues (Blue 2009, Renting and Wiskerke 2010) have led international as well as local policy levels to emerge in the governance landscape (Oosterveer and Sonnenfeld 2012). According to political theorist Benjamin Barber (2013) and urban sociologist Eric Corijn (2006), cities across the world know best how to tackle societal challenges of climate change. National politics that govern on the principles of shared identity and shared past are not dealing with global questions of biodiversity, social inequality etc. By contrast, they argue, cities have formed a global network through which activities, people and resources flow. This exchange makes cities the global players that are standing closer to the complex reality of global problems (Corijn 2015). Cities are no longer only seen as places of ecological and social disaster, but more and more seen as centers of opportunity. New issues can be tackled by approaching the city as a political experiment where the corroding democracy is enhanced and in which new forms of citizenship stimulate innovation, creativity, technological advancement and sustainable development (Holemans 2012).

If we take on the understanding of UA as part of what Corijn (2006) terms “the city as a political project”, it becomes immediately clear that UA in Western cities is (or should be) about more than a hype. Yet, to understand how UA can help to rethink and rebuild our cities, a first step is to understand its complexity and diversity by exploring the different actors involved in and claims for UA. The sections below discuss the various sustainability claims for UA that are often made within one and the same context (and also in chapter 2). They can be organized in two broad categories: UA as responding to issues in the agri-food system and UA as a

response to issues that are urban in nature. The reasons for the increasing interest in UA are explained in the light of these two categories in the sections below.

1.1.1 Responding to issues in the agriculture and food system

On a daily basis, we hear stories about the insecure financial situation of the agriculture sector. Headlines appear on the national news website De Redactie such as *“Farmers squirt milk powder at European building in Brussels”*. The article reports on farmers who gather in Brussels in protest of the low milk prices and the intention of the European Commission to market a share of the milk powder it bought in 2014 to avoid a fall in the market price (De Redactie 2017). A newspaper article from De Standaard, *“Already more than 10 000 tons of appels and pears destroyed”*, informs about the oversupply of fruit due to the Russian embargo (De Standaard 2016). Tons of fruit have been destroyed. Or the article of the Flemish information center for agriculture and horticulture (VILT): *“Increasing costs will affect the farm income until 2026”* calculates that an average farmer will have to work hard in the next 10 years to secure the farm income due to low prices, price volatility, fierce competition, and increasing costs of fodder, manure, energy etc. (VILT, 2016a). This is in line with COPA-COGECA (European farmers and agri-cooperatives) that summarized 2016 as a difficult farming year due to important threats of volatile price markets, increasing cost of inputs, higher demands of the consumer and government overregulation (VILT, 2016b). According to Van der Ploeg in a recent interview: *“the total debt of farming businesses in The Netherlands (not including debts in the family) is more than 30 billion euro, which is about 10 to 15 times the total income that is earned on these farms”* (VILT, 2017). It appears that many farmers are stuck in a hopeless financial situation. Many producers also lack market power and autonomy due to a bottleneck situation in which a large group of farmers at the beginning of the food chain are strongly dependent on only a few actors higher up the food chain (e.g. retailers; Pluymers 2014). Family farms are due to their weaker position often stimulated or persuaded into becoming what Van der Ploeg (VILT 2017a) calls farming entrepreneurs, which is generally associated with the agro-industry and larger scale capital-intensive farms producing for the world market. There are not many alternatives. One of them is abandoning the farm. Between 2000 and 2014 the number of farms in Flanders⁴ decreased with 40% (VILT 2016c), again further stimulating the scale increase of the remaining farmers as they take the newly available farmland.

⁴ Flanders is the Northern, Dutch speaking part of Belgium.

Other growing concerns among farmers, civil society and policy makers, are the impact of agriculture on climate change and local ecosystems. Although debates and positions are strong on the general sustainability of our agri-food system, discussions about the necessity of lowering emissions of greenhouse gasses (GHG) in the sector have been emerging only recently. By 2020, the Flemish government has committed to taking measures that will lead to at least 15% reduction of emissions (against 2005), and the agriculture sector will make a series of efforts such as reducing the use of energy source, and reducing emissions of methane (Departement Landbouw en Visserij n.d.). The sustainability concerns also revolve around pesticides, biodiversity, health of the soil, transportation of the food, and animal welfare.

The problems in the food system are not limited to the production stage. Also higher up the food chain, serious concerns are expressed about for instance the amount of food waste. The agri-food system produces tons of food waste on a daily basis. It is estimated that worldwide about one third of food produced is eventually thrown away (Milieucentraal 2012). This waste is caused at all stages of the food chain: when farmers do not harvest (part of) their produce; when the produce does not meet the high quality and visual standards; when the supermarket system has to throw away unsold perishable products or items that approach the expiration date, or when consumers are ignorant or careless about the food that is wasted at home (Vlaamse Overheid 2014). Although the amount of food waste leaves the impression of abundance and bounty, food access is of equal concern.

Food deserts is the term used for places or neighborhoods where the distance between consumers and the supermarkets, grocery stores or other markets where fresh produce is available, is considerably large, and where public transportation is inefficiently organized or lacking. Food deserts most often occur in low income neighborhoods. In the case of a person having no public or personal means of transport to access fresh produce, households have to rely on corner stores or smaller shops where predominantly processed food and unhealthy food is available. Food deserts are of particular concern in many North American cities.

Obesity, malnutrition and diet-related diseases in our Western world are other growing problems. They are in part caused by the oversupply of unhealthy, highly processed food which is generally cheap and easy to consume; by oversized portions of our meals; by the not always evident access to fresh and healthy food; and by a rather aggressive food marketing. The latter exposes us to images of unhealthy and highly processed food, or exaggerated health claims (Kent 2014). Especially commercials directed toward children appear to be problematic (VILT 2016d). The World Health Organization (WHO 2013) found that the prevalence of overweight among Flemish adolescents (15 year) is 16% for boys and 11% for girls in the Flemish region,

according to data from the Health Behaviour in School-aged Children (HBSC) survey (2009/2010). According to a study from the research network Health Behaviour In School-Aged Children (HBSC), there is a significant increase in the prevalence of overweight and obesity among adolescents (11-18 years) in 2014 as compared to 2010 (VIGeZ n.d.). Among adults in Flanders, 54% of the men and 45% of the women are overweight, 13% of the adult population is obese and the numbers grow with age (Drieskens 2013). Also here significant increases have been measured as compared to 1997. These numbers of obesity and malnourished people will become even higher when the problem referred to as food illiteracy persists. Food illiteracy describes the trend in which more and more people have limited cooking skills, lose their aspiration to prepare home cooked meals, or have little knowledge on the origin, nutritional value, processing and preserving methods of food ingredients.

To all these issues that are associated with the dominant agri-food system, UA may be part of the answer. Farms find in UA a coping strategy by seeking urban food markets. Often distribution and processing activities are added to the farm activities so that the products can be delivered with a label or a brand from the farm. Farms also attract urbanites to the farm by offering on-farm sales, recreational, educational and social services. Farms that turn to these activities profit from the current attention for local food and UA, which comprises a growing group of citizens that are seeking direct relations with the origin of their food and with the farmer. The expected results are a more stable income, income streams from different sources, and less reliance on global market players (Allen and Hinrichs 2007, Grewal and Grewal 2012, Norberg-Hodge et al. 2002, Pretty 2002). Additional reasons for farmers to engage in UA is that it offers an opportunity to produce more sustainably. One key feature of local food markets is that the food travels only short distances. This reduces the food miles needed for food distribution. Another advantage is that the produce contains higher nutritional values because the food is freshly harvested at the moment it is sold. The growing demand of citizens for sustainable farms and food can be an additional argument for converting the farm toward the principles of organic farming, permaculture, community shared agriculture (CSA), or agro-ecology. This may enhance the market position of the farm, especially when it seeks the urban market. UA can also be a game changer on the side of the consumers. Access to the farm or contact with the producer in the city makes the food system more transparent. Citizens may become inspired to learn where their food comes from, may be motivated to consume local, fresh and healthy produce, and become aware of the many unsustainable practices and unhealthy foods associated with the dominant agri-food system. Similarly, when urban dwellers get involved in UAPs such as community gardens or in CSA, they may learn about food production and healthy diets. They may also be motivated to provide in their own diet or to increase access to healthy food in their own city or neighborhood.

Taken together, UA is here predominantly understood as a new way of producing and eating our food. In a recent podcast of the Sound Bites by Mark Steiner (2017) on UA in Baltimore (MD, USA), the question was asked: “*Can urban farming become a new industry?*”. This question on the viability of UA as an economic and productive activity is often asked, and many discussions tend to revolve around this question. Although the scaling up of UA and the supply of food in the short chain system are imperative for UA to have an impact on sustainable urban development, this should not be the only concern. We should also be aware of other, more urban-centered and sometimes indirect functions of UA.

1.1.2 Responding to urban issues

Some scholars voice the concern that too much emphasis is put on the “agriculture” component in UA, and instead embark on reflections what the “urban” in urban agriculture implies (Torres-Lima et al. 2010). In this thread of argumentations, the role of UA is discussed against the background of quality of urban life and sustainable cities. Indeed, UA also potentially plays a role in many urban issues. Cities are nexuses where a lot of issues come together, but they are not always immediately visible or not by all considered as urgent issues. Four urban issues to which UA can respond are identified below.

First, many cities have for years been confronted with processes of (sub)urbanization. City centers expand and hinterlands are increasingly used for urban activities of housing, industry, recreation and other activities. This leads to a reduction of farmland and open space. The trend of densification where people live on smaller surfaces and closer to one another, is leading to a further loss of open spaces in city centers. Giving priority to UA in urban planning is a way to preserve farmland or vacant land for food production or green space. The lack of green space is a problem in itself, as it reduces quality of life for citizens. But it also results in a series of environmental consequences. The urban heat island (UHI) effect refers to a physical process through which temperatures in cities are on average several degrees warmer than in rural areas (Memon et al. 2008). UHI is caused by human activity, mainly through asphalt, concrete and building structures that absorb incoming solar radiation, and the emission of pollutants and anthropogenic heat (Taha 1997). This can be especially problematic in summer when the UHI effect increases the magnitude and duration of heat waves. It has been shown that the rate of deaths and illnesses are significantly higher in cities than in rural areas during periods of extreme temperatures (Changnong et al. 1996). Another consequence of our concrete cities is the excess of stormwater runoff. Stormwater runoff is a source of flooding and water pollution, because large amounts of water do not percolate through soil and are led untreated to water bodies such as rivers and streams, degrading aquatic life (Environmental

Protection Agency [EPA] 2003). It also puts additional stress on public health and urban infrastructure (Gaffield et al. 2003). The fact that one of the outcomes of climate change is heavier rainfall in many cities, makes this issue even more urgent. A recent study (Hankard et al. 2016) pointed out that vegetated green spaces - thus including UA - can reduce stormwater runoff by 85%. However, it also leads to much higher dissolution of nutrients such as nitrogen and phosphorus, which poses yet another environmental concern. Hence, the right measures should be taken to reduce nutrient loading. Taken together, UA is a valuable strategy to simultaneously manage temperatures in cities and flooding by catching and draining rainwater (Memon et al. 2008, Oberndorfer et al. 2007).

Second, cities produce a lot of organic and inorganic waste. Often, organic waste is either dumped, untreated or disposed in landfills. This is not only a loss of potential environmental and economic benefits, but this waste also poses potential risks to public health (RUAF 2003). UA can be a strategy to recycle and reuse materials correctly through composting, raising animals, and recycling waste water (Drechsel and Kunze 2001, Smit and Nasr 1992). For instance, wastewater can be transformed into a fertilizer, irrigation water or supplemental feed for animals, instead of being unused or treated at a high cost (RUAF 2003). Additionally, waste material such as discarded wood or windows can be used in the construction of UA infrastructure or food packaging can be re-used in local food cycles. Urban metabolism is a theoretical perspective that helps to identify the different streams of resource use and extraction, and the opportunities for recycling and re-use of urban waste. By closing nutrient cycles, cities score higher on resource conservation or even resource generation. Cities thus move away from being merely places of consumption (Smit and Nasr 1992, Thomson and Newman 2017). While there is a trend toward centralized waste treatment such as municipal composting or large waste plants that produce energy, it has been shown that smaller initiatives, for instance cooperation between farmers, are particularly strong in producing multiple societal benefits among which recycling and closing nutrient cycles (Schmid et al. 2015). This is an indication that UAPs are good spaces for resource recycling. Moreover, UA is also found to increase biodiversity in cities by growing a larger diversity of plants (Lin et al. 2015).

Third, another issue of growing concern is urban poverty. The majority of the world's poor live in urban areas (RUAF n.d., MO* 2004). Healthy, fresh food is generally more expensive or requires more effort and knowledge to include in the diet. The cost and energy needed to provide healthy diets is for many people a major constraint. In 2016, 143 287 Belgians relied on one of the nine food banks of the Belgian Federation of Food Banks (Steunpunt tot bestrijding van armoede, bestaansonzekerheid en sociale uitsluiting 2017). This is an increase

of 17.3% compared to 2013. Other food pantries or channels of food distribution for hunger relief are not even included in this number. In the USA, the number of people is much higher. It is estimated that one in every eight people suffers from some form of malnutrition (Feeding America n.d.). About 46 million people turn to food banks annually for additional support. UA can be included as a strategy in urban planning and policy to reduce hunger or poverty. In more extreme cases, we see that UA revives in cities during and after financial crises or in cities where the disappearance or relocation of manufacturing industries have hit hard. A notable example is the enterprise of the American Dan Carmody. As a crisis manager, he is committed to setting up local food economies as a coping strategy in cities that have suffered serious economic setbacks (New Venture Advisors n.d.). In many post-industrial cities like Detroit or countries strongly impacted by the financial crisis of 2008 such as Greece or Spain, we see the emergence of urban movements that pick up UA (Kolokouris 2015, IUFN 2014). A revival of food production for auto-consumption or subsistence is observed. Yet, research has identified that in many cases UAPs represents not much more than a source of food provision, while the structural inequalities that underlie poverty and hunger remain unaddressed (Ghys 2016). Caution should also be taken with potential adversary effects of UA. UA's role in processes of gentrification has been increasingly discussed (Massey 2017). This term refers to redevelopment processes of urban neighborhoods through an influx of more affluent residents, causing increased property values and displacement of lower-income residents. This means that the benefits discussed in the previous paragraphs only serve a specific group of people, and thus further perpetuate socio-economic inequality structures in urban neighborhoods, or even the disappearance of local communities and cultures (Reynolds and Cohen 2016).

Fourth, and related to the issue of poverty, many cities are dealing with a range of socio-economic issues such as crime, lack of education, racial and social discrimination, social exclusion, and neglect of public spaces. It has been shown that these issues are most persistent in impoverished and culturally diverse neighborhoods. Moreover, many cities tend to overlook or ignore these issues as cities become more and more adjusted to the fast pace of young, highly educated and entrepreneurial urbanites. Nevertheless, UA is often placed in a context of community development (Saldivar-Tanaka and Krasny 2004). Gardens and food production activities have proven to increase well-being, reduce levels of stress and feelings of safety (Bellows et al. 2003, Dunnett and Qasim 2000, Veen 2015). UA promotes community health by engaging citizens in community-led decision making, physical exercise, participating in and engaging with public space, and promoting food literacy. In other studies, it is claimed that UA provides safer neighborhoods and may even reduce crime rates (Bellows et al. 2003, Garvin et al. 2013). This can in part be explained by the positive effect UA has on social control

and social cohesion in neighborhoods (Sampson et al. 1997). However, the claim that community gardens promote social cohesion has been nuanced in other research (Veen 2015). The impact of UA on social integration has also been discussed, with a series of studies that find positive effects on interaction and integration of different social groups (Bellows et al. 2003, Veen 2015). From this, we deduce that gardens and other food growing projects can stimulate newcomers or people from a minority background to participate in public life and to make a connection with their cultural background (Saldivar-Tanaka and Krasny 2004, Bellows et al. 2003). In many cases, UA can be seen as collective learning spaces that offer job training skills and other popular knowledge that can empower uneducated or poorly educated people (Reynolds and Cohen 2016).

Much of the enthusiasm for UA resides in the fact that it is a relatively easy and cheap strategy to address urban environmental and socio-economic problems, therefore transforming UA into a broad movement that is about much more than food production and consumption. The fact that UA is not only about food, will not be denied by many. In many definitions and understandings of UA, the social, ecological and economic benefits are acknowledged and used as a starting point (van Veenhuizen 2006). Yet, in practice and policy making, it appears that the multiple benefits of UA are either undervalued (in a time where impact measuring is a necessity), disregarded because deemed irrelevant or not urgent, or not taken into account simultaneously. This can for instance be illustrated by the challenge for different policy departments to cooperate on food and agriculture issues. The observation that there are multiple claims, functions and stakeholders involved in UA and that it poses a challenge to consider all of these within one context, leads to the problem definition of the thesis, i.e. that the governance of UA is of central concern.

1.2 The governance question

The problems that modern industrialized societies are confronted with are complex, persistent and unstructured (Loorbach 2009). For instance, sustainability plans in the fields of energy, housing, environment and agriculture do not emerge spontaneously, nor can they simply be planned. Instead, long-term strategies need to be developed. In this context, UA has emerged as one such strategy in sustainable urban development. It is by many asserted that agriculture in and around cities evidently will be and has to be part of urban sustainability. Yet, the expectation that UA has to manage or cope with the adverse side effects of modernization (cfr. sections 1.1.1 and 1.1.2) is precisely the challenge that sustainable development is dealing with. According to Loorbach (2009), it is because dealing with these adverse effects requires a reflection on the dynamics and working of our society, and a redefinition of how to govern

society. This reflection caused, among others, changes in international food policy over the years (Lang and Barling 2012), the (re)emergence of agriculture and food system issues on the urban agenda, and the emergence of alternative food networks. Ultimately, the result of these reflections is a shift in agencies and actors who wish to have a stake in the new food politics and governance systems (Marsden 2000). The previous sections have indeed demonstrated that UA, as a growing urban movement, is increasingly relevant for different policy domains, different stakeholders and different urban issues. UA is no longer exclusively practiced by environmental activists or community builders. Nor does it only involve commercial farmers. These actors are now part of a large group including the broader public, neighborhoods, multiple policy departments, tourists, entrepreneurs, children, elderly, migrants, refugees, planners, architects, social workers, and health care workers, each approaching UA from their own perspective and field of experience. However, the variability, unclear expectations and vague roles of responsibility and accountability currently render the future of the UA movement uncertain. The cross-sectoral nature of UA requires interdepartmental cooperation and coordination on the part of governments. The effectiveness of governmental initiatives is also very dependent on support from civil society. According to Marsden (2000), to understand *“the evolution of these new forms of food relationships requires in-depth analysis of actors and interests involved”*. This complexity of actors and interests illustrates the need to approach UA as a governance issue.

There exists a huge variety and diversity in definitions, analytical frameworks and theories of governance and governance models - depending on the focus, research domain or field of academic literature. In this work the approach of governance in political science is predominantly used. In political conceptualizations, the concept of governance is generally used to indicate policy settings that are characterized by a multiplicity of social and political actors, vague and incomplete problem definition, need for specialized knowledge, conflicting policy objectives, and a high risk of political antagonism (Koppenjan and Klijn 2004). Because governments are often no longer capable of defining and implementing solutions to important but complex issues, they depend on other actors, external resources and expertise. This is often called the shift from government to governance (Curry 2001). A growing scholarship dealing with governance agrees that top-down steering by government and the liberal free market approach - i.e. the extent to market forces can bring about social change - are both ineffective to generate sustainable societies (Sørensen and Torfing 2009). At the same time, however, they are indispensable in the governance toward societal change (Jessop 1997, Meadowcroft 2005, Pierre 2000). Behind this is the idea that government, nor any other stakeholder group can do it alone. More and more policy issues are addressed through the engagement of stakeholders for the development and implementation of government

objectives (Knill and Lehmkuhl 2002). Governance then, refers to “*the processes of interaction and decision making among the actors involved in a collective problem that lead to the creation, reinforcement or reproduction of social norms and institutions*” (Hufty 2011). Many distinctions in governance processes can be made. They can for instance be formal or informal, mandated or self-organized, open or closed, sector-specific or society-wide etc. (Sørensen and Torfing 2009).

The focus on practices of interaction, involvement, and collaboration imply that governance of UA represents more than designing new policy. Issuing new zoning orders or including UA into the urban planning as a land use function are important initiatives. Yet, these are insufficient to develop UA to its full and multifunctional potential. A governance approach equally implies that support for UA is more than merely transferring responsibility to civil society. In political science in general, governance implies that societal and economic actors gain influence over policy (Peters and Pierre 1998). Political decisions are being discussed and negotiated between state actors and members of the broader society (Harrington et al. 2008), resulting in a co-creation of policy.

In order to focus more specifically on the processes that stimulate democratic participation in policy processes and other actions initiated by the government, this thesis focuses on a subset of governance theory, namely participatory governance⁵. The aim of participatory governance is to study the politics that take place within the new spaces of policy making. In essence, participatory governance aspires to deepen the ways in which ordinary people can effectively participate in and influence policies that directly affect their lives (Fung and Wright 2001). Behind this lies the idea that citizens ought to be involved more directly and more meaningfully in public decision making. However, in view of the complexity and uncertainty that topics such as UA entail, participatory governance arrangements and tools will have to be able to orchestrate the new creative multi-actor, multi-level, multi-purpose and multi-sector trajectories (Healey 2004). Examples of governance tools that have been identified from the literature and the field are: network building, collaborative framing of policy issues, interdepartmental and inter-sectoral collaboration, participatory budgeting, food policy councils (FPCs) and land banks. FPCs are selected for in-depth analysis of their participatory potential (see chapter 7 and 8).

⁵ Participatory governance and collaborative governance show much overlap in their definition and application. However, in academic literature, they are often dealt with separately. Therefore, both will be discussed in chapter 3.

Besides the concern for democratic participation in policy issues, a focus on participatory governance of UA also imposes other critical and fundamental questions about the responsibility of government and civil society, and the expectations of UA in a given context. First, concerning the question whether government and civil society always have to be actively involved, it needs to be clarified that there are multiple forms of governance whether undertaken by governments, civil society, markets (Bevir 2013). In all these forms, not all different stakeholders are always involved, or have to be involved. Surely, civil society actors can go far in independently organizing UA in their city. In the same manner, municipalities can introduce a range of new policies and urban planning measures that changes the conditions and opportunities for UA in a city significantly. However, in this research the interest lies in the co-governance by government, civil society and market to promote sustainable development (Ansell and Gash 2007). Herein lies the assertion that politicians and public officers as knowledgeable and resourceful actors have a responsibility for strategic leadership and defending the public interest (Sørensen and Torfing 2009). It should also be noted that in this process of co-creation, it is not only the active participation that has to be considered. Deliberate non-participation or oppositional activities can equally steer the outcome of UA governance and should therefore also be taken into account. Second, another fundamental concern is that UA is by many stakeholders dealt with as a panacea (McClintock 2010). While the potential of UA cannot be underscored enough, some scholars warn that UA should not be conceived as an all-encompassing solution to the myriad of issues in urban and agricultural sustainability. Moreover, UA is also competing with other social demands for housing, recreation, industry, nature, and others. It then becomes a matter of either designing UA spaces to be multifunctional, or weighing off the value of UA against the value of other urban development needs. In other words, fitting UA properly within a given context.

In alignment with Sørensen and Torfing (2009), it is argued that governance processes and the proposed governance tools for UA are not inherently effective or democratic. The premises of enhanced democracy and participation should therefore always be critically scrutinized. The focus within participatory governance in this research lies more specifically with the process of balancing between different stakeholder groups, opposing views and conflicting interests. This thesis is primarily concerned with the question how in the decision making and implementation process all of these are taken into account. How are farmers' concerns included in the governance of UA? What measures are taken to incorporate citizens' perspectives in policy making? How can different actors collaborate and cooperate? These are just a few questions that result from the recognition that: *"the design of a setting never neutrally represents the public nor the issue. It always constructs and transforms them and, thus, inevitably implies inclusion and exclusion. A good setting, then, is not one which is neutral, but one which*

deforms, constrains and enables in interesting ways” (Gomart and Hajer 2003, Lahsen 2004). From this follows that UA cannot neutrally defend urban and agricultural sustainability objectives. Instead, UA governance should be conceived as a political process in which UA objectives, functions, stakeholders and beneficiaries become explicitly negotiated. In these negotiations, attention should be devoted to how certain practices, stakeholders, and objectives become prioritized, or how others might be excluded from the governance processes. To study this, a focus on justice in the UA governance process is helpful.

1.3 Focus on justice in the governance process

A narrative on UA has emerged in popular discourse that is both uncritically positive and decontextualized (Lawson 2005, Classens 2015, Mares and Alkon 2011, Prové et al. 2016). This narrative has been eagerly adopted by the media and online platforms, with headlines such as *“Farming and the city: How local-grown agriculture can feed the world’s urban areas”* (website of Milan World Expo 2015), *“There will be billions more hungry people in 2050. Growing our food on vertical farms or under radical new lighting systems may be key to ensuring they have enough to eat”* (BBC), or *“Urban Farming Is Growing a Green Future”* (National Geographic). The assumption that UA is a valuable goal in itself often results in an instrumental approach to governance. UA advocates tend to consider the actual development of UA policies and practices to be of greater importance than the precise form, objectives and impacts of such policies and practices (Cohen and Reynolds 2014, DeLind 2015, McClintock 2014).

This positive narrative equally circulates in Ghent and translates into a range of new agriculture and food initiatives that focus on food production or the sale of local produce. In 2014, a local grocery store *Moor & Moor* was founded. It embodies five values of pure, local, organic, vegetarian, and ecological. It serves and sells products with “a story that makes the customer happy” (Figure 1.4). *Lousbergmarkt* houses a cheese cooperative *Hinkelspel*, a local bakery *Copain*, a restaurant and a vegetable shop *De Vroente*, which is a cooperation between three local organic farms (Figure 1.5). *Beomarkt*, located in the touristic center of Ghent, is a food market selling fruit, vegetables, dairy, meat, bread, grains, nuts etc. with the promise of “being delicious, fresh, affordable, 100% organic and creating a good ambience” (Figure 1.6). *Vers* is another recent grocery shop with the slogan “healthy commerce” (Figure 1.7). The store wants to be a meeting place for the neighborhood that offers fresh, local, artisanal and sustainable products on a daily basis. The founders of the shop want to offer the story behind the food they sell.



Figure 1.4.a Logo Moor & Moor; **Figure 1.4.b** Interior of Moor & Moor, Gent © Michiel Aerts.



Figure 1.5.a Logo Lousbergmarkt; **Figure 1.5.b** Interior of Lousbergmarkt, Gent © Michiel Aerts.



Figure 1.6.a Logo Beomarkt; **Figure 1.6.b** Interior of Beomarkt, Gent © Michiel Aerts.



Figure 1.7.a Flyer Vers; **Figure 1.7.b** Outside of Vers, Gent © Michiel Aerts.

The novelty of these and other initiatives is that they restore specific values in the new food chains they set up, whether it is sustainability, health, local, or others. They offer more transparency in the food chain and respond to a growing demand of consumers who are increasingly critical of the dominant agri-food system. The increasing number of initiatives and their growing success might signpost the beginning of transforming societal values in relation to the desired agri-food system.

It is argued, however, that research should study the impact of these and other UAPs thoroughly instead of uncritically adopting the generic and positive discourse on UA. It is by no means the purpose to put these initiatives in a bad daylight, or to disregard their courage and pioneering work in urban sustainability. These initiatives make considerable efforts to shift attention to agriculture and food issues, to address health and sustainability, to form networks and substantiate the agriculture and food movement, and ultimately to put UA on the urban agenda. However, most often UA and local food have a hip and fashionable image, attracting a rather homogenous group of people adhering to a specific lifestyle.

This group tends to be predominantly composed of highly educated, white, middleclass citizens. Media and public attention are almost exclusively devoted to these projects presented above, in a language and format that appeals to this group of people. The result is that less attention is devoted to critical questions related to the governance of UA, such as: For whose benefit is UA supported? Who has access to UA? By whom and where are decisions taken? Due to the disregard of such questions in the governance of UA, the opportunity is missed to make important links between UA and justice in urban and agricultural sustainability.

An illustration of a justice concern relates to the inclusion of marginalized individuals, groups, or communities in UA governance processes. Increasingly, scholars and media warn about cities dealing with growing inequality, food insecurity, poverty, migration, and the challenge to guarantee quality of urban life. Moreover, UA could exacerbate these issues if they are not taken into account in the governance processes. For instance, professor Stijn Oosterlynck and his team called Oases (University of Antwerp, Belgium) report in a newspaper on research findings that increasing income inequality pushes poor and rich citizens to gather in their own communities or neighborhoods (De Morgen 2015). More recent research of sociologist Emily Miltenburg has shown that the desired social mix of different economic backgrounds in social housing policy does not lead to improved economic status of poorer citizens, unless there is also an investment in the educational, job training and employment opportunities of these people (Volkskrant 2017). Two historians Maïka De Keyzer (University of Utrecht, The Netherlands) and Eline Van Onacker (University of Antwerp) argue in another newspaper

article that the sharing economy does not organize equal access to new public resources such as UA (De Morgen 2016). That is because the degree of inclusiveness of public resources depends on the levels of inequality in society. Often, polarization in society results in highly exclusive institutions in which resources circulate only within limited circles. When these findings are extended to UA research, we conclude that access to UA, as a potential source of education, skills training, employment, but also food and recreation, is an important question in the urban inequality debate. The following two figures 1.8 and 1.9 each highlight concerns of specific groups or individuals that relate to the urban inequality debate in UA development.



Figure 1.8 Urban agriculture advocacy in Philadelphia. Signs from LTR: “Growing community peaceful”, “Pathways to land ownership for farmers”, “Urban ag on the land bank board”, “Bring back the backyard chicken”, “Let my people grow”, “Food”, “Fast fresh food Philly farms make gardening priority”, “Backyard breakfast” © Catalina Jaramillo/PlanPhilly.

Figure 1.8 displays a group of teenagers marching in front of the City Hall in Philadelphia (PlanPhilly 2016). The teenagers were part of a group of more than 100 urban farmers and food justice activists to attend the first city council meeting completely devoted to UA. They organized themselves to demand commitment to garden preservation and creation. Despite widespread support for UA in Philadelphia, access to land, land tenure and participatory land use decision making are still core obstacles. Also with regard to the growing urban immigration and increasing cultural diversity, UA can play an important role. Figure 1.9 illustrates the complexity of cultural aspects of food diets. From the person’s explanation, we learn that humans may be deeply attached to their land. Working the land can be a source of cultural expression, a practice that can make one feel “at home”.



Figure 1.9 Screenshots from six-part documentary “Op zoek naar Frankrijk [Searching for France]” (E6), director Erik Lieshout, presentation William de Bruijn, “These are seeds from my country” “Where would you like to plant them?” “Here, in Paris. When I look at these seeds, they remind me of my life in Syria” © VPRO 2016.

A second illustration shows that the debate on access to the benefits of UA also includes the various concerns of urban and peri-urban professional farmers as discussed in section 1.1.1, with one of the most important concerns being access to farmland. Access to the benefits of UA (e.g. the provision of new production spaces, logistic support in local food systems, financial support) could help these farms withstand the threats from urbanization. Figure 1.10 illustrates a farmers protest which took place in Ghent on October 9th 2017. While complaints against the local government have been ongoing for many years, farmers organized this manifestation to protest against the urban planning policies of the city. With this protest, the farmers also wanted to show that they feel excluded from the local government’s initiative to support a local and sustainable food system.



Figure 1.10 Professional farmers in Ghent protesting against the agricultural and food policy and planning in Ghent on October 9, 2017: “Every citizen in Ghent should know, without farmers no food!”.

The above illustrations are two among many more justice claims in UA. Other stakeholders could claim UA for instance to gain access to green and recreational space, to manage urban temperatures (e.g. urban heat island effect), and to develop employment skills of lower educated people.

A key concern in this thesis is the question of how the various claims for UA can be taken into account in governance processes. That is important to understand because on the one hand, some of these claims are competing or incompatible. On the other hand, the governance of UA is most often about sharing and leveraging scarce resources. There may thus be more contestation in UA governance than is commonly understood.

This aspect, however, often gets overlooked because of a predominant focus in research and practice on UA’s potential in sustainable development, and more specifically UA’s ecological, economic, and social contributions (which are the same as the three pillars of sustainability; see Hansmann et al. 2012). It is often stated that UA is a strategy in sustainable urban development, representing an alternative to the dominant industrialized and globalized agri-food system that is claimed to be unjust, unsustainable, unhealthy, wasteful, economically precarious, and more. In turn, however, sustainability has been criticized for being too broad, unspecific, and unpolitical (Kemp and Martens 2007, Agyeman 2013). That is because the focus in sustainability is too much on a final outcome rather than approached as an open-ended process. By conceptualizing sustainability as an open-ended process, it is possible to

inject critical concerns in the governance of UA, revolving around the questions of: How are various claims taken into account in UA governance processes? How are contesting claims for UA played out in UA governance processes? Who gets access to the benefits of UA? And who bears the burdens? These are important questions because many Western cities are dealing with increasing complexity, poverty, and inequality (see chapter 4). Therefore, we have to study the governance structures and processes to ensure that they are fair, democratic, and just, and that they do not exacerbate existing inequalities.

To explore this further, the thesis integrates a theoretical perspective of justice in a study on the link between UA and sustainability (see chapter 3). Various justice concepts are related and relevant for this study. For instance, food justice focuses on fair access to food and agriculture and on demonstrating processes of racial and class discrimination in access to healthy and sustainable food (Alkon and Norgaard 2009). However, besides food- and agriculture-related claims, there are other claims in UA in which food and agricultural practices are the means to another end (e.g. recreation, access to green space, quality of life, training of employment skills). Drawing on the concept of environmental justice is broader than food justice and thus assists in including also these other sustainability claims in UA.

Research on environmental justice has demonstrated that environmental problems such as pollution and waste are contextual, meaning that different social groups have different levels of exposure to such problems (Bullard 1996, Bullard 2000, Mitchell and Dorling 2003) and different levels of access to environmental goods and benefits (Jennings et al. 2012, Walker 2012). UA can be considered as an environmental good that produces many benefits (see chapter 2) and that can increase quality of life for many people. Environmental justice is relevant for this research on UA governance because it highlights that having access to the benefits of UA is of central concern. Environmental justice has two main tenets: distributional and procedural justice. A lot of research has demonstrated that environmental goods and bads are unevenly distributed in cities (Bullard 2000, Walker 2012). Although finding evidence of distributional injustices has been the core in much of the environmental justice research, especially in the first strand of environmental justice research, the aim of this thesis is not to demonstrate distributional injustices in the benefits of UA⁶. Instead, the interest lies with identifying the socio-political structures and processes that perpetuate and enable inequalities in environmental goods and bads. Therefore, the focus is on procedural justice, which implies

⁶ An example would be to analyze the access of individuals and communities to UAPs through GIS (Geographic Information System) and spatial analysis and explore whether distance and inaccessibility is correlated with variables of race and class.

an exploration of the ability of stakeholders to express concerns and to participate in decision making processes that organize these environmental goods and bads (Schlosberg 2004).

Besides the reason to adopt environmental justice as a way to politicize research that studies the link between UA and sustainability, there is a second reason. That is to explore why environmental justice advocacy is lacking in general in the European⁷ and, more specifically, Belgian context⁸. Environmental justice has its origins in North America and has become a well-integrated theoretical and political concept. Over the course of several decades, race and class discriminations have become a dominant theme in North American critical scholarship and activism (Daly and McClintock 2017). The absence of such a focus in research and practice in Europe is striking. Here, the thesis aligns with Daly and McClintock (2017): *“While specific geographical and historical contexts may make race/ethnicity more or less relevant to UA scholarship across Europe, it is worth questioning whether an entrenched colorblind liberal universalism in European academia might also limit critical scholarly attention to such categories of difference in analyses of UA”*. It is argued that the environmental justice advocacy, theory and politics in North America have most importantly yielded a series of critical questions that can equally serve to illuminate the inherent qualities and dynamics in other contexts, even in cases where environmental justice as such is not or poorly used in advocacy, theory or politics. The point is that we cannot know whether UA governance processes are confronted with environmental justice issues and whether this perspective has explanatory power in other cases beyond North America unless these environmental justice questions are integrated in the research. Applying these environmental justice questions would avoid to make a priori and perhaps faulty conclusions that environmental justice issues are not at stake. It may uncover processes and dynamics, or yield data that otherwise would remain unobserved. According to Agyeman (2013) these insights are important because a dual focus

⁷ Although in some European countries attention for environmental justice in practice and in research has been emerging, as will be illustrated with a case in France in the following footnote.

⁸ This can be illustrated by two recent cases in Belgium. First, there is the case of Doel where expansion of the port of Antwerp resulted in an expulsion of farmers in the area, because the lost nature area needed to be compensated. This case has been an ongoing and political struggle. Yet, besides some local protest and some media attention (with the focus mostly on the inhabitants of Doel that also have leave the village), there is little awareness or public concern on this case. A second case is about Haren, a municipality of Brussels. For the past few years there has been protest in Haren against the construction of a prison. Instead of the prison, the local community wishes for an UA project which would enhance the community ties. A small group of people occupied the location of the construction site and vacated on that same location. Again, in this case, there was barely any attention for this case, especially in the Flemish media. In a similar vein, for several years there has been a local protest against the construction of an airport in Notre Dame Des Landes near Nantes (France). This case has become a national and international symbol of protest against environmental discrimination. Thus far, this protest has been successful in preventing the construction of the airport. The differences in dynamic between the case in Notre Dame Des Landes (and the environmental justice movement in North America) and the cases in Belgium are remarkable. It leads to the question why broader environmental justice activism has been mostly absent in the context of Belgium.

on addressing inequalities and forging sustainable practices can represent the pathways through which broad social change can be achieved.

1.4 Research objectives, research questions, and relevance of the research

1.4.1 Research objectives

This research studies governance processes of UA. Throughout the different sections in this chapter, it became clear that UA, as it reemerged since the 1990s, is to be understood as a global social movement that is largely advocated in urban centers. UA is advocated for a wide array of sustainability objectives and involves many different practices, stakeholders, and objectives. It is no longer only about food security. To study how these various UA stakeholders (and their practices and objectives) collaborate to support the development of UA, this research analyzes governance processes that are formally initiated by local governments. In this analysis on UA governance processes, the focus is on critically assessing whether and how UA governance processes succeed in taking into account the various UA practices, stakeholders, and objectives. The main objective of this research is to understand UA governance processes against the background of sustainable development and explore how these governance processes produce specific inclusionary and exclusionary dynamics. The goal is also to reflect on how different emphases in governance processes and different inclusionary and exclusionary dynamics interrelate to urban and agricultural sustainability (cfr. sections 1.1.1 and 1.1.2). The dominant analytical focus on the city level allows to explore how different actors shape the UA landscape within a given context through collaboration, decision making, policy making and advocacy, or how UA development is constrained because of existing structures, regulations, or others in that context. This means that justice issues within one UA project will not be the focus, but instead justice issues that result from a particular UA governance process on a more aggregate level (i.e. city level). Furthermore, it has been argued that sustainability assessments of UA would benefit greatly from comparative analyses of UA on larger scales - neighborhood, city, or region (Lovell 2010). Governance processes of UA in different cities will be compared, namely Ghent (Belgium), Warsaw (Poland), and Philadelphia (PA, USA). The delineation of the aspects of UA that are studied in this thesis translates into three research objectives (ROs):

- RO 1** To explore the diversity in UA practices, stakeholders, and objectives and to compare UA developments in different cities

- RO 2** To explain the divergent UA developments in different cities
- RO 3** To evaluate how governance processes stimulate or prevent inclusion of the UA practices, stakeholders, and objectives

1.4.2 Research questions

The main research question of the thesis is formulated as:

- Main** To what extent and how are UA governance processes inclusive of different practices, stakeholders, and objectives; and how does this inclusiveness interrelate to understandings of and developments in urban and agricultural sustainability?

In order to answer the main research question thoroughly, six sub-questions have been deduced. First, the goal is to gain an understanding of the diversity in UA and the formal UA governance processes. This is done through a descriptive analysis of the context, the UA practices, stakeholders, and objectives, and UA governance processes in the three cities under study:

- RQ 1** Which UA practices, stakeholders and objectives can be observed within a city and how does this differ among cities?
- RQ 2** Why do formal governance processes of UA emerge and what are their purposes?
- RQ 3** What is the role and impact of formal governance processes of UA in terms of bringing together different practices, stakeholders, and objectives?

Then, it is important to identify and to understand the inclusionary and exclusionary dynamics in UA governance processes. The fourth research question is therefore formulated as:

- RQ 4** Which elements are key in the production of inclusionary/exclusionary dynamics in UA governance; and how do these elements pose challenges for inclusion of different practices, stakeholders, and objectives in UA governance?

Next, in order to formulate recommendations and strategies for how UA governance processes can be inclusive of the various practices, stakeholders and objectives, the fifth research question is formulated as:

RQ 5 How can participatory governance processes actively stimulate inclusion of the diverse UA practices, stakeholders, and objectives within a governance context?

Finally, the main research question also calls for a general reflection on the role of integrating a justice perspective in the analysis of UA governance:

RQ 6 What is the relevance of integrating a justice perspective in the analysis of UA governance processes?

These questions are dealt with throughout the different chapters. In the discussion chapter, the questions are responded to more directly.

1.4.3 Relevance of the research

For the last decades, UA has been increasingly studied. An extensive literature review of UA in a first phase of the research resulted in many articles and research findings that report on the assessment of sustainability aspects of UA, on technological innovations in UA, on idiosyncratic bottom-up initiatives, or on the policy and planning implications. Moreover, the majority of scholarly articles uses case studies in the Global South. This thesis has identified that in the theorization of UA, the governance aspects of UA have been less investigated. Or when the governance aspects are investigated, they are uncritically approached. Current research easily adopts a generic, positive narrative and an instrumental approach to governance (Lawson 2005, Classens 2015). It is argued that by uncritically adopting a generically positive UA narrative in sustainability plans, actors may unwittingly help to perpetuate inequalities within city-level social and political structures (Reynolds 2014). In order to study UA more critically, some scholars have advocated to import concerns of justice in analyses of UA in order to assess the transformative potential of UA (Reynolds and Cohen 2016). Only few studies have linked UA to justice issues, and most of these were conducted in North America (Daly and McClintock 2017; see for instance Classens 2015, Cohen and Reynolds 2015, McClintock 2012a and 2014, Milbourne 2012, Reynolds 2014, Reynolds and Cohen 2016, Sbicca 2012). Such approaches help to go beyond simply celebrating UA because it radically changes socio-political structures, or rejecting UA because it reinforces neoliberal structures (Classens 2015, McClintock 2014). However, the few but important works that link UA and justice generally conclude either by advocating the assessment of the transformative potential through analyses of justice (Classens 2015, McClintock 2014, Tornaghi 2014), or by analyzing how injustices unfold or may be addressed with a focus on singular UAPs (Alkon 2008, Reynolds 2014, Tornaghi 2017). Thus far, insights into how

governance processes produce inclusionary and exclusionary dynamics remain rare. To contribute to this gap in academic literature, a justice perspective (i.e. environmental justice) is integrated in the theoretical framework on UA governance (see chapter 3). In some empirical chapters, this perspective is implicitly guiding the research approach or analyses, while in others issues of environmental justice are more explicitly examined. Studying the link between UA and sustainability from an environmental justice perspective will allow to identify and analyze urban and agricultural issues that are not immediately visible, yet imperative to scrutinize if we aim to assess the role of UA in enhancing urban and agricultural sustainability.

Besides the theoretical relevance, this thesis also has practical relevance. By studying and comparing UAPs and their governance processes, explanations are sought for the particular development pathways of UA in a given context, with the aim to formulate recommendations and strategies for how governance processes could be taking into account the diverse practices, stakeholders, and objectives.

1.5 Outline of the thesis

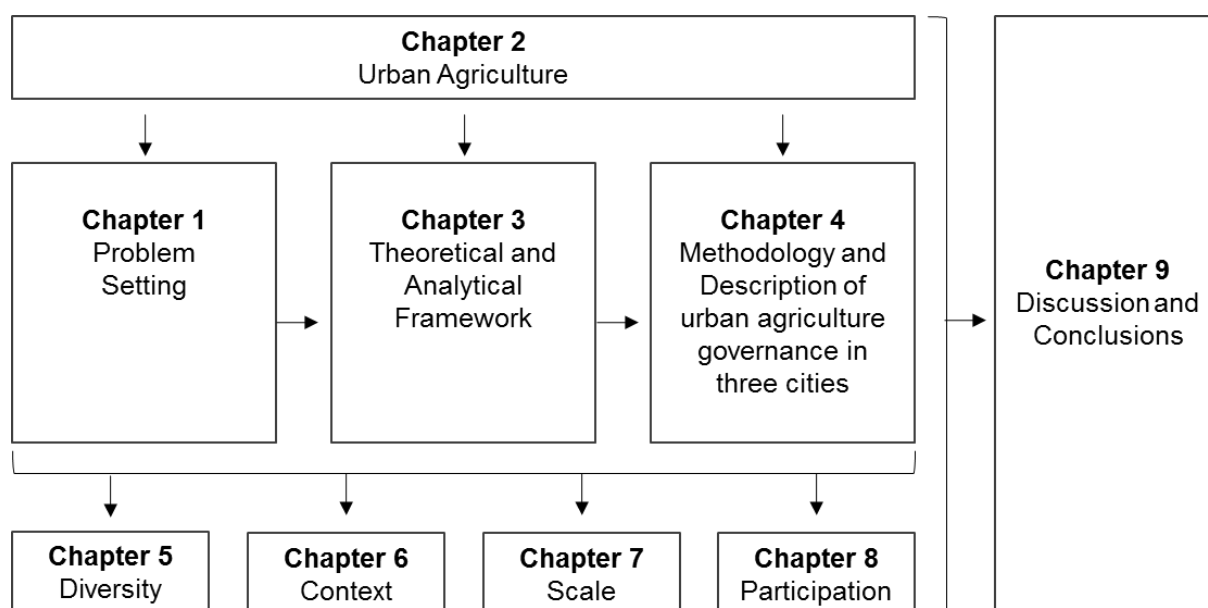


Figure 1.11 Outline of the thesis.

This introduction chapter (i.e. chapter 1) has defined the research problem and has provided the background of this research problem. It has illustrated the relevance of research on UA from a governance approach. To study how inclusionary and exclusionary dynamics in UA governance processes interrelate to urban and agricultural sustainability, different research questions have been formulated. These questions are dealt with throughout the different

chapters. Chapters 5-8 are academic articles that have been published or submitted to scientific journals (see title page of chapters 5-8). The original journal papers have been slightly adapted. In chapter 9, the research questions are revisited and discussed with combined insights from the chapters 5-8. The outline of this thesis and the relation between the different chapters are presented in Figure 1.11.

Chapter 2 provides a literature overview of the concept of UA. It comprises five main parts. First, the chapter starts with a description of UA's history. Second, the chapter discusses the various UA definitions and elaborates on the conceptualization of UA that will be used in this thesis. Third, since UA is commonly linked to the concept of sustainability, an overview is provided of the various potential sustainability benefits that are advocated in literature. The potential risks of and barriers for UA are also discussed. The fourth part discusses UA from an agronomic and economic point of view. Finally, the policy and planning options for UA are presented, with a stronger focus on FPCs as they are the subject of research in chapters 7 and 8.

In chapter 3, a theoretical and analytical framework is developed to study the main research question of inclusion and exclusion in UA governance. The thesis is based on three theoretical propositions. The first is that a local food systems approach is adopted to study all aspects (i.e. practices, stakeholders, and objectives) of UA broadly, but also to enable an analysis of UA from a transformative perspective. The second proposition, which is also the part of the problem statement in chapter 1, is that UA is best considered as a governance issue. The thesis focuses on a subset of governance theory, namely participatory governance. The third theoretical proposition argues that the integration of a justice perspective in the analysis of UA governance contributes to the literature by offering valuable insights into the inclusionary and exclusionary dynamics in UA governance. This thesis focuses on the concept of environmental justice. Finally, the chapter presents the operationalization of the framework through four concepts: diversity, context, scale, and participation.

Chapter 4 defines the research methods used to conduct the study. The first section introduces the context in which case study research is designed. The second section describes the research process which includes the subsequent stages of case selection, data collection and analysis. Then, a brief reflection on the research process is included. The second part of chapter 4 deals with the introduction of the three cities in which an in-depth analysis is conducted: Ghent, Belgium; Warsaw, Poland; and Philadelphia, PA, USA. For each city, the context, UA practices, stakeholders, and objectives, and UA governance processes are

described. These sections provide more background information that is useful for the interpretation of the analyses in the empirical chapters (i.e. chapters 6 to 8).

Chapter 5 examines the diversity in UAPs. The starting point of this chapter is the observation that on the one hand, there is much discussion on the usefulness of the concept of UA, and on the other hand, many simplistic categorizations of UA are made (e.g. when UA is understood as either economic practices or social practices). It is argued that analytical tools are lacking to enable more constructive discussions on the concept of UA. The aim is to explore whether there is a way to discuss UA that takes into account the diversity of practices. There will thus be less focus on the diversity of stakeholders and objectives in this chapter, a point that is discussed in the last section. A research approach and method is adopted that is different from the other three case studies (see chapters 6 to 8). It does not analyze data from the three cities, but explores a diversity of UAP's across Europe. Based on a comparison of the cases, a conceptual framework of 13 characteristics has been developed that appear to be key for the governance of all individual UAPs studied. The framework is applied to four cases to explore the applicability of the conceptual framework. The chapter discusses how the framework can be used (1) to systematize the diversity in UAPs in research and (2) how the framework can be used as a tool in UA governance processes at a city level to grasp the complexity that the diversity in UA entails.

Chapter 6 analyzes the concept of context and studies how context plays a role in UA governance and UA development. It starts from the observation that discussions on UA are often generically positive and uncritical. Enthusiasm for UA spreads at a fast pace across cities, networks and countries. Yet, UA seems to play a different role in different cities. It is argued that uncritical enthusiasm results in an overly instrumental approach to governance of UA with a main focus on stimulating formal (e.g. policy making) and informal advocacy (e.g. civic engagement in UA). We do not deny the importance of formal and informal advocacy in UA development, but rather claim that the potential of UA needs a more nuanced analysis. The chapter uses case studies of UA in Ghent (Belgium) and Warsaw (Poland). It explores the interplay between UA advocacy and these cities contextual characteristics and demonstrates that such analysis provides significant and more profound explanations for the divergence observed in UA developments. It is discussed how the inclusion of city-specific needs, opportunities and pitfalls of UA in the governance strategy can help to move UA toward its full potential.

In chapter 7 and 8, FPCs are studied as one specific and novel governance tool for UA. Although FPCs are generally dealing with agriculture and food issues in a broad and systemic

approach, they often place a strong focus on UA. In addition, the research regards them as powerful tools to advance issues related to agriculture and food, among others, because they bring together a broad set of stakeholders such as policy makers, departments from different policy fields, citizens, pioneers, farmers, and organizations.

Chapter 7 analyzes the concept of scale and explores the relation between the scaling of UA in governance processes and the outcomes in terms of justice. It argues that UA can be conceived at different scales in FPCs and that each of these scales has profound implications in terms of justice, i.e. for whom UA is intended. The politics of scale are studied in FPCs of Ghent, Belgium and Philadelphia, PA, USA and discusses the implications for inclusion and exclusion in the UA governance process. The chapter discusses the usefulness of adopting a multi-scalar approach to UA and local food systems, and the usefulness of adopting the concept of (environmental) justice in governance strategies.

In chapter 8, the concept of participation is analyzed. It analyzes how the conceptualization and approach to participation in governance processes affect the participatory dynamic from below, i.e. how the dynamic in UA practices, stakeholders, and objectives is reflected in the UA governance process. The FPC of Ghent is studied. It is explored how, when and where participation and inclusion of different stakeholders is stimulated. The analysis is based on the four perspectives of sustainability of Hajer et al. (2015). The chapter suggests various strategies, measures and actions that could result in a more inclusive and democratic FPC.

The final chapter 9 reflects on the findings of the research. Each research question as proposed in section 1.4 is responded separately. In this chapter, the findings of the empirical chapters are further reflected on in terms of what they imply for inclusion and exclusion in UA governance. Then, a list of governance recommendations are provided, including policy recommendations as well as recommendations for civil society stakeholders. This is followed by a reflection on the contribution of the thesis to the UA literature. The chapter closes by reiterating the main points of the research and by formulating suggestions for further research.

Chapter 2

Urban agriculture



Chicago Urban Farm, Chicago © Victor Grigas

2.1 Introduction

The picture of the Chicago Urban Farm depicts a trend in which farming and food production activities become a permanent feature of the urban landscape, generally labeled as UA. However, UA is an umbrella term encompassing a wide range of activities and objectives. It remains a challenge in academic and in public debate to create a shared understanding of UA. This chapter aims to provide an overview of the academic literature and research reports on UA to shed light on the different interpretations and contributions of UA, whilst making clear how UA is approached in this thesis. The chapter starts with a brief overview of the history of urban food production (section 2.2). Subsequently, different definitions of UA are presented and compared, before formulating the understanding of UA in this thesis (section 2.3). In a third section, UA is discussed in light of sustainable cities (section 2.4). The benefits, risks and barriers of UA are presented. In the last sections, the policies for UA are discussed (section 2.5), with a particular focus on FPCs, which are the topic of research in chapter 7 and 8 (section 2.6).

2.2 Urban agriculture from a historical perspective

To fully grasp UA, it is imperative to place it within its historical context. In Steel's (2008) notorious work on the historical relationship between food and cities, it is argued that food has largely shaped our cities throughout history (Steel 2008). Agricultural development and food surplus allowed citizens in Europe and North America to take on other professions and activities, resulting in the emergence and/or growth of cities. For centuries, local agriculture was the norm to feed the population in and around cities, simply because food could not be transported far or preserved very long. Animals were a common sight in cities, such as in the painting of Xavier de Cock (1862) displaying cows in the Meersstraat of Ghent which, meanwhile, has become a street in what is now considered the center of the city (Figure 2.1). Vegetables and fruit were produced as closely to the city as possible to make efficient use of the available manure (Steel 2008).

It was not until large-scale and pervasive industrialization processes in the 19th century when food production started to be pushed out of the city. The food system became increasingly

invisible to the eyes of city dwellers. Technological innovations such as canning and freezing, and infrastructural developments such as roads and railways allowed the expansion of cities more or less anywhere and in any size (Steel 2008). Chemical fertilizers, pesticides and preservatives helped to make food chains more national and international (Hodgson et al. 2011). Animal keeping and horticulture slowly acquired the status of a practice for low-income citizens that municipalities and rich citizens tried to get rid of (McNeur 2011). The growth of agriculture and food markets, large farms and food companies had two major consequences. First, urban authorities began to loosen their grip on food supply and relied on players outside the city to feed their urban population. Second, the increasing abundance of food and the declining food prices made UA unnecessary for many families. Agriculture began to move away from the urban centers early on in the 19th century as cities kept growing in size and citizens raised their standard of living.



Figure 2.1 *De Meersstraat Gent*, 1862, Xavier de Cock © Paul Hermans.

Around the end of the 19th century and throughout the first half of the 20th century, urban gardening acquired a particular status in urban reform (Bellows and Nasr 2010, Dubost 1997, Segers and Van Molle 2007). The development of community gardens was a progressive measure in the sense that they were meant to make the cities greener, provide space for recreation and preserve open and/or green spaces. At the same time, however, they could also be seen as paternalistic. Gardens were implemented for workers to take care of their own and their family's health (Dubost 1997, Segers and Van Molle 2007). This corresponded with

a growing rhetoric of the family as the cornerstone. The gardening plots served to offset the chaos of the hard labor work and the low wages. In other words, they were also intended to curb labor revolts (Bellows and Nasr 2010).

In times of imminent food shortages and threatening food insecurity, urban food production was exceptionally successful. An example of such a period was during World War II, when programs encouraged gardening in Canada, USA and the UK in the face of shortages of food, energy, and raw material (Miller 2003). The victory gardens or also called war gardens that emerged during this time were private and community food production spaces to offset pressure on food supply and to lift the morals at the home front. It is estimated that by 1943, 40% of the national vegetable production was supplied by the victory gardens (The National WWII Museum n.d.).

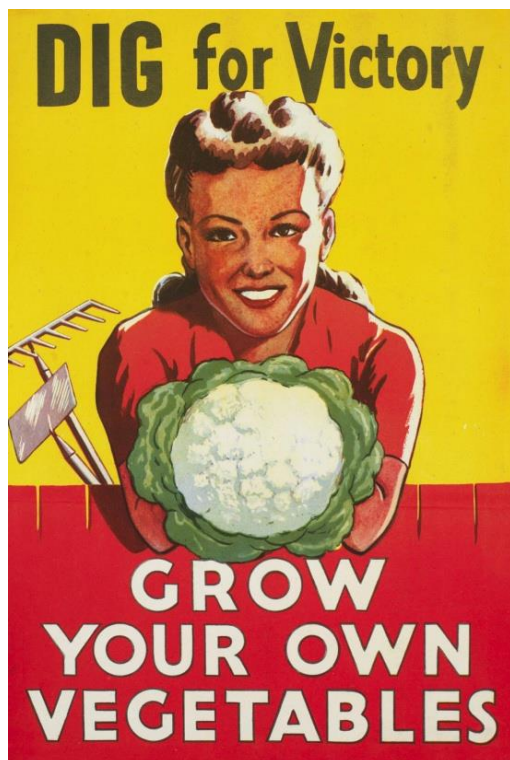


Figure 2.2.a Posters to promote food production during wartime. "Dig for victory: Grow your own vegetables" (left)⁹; **Figure 2.2.b** "Plant a victory garden: A garden will make your rations go further" (right)¹⁰.

The decennia after World War II marked the "industrialized agriculture and food system 2.0". (Deelstra and Girardet 2000). Low transport costs - guaranteed by fossil fuels and government

⁹ Author: unknown. Retrieved from: <http://www.iwm.org.uk/collections/item/object/33640>

¹⁰ United States. Office of War Information. Division of Public Inquiries. Retrieved from: <https://digital.library.unt.edu/ark:/67531/metadc550/>

subsidies for transport infrastructure - have made distances increasingly less relevant, plugging cities into a globalizing hinterland. The actual location of settlements also became less important as global trade treaties came to determine national and local economies. It is argued that today, cities are mostly defined by the mobilization of natural resources, people and products (Corijn 2006). The industrialization process accelerated the shrinking of UA. From the 1950s onward, urban areas were no longer looked at as spaces of food production (Bellows and Nasr 2010). In many countries, the distinct foci on urban policy on the one hand, and rural policy on the other hand, became the norm to address many policy issues (Scott et al. 2007). For each, different agencies, budgets, and measures were set. As such, agriculture as a policy issue became disregarded in many cities' urban policy and planning. Real estate development put agricultural land and open space further under pressure. Often, governments' approach to land use planning and preservation of UA has been less systematic, resulting in a loss of farmland and community gardens. However, it should be added that UA never disappeared completely (Hodgson et al. 2011, Reynolds and Cohen 2016). Food growing in urban areas have always regained attention and political support when cities faced economic depression, or to slow down inner city decline (Hynes 1996, Kurtz 2001, Lawson 2005).



Figure 2.3 Farmers in Sint-Agatha-Berchem, Brussels © Thijs Vanden Nest.

Figure 2.3 is illustrative of farmers' challenge to maintain farmland when the city develops around it. The image depicts farmers at their field in Sint-Agatha-Berchem, which is one of the 19 municipalities of the Brussels Capital Region. Initially, the farm activities on this site comprised 2.2 ha. As urbanization continued, housing development projects appropriated the

farmland until the point where now only 0,2 ha of cultivated space is available. In the near future, the municipality plans to develop community gardens on the land it acquired back. The replacement of the professional farm with a community garden case shows that UA has most chance of survival if it interacts with the urban landscape and responds to the needs of the urban dwellers.

UA returned in the urban landscape from the 1970s onward as a grassroots-driven movement. The movement took a head start in North America and arrived in Europe only much later. This time, UA emerged to respond to the side effects of the global agri-food system (Hodgson et al. 2011), the socio-economic and racial segregation (Reynolds and Cohen 2016), and the growing urban poverty and city decline. In some specific countries, regions, or cities, UA primarily functions as a source of food in response to economic crises which corresponds with historical motivations for urban food production (e.g. Detroit, and in European countries that were hit hard by the crisis in 2008 such as Greece and Spain). However, generally, it can be stated that in many North American and European cities, UA has turned into an activist cause over the last few decades. This movement picked up speed since the 1990s, so that today we can speak of a global UA movement. There is a new generation of food growers at work which is more diverse than ever - also in its motivations to get involved (Hodgson et al. 2011, Michaels 2005, Mougeot 2005a). The UA landscape comprises next to professional peri-urban farmers and traditional community gardens also new technologies, new actors, and new locations for food production, leading to an amalgam of practices and activities. Practices such as rooftop farming, container farming, LED farming, and community supported agriculture (CSA), all belong to the family of UAPs. UA practitioners and other UA stakeholders are often connected through local, national, and international networks or partnerships. It should be noted, however, that support for urban food production can also be discontinued because high returns on investments are prioritized (further discussed in chapter 6), or because these practices are deemed of little importance besides recreational functions (McClintock 2010).

The particular history of UA in western cities is equally insightful to understand its different role in the Global North and South. From academic literature and other resources, we learn that UA in the Global South is based on longstanding traditions and engrained habits. It never disappeared, nor went through the same existential questions as the urban farming in the Global North did (Armar-Klemesu 2000, Bryld 2003, FAO n.d.). Here, UAPs often go unnoticed, without permits, and in an informal or illegal way (FAO n.d.). In many of these cities, UA is by the authorities unwanted for urban development purposes or unsafe due to risks of contamination and disease. The reasons for UA in the Global South are primarily to combat poverty and food insecurity, although research has also explored UA's role in broader

sustainability purposes (De Bon et al. 2010). Before turning to definitions and theorizations of UA, it should be made clear that the focus in this thesis is on UA in Western cities. Our observations and analyses focus in particular on European and North American cities. UA in the Global North and South are not mutually exclusive and overlap exists (cfr. sustainability discourse). However, it should be pointed out that similarities and differences between the two contexts are not explored and therefore, the results of this thesis cannot automatically be extrapolated to other contexts such as the Global South.

2.3 Definitions

Formulating a definition of UA is not a straightforward task. Given the many already existing definitions, it becomes clear that it is a rather arbitrary undertaking. Each definition is always partly the result of research approaches, personal perspectives or experiences. Discussions on what UA is and what it should become, continue. However, a basic common thread can be identified. All definitions share the evident understanding that UA takes place in urbanized areas and that it is about agricultural production. Table 2.1 below lists a selection of UA definitions. They were selected because they are either (1) among the most cited definitions, (2) definitions of key authors in the UA literature, or (3) definitions that show specific differences between the most cited definitions.

Table 2.1 Definitions of urban agriculture

	Author	Description
1	Bailkey and Nasr 2000	UA is the practice of cultivating, processing, and distributing food in or around a village, town or city
2	Mougeot 2000	UA is located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, and grows or raises, processes and distributes a diversity of food and non-food products, (re-)uses largely human and material resources, products and services found in and around that urban area, and in turn, supplies human and material resources, products and services largely to that urban area
3	van Veenhuizen 2006a	UA can be defined as the growing of plants and the raising of animals for food and other uses within and around cities and towns, and related activities such as the production and delivery of inputs, and the processing and marketing of products. UA is located within or on the fringe of a city and comprises of a variety of production systems, ranging from subsistence production and processing at household level to fully commercialized agriculture
4	Goldstein et al. 2011	UA refers to growing and raising food crops and animals in an urban setting for the purpose of feeding local populations

5	Denny 2012	UA will encompass any fresh produce both produced (homegrown or commercial) and consumed within the same urban/peri-urban region.
6	United States Environmental Protection Agency (EPA)	City and suburban agriculture takes the form of backyard, rooftop and balcony gardening, community gardening in vacant lots and parks, roadside urban fringe agriculture and livestock grazing in open space. UA is an important source of environmental and production efficiency benefits.
7	Vejre et al. 2015	UA spans all actors, communities, activities, places, and economies that focus on biological production in a spatial context, which - according to local standards - is categorized as “urban”, UA takes place in intra- and peri-urban areas, and one of its key characteristics is that it is more deeply integrated in the urban system compared to other agriculture. UA is structurally embedded in the urban fabric, it is integrated into the social and cultural life, the economics, and the metabolism of the city

Besides the common elements of agricultural production and the (peri-)urban location, definitions of UA are constructed based on (a combination of) different building blocks. It is the emphasis on one or more particular building blocks that produces distinct UA definitions and that consequently give rise to more discussion. The most common building blocks are discussed below in light of the definitions presented in Table 2.1: scale, location, types of activities, resource streams, end products, and production system (Hodgson et al. 2011, Mougeot 2000).

First, there are UA definitions that make a distinction between the *scale* of the activities, meaning from household level (e.g. homegrown plots) to large scale (e.g. commercial farms). This is related to a broader discussion on whether UA is only for commercial purposes and not for recreational or other purposes. The proponents that stress the economic relevance of UA, generally express a wish to distinguish between UA and gardening, of which the latter refers to all the activities that do not involve professional farming. Definitions 1, 2, and 4 do not clearly state that also non-commercial farming counts as UA; definitions 3, 5, 6, and 7 explicitly state that also the non-commercial activities, whether for subsistence or not, fall under the umbrella of UA.

Second, there is no doubt that most discussion rises around the topic of the *location* of UA. All definitions agree that UA takes place in urbanized settings, and most distinguish between intra- and peri-urban areas (cfr. in and around cities). For intra-urban areas, for instance, definition 6 is more detailed and clarifies that UA is also about production on balcony gardening, on the roadside, on rooftops and on vacant lots, which are smaller or less common surfaces. However, from the definitions it remains unclear where the urban “ends”, and thus where UA merges into rural agriculture. In practice, often the administrative boundaries are considered.

In other cases, the population density, population size, concentric circles or a certain perimeter (e.g. 40 km around the city) is chosen to delineate (peri-)urban areas. Yet, in practice, such as in Flanders, the delineation of urban and rural agriculture should be questioned. The degree of urbanization for the whole of Flanders is very high. In some discussions, for instance, the usefulness of UA in specific cities like Ghent, Brussels or Antwerp is debated, since Flanders is relatively small and could be considered in its totality as one peri-urbanized region.

Third, there is also no agreement on the *types of activities* that UA encompasses. From most definitions we can infer that UA is only about actual food production practices. However, there also exist broader and more systematic understandings of UA that include other activities such as processing, distributing, marketing and trading the produce. This is the case in definitions 1-3. Moreover, in the second definition, attention is also paid to the source of inputs for UA.

Fourth, some definitions also emphasize that the produce has to be *consumed locally*, and that waste products in turn are *recycled locally*, in order to close nutrient cycles (see definitions 2 and 7). The other definitions take no stance in UA's contribution to the local ecosystem.

Fifth, definitions differ in terms of the *end products* that UA is supposed to deliver. Some definitions explain that it is not only about fruits and vegetables, but also about *animal farming* (see e.g. definitions 3, 4, and 6). While most definitions implicitly refer to food products, other definitions also stress the importance of non-food products and services of UA. For instance, the grazing of sheep as a strategy in green space management, or the production of medicinal or cosmetic plants. The second definition is inclusive for these non-food products, while definition 4 explicates that UA only comprises food to feed the urban population.

Finally, definitions of and approaches to UA often discuss the *type of production techniques* desired in UA. Definition 3 acknowledges that UA can embrace a multitude of production systems, while definition 7 specifies it to include all “biological production processes”. Perhaps looking too far into the future, but this latter definition is excluding the technique of in-vitro cultured meat, also called synthetic meat, which is being developed to meet the growing global demand of meat. In this “tissue-engineering” production technique, stem cells are extracted from the animal and further cultivated in laboratories. After months of cell duplication, they are transformed into muscular cells. In 2013, Professor Mark Post of the University of Maastricht presented the first in-vitro cultivated steak (VILT 2013). Other literature implicitly expresses a preference for a production system (González and Merzthal 2002). They for instance mention the opportunity of UA to increase organic, GMO-free, and pesticide-free produce or the

production through permaculture. Besides definitions 3 and 7, the definitions in Table 2.1 are not explicit about production systems in UA.

Despite concerns about the usefulness of the term UA, this thesis adopts the concept for several reasons. Some actors (researchers, policy makers, citizens, practitioners) argue that UA is too broad as a concept and that there is not enough agreement on its conceptualization. They defend to abandon the term and work with other concepts, such as city-oriented agriculture, or choose to focus only on subcategories of UA such as rooftop farming, gardening or professional farming (see for instance Specht et al. 2013). However, UA is the most common term that is used by a lot of actors to refer to this amalgam of practices. Therefore, in this thesis' approach, we start from this reality. Its goal is precisely to figure out how UA as a concept can be used and approached, so that it does serve the broad practices, stakeholders, and objectives (see also chapter 5).

Ultimately, however, we contend with Mougeot (2000) that any definition, regardless of how extensive it is, remains a generic definition with mere reference to distinctive traits. It matters less for instance where the UAP is located, whether there is an economic profit, or what is being produced. It is argued that major emphasis should be placed on UA's link to the urban ecosystem. Indeed, as research on UA progressed, its understanding has shifted from UAPs in and around cities for food security purposes (FAO 2008), to UA as a broad set of practices which provide ecological, economic and social contributions to sustainable urban development (Deelstra and Girardet 2000, Lovell 2010, Mougeot 2006).

To avoid the a priori exclusion of cases or stakeholders in the data selection process, the definition of UA developed for this research comprises three main components:

1. UA as spanning all the food production practices in and around urban areas (McClintock 2014). This means that UA encompasses community gardens or guerrilla gardens, existing professional farms seeking connections with the urban center, as well as the rather innovative forms of UA such as indoor farming (e.g. LED farming, container farming, aquaponics, hydroponics), rooftop farming, community supported agriculture, and healing, recreational or educative gardens.
2. Other food system practices such as distributing (e.g. farmers markets, vegetable box schemes), processing, regulatory (e.g. food councils) and marketing activities that support UA development, are also taken into account. To exclude these practices would truncate

our understanding of the UA system at large, because they facilitate and enhance the integration of UA within the food system (Bailkey and Nasr 2000).

3. UAPs are included in the analysis on the condition that they: (1) take one or more aspects of urban and agricultural sustainability into account, meaning that they contribute positively to the urban ecosystem (Mougeot 2000), (2) demonstrate a reflection on the side effects of the dominant agri-food system, and (3) involve multiple stakeholders for the organization of the UAP (e.g. in relation to land tenure, sharing or selling of food).

In this definition, no distinction is made between: distance to the city, organic and non-organic (because some community gardens use pesticides or some UA farms are non-organic, but they contribute to the social or economic development of the city), the start year of the project, food growing techniques, or level of community empowerment. While these distinctions are very important topics for discussions on UA, again, the aim is to bring all the UAPs and the different perspectives they entail together in one analysis. However, a large conventional farm at the fringe of a city producing for the global market will not be included in the database if it in no way contributes positively to the local ecosystem. Also not included in the analysis are private gardens in which food is grown for private consumption. Some scholars advocate more research into the potential of private gardens (de Hoop and Jehlička 2017, Schupp and Sharp 2012, Taylor and Lovell 2014). While arguably they are significant contributors to the benefits of local and urban food systems (Taylor and Lovell 2015; see section 2.4), from the point of view of UA governance, private gardens are not of interest in this thesis when they do not involve multiple stakeholders. A multiple stakeholder variant of food production in private gardens is the UAP of SPIN farming (Small Plot Intensive Farming), originating again in North America. The system of SPIN farming aims to convert front yards, backyards, and available lawns in a neighborhood into productive sites, often managed by professional farmers and for commercial purposes. The main goal is to maximize output on small acreages.

2.4 Benefits, risks and barriers of urban agriculture

This section provides the results of a literature review on the benefits, risks and barriers of UA. The aim is not to be exhaustive, but rather to present the most common claims. Additionally, many of these claims are debated or under investigation and therefore we should read these as potential benefits, risks and barriers of UA. Importantly, the benefits, risks and barriers are also dependent on the type of UA project/business, who is part of it, where it is realized, at what scale, and how it is carried out. Some benefits, risks and barriers will be more applicable to for instance professional peri-urban farms, while others may more readily apply to inner city

community projects. Some benefits apply to cities or neighborhoods at large, while others are rather benefitting individuals or households. In the case that specific benefits are sought after, it is important to explore which type of UA project is best suited and how that type of UA project will help to achieve those benefits.

2.4.1 Benefits

Much research has been conducted on the potential sustainability aspects of UA. The attractiveness of UA lies in its potential response to a range of urban issues that are often linked to the overarching goal of creating sustainable cities (FAO 2008, Lovell 2010, Mansfield and Mendes 2013, Morgan 2015, Mendes et al. 2008, Mougeot 2006, p.10, Partalidou and Anthopoulou 2016). The environmental, economic, social and health benefits are listed below.

In relation to environmental benefits, UA:

- reduces CO₂ emissions of the food system due to, among others, less transport, packaging and cooling (Jones 2002, van Veenhuizen 2006, van Veenhuizen and Danso 2007, Wallgren and Höjer 2009). Green roofs reduce the carbon emissions of buildings by about 9% (Roehr and Laurenz 2008). Although it should also be noted that some studies argue that the energy efficiency of local food system depends on the scale and size of the local food system, because mainstream retailers may have lower energy use per unit transported (Saunders and Hayes 2007). Energy efficiency also depends on which type of transportation is replaced (Saunders and Hayes 2007). For instance, when local food products replace airfreight they may obtain higher energy efficiency. However, when they replace transportation by sea there may be no difference in energy efficiency. Furthermore, energy efficiency should also be studied from the consumer perspective, i.e. does local food procurement lead to an increase or decrease in transportation based on fossil fuels? Energy efficiency of local food systems should be further scrutinized and compared through a holistic approach to energy use in the food system (Mariola 2008). Sometimes long distance transportation of a specific food source may be more energy efficient than the local production of that food source which may require refrigeration and other kinds of transportation than the one that has been replaced (Saunders et al. 2006);
- contributes to the preservation, improvement or growth of urban green spaces. Besides the aesthetical aspects of greener cities (van Veenhuizen 2006), the additional acreage of plants contributes to decreased stormwater runoff and air pollution, and increased or maintained urban biodiversity (Hodgson et al. 2011, Konijnendijk et al. 2004, Wortman and Lovell 2014). UA can also reduce the urban heat island effect (Chrisman 2005);

- increases multifunctional and sustainable agriculture practices through diversification, recreational and environmental farming, landscape management and specialization in farm activities (Zasada 2011);
- is a practice for the cleaning up and productive reconversion of brownfield sites and contaminated land (Hodgson et al. 2011);
- fosters recycling and closing nutrient cycles by treating urban waste and converting it into a productive resource through composting, waste water irrigation and use of waste heat (Mougeot 2006, Specht et al. 2013, van Veenhuizen 2006). On a larger scale, waste management and closing nutrient cycles can be stimulated when local farmers or projects cooperate (De Wilt and Dobbelaar 2005);
- stimulates technological innovations such as aquaculture, vermiculture and specific vegetable systems that help to close nutrient cycles (Wilson 2004);
- is a strategy in the qualitative preservation and multifunctional use of open space and farmland (Rogge et al. 2016);
- is a strategy in neighborhood beautification, especially in distressed areas (Ohmer et al. 2009);
- leads to environmental stewardship among citizens (Brown and Jameton 2000). Exposure to nature and gardening in childhood shapes adult attitudes and environmental values (Blair 2006).

In relation to economic benefits, UA:

- gives farmers a better or more stable price for their product, and can thus help increase farmers' income (DeLind 2002, DeLind and Ferguson 1999);
- increases the economic autonomy and decision making power of farmers (DeLind 2002).
- has commercial advantages over fresh products that are produced in rural areas and that respond poorly to freezing, conventional storing techniques and transportation (van Veenhuizen and Danso 2007, Zasada 2011);
- supports local economies, and diversifies the industry and service base in the city (Howe et al. 2005, Nugent 2003, Pothukuchi and Kaufman 1999);
- creates opportunities for community education, skill-building and local employment (Feenstra et al. 1999, Howe et al. 2005, Smit and Bailkey 2006, Premat 2005, van Veenhuizen 2006, van Veenhuizen and Danso 2007);
- reduces household spending for food, which can be used for other purposes (Armar-Klemesu 2000, van Veenhuizen 2006, Ward 2015);
- decreases public land maintenance costs (Hodgson et al. 2011);

- counters degradation and depreciation of cities and neighborhoods because cultivated land contributes to the overall spatial quality of a city (van der Schans and Wiskerke 2011);
- increases the value of land, neighborhoods and infrastructure when integrated in or on buildings, such as balcony gardens and rooftop farms (Specht et al. 2013, van Veenhuizen and Danso 2007);
- is a popular topic for city branding. As a result, it attracts tourists and recreational visitors (Braiterman 2010).

In relation to social benefits, UA:

- promotes social interaction, social networking, and social cohesion in as well as outside the garden context (Draper and Freedman 2010, Hodgson et al. 2011, Slater 2001, Saldivar-Tanaka and Krasny 2004, Smit and Bailkey 2006, Veen 2015). Moreover, it stimulates interaction between people that would otherwise not socialize (Glover 2004);
- fosters trust, sharing, friendship, feelings of belonging among citizens (Hodgson et al. 2011, van Veenhuizen 2006, Veen 2015);
- includes traditionally excluded social and cultural groups in the use of public spaces, and is equally a strategy for the empowerment of women (Slater 2001);
- is a source to increase community food security through food donations, planting food that is not available locally, or growing foods that are expensive in shops (Hannah and Oh 2000);
- increases safety of neighborhoods and reduces crime related events (Bellows 2004, Garvin et al. 2013, Sampson et al. 1997, Slater 2001);
- contributes to community-building (Abi-Nader et al. 2001, Hodgson et al. 2011, Saldivar-Tanaka and Krasny 2004, Smit and Bailkey 2006). Community gardens increase collective efficacy through the establishments of weak and strong social ties and through the organization and mobilization of gardeners (Glover 2004, Schmelzkopf 2002). The multiple social processes also lead to a stronger overall sense of community (Lawson 2007);
- adds to the process of place-making (Koopmans et al. 2017);
- is an important mechanism by which communities can preserve, express, and affirm their culture, especially in community gardens (Saldivar-Tanaka and Krasny 2004);
- stimulates ecological citizenship and participation in policy making processes, which are both expected to enhance democracy (DeLind 2002, Saldivar-Tanaka and Krasny 2004, Turner 2011, Twiss et al. 2003);
- establishes relationships between producers and consumers and promotes civic agriculture in which consumers engage more strongly in food production (DeLind 2002, Lyson 2004, Renting et al. 2003, Sumner et al. 2010).

In relation to health and other personal benefits, UA:

- improves access to healthy foods such as fruits and vegetables (Hodgson et al. 2011, Nugent 2000, Brown and Jameton 2000, van Veenhuizen 2006). Moreover, it has been found that improved access to healthy food and increased experience with food production increases the consumption of healthy foods (Lawson 2007, Morris et al. 2001);
- promotes self-esteem and life skills (Krasny and Doyle 2002);
- is a tool for education on food and agriculture topics (Specht et al. 2013, Twiss et al. 2003). UA enhances awareness on issues in the food and agriculture system, tackles food illiteracy, and stimulates positive and pro-active attitudes toward healthy food and diets. UA is also a good strategy in science, nutrition and environmental education (Krasny and Doyle 2002, Sumner et al. 2010);
- offers therapeutic benefits through specific rehabilitation or restructuring programs (Garnett 2000);
- stimulates physical activity and mental health among UA practitioners (Brown and Jameton 2000, De Bon et al. 2010, Draper and Freedman 2010, Twiss et al. 2003).

2.4.2 Risks

UA can pose risks related to human health and the environment if no proper preventative action is taken or no guiding measures are followed (van Veenhuizen 2006). The benefits of UA should therefore be weighed off against the potential risks of UA and the costs related to the prevention of these risks (van Veenhuizen and Danso 2007). The most important risks are contamination of environmental resources such as water bodies and soil, and contamination of the produce by pollutants.

Environmental risks in UA occur through an inappropriate or too intensive use of fertilizers, pesticides, insecticides, herbicides and fungicides (Armar-Klemesu 2000, Bryld 2003, Mok et al. 2014, van Veenhuizen and Danso 2007). Special care should be taken with pesticides and chemicals in urban centers as their residues may contaminate natural resources such as water, soil and air. In two studies on pesticide use in Flemish community gardens by Ghent University and VIVES, and the Bodemkundige Dienst van België, it was found that gardeners use too much compost and fertilizer than is ecologically responsible (VILT 2015a). This increases the pH level of the soil, leading to many gardens with elevated pH levels that are too high. An overload of nutrients in the soil increases the risk that these (e.g. phosphorus, potassium, and nitrogen) are washed into nearby waters or leach into ground waters. Moreover, it is also a source of frustration for professional farmers who are faced with more severe restrictions

concerning the use of fertilizers and compost. Several organizations call for, among others, awareness raising campaigns and the fertilization of gardens based on soil analysis (VILT 2015b). Other environmental risks in relation to UA can be depletion of nutrients in the soil, soil erosion, destruction of vegetation, siltation, depletion of water bodies (Mougeot 2000).

UA also poses risks for human health when the produce is contaminated. This can happen in different ways. First, through practicing UA on contaminated soil. The produce that is grown on polluted soils or in the vicinity of industry, dense traffic or railroads can be contaminated with heavy metals, especially lead (Armar-Klemesu 2000, Mok et al. 2014, Wortman and Lovell 2014). However, McClintock (2012b) found that lead levels in different neighborhoods show high variability and that heavy metals are not always problematic despite cities' past of heavy industry and traffic. Second, through air pollution (Mok et al. 2014). It has been shown that air pollution contributes to heavy metal contamination of vegetables in areas where traffic is intense (Bell et al. 2011, Saumel et al. 2012, Troch et al. 2016). Third, through the use of contaminated waste water and compost (Mougeot 2006). Water for UA can be unsafe when it comes from polluted waterways, from untreated urban waste water that contains heavy metals, salts, pathogens, or pharmaceutically active compounds, and from untreated drain water (van Veenhuizen and Danso 2007). Fourth, through poor handling during marketing and distribution. When cooling of the produce throughout the production and consumption process has been interrupted or when the packaging is of low quality, it is likely that produce no longer meets the hygiene and food safety standards (Armar-Klemesu 2000). Fifth, through transmittance of epidemic diseases from animal keeping and contamination of water sources by animal manure, especially from vector carrying animals (Armar-Klemesu 2000). These diseases are then transmitted to humans. Sixth, through the direct ingestion of lead via inhalation of contaminated dust after tillage of the soil, or via unwashed produce or hands (Wortman and Lovell 2014).

The environmental and health impact of agricultural activities in and near cities should be further investigated as it has become clear that they can seriously affect local populations and urban ecosystems. Mok et al. (2014) describe a case in Japan where local residents were exposed to agro-chemicals from surrounding agricultural activities through inhalation of residues in the air, pollution of water and soil. To provide more precise insights into the environmental and health effects of UA, research has over the last few years - yet, often with divergent conclusions - explored how to circumvent or deal with potential risks. For instance, studies have shown that crops that bear fruits such as tomatoes and peppers absorb fewer contaminants than leafy crops such as lettuce, spinach, or root crops such as potatoes and carrots (Armar-Klemesu 2000, Freshwater Society 2013). In the case of soil contamination fruit

crops might thus be a better option. In addition, air pollution affects leafy crops most strongly (Freshwater Society 2013). In the case of dense traffic, leafy crops are not the safest choice. Nor are root crops, as metals might accumulate in the produce (Troch et al. 2016). However, it has also been shown that washing leafy vegetables up to three times makes these vegetables generally as safe as the marketed produce in the conventional food chain (Freshwater Society 2013, Troch et al. 2016). Moreover, lead uptake in plants may overall be rather minimal in most species (Wortman and Lovell 2014). Other options to increase soil safety are adding compost which reduces the uptake of metals by the plants, or increasing the pH of the soil (Freshwater Society 2013). Studies have also shown that locating the gardens and farms further away from traffic and buildings, or higher up on buildings, has positive effects on the air-borne contamination of the produce (Freshwater Society 2013, Troch et al. 2016, Vosmans and Samson 2014).

Furthermore, a series of measures or preventative actions have been proposed, among which education for farmers and citizens on best management practices, promotion of ecological farming practices, smart urban planning and zoning, testing of soils, treatment of contaminated soils, and quality standards and quality control for the use of waste streams and compost (Armar-Klemesu 2000, van Veenhuizen and Danso 2007). However, van Veenhuizen (2006) warns for exaggeration of the potential risks by putting into perspective that most of these risks are comparable to food production in rural areas.

2.4.3 Barriers

Barriers to the success of UA are amply discussed in academic literature - and will be discussed further throughout this thesis. The major constraint is generally access to the productive resources such as land, water, and inputs (Aubry and Kebir 2013, Hodgson et al. 2011). These resources generally tend to be scarce or very expensive in an urban context. Also, the availability of resources often changes quickly. In many cases, regulatory barriers, prohibitive legislation, unfavorable politics, and insecure land tenure endanger the development of UA (Bryld 2003, Pothukuchi and Kaufman 1999, Zasada 2011). For instance, in a project in Ghent called *Spilvarken* citizens experiment with pig keeping in various neighborhoods. This project is supported by the municipality, however, the municipality has been unable to regulate and therefore allow upscaling because of restrictive policies and non-existing regulations. In addition, the monetary returns of UA - when disregarding all the other economic, ecological, social, and health benefits - are far lower than those of housing, commerce or industry. UA projects are therefore facing stiff competition from other land use functions that have a higher return on investment (Howe et al. 2005). In many cases, UA is still

regarded as a temporary practice, rather than an integrated part of the urban landscape. Start-up costs, the required knowledge and skills, seasonal limits, access to markets, vandalism and crime can hamper the development as well (Howe et al. 2005, de Zeeuw 1998). According to some authors, the controversial environmental impacts of UA and other positive claims that lack substantial data or evidence are additional obstacles for the full support of UA (Aubry and Kebir 2013).

Despite the growing enthusiasm among citizens, policy makers, entrepreneurs and farmers, it should also be noted that UA is not always a success story. In some cases, UA projects are faced with the absence of a thriving social dynamic. It can lead to the discontinuation of the project. This can be ascribed to a lack of interest among citizens, an insufficient engagement of consumers, or a disengagement of volunteers which is likely a remnant of historical and more broadly engrained passive citizen attitudes (Hassanein 2003). The issue of a lack of civic engagement tends to be underexplored in academic research due to - in general - a positive or normative stance on civic engagement through UA and other local food practices (see e.g. the work on civic agriculture by Lawson 2005).



Figure 2.4 Site of the former UA project Kangroen, Gent (Belgium).

One example of a discontinued project that faced various barriers is *Kangroen* in the Dampoort neighborhood of Ghent (Figure 2.4). The project started in 2014 with the multipurpose plan to offer Christmas tree replanting, subscriptions to flowers, a café, and a community garden, all with a strong DIY (Do It Yourself) philosophy. At the start of the project, there was a lot of

enthusiasm from the municipality, neighbors and other UA projects. However, the project faced challenges relating to homeless people moving into the infrastructure, waste dumping, a lack of volunteers, the location and the tenure agreement. At the start most of the volunteers were unemployed and had a lot of time at hand. This changed over time when they found a job and the remaining volunteers could not sustain the project on their own. Also the location near a busy and loud road without parking space hindered people coming and going easily. The organization stopped the project after two years and left all the material on site. It led to a series of complaints about ownership, accountability and visual untidiness. This year, the organization was transferred to a new group. The new tenure agreement encompasses only the surface of the actual garden and not the whole plot of vacant land, in order to avoid issues with waste and people vacating on the land. Kangroen is an illustration of the many challenges and barriers that can hamper the sustenance of UA projects. Many UA projects are unable to make long-term plans as a result of an overreliance on external factors over which an UA project has no control, such as volunteers and financial means. A large portion of the UA projects disappear after several years or stop after an experimentation phase. A lot of projects emerge, but it should be kept in mind that the real challenge of UA resides in sustaining them or developing them to their full potential.

Finally, and as already stated in chapter 1, a generically positive and uncritical dominant discourse on UA poses a barrier in the sense that it may divert attention away from the barriers mentioned in the previous paragraphs. The realization of UA projects often tends to be more important than tackling structural barriers relating to land tenure, citizen engagement etc. Furthermore, overly positive assessments of UA hinder more critical reflections on the desirability of practices (e.g. smallholder farming vs. high tech), the involvement of stakeholders (middleclass vs. lower income or minority population), and the prioritization of objectives (e.g. agriculture sustainability vs. urban development). It is these critical reflections that help local governments to develop a vision for agriculture based on the urban needs and opportunities.

2.5 Urban agriculture as an economic sector

2.5.1 *The question of feeding the city*

We made amply clear that UA is not about food production only and that sometimes UA is a strategy to another end than the goal of food production. However, it is a valid undertaking to reflect on UA from an agronomic, economic, and competitive point of view. In many debates

and writings on UA, it is often questioned whether and how UA will feed the city. Although by some it is asked more as a normative question, others want to explore this question analytically (Zasada et al. 2017).

This question has been analytically explored by the University of Rennes in France (Darrot 2015). Researchers and students at the Agrocampus Ouest calculated between 2010 and 2013 to what extent the city of Rennes with a population of 400 000 could feed itself through UA. In the period 2010-2013, local food production and consumption in and around Rennes appeared marginal. However, in theory, the city could guarantee 38% of the required food supply for its population on the condition that all farms in the surrounding municipalities will be optimized for that purpose and that a large part of green public areas will be devoted to food production as well. Another requisite would be that diets of the population of Rennes would be more sustainable, among others, by lowering the consumption of meat. A 100% self-sufficiency could be achieved if a perimeter of 8 km around the agglomeration is devoted to local food production and consumption. Such drastic transition would need alternative financing mechanisms and would also imply a policy that enables these new marketing models. Although this was a theoretical exercise, Albi, a city in South France with a population of 50 000, has put the theory to the test and has in 2015 put the plan forward to become self-sufficient for its food requirements by 2020 (VILT 2017b). It has provided a budget of € 300 000 to realize this goal. The money would be used to increase the number of community gardens, to purchase 70 ha of farmland for organic production, and to develop food networks around Albi. The municipality still defends the objective, although it is clear that they will not reach their goal by 2020. Furthermore, to realize this goal, they need 600 000 ha and the whole department only counts 300 000 ha. Ultimately, it was stated that the plan is about creating awareness. Like the case in Albi, other cities' local food plans generally have the aim to increase local food production and consumption - for various purposes - without the commitment to become self-sufficient. For instance, in the case of Ghent, the city puts forward the goal to make the food system more sustainable at all stages of the food system: "*Ghent strives for delicious, local, and sustainable food*" (Stad Gent 2017a). In Philadelphia, the goal is to create a more just food system: "*We envision that all Philadelphians can access and afford healthy, sustainable, culturally appropriate, local, and fair food*" (Philadelphia Food Policy Advisory Council n.d.).

2.5.2 Economic impact of local food systems

Regardless of the question of self-sufficiency, an increase in local food production and consumption has various effects on the local economy. It should be noted that this counts for local food production in rural as well as in urban areas. Its most evident outcome is that money

and employment stays in the local area/community (Ikerd 2005). Farmers retain a larger share of the price of their products (Starr et al. 2003), prices may in some cases be cheaper for consumers (Pirog and McCann 2009), and consumers who purchase at local food markets may also spend money in other local business in that area, hence stimulating the broader local economy (Lev et al. 2003, Swenson 2008). The impact of local food systems is greatest when it induces import substitution, meaning that the local food production displaces the supply chain of nonlocal products, but also that inputs for food production are resourced locally, and that intermediary stages of food production (e.g. processing and slaughter houses, packaging, retail, marketing etc.) are also developed or sourced in the same local area (Swenson 2009). The result of import substitution is that local sales are more likely accrued to local products, businesses, and communities.

Despite the potential of local food systems to stimulate the local economy, several critical questions about potential adverse effects of local food systems have to be raised. Can local food system plans be regarded as protective and putting at risk the disruption of food production systems in other localities as a consequence of import substitution (Crivits et al. 2016, Martinez 2010)? To what extent do local food systems affect local employment and business in traditional commodity marketing (e.g. grains) or industries that support distribution and marketing of nonlocal food products (e.g. supermarkets; Martinez 2010)? Finally, what are the net benefits of local food systems when the costs of public investments are accounted for? These costs are generally taken into account in research on the economic impacts of local food (Martinez 2010).

2.5.3 Competitiveness of UA businesses

The question of how urban food production can be increased is an important part of the discussion on UA development. In this section, the aim is to explore the competitive advantages and constraints of UA businesses, what kind of UA businesses have developed, and through which strategies they increase their economic viability.

Academic literature has identified a range of competitive advantages and constraints of producing food in urban and peri-urban areas (Table 2.2). Among the competitive advantages there are: the close proximity of resources and partnerships or networks that support or expand business (Lovell 2010), the availability of markets and geographical concentration of consumers (Lovell 2010), the potential of multifunctional agriculture (Dubbeling et al. 2009, Zasada 2011), public support through, among others, urban policy and planning, strategic food plans, FPCs (Mendes et al. 2008, Morgan 2009, Pothukuchi and Kaufman 1999), and current

public enthusiasm and interest in UA for a wide range of reasons (Weatherell et al. 2003, Zasada 2011). Moreover, urban areas often provide small plots of land. It has been found that these small plots can yield large amounts of produce, equating to significant monetary value (Hannah and Oh 2002, Saldivar-Tanaka and Krasny 2004). By using intensive production strategies and focusing on high value crops, the economic value of UA systems can be substantial (Lovell 2010). Finally, cities may function as nexuses of innovation due to more access to knowledge that is important for innovation and adaptation to urban conditions, such as access to local knowledge about socio-economic dynamics and access to alternative resources (Beauchesne and Bryant 1999, Prain and de Zeeuw 2007).

There are also a range of competitive constraints. First, availability of land or space and their cost are among the greatest barriers as compared to rural areas (Cavailhes and Wavresky 2003, Opitz et al. 2016, van der Schans 2015). Moreover, UA faces stiff competition from other land use functions (Lovell 2010). Access to land and productive space requires serious investments which outweigh the revenue generated by food production only. Often, external partnerships, creativity, and advocacy are prerequisites for successful acquisition of productive space and land (Saldivar-Tanaka and Krasny 2004, Smith and Kurtz 2003). Second, the smaller scale and fragmented nature of UA businesses tends to be less efficient in the use of water, fertilizer, and other resources (McWilliams 2009). Investments in processing, logistics or distribution may be too costly in relation to the level of food production of the UA business. Finally, the competitiveness and efficiency of UA businesses may be hampered due to the lack of available intermediary activities in the food supply chain (Martinez 2010). Examples are the lack of a slaughterhouse, packaging that is sourced and recycled locally, and the lack of logistic and distributional support. Eventually, the competitiveness of UA businesses are contextual and will depend on the extent to which these advantages and constraints are at play and whether overall the competitive advantages outweigh the constraints.

Table 2.2 Competitive advantages and constraints of urban agriculture businesses

Competitive advantages	Competitive constraints
Close proximity of resources and networks	Availability of productive land and space
Availability of markets	Cost of land
Close proximity of consumers	Competition with other land use functions
Potential for multiple functions	Lack of efficiency due to scale
Public support and interest	Lack of intermediary activities of the food supply chain
High yields on small plots of land	
Cities as nexuses of innovation	

We can roughly distinguish between two types of entrepreneurial UA businesses. The first type are the traditional professional farms (organic or not) that seek to pool resources locally or

market locally, while contributing to the urban ecosystem. They are most often located in the peri-urban fringe. The second type are the newly established UA businesses, characterized by technological or social innovations. Among them, there are rooftop farms, indoor farms using LED grow lights, vertical farms, floating farms on rivers and canals, mushroom growing, CSAs etc. Tension may arise between these two types of UA businesses, especially when both attempt to achieve the same limited available resources (this issue is identified in the empirical chapters of the thesis).

Research has argued that in terms of food provision, peri-urban areas may be more efficient than inner city UA businesses (Martin et al. 2014, Opitz et al. 2016), although the extent to which peri-urban areas can respond to local food demand depends on a range of contextual factors such as population size, dietary patterns and regional agricultural yield conditions (Zasada et al. 2017). Other research has shown that both inner city UA and peri-urban UA produces significant numbers of food (Meenar and Hoover 2012). There are - next to efficiency in food production - other ways through which UA businesses can become economically viable. Below, this thesis identifies five strategies through which UA businesses increase their economic viability. Some of the strategies may be combined in one and the same UA business. The potential of a market strategy also depends on the type of UA business (i.e. traditional/conventional professional farms or socially/technologically innovative UA).

The creation of niche markets

Some UA businesses become competitive by positioning themselves in the market with a new product or with products that formerly could not be resourced locally. An example is the production of insects and insect-based products as an alternative source of protein. Another example is the supply of locally produced fish through aquaponics. Other UA businesses focus on heirloom vegetables or ethnic vegetables (van der Schans 2015).

Direct producer to consumer relations

A second way to gain competitive advantage is to respond to the demand of consumers and producers to establish direct relations. Farmers markets, on-farm shops, and vegetable box schemes are examples of rather superficial and fluid contact between producers and consumers. Other UA businesses invest in more profound on-farm experiences. According to van der Schans (2015), the short distance between farm and target audiences is an advantage to create more direct and exciting interaction in the city between nature and culture, green

space and grey buildings etc. Examples of such experiential relations are CSAs and UA businesses that offer school tours, educational, social, and recreational activities.

Multifunctional urban and peri-urban farms

The majority of UA businesses increase their economic viability through increasing the multifunctional character of their farm. Due to a common lack of land and space and its cost, UA businesses focus best on economies of scope, rather than economies of scale (van der Schans 2015). A number of activities have been identified that are compatible with food production: child care services, education, social care, recreation, and also nature and landscape maintenance. There are also opportunities for business-to-business activities, such as energy production, recycling, nature and landscape maintenance. An example of the latter is the grazing of sheep to maintain public green spaces. Another way is through vertical integration of activities, meaning that next to production also processing and distribution becomes part of the UA business. An example is dairy farms that process their milk into dairy products and/or develop their own farm label.

UA businesses that sell products with commercial advantage

Some UA businesses create commercial advantage over farms that are located further away (van der Schans 2015). Especially perishable products are referred to here. In some cases there are only a few hours between harvest and consumption due to the short travel time. The commercial advantage is that perishable products can be marketed for their freshness, taste, nutritional content, and the fact that they are unprocessed. It has been found that fresher products retain more nutrients as compared to less fresh products (Lea 2005). Products may be specialty items such as medicinal plants, spices, mushrooms, and fruits (Lovell 2010). An example of an UA business which exploits this marketing concept is a container farm or indoor farm which produces exotic herbs that can be offered fresh all year long.

UA businesses that pool their supply

UA businesses can increase their sales or expand their offer by collaborating with other farmer colleagues and with other local food businesses. For instance, horticultural farms which collaborate with dairy and meat farms or local bakeries. The goal is to attract larger groups of consumers by offering a broader range of food products. New markets can be created, or the grouped supply can be offered to existing retailers and markets. An example is the

development of a farmer cooperative that delivers to for instance hotels, restaurants, public institutions, schools or hospitals.

Taking the five strategies together, it is concluded that UA businesses may gain most of their competitive advantage through engaging with citizens/consumers and responding to their demand for fresh, local, healthy products and producer-consumer relations. Moreover, UA businesses profit from competitive advantages such as the proximity to resources, availability of consumers and markets, and the broad public support. It could be further explored to what extent these strategies used by UA businesses to increase economic viability may also be (effectively) used by agricultural businesses in rural areas. However, this question was not the focus in this thesis.

Finally, the majority of the UA businesses, whether conventional farms that have reorganized their marketing strategy toward the city or newly established UA businesses, most often exist only for a limited number of years. Their relatively newness makes it difficult to assess whether UA businesses and their orientation to the local market will be economically viable in the long term. There are cases of UA businesses that have only survived for several years and that had to cease activities for economic reasons. There are other cases that seem to be thriving, if not expanding their business. Furthermore, it should also be noted that in some cases UA businesses are economically viable due to the current societal interest in UA. Income streams are generated through the organization of farm visits and tours, sharing of expertise, or participating as partners in research projects. The question is whether UA businesses can become independent from these income streams in case attention for UA wanes or is distributed over a larger number of UA businesses.

2.6 Policies and planning for urban agriculture

2.6.1 Food policy: From food security to food sustainability and quality

After World War II, a productivist food policy was developed to eradicate hunger and food insecurity once and for all. This focus had not changed until the 1990s. A series of food scares such as bovine spongiform encephalopathy (BSE), salmonella in eggs, the introduction of genetically modified foods (GMOs), and foot and mouth disease, were the wake-up call for a food policy that was also concerned about safety (Lang et al. 2001). Moreover, also other food system concerns related to health (e.g. obesity), environment (e.g. biodiversity), the social (e.g. food poverty) and economic realm (e.g. market concentration), began to be articulated in policy

spheres. The perception of a policy failure over the safety and sustainability of the food supply chain grew (Barling 2004). The EU level and other international levels responded with institutional change and formulated a food policy that promotes sustainability as well as health (Lang et al. 2001). It led to a shift from a focus on food security and agricultural production to food quality, safety and consumption. This new focus materialized for instance into the replacement of quantitative production subsidies in the CAP to support qualitative production measures to support wildlife, plant and landscape conservation (Barling 2004). It also led to a series of research institutions that could provide scientific input in the development of food policy. Despite policy initiatives at international levels, the neoliberal policy thinking for instance at the EU level still rejects too much policy intervention and prefers market relations (Lang and Barling 2013). The result is that initiatives to promote healthy and sustainable food system are confined to labeling and offering consumer and dietary advice. Health and sustainability are predominantly regarded as an responsibility of the individual member states in the international food policy domain.

Throughout the postwar period, the role of states in food policy has been ambiguous. In line with European and global discourse, states have been predominantly concerned about food security and safety, especially after the food price surges in 2007-2008 (Morgan 2009). Many European countries have set up food standards and agencies, in order to secure food safety (Lang et al. 2001). In Belgium, for instance, the Federal Agency for Safety in the Food Chain [Federaal Agentschap voor de Veiligheid van de Voedselketen, FAVV] was founded in 1999, after the dioxin affair (i.e. contamination of feedstock with polychlorinated biphenyls (PCB)). In rare examples, countries do take measures to promote sustainability and health in the food system. For instance, France had issued consumer advice in 2012 on eating seasonally and locally, in addition to the impact of eating meat and dairy (Lang and Barling 2013). In Flanders, minister-president Kris Peeters has between 2007 and 2014 called upon local governments to address the long waiting lists in community gardens (tuinhier n.d.). In 2011, a budget of € 105 000 and in 2013 a budget of € 300 000 was provided at the Flemish level to help finance the development of community gardens throughout Flanders (Knack 2011; tuinhier n.d.). At the same time, several cases illustrate that there is quite some controversy over the dietary advice provided in Flanders. For the last couple of years, there has been societal debate on whether and when a government is allowed to nudge populations for the sake of public health because the Flemish population consumes too much, eats too many fatty ingredients, and gets too little physical exercise (Commissie voor Welzijn, Volksgezondheid en Gezin 2016). The concept of nudging means that through measures that ideally are put in place unnoticed, the government incentivizes the public to make choices that are more beneficial to their health. It is argued that the food industry also uses nudges, but these are to the benefit of their profit

and not to the benefit of public health. An example of initiatives that could be taken is to put healthy food in more visible places in shops and restaurants, or offer ready to eat fruit. More recently, controversy arose around the introduction by Vlaams Instituut Gezond Leven [Flemish Institute for Healthy Living] of the new food pyramid. In the new food pyramid plant-based foods are prioritized over processed and animal-based foods. Ingredients are no longer ranked according to nutrients, but based on their health effects. A series of representative organizations of the Belgian food and agriculture industry protested against the new dietary advice (Knack 2017). Among other things, they found it dangerous to put meat in the same category as candy or potato chips; and objected that there is no distinction made between different sources of animal-based products. Since the introduction of the new food pyramid, there has been much upheaval around two other cases of dietary advice. The first was the campaign of VLAM (Flanders' Agricultural Marketing Board), which is commissioned by the Flemish government. In the campaign, VLAM introduced the week of the steak and french fries. The oppositional Green party considered this an irresponsible campaign because it would be in contradiction with the new food pyramid, while VLAM and the responsible minister defended the campaign. The latter argued that they wanted to promote the consumption of Flemish beef. The second case is the prohibition by the jury for ethical practices (JEP) of a campaign by EVA vzw (Ethisch Vegetarisch Anders/Easy Vegan). The campaign was meant for the national newspaper and intended to picture a calf with the following text tattooed on its udder: "*You are a calf if you drink milk*", with calf also having the double meaning of an insult in the Flemish context. JEP deemed the campaign insulting. On its website EVA vzw argues that the core aim was to start a societal debate on the consumption of dairy products, but after the prohibition, the organization felt that they were not granted the right to start the societal debate. Overall, states have mostly been retrieving in policy issues related to health and sustainability in the agriculture and food system. This led other players at the international/global level as well as local level to emerge in the food governance landscape (Blue 2009, Oosterveer and Sonnenfeld 2012).

At the international and global level, it is no longer institutions such as the International Monetary Fund (IMF), World Health Organization (WHO), FAO, European Commission and other governments that set the course of food policy on their own. Increasingly, other global players influence the food policy of tomorrow. National governments negotiate international trade agreements such as TTIP¹¹ and TPP¹², and international organizations and companies increase their power in the course and content of food policy. Via Campesina is an international

¹¹ Transatlantic Trade and Investment Partnership

¹² Trans-pacific Partnership

organization that strives for food sovereignty for small and mid-size farm holders. Multinational corporations such as Walmart and Carrefour or GMO and pesticide companies such as BASF, Monsanto and Dupont defend a model of agriculture that leads to further globalization and industrialization. All these players in the international and global field pursue their own diverging agenda, making it ever more unpredictable how sustainability and health will be achieved in our food system. Yet, the call for sustainable food systems has resonated internationally, with UA as a well-recognized strategy. The European Commission launched a campaign entitled “Europe’s Common Agricultural Policy: Taking care of our roots” to promote the link between urban dwellers and agriculture (European Commission 2014). Under the societal challenges priority in the Horizon 2020 program (2014-2020) “Food security, sustainable agriculture, marine, maritime and inland water research, and the bio-economy”, UA has become a Food, Agriculture and Biotechnologies (FAB) priority (Arnold 2013). Furthermore, all measures within the Common Agriculture Policy (CAP 2014-2020) will be applicable to farmers located within urban and peri-urban areas who fulfill the eligibility criteria (European Parliamentary Research Service 2014). At the international level, FAO assists national and city governments in optimizing policies and support for UA (FAO 2015).

2.6.2 Local governments’ support for urban agriculture

The idea that local governments should become involved in food system issues and promote sustainable food policy originated in North America in the 1980s; since then it has resonated with local governments worldwide (Agyeman 2013, Harper et al. 2009). Traditionally, local governments played a minimal role in the food system. It was considered as too broad, too multi-scalar and too complex for municipalities to address, while it was expected that the market could effectively organize food (Campbell 2016). Now, local governments are increasingly recognizing the benefits of UA, especially where there is an availability of vacant land (Pothukuchi and Kaufman 2000, Voigt 2011).

The question about the role of the government in UA development will be discussed throughout the thesis. Several authors state that local governments have an important role in the facilitation and support of UA through urban planning and policy making (Halloran and Magid 2013, Lovell 2011, Tacoli et al. 2013). Food systems are multifunctional and have profound effects on other sectors. Therefore, urban planners should incorporate food into urban planning (Morgan 2009, Pothukuchi and Kaufman 2000). Other research has also found that the urban public values peri-urban agricultural landscapes as multifunctional (Ives and Kendal 2013). Local governments can have an impact on the variety of landscape types and functions.

Additional arguments for public policy intervention in UA are the underprovision of public goods, externalities that are not captured, and the lack of universal access (Haddad 2003).

The UA advocacy movement - a complex set of practices and activities that involves different actors (i.e. state, market, and civil society actors) operating at different governance levels and advancing different sustainability objectives - makes novel demands on urban policy making and planning processes. Policy making for UA can best be viewed as a process that is influenced by many elements: policy makers, governmental structures, the context at different government levels up to the international context, formal and informal external influences, i.e. corporations, market forces, labor organizations, social movements etc. (Block and Paredis 2013, Bourque 2000). Policies can be understood as the collection of laws, regulations, programs, implementation procedures and enforcement actions to realize change in actors or behaviors or achieve certain goals (Bourque 2000). Urban food policies can be understood as *“decisions that affect the ways that people in cities produce, obtain, consume and dispose of their food”* (Mendes 2008). The focus in the next paragraphs is on the opportunities for municipalities to engage in policy making for UA., while simultaneously acknowledging that regulations and laws at all government levels affect UA development such as environmental laws, laws regulating commercial farms, tax laws, food safety laws, animal welfare laws etc. (Wooten and Ackerman 2011). In addition, the examples given below (Table 2.3) may also be applicable to other governance levels, but this is however not examined.

Public policy initiatives are predominantly driven to address major barriers for UA development described above: lack of space or land for UA, food and soil safety, developing markets for UA, providing programs for education and awareness raising etc. Many cities, however, have been constrained in their support for UA, because policies are lacking, regulations and laws are restrictive or outdated, or because resources to support UA are scarce (Cohen 2012, Voigt 2011). For instance, animal and beekeeping can be prohibited, food growing on certain plots or in certain zones may not be allowed or selling of products from urban farms may not be permitted (Voigt 2011). Urban livestock is generally more restricted than vegetable growing (Wilbers and de Zeeuw 2006). Especially zoning codes and ordinances make it often unintentionally difficult to engage in UA, not in the least because urban plans vary considerably and experience is difficult to exchange between cities and neighborhood.

Through innovative public policy many municipalities are trying to support UA or circumvent restrictive regulations. Before formulating policies and regulations, it is important to conduct a situation analysis of the city and ask questions such as: *“What form of urban agriculture should the city allow, where and with what operating standards and conditions?”*, in order to formulate

a vision for UA, define target groups, and involved actors (Wilbers and de Zeeuw 2006, Wooten and Ackerman 2011). Bourque (2000) identifies several options for local governments. The first option is to use electoral processes to get political candidates favorable of UA into government. This way, the first step of problem recognition and thus the need for UA can be formulated (Cohen 2012). The second deals with non-monetary support of municipalities, such as recognition, media attention or publicity. Some consider this as only lip service, while others take on the view that non-monetary support is valuable for putting UA on the agenda. The third is the field of policy making and urban planning.

With regard to policy making, local governments can make use of plans, regulatory tools, fiscal incentives, contracts or covenants, and institutional mechanisms to strengthen food systems (Neuner et al. 2011, Wilbers and de Zeeuw 2006). These tools are explained in Table 2.3 and examples are mainly drawn from Neuner et al. (2011), Mendes (2008), Voigt (2011), and Wilbers and de Zeeuw (2006).

Table 2.3 Policy tools for urban agriculture

Public policy tools	Description	Examples
Plans	Comprehensive city plans, food system plans or plans that focus on one aspect of food system (production, processing, distribution, consumption, disposal) that include strategies for improving the food system. Food is in these plans often either a specific topic, or referenced in sections devoted to other topics such as energy, agricultural resources, environmental stewardship, or health.	• Comprehensive city plans that set goals for the sustainability of the city, generally working on a series of topics among which food • Regional-scale food system plans that aim to make the regional food system more sustainable • Plan to set up a citywide composting system • Incorporation of UA in city plans to make sure it is considered as a (peri-) urban activity
Regulatory tools	Promoting and facilitating UA through permitting, prohibiting, licensing, and monitoring. The regulations to support UA can relate to the production, retail, processing, consumption or disposal stage of the food system. UAPs or facilitating practices can then take place by right or through obtained permits.	
<i>Production</i>	One of the most important regulations include the modification of zoning ordinances to allow UA as an official land use function. This is important, because UA may occur in many locations and zoning codes define where UA can legitimately take place. Or, to adopt UA as a permitted activity in other land use codes that would otherwise not allow agriculture. Other options are to take a favorable position in the use of vacant public land for food production.	• Specific agricultural districts and incorporation of UA as a use in other land use districts. Agriculture is then conditionally or by right allowed. • City planning that allows large-scale farming • Planning codes that recognize multiple forms of food production • Municipal regulations that allow beekeeping and define the specific requirements such as number of hives, licenses, approval of neighborhoods
<i>Retail</i>	The use of regulatory tools to increase the access and availability of fresh (local) produce.	• Requirement for retail stores to sell fresh produce • Changing zoning ordinances to allow farmers markets in other areas such as residential areas, or industrial zones • Permission to sell produce grown in home gardens or community gardens within residential zoning districts
<i>Processing</i>	Zoning ordinances can also facilitate processing practices on-site or on the farm	• To allow bakeries, breweries, cafés and other food processing in food production sites by designing districts that specifically allow these activities

<i>Consumption</i>	Designing and building the environment to promote healthy lifestyles	• To increase the number of community gardens to stimulate consumption of fresh produce • To provide courses for sustainable food production
<i>Disposal</i>	Regulations to promote and organize sustainable food disposal and recycling	• Ordinance to regulate composting that specifies locations, materials, standards etc.
Fiscal incentives	Providing loans, grants or subsidies to promote UA or provide start-up assistance.	• Reduction or waiving of permitting and license fees for water usage • Providing grants to community gardens • Subsidies for tools, materials, seeds, irrigation systems etc. • Provide loans or grants to improve the quality of food in retail stores • Real estate tax reductions for land and buildings • Start-up funds for farmers markets
Contracts and covenants	Agreements between government and other actors to establish specific norms and regulations for specific situations	• A land tenure contract for UA that is voluntarily made between the government and local actors and for which the rules and agreement applies only to these actors
Inventories of land, farms and production	Land, farm and food production inventories of a city can be used to plan for UA, to help define the opportunities for UA	• A land inventory that informs policy making on UA
Institutional mechanisms	Municipally-supported institutional structures to oversee and support systemic transformation of food systems. In recent years, new institutional mechanisms have emerged to support food policy work. Some local government agencies now engage directly in food policy and planning initiatives.	• Specific departments or agencies (e.g. of health, neighborhood development, or economy) that develop, support and manage community gardens • FPCs

Given the popularity of UA and its relevance in a range of urban issues, UA policy has been encouraged in many cities. Yet, sometimes urban policy initiatives are contradictory with policies at other levels. For instance, local in many cases cannot be a criterion in public procurement as this goes against the competition rules of the European Union. As a result, it becomes a complex task to prioritize urban farmers in the development of a local food system. Many policies or political intentions may be positive, but often implementation or enforcement is lagging behind. Also, policy responses to UA generally situate UA in the field of food and agriculture, or in sustainability offices, with a strong focus on preservation of farmland and the supply of local food (Prové et al. 2016). Yet, food policy should in fact be multi-sectoral, multi-level and multi-disciplinary (Lang and Barling 2013). Many researchers address the need for

public policy to have a holistic and multifunctional view on the topic of food (Barling et al. 2002, Halloran and Magid 2013, Lang et al. 2001, Mendes 2008). Lovell (2010) identifies planning strategies to support the various functions and benefits of UA. She suggests government action is taken in the fields of production, energy conservation, waste management, biodiversity, microclimate control, urban greening, economic revitalization, community socialization, human health, cultural heritage, and education. However, constraints to collaborate between different stakeholders, municipal departments, and different sectors, appears to be a major challenge. It is argued that policies and sectoral regulations will by no means be sufficient to bring UA to its full potential (Barling et al. 2002). It is the approach of UA as a governance issue (see chapter 3) that proves more insightful for how local governments get organized around UA, capacity building is promoted and different stakeholders learn to collaborate in the development process of UA. In this thesis, FPCs are selected as one participatory governance tool of UA that can stimulate multi-stakeholder processes, while focusing on objectives of sustainability, fairness, democracy or justice.

2.7 Food policy councils

FPCs are in this research approached as a governance tool to address, organize and support UA development within a city. They represent experimentation with new forms of political space in the city through which governance is conducted (Bulkeley and Castán Broto 2013). A FPC is defined as a board of representatives of different segments in the food system (e.g. stakeholders or farm representatives, hunger prevention organizations, food retailers, nutritional educators, sustainable agriculture organizations, citizens, and some government officials). Generally, FPCs aim to identify and propose innovative solutions to improve local food systems (Harper et al. 2009). Food system change is mostly pursued by influencing existing political processes and institutions through policy advice, policy initiative, on the ground programs or otherwise (McClintock 2012a, Scherb et al. 2012, Schiff 2008). In ideal cases, participants include representatives from the different sectors of the food system, i.e. the sectors of production, consumption, processing, distribution, and waste recycling (Harper et al. 2009). FPCs are sometimes called food council or food policy advisory councils/committees, depending on their structure, function, or resources (Burgan and Winne 2012). In this thesis, we scrutinize FPCs that are government-sanctioned advisory organs that exist outside regulatory government structures. However, FPCs can also take the form of civil society organizations, unsupported by local governments (e.g. Water-Duxbury Food Council in Vermont, USA; Pittsburg Food Policy Council, USA; Just Food in Ottawa, Canada). In these cases, they can be independent civil society organizations, non-profits or housed by other non-profits, generally however, with government relationships (John Hopkins Center for a

Livable Future 2015). FPCs can be organized at local levels, mostly cities, counties or districts, but sometimes there are also FPCs at larger levels, such as the state or provincial level. In most cases, they operate on small budgets with few staff and resources (Pothukuchi and Kaufman 1999). FPCs originated in North America, with the first FPC that started in Knoxville, Tennessee in 1982 (Pothukuchi and Kaufman 1999). As of 2015, 282 North American FPCs were registered (John Hopkins Center for a Livable Future 2015). During the last decade, enthusiasm has spread across the Atlantic, with the result that the first FPCs have appeared on the European continent¹³. In the UK, there are many cities which take initiatives in the food system¹⁴. For instance, FPCs exist in the cities of Cork (Cork Food Policy Council), Bristol (Bristol Good Food) and Liverpool (Liverpool Food People), although in Liverpool the food council is an association of civil society members only. In Belgium there are FPCs in the cities of Ghent (Gent en garde [GEG]) and Bruges (Brugs Food Lab). In the Netherlands there is a FPC in Rotterdam (Food Council Rotterdam). In October 2017, it was announced that Amsterdam will get a FPC as well¹⁵. No information was found on other European countries. For North America, a website has been designed that provides a comprehensive overview of all the food councils on a map (see <http://www.foodpolicynetworks.org/fpc-map/>). It would be interesting that a similar tool is developed for Europe.

FPCs emerged after a growing discomfort in cities with issues in the food system that for many years were dealt with in an isolated and fragmented manner (Harper et al. 2009). Increasingly, it is recognized that work in the agriculture and food system is done across numerous governmental departments and functions, and that systemic change will not occur: (1) without representatives from all sectors in the agriculture and food system being involved, (2) nor without engaging with grassroots organizations, non-profits, local businesses and other food workers (Harper et al. 2009). FPCs emerged as platforms for coordinated action at more local levels, in order to create institutions where citizens can have most influence. Why and how FPCs engage varies greatly (Scherb et al. 2012). Yet, they generally focus on multi-stakeholder collaborations, knowledge sharing and building, and shifting power to the local level. FPCs are involved in all food system related topics (e.g. food procurement, food waste reduction and recycling), but they often have a strong focus on UA (John Hopkins Center for a Livable Future 2015). In the governance of UA, FPCs are considered as ideal platforms to address the various perspectives, interests and actors involved in local food practices. According to Purifoy (2014), FPCs are also appropriate institutions to integrate environmental justice concerns, not only because they share concerns for the ecological and health

¹³ <http://www.agroecocities.eu/tag/food-policy-council/>

¹⁴ For an overview see: <http://sustainablefoodcities.org/findacity>

¹⁵ http://www.degezondestad.org/nieuws/groeneagenda/prototyping-food-council_15/

consequences of the globalized and industrialized agri-food system, but also because they are localized forums with a great capacity for democratic participation and equitable social change. However, this research argues that there is also a need study the politics in FPCs more critically, among others, by looking at who and which interests are represented in FPCs (addressed in chapter 4,7, and 8). The opportunity to respond to this gap in literature is another reason why this thesis focuses on FPCs.

Chapter 3

Understanding urban agriculture governance: A conceptual and analytical framework



Community garden at SHARE, North Philadelphia

Understanding urban agriculture governance: A conceptual and analytical framework

3.1 Introduction

UA is often presented as a sustainable alternative to the global, industrialized agri-food system. Consequently, UA is enthusiastically and positively supported for its potential in urban and agricultural sustainability. Yet, the image on the previous page symbolically illustrates the potential downside of an unquestioning approach to UA governance, as uncritical positions can overlook attempts of UAPs and projects to address structural inequalities. This picture depicts how activities at the community farm Nice Roots Farm of the food bank Share, located in a strongly impoverished neighborhood in North Philadelphia, are overshadowed by a billboard advertising two hamburgers for \$2. Besides the goal to relieve acute hunger, Share also focuses on the provision of healthy food, empowerment and job skills training through the community farm. Yet, working structurally on issues such as poverty, exclusion, crime, farm income and land access proves difficult when the industrialized agri-food system remains the dominant power in governance and decision making. This is illustrated by the price of \$2 which stands in sharp contrast with the high amount of dedication, volunteering, education and training needed to sustain the community farm. The issue referred to here is that despite broad public and political support for UA, governance processes generally focus on isolated aspects of the food system as well as on individual UA projects, instead of working toward a comprehensive interrelated approach (Ilbery and May 2005, Levkoe 2011). UA and its practitioners continue to strive for recognition and participation in the governance processes toward more sustainable food systems.

The main argument of the thesis is that UA can only contribute to urban and agricultural sustainability if UA governance processes also explicitly focus on the inclusion of the different practices, stakeholders, and objectives. To analyze inclusion and exclusion in UA governance, this chapter develops a theoretical and analytical framework (Figure 3.1).

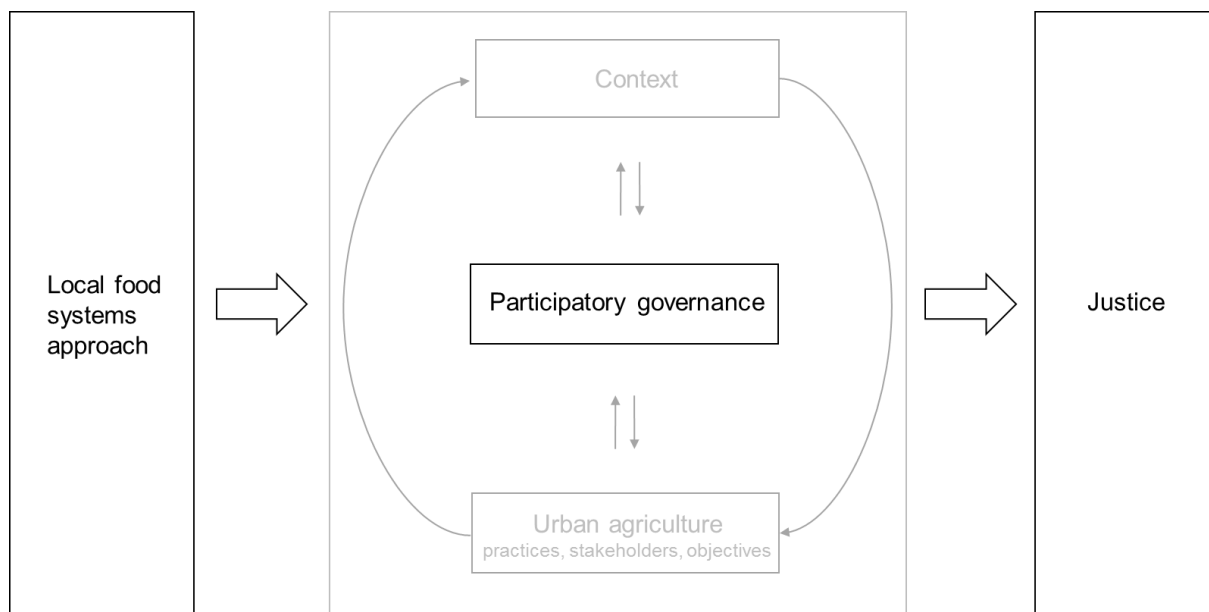


Figure 3.1 Analytical framework.

The theoretical framework is based on three theoretical propositions. The first is that a local food systems approach to study UA allows best to assess the transformative potential of UA. This theoretical proposition is integrated in Figure 3.1 as “local food systems approach”. Based on a series of critical academic approaches to local food systems, the second and third theoretical propositions are derived, which have both been introduced in chapter 1.

The second proposition is that UA is best considered as a governance issue. As said before, this thesis focuses on governance processes formally initiated by local governments. This approach helps to see UA as a complex issue that cannot be addressed by government or any other stakeholder group alone. To understand what UA becomes in a given city, we have to look at the processes of interaction and decision making between the different stakeholder groups. The focus is with participatory governance, a subset of governance theory. This allows us to study the actions, processes, and dynamics that may hamper or promote participation in UA governance processes. This theoretical proposition is integrated in Figure 3.1 as “participatory governance”. Furthermore, this thesis posits that the description of UA governance processes at the urban level requires insight into three essential elements. First, it is necessary to obtain an overview of the UA practices, stakeholders, and objectives that emerge within the city. Second, the context in which UA emerges needs to be taken into account in the analysis. Third, an understanding of existing governance initiatives, platforms, tools, or processes is required. These elements are indicated in the analytical framework (Figure 3.1) as “context”, “participatory governance”, and “UA practices, stakeholders, and

objectives". The arrows to and from these building blocks show that these are interrelated. Because these elements require more descriptive data, they are applied in chapter 4.5.

Finally, the third proposition elaborates on justice as a useful lens to study UA and its governance processes. Given that justice theories and movements play a different role in different contexts, the aim of this thesis is to explore whether the integration of a justice perspective can offer valuable insights into UA governance in terms of inclusion and exclusion. For several reasons explained in chapter 1 and below, this thesis focuses on the concept of environmental justice. In section 3.4, an overview is provided on the historical development of the concept of environmental justice and its theoretical underpinnings. The perspective of justice is integrated in Figure 3.1 as justice.

Each of the theoretical propositions will be dealt with separately in this chapter. In section 3.5 the analytical framework is operationalized.

3.2 Food systems approach

The concept of food systems is not new and has been promoted by rural sociologists for some years (Ingram 2011). Likewise, frameworks have been put forward for analyzing food systems and assessing various aspects of food systems (e.g. food security, vulnerability, power imbalances; Ingram 2011, Ericksen 2008). The conceptualization of UA as (part of) a food system, can help to consider UA as the whole of interrelated practices, stakeholders, and objectives that collectively give shape to UA policies and practices, and not as a set of singular, unrelated activities producing effects only in the place where they are located (Hinrichs 2003). Put differently, it helps to identify overarching issues and limiting factors in food systems (in whichever way they are demarcated), and how both interact (Ingram 2011).

A food system is generally referred to as the process from production to consumption, which encompasses a broad range of activities such as marketing, disposal of food, or providing inputs (Ericksen 2008). However, Ericksen (2008) adds that a holistic and comprehensive analysis of food systems implies taking into account all environmental, social and political determinants that encompass components of availability, access and utilization. Precisely to encourage a more comprehensive and complex understanding of food systems, a number of concepts have been developed such as sustainable food systems, local food systems, urban food systems, regional food systems, and alternative food systems. For many scholars and activists, UA has become synonymous with these concepts (McClintock 2014). Although they are often used interchangeably, some authors warn that they are conceptually distinct

(Hinrichs 2013). In the remainder of this chapter, the concept of local food systems is adopted as the overarching concept, because it is also the most commonly used in the literature and has been subjected to scholarly criticism that is relevant to take into account when critically approaching UA food systems. According to Feenstra (2002) a local food system connects *“food producers and food consumers in the same geographic region, in order to develop more self-reliant and resilient food networks, improve local economies, or to have an impact on the health, environment, community, or society of a particular place”*. Local food systems cover a wide range of food-related activities, including next to production also education, recreation, environmental and farmland preservation, cultural and social activities and democratic decision making around food production (Levkoe 2011). Adopting the definition of local food systems to analyze UA allows to consider and take into account a broader set of actors, objectives and activities. Furthermore, it allows us to move beyond the practices of individual actors, and to recognize that the range of policies, processes, technologies and more affect what kind of food system is put in place (Ingram 2011). To make this more concrete, we turn to a series of scholarly articles in the following paragraphs that formulate a critical, yet more systemic view of local food systems.

Public and academic discourses have been particularly strong on the potential of local food systems to contribute to sustainability (Berti and Mulligan 2016, Morgan 2009). A growing body of literature on local food systems illustrates the multiple benefits, such as the reconnection of urban dwellers with food production, mitigation and adaptation of climate change, preservation of open space in and around cities, mental and physical health improvement, the generation of a better (farm) income and support for the local economy, or the provision of equity (Allen and Hinrichs 2007, Grewal and Grewal 2012, Norberg-Hodge et al. 2002, Pretty 2002). In short, local food systems are considered as a possible alternative that responds to the changing societal expectations concerning agriculture and food. Generally speaking, the idea behind support for local food systems is that they contribute to feeding cities *“in a just, sustainable and culturally appropriate manner in the face of looming climate change, widening inequality and burgeoning world hunger”* (Morgan 2015).

Simultaneously, however, a series of scholars approach local food systems more critically. It is argued that “local” as a singular feature and focus does not automatically lead to sustainable or just outcomes (Born and Purcell 2006). Local food systems can also produce adverse effects in terms of inequalities, exclusion and new forms of domination, and consequently may have little impact as sites of socio-political change. To substantiate this positioning in the theory on local food systems, critical scholars elaborate on three interrelated arguments: (1) the presentation of local and global food systems in a binary logic is an oversimplification of what

is in essence a multi-scalar system, (2) local food movements evolve into defensive and reactionary practices, and (3) a series of attributes are ascribed to local food systems that lead to the reproduction of existing unequal social and economic conditions.

First, it is observed that in theoretical approaches and in public understanding, local food systems are often presented as the binary opposite of global food systems, in the same way that alternative practices are opposed to conventional ones (Dupuis and Goodman 2005). Much of the academic work approaches the local and the global as ontologically given categories around which to contest the politics of food (Wald and Hill 2016). These binary opposites have arisen out of the discomfort with the dominant agricultural and food practices that produce a series of negative externalities (Levkoe 2011). Localization or better, re-localization, has become a buzzword often invoked as a “solution” to the “problem” of globalization (Hinrichs 2003). By re-localizing food systems, the idea is to deal with food systems perceived to have become “placeless” (Harris 2010). Some authors call for a more complex understanding of the relation between global and local (Brunori et al. 2016, Sonnino and Marsden 2005). Even though there are functional differences between local and global food chains, to see global and local as separate and unrelated scales disregards that both are interconnected through processes and structures and are therefore mutually conditioning (Hinrichs 2003, Levkoe 2011). Hinrichs (2003) asserts that a whole systems approach helps to clarify what is truly local and what is truly global. Indeed, even the most local expressions of food production or consumption are characterized by dynamic interactions with extra-local processes and actors (Goodman 2003). For instance, because of a lack of infrastructure to produce “alternatively” along the whole food chain, “alternative” producers sometimes have to resort to the use of “conventional” abattoirs, carriers, wholesalers and commercial customers (Ilbery and Maye 2005). Sometimes these “conventional” actors are not local players, but more regional or national players. Wald and Hill (2016) therefore contend that - because local food systems are multi-scalar in nature - structural change is not most effectively achieved by redirecting all action to the local level. To address inequalities and unsustainable externalities of a multi-scalar food system, it is necessary to at least understand that local food systems are part of broader multi-scalar systems (Wald and Hill 2016, Ward and Almas 1997).

The second argument is that local food movements evolve into defensive and reactionary practices, because of such sharp dichotomies. Local food systems come to be seen as resisting heterogeneous and destabilizing outside forces (Hinrichs 2003). They tend to emphasize homogeneity and coherence of the local. Some authors call this the “turn to quality” (Murdoch et al. 2000, Winter 2003). The turn to quality refers to the process in which producers and consumers increasingly link notions of food quality to notions of trust, place, nature,

cultural landscapes or terroir (Goodman 2003). Producers and consumers turn their back on the “industrial world” which is equated with standardization and commodity mass production, to face the “domestic world” that supports more differentiated and ecological products, and forms of economic organizations (Goodman 2003). In such approaches to localization, local food systems become elitist, appealing to narrow nativist sentiments (Hinrichs 2003). In a similar vein, Pollan (2006) condemns alienation in the food system and invokes evolutionary arguments to stimulate that individuals become again producer as much as they are consumer (Guthman 2007). Defensive localization brings forth an exclusionary movement with elite niche markets for small numbers of specialized producers and people with a higher income (Allen et. al 2003, Dupuis and Goodman 2005). Local food movements in that case “*become a progenitor of a neo-liberal anti-politics that devolves regulatory responsibility to consumers via their dietary choices*” (Guthman 2007). It focuses too much on the responsibilities of the individual which comes at the expense of promoting receptivity to difference and diversity in the agri-food system (Guthman 2007, Hinrichs 2003).

Third, it is argued that the treatment of attributes such as sustainability, fairness, justice as inherent qualities of local food systems, induces an idealization of the “local” (Levkoe 2011 Born and Purcell 2006, Dupuis and Goodman 2005, Guthman 2008, Hinrichs 2003, Winter 2003). The conflation of these terms, results in an uncritical celebration of local food systems (Dupuis and Goodman 2005, Ilbery and Maye 2005). Born and Purcell (2006) call this the local trap. What is desired varies - ecological sustainability, social justice, democracy, better nutrition, food security, freshness, or quality -, but the local scale is a priori preferred to larger scales. It is assumed that the local level is more embedded, in social, ecological and spatial structures, compared to larger scale food systems (Hinrichs 2000, Penker 2006). Scholars more critical of local food systems aim to constructively warn for the adverse effects of actors engaging in uncritical praxis. Penker (2006) for instance, states that all food systems are interlinked with the socio-institutional and ecological context of their respective locations. In that sense, local food systems are equally likely to be just or unjust, sustainable or unsustainable, secure or insecure (Born and Purcell 2006). It therefore depends less on the scale, but on the actors and their agendas that are empowered by the particular social relations in a given food system. The question is then not whether an activity is embedded in the local social, ecological and spatial structures or not, but how and where it is embedded (Penker 2006). Guthman (2007) advises a series of authors on local food systems to reflect thoroughly on the implications of the local in terms of social justice. As argued, a narrow interpretation of the goals of local food systems leads to a complacency with, or cooptation by, the industrial food system, thus enabling the reproduction of existing social and economic conditions (Hinrichs 2000, Levkoe 2011, Sbicca 2014). Without proper consideration of the implications

of invoking the local scale, local inequalities, exclusionary mechanisms and injustices can be easily overlooked (Levkoe 2011). Local food practices will remain on the margins, unless they more critically address the long-term, structural challenges within the entire food system (Allen 2004).

In order to take into account the potential adverse effects of localizing the food system, this body of literature advocates a focus on the transformative potential of local food systems (Sbicca 2014). This implies asking how “local” is defined, constructed and contested, what values it appears to be promoting, and what the social and political implications are of the localization process (DeLind 2010, Mount 2012). Other authors have termed this the need for an inclusive and reflexive politics, in order to put local food practices on a better political footing (Dupuis and Goodman 2005). From this, we derived the other two theoretical propositions: (1) that UA should be approached as a governance issue, and (2) that justice is a relevant concept to integrate in analysis of UA governance, as it helps to constructively assess the potential of UA in the agricultural sector as well as in urban development

3.3 Participatory governance

3.3.1 Participatory governance: Theory

During the last decades, UA emerged on urban policy agendas in many cities across the globe. It was clarified in chapter 1 that UA is conceived as a governance issue, for various reasons such as the involvement of multiple stakeholders in UA, UA responding to a wide variety of interests, the growing involvement of municipalities in UA, and the integration of UA as a strategy in sustainable development. As such, many of the UA practices, stakeholders, and objectives come to be negotiated at the urban level in order to generate a new capacity for joint action that did not exist before (Emerson et al. 2012). According to Pieterse (2000): “*urban governance is about effective collaborative planning, decision making processes (and mechanisms) and implementation to co-ordinate distinctive efforts of the local government, civil society organizations and the private sector towards the progressive attainment of sustainable urban development and local democracy*”. Instead of top-down and unilateral decision making in government, governance “*is promoted as a viable alternative rationality to reconcile politics and citizens, consulting and involving people and organizations in the shaping and monitoring of policy-making*” (Jansen et al., 2006, p. 194). The rationality behind efforts for governance processes is thus reinforcing democracy, or put differently, addressing the democratic deficit (Fischer 2012). A key aspect of governance is that it entails the inclusion of

non-governmental actors in policy networks and collaborative relations between state and non-state actors (Benz and Papadopoulos 2006). Other major aspects of governance are, among others, no clear hierarchy, the prevailing of processes of negotiation, and less formal modes of decision making.

In this thesis, the focus is put on participatory governance, a subset of governance theory which puts emphasis on democratic engagement (Fischer 2012). Although this thesis chooses to adopt the term participatory governance, the concept of collaborative governance is also discussed, because it is closely related to participatory governance. However, in the remainder of the thesis, both the concepts of participation and collaboration will be used interchangeably.

The concept of governance refers to the new spaces of policy making. However, according to Fischer (2012), it does not indicate the kinds of politics that take place within these spaces. There are numerous patterns and forms of participation and non-participation (Fischer 2012). One of the most notorious theoretical endeavors is the participation ladder developed by Arnstein (1969). The ladder elaborates on eight different forms of participation ranging from non-participation (manipulation, therapy), to tokenism (informing, consultation, placation), and citizen power (partnership, delegated power, citizen control). The main idea behind participatory governance is that citizens ought to be involved more directly and more meaningfully in public decision making. Participatory governance aspires to deepen the ways in which ordinary people can effectively participate in and influence policies that directly affect their lives. (Fung and Wright 2001). It is grounded in participatory democracy and thus provides a theory of public engagement through deliberative processes. In other words, participatory governance focuses on the deliberative empowerment of citizens and is therefore also aligned with theories of deliberative democracy in political sciences (Fischer 2012). It thus goes beyond increased access to information and extending the right of the citizens to be consulted. Participatory governance *“seeks to deepen this participation by examining the assumptions and practices of the traditional view that generally hinders the realization of a genuine participatory democracy”* (Gaventa 2002). In short, in this subset of governance theory it is about addressing the need for new and broader principles, methods and institutions on which citizen participation is based (Fischer 2012). The aim is on the one hand to increase access and create opportunities to participate in decision making processes, and on the other hand to include a broader range of people who have access to the decision making processes. Many of the elements of participatory governance can also be related to the concept of collaborative governance (Marcaletti and Riniolo 2015).

Many (competing) definitions of collaborative governance exist (O’Leary and Vij 2012). Moreover, the meaning of collaboration changes over time co-evolving with the changing practices and public issues. Collaborative governance shares the key tenets of participatory governance, but in its definitions it is more specific in relation to the form, organization, and outcomes of the participation process. Here, two recent and most referred definitions are adopted. According to Ansell and Gash (2007), collaborative governance is: *“a governing arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets”*. The authors stress that these governance arrangements have to be initiated by a public agency, involve regular meeting, and include non-state private and public participants who are directly involved in decision making. Also here, the idea of merely consulting the public is refuted. The definition of Emerson et al. (2012) largely overlaps, but focuses on cross-boundary collaboration, and the realization of a public purpose that otherwise could not have been accomplished: *“The processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished.”* Furthermore, collaboration is best examined as a dynamic or emergent process rather than a static condition (O’Leary and Vij 2012). Examples of collaboration processes that bring together organizations from the government, business, and non-profit sectors to collaborate on problems of mutual concern are multi-stakeholder roundtables, dispute resolution processes, community advisory councils, and regulatory negotiations (Purdy 2012).

There are many advocates in academic and public spheres for collaborative governance and the participation of citizens and stakeholders on the basis that it can improve the environmental outcomes of public decision making, as compared to traditional, top-down decision making. The benefits of collaborative processes include greater responsiveness to complex situations and more deliberation than traditional governance processes (Leach 2006). Collaborative governance may produce more effective, efficient, and flexible policies with greater public acceptability (Sousa and Klyza 2007). However, there is also criticism on the support for participation and collaboration. Some authors highlight obstacles to collaboration including conflicting goals and objectives, inflexible legal and administrative procedures, and insufficient financial resources (Gerlak and Heikkala 2005). In other cases, collaboration may produce negative outcomes if there are questions about authority, transparency, and accountability (Bingham 2009). Finally, there may be issues with representing the different interests or

balancing between the interests of different groups and participants (Huxham and Vangen 2000, Leach 2006).

3.3.2 Participatory governance: Analytical building blocks

In academic literature on participatory and collaborative governance, many frameworks and theories exist. To analyze, evaluate and compare participatory processes in UA governance in different cities, these frameworks and theories were studied, and common or overarching concepts were selected to develop our own analytical framework. In doing this, Ostrom's (2009) remark was kept in mind that frameworks should not be too simplistic, nor overly specific. Additionally, despite the fact that the key concepts are presented in a list, it is agreed with Ansell and Gash (2007) and Emerson et al. (2012) that the different elements in the framework are interactive and that governance processes are nonlinear. For the main part, the key concepts are derived from the collaborative framework of Emerson et al. (2012). However, they are adapted or complemented with work from other scholars. The key concepts are (1) drivers, (2) collaborative dynamics consisting of governance structure and governance process, and (3) outcomes.

Drivers

Emerson et al. (2012) distinguish between a system's context and drivers, although they argue that academic literature generally makes no distinction between both. System's context is about the broader political, economic, social, and cultural factors. The context in which UA emerges is described for Ghent, Warsaw and Philadelphia in chapter 4. The role of context in UA governance in Ghent and Warsaw is analyzed in chapter 6. Drivers are viewed as a separate contextual factors as they refer to the conditions present at the outset of collaboration which either facilitate or discourage cooperation among stakeholders and between agencies and stakeholders (Emerson et al. 2012). Four different drivers are identified. It is argued that the presence of one or more of these drivers are necessary preconditions to instill participatory governance processes. First, leadership refers to the presence of leaders who are in a position to initiate or support participatory governance processes. Second, consequential incentives are both internal (e.g. interests) and external (e.g. opportunities) incentives that induce stakeholders to collaborate. However, there may also be negative incentives which hamper collaboration. Third, interdependence means that individual stakeholders and organizations are unable to achieve their interests or objectives on their own. The fourth is uncertainty. People are driven to collaborate when there is uncertainty about how to deal with societal problems or when there is a lack of information or transparency.

The most central in the analysis of UA governance is the concept of *collaborative dynamic*. Collaborative dynamic is defined as the whole of actions and dynamics that enable collaboration across different stakeholders, organizations, and institutions (Emerson et al. 2012). It should be noted that the collaborative dynamic is subject to changes over time as it adapts to different triggers in the system or the environment (Andrikopoulos et al. 2013). To map collaborative dynamics, it is useful to make a distinction between a governance structure and a governance process (Roep and Wiskerke 2010, Huxham and Vangen 2000). According to Roep and Wiskerke (2010), *governance structure* refers to the way in which alliances and the wider networks are organized, and the legal or formal status. Put differently, it is about the more tangible aspects of governance processes (Huxham and Vangen 2000). In the governance structure, we place the concepts of institutional and procedural arrangements including external legitimacy, knowledge, and resources. Governance structure deals with aspects of the governance process that sustain or grow the capacity for participation. It should be noted that this capacity can also be enlarged due to specific developments and dynamics in the governance process (Emerson et al 2012). *Governance processes* is defined as the way in which alliances and networks are governed (Roep and Wiskerke 2010). Governance processes deals more with the aspects that are emergent (Huxham and Vangen 2000). Three different elements are formulated: principles of engagement, shared motivation, and shared understanding. In the paragraphs below, these concepts are briefly described according to how they are interpreted in this research.

Governance structure

Institutional and procedural arrangements. These are the form and the functions of the governance process which are necessary to manage repeated actions over time (Emerson et al. 2012). Formal rules include the conceptualization of participation and the organizational aspects related to participation such as form, time, place, and frequency of meeting. Fischer (2012) also posits that an inter-institutional and inter-sectoral design are important aspects of governance processes. This in turn is related to the extent to which external legitimacy is achieved (Ansell and Gash 2007, Milward and Provan 2000). External legitimacy can be understood as the recognition and approval of the governance process by external stakeholders, groups and organizations

Roles. Roles are here defined as the various functions and responsibilities that are identified and ascribed to different stakeholders. It is about whether and which roles are distinguished to

organize and manage the governance process. The appointment of roles can lead to different kinds of leadership as for instance a sponsor, convener, representative, facilitator, public advocate (Emerson et al. 2012). Leadership can be an external driver for the initiation of a governance process, but it can also be an essential element to sustain participation and collaboration during the process, and to advance the collective interest of the city (Pieterse 2000). Furthermore, the delineation of roles allows that stakeholders on the one hand become accountable (Fischer 2012), and on the other hand that the stakeholders develop a sense of ownership (Purdy 2012).

Knowledge. Emerson et al. (2012) call knowledge the currency of collaboration. It is about essential knowledge to develop collaboration; i.e. knowledge that needs to be shared in the collaborative process. However, it is also about jointly developing essential knowledge to deal with the governance issue. Furthermore, the exchange of knowledge and information has to be wide and transparent (Fischer 2012).

Resources. Often, governance processes have to deal with the sharing and leveraging of resources that are scarce (Emerson et al. 2012). It relates to questions about what kinds of resources are available and what kind of resources need to be distributed. Examples of resources are all kinds of means that are instrumental to successful collaboration (Lubell et al. 2009, Milward and Provan 2000), such as funding, time, technical and logistical support; administrative and organizational assistance, and required expertise (Emerson et al. 2012). Some authors also consider power as a resource (Emerson et al. 2012, Purdy 2012). Here, power is considered as an intermediate resource which allows to benefit to a greater extent from the available resources. Furthermore, dominant language, customs, and culture may put certain stakeholders, organizations, or groups at an advantage or disadvantage to participate (Huxham and Vangen 2005). An important question is the extent to which the distribution of available resources is perceived to be even, fair, and efficient (Emerson et al. 2012, Fischer 2012).

Governance process

Principles of engagement. This concept is about the informal rules that define how communication and participation is organized. It relates to questions such as: Who is considered a stakeholder (group), and how are they invited? How are different perspectives, interests and knowledge of the participants taken into account (Ansell and Gash 2007, Leach 2006)? How does agenda setting occur, how are decisions made, or how are conflicts

resolved? These questions allow to study whether inclusion and exclusion in governance processes are partly the result of conscious or unconscious decisions (Ansell and Gash 2007).

Shared motivation. Shared motivation highlights the interpersonal and relational elements in the governance process and is sometimes referred to as social capital (Emerson et al. 2012). Pieterse (2000) refers to this as the need for a vibrant and active citizenry. An important element of shared motivation is trust (Fischer 2012, Koppenjan and Klijn 2004, Pieterse 2000). In turn, more trust among participants increases commitment (Ansell and Gash 2007, Marcaletti and Riniolo 2015). Commitment to the process means adherence to the rules and laws of the governance process (Ansell and Gash 2007, Pieterse 2000), but also the commitment to create bonds, value other interests and opinions, and work across various organizations and sectors (Emerson et al. 2012).

Shared understanding. Shared understanding is defined as the ability of different stakeholders to define what can be achieved collaboratively (Ansell and Gash 2007). In other words, it is about the ability to find a common purpose or agree on a set of objectives (Rogge et al. 2013). This might also imply an agreement on the problem definition and the necessary knowledge to address the governance issue.

Outcomes

Many of the theoretical frameworks elaborate on the outcomes of participatory governance processes. Outcomes is by other scholars referred to as impacts, effects, or output of collaboration (Thomas and Koontz 2011). Despite their different terms, outcomes are about the results on the ground, whether they are smaller or larger achievements, tangible or intangible, intentional or unintentional etc. (Ansell and Gash 2007, Emerson et al. 2012). It is also noted that any outcome may feed back into the collaborative process and further enhance the governance process (Ansell and Gash 2007).

This thesis is less focused on the tangible results, i.e. actual achievements and outcomes of UA governance processes, although they may be referred to in various places throughout the thesis. Instead, the thesis is more concerned with intangible outcomes of UA governance processes related to the organization and coordination of the processes themselves, and more specifically focused on the inclusionary and exclusionary dynamics. In taking this approach, we align with critical scholars who argue that new governance arrangements are not necessarily more inclusive or more pro-poor (Gaventa 2002). There is no a priori morality to governance. This is further clarified by Pieterse (2000) who notes that in fact, governance can

be conceived as “*neutral and a constitutive part of urban space, in the same way as the natural and built environments*”. This enables to locate governance processes on a scale of poor governance to good governance. Various efforts have been made to define characteristics of good governance (see e.g. World Bank, UNDP, UNHABITAT). As one specific element of good governance, this thesis is concerned with the question of inclusion of the various UA practices, stakeholders, and objectives in governance processes. Furthermore, the thesis reflects on the value of integrating a theoretical perspective of justice into frameworks and practices of UA governance. The concept of (environmental) justice is elaborated in the following section.

3.4 Integrating a justice perspective in urban agriculture governance

3.4.1 Introduction

Before turning to the history of the environmental justice movement and the key tenets of environmental justice theory (including its relation with the concept of sustainability), the arguments for why an environmental justice perspective contributes to an analysis of UA governance processes as formulated in chapter 1 are briefly reiterated.

First, we have to study the governance structures and processes to ensure that they are fair, democratic, and just, and that they do not enhance existing inequalities. Thus far, insights into how governance processes produce inclusionary and exclusionary dynamics remain rare. To contribute to this gap in literature, an environmental justice perspective is integrated in the theoretical framework on UA governance. A focus on environmental justice encourages investigation into marginalized individuals, groups and organizations in governance processes, and subsequently encourages the development of governance strategies that are more inclusive of the different UA practices, stakeholders, and objectives.

Second, the goal is also to explore why environmental justice advocacy is lacking in general in the European and, more specifically, Belgian context. Environmental justice has its origins in North America and has become a well-integrated theoretical and political concept. Over the course of several decades, race and class discriminations have become a dominant theme in North American critical scholarship and activism (Daly and McClintock 2017). The absence of such a focus in research and practice in Europe is striking. Integrating environmental justice questions in analyses on UA governance would avoid to make a priori and perhaps faulty conclusions that environmental justice issues are not at stake. It may uncover processes and

dynamics, or yield data that otherwise would remain unobserved. According to Agyeman (2013), these insights are important because a dual focus on addressing inequalities and forging sustainable practices can represent the pathways through which broad social change can be achieved.

3.4.2 History of the environmental justice movement

During the 1980s, the environmental justice movement emerged in the USA. Closely linked to the Civil Rights movement from the 1960s and onward, communities all over the USA organized to advocate goals of social justice and equality. This time, however, early advocates in the movement were fueled by the frustration with mainstream environmentalism's failure to address the disproportionate impact of toxic pollution on communities of color, working class and low-income groups. The environmental justice movement became a national social and racial protest resisting unequal exposure to toxic wastes and pollution. The important links with the Civil Rights movement led to an understanding that environmental equity is a right for all. It has been termed as the "marriage of environmentalism with Civil Rights" (Pezzullo 2001).

Several notorious cases preceded the emergence of the concept environmental justice. The cases used Civil Rights arguments to legally challenge the distribution of environmental harms and served as important catalysts of the environmental justice movement. However, it were especially the following two cases which have been drawing national attention and which are considered to lie at the foundation of the environmental justice movement. The first case took place in Love Canal (NY, USA). In the year 1978, it was discovered that the whole community - including an elementary school - had been constructed on a hazardous waste site in which for decades several companies, the U.S. Army and the municipality had been disposing of their waste streams (Robinson 2002). The community consisted mainly of low-income families and blue collar workers. In addition, this community was un- or misinformed about the environmental conditions of their community. It resulted in a protest movement led predominantly by stay-at-home mothers. They demanded for a safer environment from the Federal Government. It took several years before the community was evacuated and until compensations were offered.

The second case took place in Warren County (NC, USA). The case was preceded by an illegal dumping practice of Ward PCB Transformer Company. In 1978, the company had deliberately disposed toxic waste along a 240 mile land strip in 1978, with the result that this land was contaminated with toxic PCBs (Polychlorinated biphenyl). By dumping it illegally, the company wanted to circumvent new environmental regulations that had made waste recycling

more costly. The case became more controversial when the state government had decided in 1982 to dump the contaminated land in a waste landfill that was planned to be located in the predominantly black and low-income community (McGurty 2000). Moreover, the selection of the site was not based on any scientific criteria, but on the demographics of the community. It led to several years of non-violent protest against the landfill and the arrest of 414 demonstrators (Benford 2005). Until then, it was unseen that a person was sentenced to jail for attempting to prevent pollution. Ultimately, it took more than 10 years before the state promised to detoxify the landfill and 20 years until it was finally decontaminated.

Although discussion exists about which of these two cases lies at the basis of the environmental justice movement, it is safe to say that both the Love Canal case and the case in Warren County set a legal precedent for other environmental justice cases. Both of these cases have from then on been symbolic in the fight for clean communities and the protection of public health at risk from environmental problems. The environmental justice movement launched anti-toxics campaigns in hundreds of cities across the USA. The case of Warren County triggered investigations in other communities about similar situations. For the first time, the U.S. House of Representatives demanded inquiry into the correlation between hazardous waste landfill locations and the racial and socio-economic demographics of the surrounding communities (Agyeman et al. 2016). In 1987, the United Church of Christ published the famous breakthrough report “Toxic wastes and race in the United States”, which drew national attention to environmental justice. It was fundamental to the demands, development and profile of the environmental justice movement.

It was not until the 1990s that the movement booked political success. Lobbying at the federal level resulted, among others, in an Office of Environmental Justice within the Environmental Protection Agency (EPA). EPA offers a definition of environmental justice on the basis of which U.S. government is able to take action: “... *the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision making process to have a healthy environment in which to live, learn, and work*” (Beretta 2012). In February 1994, the Clinton administration issued an Executive order to transform a civic cause into a federal obligation. In 1995, an Environmental Justice Strategy was defined. As a result, environmental justice is now also a fully operational notion in the USA. It has been integrated as a general concern in all public policies at the federal level (Laurent 2011). However, it has been noted that the political recognition and action have not

redressed environmental inequalities or that environmental justice has been achieved in the USA.

In the early days, the movement was narrowly focused on the relationship between race or poverty and the spatial distribution of pollution such as hazardous wastes (Walker 2012). Taylor (2000) pointed out that the environmental movement was mistaken for a loose network of local opposition groups. She identified that the movement also had a well-developed environmental and ideological framework that explicitly links ecological, labor and social justice concerns. Therefore, the framework succeeded in having an effect on the mainstream environmental ideology. As the movement matured, the rather negative discourse of environmental racism - which was adopted from the American Civil Rights movement - broadened to the more positive frame of environmental justice, focusing on envisioning a more environmentally just world (Benford 2005, Martinez-Alier et al. 2014). Although the adoption of a sustainability focus had been refused for many years (Agyeman et al. 2016), the environmental justice movement eventually refocused from reactive protests against environmental injustices to advocacy for sustainable and just alternatives addressing the political, economic and social injustices that perpetuate environmental racism (Peña 2005).

It is important to note that the environmental justice movement has been pluralist in its concepts, foci, strategies and actions from the beginning (Schlosberg 1999). It was one of the reasons that it resonated with many groups that were previously excluded from decision making in environmental matters (Taylor 2000). Over the years, environmental justice has broadened in content and in geographical scope, which Schlosberg (2013) called the globalization of the environmental justice movement. It has evolved from an orientation to protest in local places - sometimes termed NIMBY (Not In My BackYard) - to supporting the broader and more universal concept of environmental justice (Di Chiro 2004).

Themes within the environmental justice movement have been covering topics ranging from transportation to flooding, agriculture, contaminated land, greenspace, air pollution, noise and so on, thanks to minority communities that from the 1970s onward mobilized around these topics, pioneering environmental justice activism (Agyeman et al. 2016, Benford 2005). Many social movements and organizations also incorporated the environmental justice paradigm, among others, to maintain their credibility in minority communities, resulting in broad coalition building (Taylor 2000). There is now a richness in the environmental justice paradigm that branches into for instance food justice, energy justice, water justice, and climate justice; but also more broadly into for instance gentrification, displacement, and the commons (Agyeman et al. 2016, Martinez-Alier et al. 2014).

The movement has been characterized as a call for diversity and grew from a grassroots movement into a national, international and global movement that transcended the specificities of local disputes (Martinez-Alier et al. 2014, Schlosberg 1999, Schlosberg 2004). Other topics such as slavery, deforestation, free trade agreements, or climate change are now internationally addressed (Agyeman et al. 2016, Sze and London 2008). For instance, the growing concern for environmental injustices at the international and global level led to the development of the concept of climate justice (Walker 2012). Climate justice and environmental justice share concerns with questions of difference, inequality and fairness, but climate justice focuses in particular on the unequal position between different countries in climate negotiations (Agyeman et al. 2016, Walker 2012). Poorer countries are likely to be more vulnerable to climate change, but less capable to deal with climate change (Anguelovski and Roberts 2011). The fact that climate justice - which is derived from environmental justice - was a central concept in the 2015 Paris COP meeting is an illustration that environmental justice discourse is gaining global influence and how it inspires movements and activism at the global level (Agyeman et al. 2016). However, it remains a difficult balance between environmental justice as a global movement and the many local actions that are driven by environmental injustice. On the one hand, the environmental justice movement has been criticized for not advocating beyond local, specific injustices, while on the other hand, the global environmental justice movement - which now has most influence - remains dependent for its justification on the many local actions.

Today, environmental justice is a highly interdisciplinary concept that sits at the “*crossroads of social movement, public policy and academic research*” (Sze and London 2008, p.1333). Multiple interpretations and understandings - from radical to moderate - have led to the appearance of different forms of environmental justice frames in different places which are to a variable degree powerful or relevant in the processes that these frames are part of (Walker 2012). Environmental justice continues to inspire researchers, policy makers and activists worldwide (Agyeman et al. 2016). The concept is increasingly used to reframe new issues, concerns, practices that help to bring attention to the interrelationship between a functioning environment and the attainment of social justice for all. It should be added that, although expanding globally, environmental justice research and activism has been remarkably absent in Europe - with the UK as a notable exception -, likely due to a lack of recognition, policy action, research and laws that can help to improve environmental justice. However, there are notable exceptions; see for instance Steger (2007) that promotes an environmental justice frame in Central and Eastern Europe, and Walker (2012, p.24) that lists European countries in which literature on environmental justice can be found. In the early 2000s, European policy makers have acknowledged environmental justice, with Scotland and England as the

frontrunners of the debate, but again with little resonance on the European continent (Laurent 2011). Even though there are few precedents to guide the application of an environmental justice frame in European cases, it is argued that much can be gained from studying sustainability issues from the environmental justice paradigm. It would also be worth exploring whether the principles of environmental justice as understood in North America can be found in other concepts or practices that are more integrated or used in Europe.

3.4.3 *Environmental justice theory*

The history of environmental justice is important, because it is closely tied to how the scholarship on environmental justice has developed. The first strand of academic research was inspired by a number of protest actions and the demands of the emerging environmental justice movement. It focused predominantly on the link between the local distribution of pollution, and class or race. (Sze and London 2008, Walker 2009). Several analyses had demonstrated that race and/or poverty were the most significant variables in association with unequal distribution of environmental goods and bads (Fisher 2004, Schlosberg 2013, Sze and London 2008). The early focus quickly expanded to include broader environmental concerns, and other forms of social difference than poverty and race (e.g. gender, class; Walker 2009). Analyses of environmental justice globalizes far beyond the USA, with research conducted in for instance the UK, South Africa, Australia and in a global context (Walker 2009). The academic literature on environmental justice has expanded and been introduced in a variety of disciplines. This has resulted in multidisciplinary methods and various meanings of environmental justice, which both enrich but also complicate the field (Agyeman et al. 2016, Sze and London 2008). It is therefore helpful to clarify the different concepts that have emerged in the environmental justice scholarship in the paragraphs below.

Environmental racism was the term commonly used before environmental justice was coined (Sze and London 2008). Environmental racism “*refers to any policy, practice or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color*” (Bullard 1996a). It has been argued that environmental racism is an example of environmental injustice or environmental inequality (Brulle and Pellow 2006, Pellow 2000). Alternatively, Pulido (2000) introduces the concept of *white privilege* to better understand the breadth and depth of racism by arguing for identifying more structural and hegemonic forms of racism. White privilege describes the structural and spatial processes in which “whites” succeed in securing cleaner living environments for themselves. It shifts the focus from individual discriminatory acts to the privileges and benefits that accrue to white people only because of their whiteness. *Environmentalism of the poor* is another concept that

converges with environmental justice (Martinez-Alier 2014). It posits that the poor are mainly on the side of nature preservation against business firms and the state that are involved in resource extraction and waste disposal conflicts, because it is consistent with their interests and their values. The environmentalism of the poor relates to actions and concerns in situations where the environment is a source of livelihood.

Environmental justice can be understood as the overarching concept. It can be defined as “*the principle that all people and communities are entitled to equal protection of environmental and public health and law regulations*” (Bullard 1996a). Environmental justice scholarship studies the inequitable distribution of environmental goods and bads, and thereby brings into account who bears the harms or enjoys environmental goods, and who is responsible for creating harms and goods, both in practice as in policy (Stephens 2007, Walker 2012). Research findings have amply revealed that environmental problems such as pollution and waste are contextual. Different social groups have different levels of exposure to such problems (Bullard 1996a, Bullard 2000, Mitchell and Dorling 2003). The environmental justice paradigm emphasizes an injustice frame for understanding the intertwinement of the environment and social difference (Taylor 2000, Walker 2012). Similarly, Kuehn (2000) described environmental justice as combining environmentalism with *social justice*. Social justice has been defined by Basok et al. (2006) as “*an equitable distribution of fundamental resources and respect for human dignity and diversity, such that no minority group’s life interests and struggles are undermined and that forms of political interaction enable all groups to voice their concerns for change*”. Therefore, environmental justice and all related concepts center on social justice in the sense that they advocate for the fair distribution of advantages and disadvantages within a society, but with a focus on environmental goods and bads (Di Chiro 1992). Central to environmental justice is that social needs, environmental benefits and economic opportunities must be met within the limits of supporting ecosystems, implying a focus on intra- and intergenerational justice, and justice related to non-human things (Agyeman et al. 2002).

Because this research links environmental justice and UA, *the right to the city* proposed by Henri Lefebvre (1967), is another concept that overlaps in several aspects with environmental justice, namely in the right of every individual to access urban space, the right to participate in decision making processes, and in advocating transformation in politics. According to Lefebvre, the right to the city can only be conceived as a transformed and renewed right to urban life. Every individual has the right to use and appropriate urban space in order to fulfill the daily needs. The social function of urban space then becomes more important than the profit that urban spaces can deliver. The right to the city puts central focus on collectively shaping urban life, actively inhabiting the urban environment, and participating in the public life

of the community or city. According to Harvey (2003) these rights need to be fought permanently, in order to control urbanization processes and change the city according to the public's desire.

Environmental inequality is a related concept which adds several important elements to the understanding of environmental justice. *Environmental inequality* focuses on the processes that produce unequal outcomes stemming from an environmental hazard that burdens any social group, rather than a narrower focus on racial discrimination (Pellow 2000). Pellow (2000) criticizes the overly simplistic analyses on environmental justice that study only on one site of conflict or location, and that consider injustices as the result of perpetrator-victim scenarios with passive or reactive target populations. Pellow argues further that in order to understand how environmental inequalities are shaped, we have to understand them as “*relationships that are constituted through a process of continuous change that involves negotiation and often conflict among multiple stakeholders*”. Only then, inequalities can be explained and policy around environmental injustices can be developed (Pulido 1996). The emphasis on the socio-historical processes and the involvement of multiple stakeholders that produce unequal outcomes will be central throughout the empirical work of this thesis.

Finally, *food justice* is a concept that has developed from the environmental justice advocacy and scholarship, and which has particular relevance for this thesis (Agyeman et al. 2016). The concept of food justice shows much overlap with environmental justice. In essence, it is the theorization of food in environmental justice scholarship (Alkon and Norgaard 2009). Although the goal of environmental justice advocates and scholars has always been to advocate justice broadly, for a long time there has been a lack of attention for justice in the current food system (Allen 2008, Gottlieb and Joshi 2010). Few environmental justice scholars have incorporated food or nutrition in their analyses (Alkon and Norgaard 2009). Food justice demonstrates the importance of race and class in unequal access to healthy food (Alkon and Norgaard 2009). Food justice advocacy is about empowering communities to address community food insecurity, lack of access to healthy, nutritious, affordable, fresh, locally grown or culturally appropriate foods with care for the well-being of the land, workers, and animals, or even education on “how to eat well” (Alkon and Agyeman 2011, Agyeman 2013, Guthman 2011). Hence, food justice is about advocacy for community change and a different kind of food system at the same time (Holt-Giménez 2010). The food justice agenda complements the environmental justice agenda as it brings in a focus on access to healthy food by marginalized groups (Holt-Giménez 2010). Food justice also complements academic work on sustainable agriculture which is mostly concerned with the support of small scale, organic farmers and their consumers (Alkon and Norgaard 2009). The concept allows sustainable agriculture scholars

to take into account disproportionate access to environmental benefits and how this is connected with variables of race and class in their theory formation (Pulido 2000). Food justice, even though there is no script on how to advocate for a different kind of food system, does open up pathways for social and political action (Gottlieb and Joshi 2010). It is agreed with Alkon and Norgaard (2009) that food justice is a concept that can link sustainable agriculture and environmental justice through an understanding of food access as a product of institutionalized racism. Therefore, food justice is considered in this thesis as an important part of environmental justice which can explain important dynamics in UA governance. However, as argued previously, it does not allow to cover all justice aspects related to UA. This is why the term environmental justice is preferred in this thesis.

The outcome of further theorization of environmental justice as discussed above is a multi-faceted concept that goes beyond only focusing on racially unequal outcomes of environmental decision making. First, the focus is also on the fair and equal distribution of environmental goods and bads such as access to green space, recreational space, healthy and affordable food, water, renewable energy, efficient public transportation (Jennings et al. 2012, Walker 2012). These green amenities are vital for a person or community to sustain quality of life in and around cities. Second, the focus is no longer only on spectacular manifestations of injustices or dramatic tragedies, but has included research on everyday or ordinary injustice in urban life (Milbourne 2012, Whitehead 2009). Third, research has broadened its focus to include next to racism other forms of social difference such as poverty, class, or gender. This allows greater inclusiveness of affected populations. Fourth, it is not only about a distributive understanding of justice, but environmental justice is also tied to *“recognition of the diversity of the participants and experiences in affected communities, and participation in the political processes which create and manage environmental policy”* (Schlosberg 2004). It is argued that the lack of recognition of group difference is an injustice because it constrains people and it is a foundation for distributional justice. As this thesis is concerned with the dimension of participation in the political processes, it will be discussed in more detail in the following paragraphs.

Schlosberg (2004, 2007) contends that environmental justice can only be achieved when one has the ability to express concerns and to participate in decision making processes. This means participation in the analysis of the problem as well as in the formulation of the political solutions. The EPA (2017) defines meaningful involvement as: (1) people have an opportunity to participate in decisions about activities that may affect their environment and/or health; (2) the public contribution can influence the regulatory agency's decision; (3) their concerns will be considered in the decision making process; (4) the decision makers seek out and facilitate

the involvement of those potentially affected. Underlying this definition is a demand for broader and more public participation (Schlosberg 2003). For Young (1990), the focus needs to be on the elimination of institutionalized oppression and domination by addressing the rules and procedures according to which decisions are made. In alignment with Schlosberg, she argues that enhancing democratic decision making procedures is an element of social and environmental justice. When differences are taken into account in the decision making procedures, the opportunities to participate are increased (Gould 1996). These differences are taken into account when differently located actors are brought together *“prompting a challenge to traditional hierarchies of expertise. Such linking, or hybridization, of diverse knowledge regimes [...] may generate newly configured sites of environmental contestation”* (Di Chiro 1997). The emphasis on the inclusion of different kinds of actors and situated knowledge helps to define the focus in the analysis of participatory governance processes. The dimension of participation in environmental justice is also closely linked to the concept of food democracy. Food democracy is based on the argument that solutions to problems in the agri-food system fundamentally depend on participation (Hassanein 2003). Therefore, the democratic character of the food system should be enhanced, meaning that alternative perspectives are incorporated of what food is and how food should be produced and consumed, in order to ensure greater access and collective benefit from the food system (Lang 1999). It should be noted that participation should happen in a variety of cultural and social institutions, as well as in the context of politics and government (Dryzek 2000). However, as said before, the focus on participatory governance in this research is concentrated on the domains of politics and formal governance processes (i.e. processes including the government as a stakeholder).

From the focus on inclusion of stakeholders in the decision making processes, the question follows what exactly is meant by justice in environmental justice, and more specifically, whose justice that counts (Schlosberg 2003). There are many interpretations and meanings of justice which differ according to the groups, their relations, and the context in making a justice claim (Di Chiro 1997). The question can therefore be reinterpreted as how to reconcile the divergent or sometimes contesting justice claims. Some scholars contend that justice becomes meaningless when all different notions are taken into account (see f.i. Low and Gleeson 1998). However, to respond to this, Schlosberg (2004) distinguishes in his argument between unity versus uniformity. He stresses that the value of plurality, which in essence equals a variety of notions of the good, lies in the fact that different claims are recognized and unified in the governance process. These claims come together through connections in newly formed networks, rather than insisting on uniformity of the claims. The challenge resides in finding forms of engagement that speak to the different social groups, cultures and identity (Tornaghi 2017).

One of the main contributions of environmental justice is that it has produced new constructs of environmental theory and action (Di Chiro 1992). During the late 1970s and early 1980s mainstream environmentalism tended to see nature as the “wilderness”, thereby invoking a false dichotomy between the urban on the one hand, and the rural or the nature “out there” on the other hand. Environmental justice has brought attention to the fact that “the environment” has multiple meanings and that, depending on its definition, it points at other problems, causes and solutions, and concerns different groups of people. As such, environmental justice has challenged dominant discourses of environmentalism utilized by environmental movements, policy makers and researchers (Bickerstaff and Agyeman 2009, Di Chiro 1992, Williams 1999). For many years mainstream environmental organizations and national governments have been predominantly relying upon the environmental sciences - ecosystem and ecology studies, climatology, oceanography - to define key environmental problems (Di Chiro 1992). These sciences made clear that environmental problems are global problems. However, they also argued that techno-scientific interventions and international policies are the key solutions. In approaching human/environment relations in a technocratic way, there was next to “getting the solution in place” little attention for how the issues are framed or whose interests are defended.

Yet, one of the outcomes of dealing internationally with environmental issues, was the emergence of the concept of sustainable development. It was introduced to refer to the imminent ecological crises and to the need for a development that is not focused on growth and extraction of resources only (Du Pisani 2005). The Brundtland report (WCED 1987) defined sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. Its definition was a result of the growing awareness that there is a tension between economic growth and environmental protection and that economic growth had not resulted in an even distribution of wealth. Put another way, the concept of sustainable development was introduced as a compromise between growth and preservation. In the definition lies the assumption that social equity, economic growth and environmental maintenance are simultaneously possible (Du Pisani 2005). Until today, this definition with the three fundamental concepts of the environment, the economy and the society is still the most widely used. Although the definition touches upon social equity - claiming that inequality is the planet’s main environmental concern - it has been argued that the dominant sustainability discourse, which has focused on ecological sustainability, only implicitly addresses intra-generational inequalities and injustices within its analyses or theory of change (Agyeman 2013, Schlosberg 2004). Because the primary concerns of sustainable development have been framed as technical - i.e. how can we most efficiently handle ecological problems? - the environmental movement has predominantly built on a very narrow definition of sustainability, avoiding more politically sensitive topics that the

concept of sustainable development imposes (Romeiro 2012). Sustainability has become a marketing tool in many domains, much like the word “green”, which reinforces the patterns of consumption and waste (Fisher 2004). In this sense, sustainability is best understood as a political instead of a technical construct, an overarching societal value similar to notions of freedom, justice of democracy, instead of viewing it as a scientific or objective notion (Agyeman and Evans 1995). Indeed, the common denominator of all proponents of sustainability may be an agreement that social change is needed - leaving in the middle whether the whole society needs to change or only certain social practices (Hopwood et al. 2005). However, the nature and the objective of these changes differ significantly. Sustainability plans adopted by cities vary widely in their conceptualization and operationalization, especially in relation to environmental justice (Pearsall and Pierce 2010). Most approaches to sustainability can be described as status-quo or reformist, seeking to change existing structures from within, with managerial approaches to sustainability plans. Research has already shown that these plans are challenged by the persisting dominant practices, cultures and structures which hinders progress toward a socially just and environmentally sustainable future (Devolder and Block 2015). The task ahead is to look for these “lock-ins” or “path dependencies” which ensure that unsustainable urban systems can remain on a self-perpetuating path. Identifying these can help us find strategies for transformation. It is argued that transformation is needed, instead of status-quo or reform, because current political and economic structures and institutions perpetuate consumerist, wasteful and exploitative behavior (Hopwood et al. 2005). This transformation implies social and political action of people that are outside formal power structures, and the building of alliances between environmental and social justice movements that are powerful and cohesive enough to bring about the needed transformation (Hopwood et al. 2005).

The identified need for transformation has led to the argument to place environmental justice in the discourse of sustainability (Agyeman and Evans 2004, Fisher 2004). It forges a paradigm shift on the wider agenda for sustainable development within environmental theory and movements (Agyeman and Evans 2004). This shift puts communities and people at the heart of ecological problems, as the environment is no longer understood as the wilderness out there, but as the *“place where we live, where we work and where we play”* (Fisher 2004, quoting Dana Alston in her speech on the First National People of Color Environmental Leadership Summit in Washington DC in 1991). Inequalities and injustices in urban communities are also part of environmental problems. In such an understanding, local or lay knowledge become invaluable and come to define environmental problems, causes and solutions together with experts or scientists (Di Chiro 2004). A key tenet of environmental justice is that it addresses the causes of environmental instability instead of the symptoms,

namely social injustice instead of environmental or economic instability (Middleton and O’Keefe 2001). The argument is that environmental quality is inextricably linked to that of human equality, as inequality drives unsustainable consumption and reckless competition between resources (Agyeman et al. 2003). Put another way, Adger (2002, p.1716) states that *“inequality in its economic, environmental, and geographical manifestations is among the most significant barriers to sustainable development. It is a barrier because of its interaction with individuals’ lifestyles and because it prevents socially acceptable implementation of collective planning for sustainability”*. Therefore, Middleton and O’keefe (2001, p.16) argue that examining social inequity should be a key tenet of the sustainability movement. If this is not addressed, no development can be truly sustainable.

In response to the insights into the links between environmental quality and social equality, and the shortcomings of a sustainability discourse whose main focus is on environmental sustainability, the concept of just sustainabilities has emerged. Just sustainability indicates the need to create *“livable, sustainable communities for all people [along with] an overall regard for the ecological integrity of the planet”* (Agyeman and Evans 2004). It links notions of equity, justice and environment together in one framework. Schlosberg and Collins (2014) explain that: *“a poor environment is not only a symptom of existing injustice, rather, a functioning environment provides the necessary conditions to achieve social justice”*. Therefore, they contend that while inequalities such as unequal access to food should be addressed, simultaneously a focus on sustainability and promoting ecologically sound practices should be established. This dual focus on addressing inequalities and forging sustainable practices in just sustainabilities can represent the pathways through which broad social change can be achieved (Gottlieb 2001), among others, because it presents a political opportunity for environmental justice as a policy principle, a coherent vision and a policy program to move communities toward sustainability (Agyeman and Evans 2004, Pellow and Brulle 2007).

Research on environmental justice is subject to several critiques or limitations. First, it has been observed (Holifield 2009, Swyngedouw and Heynen 2003) that research is mainly empiricist in orientation with a narrow focus on the topics, or on specific geographic localities which hampers generalizability of the findings. The critique states that, even though it engages with other theoretical disciplines, environmental justice research is theoretically thin, and therefore a political agenda for addressing environmental injustice remains absent. From this, a new strand of research that may be termed “critical environmental justice research” has recently emerged that aims *“to participate in a modest way in the re-composition of the common world”* (Holifield 2009). Environmental justice needs transformative approaches to be realized, because the current social order stands as a fundamental obstacle to environmental

justice (Pellow 2016). Pellow (2016) argues for an approach that goes beyond including the state as a reliable partner. That is because the demand of political or institutional change is not sufficient to deal with social inequalities and power struggles which are entrenched in society. This research argues by contrast that it is worth exploring potential transformations through collaboration with the state as a partner. It is stated that a focus on the processes underlying inclusion and exclusion in UA governance, informed by environmental justice theory and local food systems literature, may provide the basis for formulating a political agenda for transformations - or at least draw further conclusions on the potential role of the state in promoting sustainability transformations.

A second critique is that environmental justice research would be value-driven (Swyngedouw and Heynen 2003), as advocates produce much of the environmental justice literature. Such research leads to the blurring of the boundaries between research and subject which goes at the expense of objectivity (Smith 1999). By contrast, other scholars consider the close ties between literature and the practices of social movements as a strength (Sze and London 2008). Theory and practice can inform each other, which allows for a more critical and reflexive form of community organizing. Furthermore, Sze and London (2008) contend that abstractions of reality are avoided when theorization of environmental justice is grounded in the lived realities of people, places and problems.

3.5 Operationalization of the theoretical and analytical framework

The three theoretical propositions in the thesis offer an opportunity to reflect on the current theoretical positions on UA as well as the practices in UA. This section elaborates on the operationalization of the theoretical and analytical framework. As identified in chapter 1.4.3, insights into how governance processes produce inclusionary and exclusionary dynamics, remain rare. This gap in academic literature brings us back to the main research question that asks to what extent and how UA governance processes are inclusive of the multiple practices, stakeholders, and objectives.

To deepen insights into the inclusionary and exclusionary processes in UA governance, key elements that concern UA governance processes have to be identified in the first place. Moreover, we have to concentrate on the issues of UA governance that advance reflections on the current lock-ins or path dependencies which hamper the transformation toward sustainable *and* just food systems as described above.

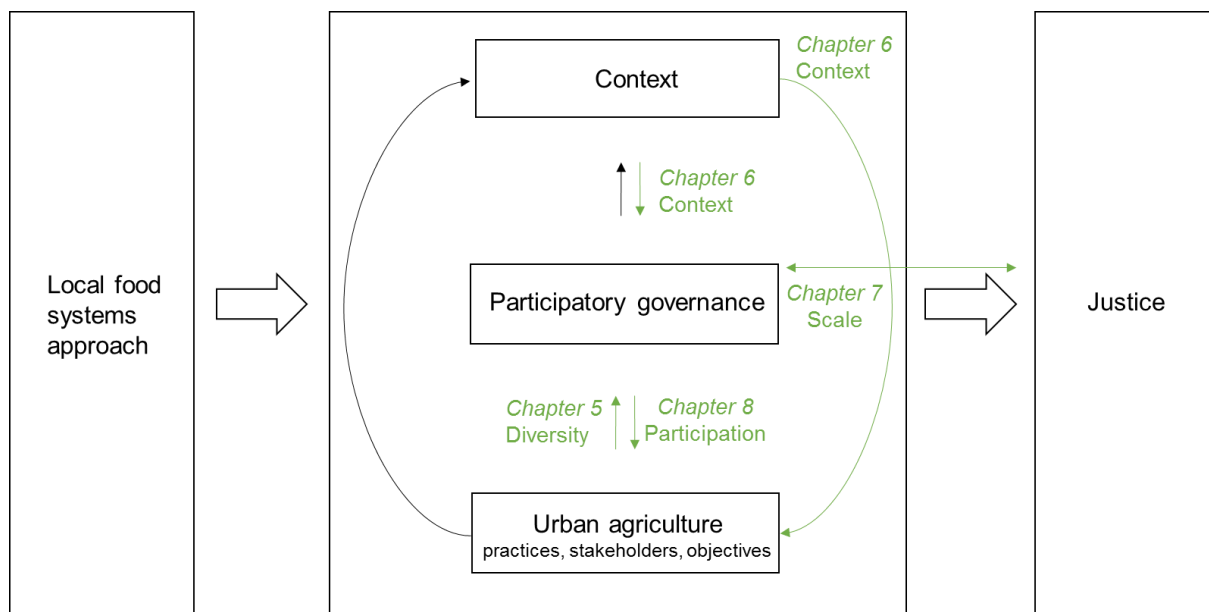


Figure 3.2 Operationalization of the analytical framework. The green arrows indicate how each chapter analyzes the relation between different building blocks. The black arrows are the relations that have not explicitly been analyzed in the thesis.

Four elements have been identified that appeared most relevant based on the combination of the literature as described above (i.e. literature on local food systems, environmental justice, participatory governance, and UA) and observations that were made during data collection and analysis of UA governance in Ghent, Warsaw, and Philadelphia. These elements appear to have important implications for the outcomes of UA governance processes, especially in terms of inclusion and exclusion of UA stakeholders. They are conceptualized as diversity, context, scale, and participation and are integrated in Figure 3.2. The figure also indicates in which chapter of the thesis the issues are dealt with. Chapter 5 deals with the element of diversity. It starts from the observed diversity in UA practices, stakeholders, and objectives and explores how this diversity is or can be reflected in governance processes. It is therefore located between the building blocks of UA practices, stakeholders, and objectives and participatory governance, with the arrow pointing from the former to the latter. Chapter 6 deals with the element of context and questions the role of context in UA development. It explores to what extent the urban context in which UA develops should be taken into account in order to develop UA to its full potential. This element is located between the building blocks of context (i.e. the broader economic, political, social etc. factors) and participatory governance, with the arrow pointing from context to participatory governance. It is also located between the building blocks of context and UA practices, stakeholders, and objectives, as chapter 6 reflects on the role of contextual factors in relation to specific opportunities and barriers for UA development. Chapter 7 analyzes the role of scale. It explores how the scale of UA is framed and analyzes how this leads to divergent outcomes in UA governance, especially in terms of inclusion and

exclusion. It is therefore located between the building blocks of participatory governance and justice. The double arrow means that it is on the one hand analyzed how politics of scale in UA governance relates to justice in the food system, and on the other hand, how (implicit and explicit) understandings of justice relate to specific objectives in UA governance. Finally, chapter 8 analyzes the element of participation in UA governance. It analyzes how the organization, procedures, and actions of FPCs allow and stimulate participation in FPCs. This element is also situated between the building blocks of UA practices, stakeholders, and objectives and participatory governance, yet with the arrow pointing from the latter to the former. It should be noted that the black arrows from both UA practices, stakeholders, and objectives, and participatory governance indicate the long-term influence of these on the urban context. Although, this has not been the focus in the analysis, it could be stated that the reflections on environmental justice in UA (governance) can be considered as belonging to these arrows. However, because of the focus on the overall outcome of UA governance processes in terms of environmental justice, the concept of justice is located in a separate building block. In the sections below, each of the elements is discussed based on a review of academic literature.

3.5.1 Diversity

Diversity in the UA movement appears to be the rule rather than the exception (Mount 2012). First there is the wide diversity in UAPs. UA comprises many different forms such as community gardens, rooftop farms and indoor farming. Second, there is the broad array of objectives of UA, ranging from food production to for example food access, education recreation, or catchment of rainwater. Moreover, there are multiple objectives attached to UA that do not always map predictably and consistently onto the different UA forms (Lamine 2005). Examples are a community garden that does not put social objectives on top of the list, or a professional peri-urban farm that does not prioritize maximization of food production. Third, there is also the diversity of UA stakeholders in government, market, and civil society. The question is how different types of stakeholders learn to collaborate in governance processes. Most importantly, another crucial line of questioning is whether there is a lack of access for some individuals, groups, and organizations in market or civil society to participate in these UA governance processes, and whether this is related to variables of race or class (as explained in section 3.4).

The multifunctionality that is brought forward by the diversity in UA forms, stakeholders, and objectives is claimed to be a strength of UA (Lovell 2010, Morgen 2015). That is because food has the capacity to bring so many people and issues together. However, the downside is that: *“food politics can become locked into single issue political frames - local food, organic food,*

fair trade, food banks etc. - creating food issues rather than a food movement" (Morgan 2015). Despite broad recognition of the importance of promoting diversity in UA, an integrated governance approach that can stimulate a multifunctional food movement remains largely absent in many cities (Lovell 2010). The focus is most often on isolated aspects of the food system or as Morgan (2015) calls it "single issue politics", individual UA projects, or on linking policy objectives strictly with one form of UA (Ilbery and May 2005, Levkoe 2011). It is here argued that the lack of a comprehensive interrelated approach can be explained by an inadequate understanding of how UAPs function, the differences and similarities between and within forms of UA, or the various backgrounds and motivations of UA practitioners. Current understandings are most often based on the assumption that all UAPs and stakeholders share the same goals and values, related to uniform sustainability objectives (Mount 2012). However, sustainability is a broad and negotiated concept, with a wide array of objectives and values. Moreover, researchers, practitioners and policy makers most often rely on generalized definitions of UA that overlook important similarities between seemingly different UAPs, and important differences between seemingly similar UAPs, which do not catch our eye when using overly simple categorizations of UA. These points lead us to rather speak about the potential of local food system practices in general terms, hence overlooking precisely the diversity that local food practices foster (Hinrichs 2003).

Governance approaches that are too general or uncomplicated have important shortcomings: they do not identify or address barriers, needs and injustices properly, and they overlook power imbalances and exclusions in emerging urban food networks (Saldivar-Tanaka and Krasny 2004, Mount 2012). The focus should therefore be on finding ways to understand the operation of UAPs thoroughly, discuss UAPs in relation to each other from an aggregate point of view (e.g. networks, cities, urban sustainability plans), and identify important barriers for the development of different forms of UA. This will be the focus of the thesis as a first step to better informed decision making in UA governance in terms of stimulating diversity in UA and assessing the multiple ways UA contributes to sustainability.

3.5.2 Context

The wealth of case studies on UA in a single country, city, neighborhood or specific location clearly indicates that variations in a given context sculpt the shape and content of UA developments. Several scholars therefore explicitly argue for more contextual analysis in local food systems. Classens (2015) believes that taking into account particularities in the social, political, cultural, biophysical, climatic and ecological realm is a precondition to a better understanding of UA in varied contexts. Tornaghi (2014) argues for narrowly focused and

contextualized case studies, because they provide the necessary critical analysis for a topic such as UA that is prone to being captured by current economic and political systems. Similarly, DeLind (2010) advocates attention for the particular ecologies and relationships that different locations create over time. As the local food movement becomes more popular, attention for local ambiguity disappears, which removes people further away from defining local food from within. Local food has to be reconnected to local context and local ownership, and this can only be realized when we conduct place-based research and practice.

From an international perspective, academic literature on local food systems has already illustrated the different contexts in which local food systems have developed. In Europe, they have been supported mainly as an alternative institutional model of rural development, with the goal to maintain the rural image (Goodman 2003). This goal has also been underscored by the second pillar of the Common Agricultural Policy (CAP) and supported with financial means (Ilbery and Maye 2005, Watts et al. 2005). By contrast, North American literature on local food systems is closely allied with activist circles and is consequently more concerned with the oppositional and transformational character of local food systems (Dupuis and Goodman 2005, Goodman 2003). This for example explains the food justice movement which resonates strongly in North American contexts, while it is fairly absent in Europe.

Insights into particularities presented in the previous paragraph are important, because they reflect fundamental differences in governance processes (Bickerstaff and Agyeman 2009). Generating such insights into the particular contexts for UA development are therefore invaluable to understand how inclusionary and exclusionary processes in UA governance unfold. Nevertheless, academic literature on UA often either bypasses or merely describes, the context in which UA developments unfold (Garnett 2000, Padgham 2015), rather than considering it to be a co-constituting factor (for notable exceptions, see McClintock 2014, Lovell 2010). Instead, there is a strong reliance on generic discourses of UA in which we distance ourselves from systemic analyses, disregarding the behavioral, particular and democratic aspects of local contexts. In other words, understanding contexts and how they co-shape UA is important, because depending on how and what elements of the local context are taken into account, defines for a large part who and which practices will be included in the governance process of UA.

3.5.3 Scale

In public and in academic debates on local food systems, the delineation of terms such as local and urban are often discussed. There are many propositions to delineate the locality of local

food systems. Some defend a fixed perimeter around a city or propose the idea of concentric circles (Martinez et al. 2010, Roggema 2016). Others advocate a neighborhood approach (Feenstra 1997) or prefer the use of interrelated terms such as regional or urban food systems (Donald et al. 2010, FAO/RUAF 2015, Hinrichs 2013). There are also proponents of relational conceptualizations of local food systems (Jones 2009). In such an approach, it is more about the direct connections between producers and consumers, rather than a geographical proximity that defines local.

Regardless of the different stances on what geographical area UA or local food systems encompass, they all implicitly have assumptions on a particular scale at which these systems should be developed. In most accounts, this scale is treated as an ontologically given category, while in fact scales are social constructions (Dupuis and Goodman 2005, Paasi 2002, Wald and Hill 2016). This means that there is a politics behind localizing food systems in which actors attempt to gain control over a limited set of resources or to legitimize processes of prioritizing practices or stakeholders over others (Born and Purcell 2006, Lerin 2015). Analyzing the politics of scale is important for at least two reasons. The first relates to the multi-scalar nature of local food systems (and UA). By redirecting all action, responsibility and benefits to one particular scale undermines the understanding of local food systems as a multi-scalar issue (Wald and Hill 2016). Moreover, addressing issues at one scale, may leave issues at other scales unaddressed. A uni-scalar approach to local food systems may then reduce the transformative capacity of local food systems. The second reason is that analyzing politics of scale allows to identify the inclusionary and exclusionary practices in developing local food systems, because we study the content of the agendas of the actors in the governance process, instead of the scales themselves (Born and Purcell 2006). As Born and Purcell (2006) state, it is these agendas that ultimately define justice or sustainability outcomes, not the fact that the food system has become “local”.

In UA inquiry, the effect of scalar politics has already been recognized. Ernwein (2014) states that: *“the spatial framing can be surprisingly complex and subject to power relationships, and that the urban itself can be delineated differently among urban agriculture projects”*. Yet, insights into the scalar practices of UA in formal governance processes are missing. Identifying the scalar politics in UA governance is important to understand why and how emphasis is placed on particular UA practices, stakeholders, and objectives. It also highlights who, what practices, and which other scales are - deliberately or not - left out of the scope in UA governance processes. Such insights are invaluable in reflections under what conditions UA can contribute to urban and agricultural sustainability.

3.5.4 Participation

The importance of participation of diverse stakeholders in UA governance has been underscored in academic literature and in practice. Governance theory has pointed out that complex environmental policy issues, of which UA is an example, involve different (state, market, civil society) actors operating at different governance levels and advancing different sustainability goals. Moreover, governments are often faced with open-ended, unusual and ad hoc arrangements (Hajer and Wagenaar 2003). Evidently, such complexity makes novel demands on urban policy making and planning processes. In light of this complexity and uncertainty, scholars have pointed out the need to identify governance arrangements and tools that can orchestrate the new creative multi-actor, multi-level, multi-purpose and multi-sector trajectories (Healey 2004). In short, governance theory claims that no sustainability will be achieved if different kinds of knowledge and expertise are left out of the debate. Environmental justice theory follows the line of argumentation of governance theory, but stresses the inclusion of minorities and people who lack access to decision making due to poverty, cultural background or social exclusion.

The idea of participatory governance is not new and has resonated with many local governments for several decades. In terms of the emerging urban food policies (Morgan 2015), attempts to increase participation in decision making is reflected by initiatives such as local food strategies or plans, participatory budgeting for topics related to food, green space and agriculture, land banks, and FPCs. These initiatives all explicitly or implicitly intend to increase bottom-up participation, and the participation of a diversity group of individuals and organizations, objectives and practices in the governance of local food systems. In a lot of literature, these new governance tools or procedures are (rightly) praised as promising in light of making progress in sustainable development. However, few analyses have looked beyond their success by critically analyzing how precisely these initiatives make participation possible and how this participation enhances - and possibly also hampers - democratic decision making. In other words, the participation in participatory governance tools has to be more critically scrutinized. Also here, it is argued that the detailed ways in which participation is organized, again produces inclusionary and exclusionary dynamics in UA governance.

Methodology and description of the cases



Inmaculada School Garden, Vitoria-Gasteiz, September 2014



Uit je eigen stad, Rotterdam, August 2014

Methodology and description of the cases

4.1 Introduction

This research is best described as a political sociological study of UA because it is a study of political activity of specific groups, how advocacy forces change in policy and how, in turn, new policy and politics affect society. This chapter discusses the methodology used to conduct the research. In the sections below, the context of the research is situated. Then, the case study design is described, followed by a description of the different steps of the research process, namely, case selection, data collection, data analysis and feedback. Finally, the three cities in which in-depth analysis of UA governance processes has been conducted, are presented: Ghent, Belgium; Warsaw, Poland; and Philadelphia, PA, USA.

4.2 Context of the research

The interest in the sociology of our agriculture and food system developed slowly but steadily during my formation at the university. I explored perceptions on GMOs (genetically modified organisms) in a bachelor dissertation, the transition from conventional to organic farming in Flanders in a master dissertation, and the emergence of UA in Ghent in a second master dissertation in 2013. In the latter, the main goal was to explore the role of UA in sustainable development in Ghent. In this in-depth case study, the UA stakeholders were identified, their motivations and perceptions were explored, and the constitution of the UA network was mapped. The research analyzed how the dynamic underlying UA in Ghent had specific implications for UA's role in sustainable development. The outcomes of the dissertation, together with the observation that enthusiasm for UA was growing worldwide, led to the conclusion that the role of UA in urban and agricultural sustainability deserved further scrutiny.

When the opportunity was presented in 2013 to start a PhD research at ILVO (Flanders Research Institute for Agriculture, Fisheries and Food) titled "governance of UA", the choice was immediately made to continue the research on UA in Ghent. It had by then evolved into a broader movement with new stakeholders and practices that received increasing attention from the municipality. UA was no longer only a hype, but slowly becoming a permanent feature of the urban landscape.

An extensive literature review on UA was conducted in a first phase of the research (cfr. chapter 2). This review revealed that scholarly attention to governance of UA and a broader analysis of UA's role in society was scant. A focus on governance processes would then contribute to the UA literature. To draw the contours of this research, several methodological choices had to be made at the start.

First, a justification is required for how we can come to understand governance processes of UA. Different epistemologies compete as the justification for doing qualitative research (Schwandt 2000). This research will explore the processes through which meanings of UA are created, negotiated, sustained and modified. In alignment with Glaser (2002), it is stated that concepts such as UA are “*constructed, not discovered*”. This implies that the empirical work is based on the constructivist perspective which argues that “*the world is constituted, in one way or another, as people talk it, write it, argue it*” (Potter 1996). In other words, reality does not exist out there, waiting to be discovered (Berger and Luckman 1991). Truth and meaning are socially constructed in the people's minds through interaction with the world. Moreover, there are multiple realities, since subjects create their own meaning and in different ways (Gray 2014). Constructivism challenges the realist and positivist perspectives that empirical observations are characterized by neutrality of observation, givenness of experience and independence of the researcher from the empirical data (Schwandt 2000). Instead, interpretation is needed to understand the complexity of the constructed social reality (O'Leary 2004). Interpretivism is a theoretical perspective linked to constructivism (Gray 2014). According to the method of interpretivism, the researcher needs to uncover the process of meaning construction and clarify what and how meanings are embodied in the language and actions of the social actors (Schwandt 1994). That means that the researcher tries to understand the participants' lifeworlds from their perspective, their experience of a particular phenomenon, and the meanings they attach to their experiences (Andrews 2012, Smith 2004). To guide the process of uncovering the meaning-making and interpretation of actors, the case study design is used (see below).

Second, a comparison of UA developments between cities was considered as adding richness to the dataset. Throughout the research there were two opportunities to conduct research internationally, namely in Warsaw (Poland) and Philadelphia (PA, USA). The underlying goal of comparison between cities in this research is to find both variance and similarity (Lund 2014, Mills et al. 2006). On the one hand, a comparison that focuses on context and difference allows to understand specificity. In addition to uncovering differences in UA between cities, comparisons also reveal unique aspects that would be very difficult, if not impossible to detect

otherwise. On the other hand, the identification of similarities allows to identify underlying general processes across different contexts (Mills et al. 2006).

Third, it was agreed with a growing subsection of academic literature on local food systems that the predominantly celebratory approach to local food practices is disregarding important critical perspectives and factors that may ultimately produce adverse outcomes of local food systems (see chapter 3). Since many of the sustainability claims for UA are formulated in a general manner, it is likely that they raise people's expectations of UA. Therefore, the need was felt to embed the critical perspectives on local food systems to discuss the potential of UA for urban and agricultural sustainability in this research. Early on in the research process and after several inspiring encounters with professors, researchers and activists, it was clear that environmental justice could serve as the critical perspective on the governance of UA that was missing in the available research on local food and UA.

4.3 Case study design

Many definitions of a case study and many kinds of qualitative and quantitative case studies exist, all with specific functions (Stake 1995, Zucker 2009). According to Bromley (1990), a case study is a *“systematic inquiry into an event or a set of related events which aims to describe and explain the phenomenon of interest”*. When UA is the single case of interest, the case study method is expected to catch and understand its complexity (Stake 1995). The case study method consists of in-depth and holistic investigation within a specific context, with a focus on nuance, detail and wholeness (Baarda et al. 2005, Stake 1995). It is an intensive analysis that produces many details (Kumar 2005). It *“investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly defined”* (Yin 1994). As Stake (1995) explains, we look for the detail of interaction between the case and its context. In short, the main benefit of case study methods is that it enables a researcher to provide in-depth and holistic explanations of social problems from the actor's perspective. It is also a good method when the aim is to understand and explain processes rather than to predict or show causality (Ness and Mistretta 2009).

In addition and as noted above, when the goal is to understand which and how specific circumstances within a context influence governance processes of UA, it is suitable to conduct a comparative analysis. This is underscored by Lund (2014) who writes about analysis from a comparative perspective that: *“It may be the difference in context that make the particular qualities of organization, dynamics, and relations resonate and be mutually illuminating.*

Resonance can inspire us to look for elements, which we had not initially thought about but which are obviously significant in work by others. And it may help us to generalize, abstract, and theorize our own [work]". Thus, by analyzing the particular organization, dynamics and relations in UA governance, comparative case studies allow to explore similarities, differences and patterns across two or more cases. It is also stated that comparative analyses are more robust, because the research in the different cases is based on replication of the analysis in other contexts (Ness and Mistretta 2009).

Main disadvantages or limitations of case studies are: (1) that the data is difficult to structure and exhaust; (2) that the researcher biases could affect the final product, for instance Guba and Lincoln (1981) make the point that the research can draw pretty much any conclusion, because there is always a source of evidence to be found in the large dataset that case studies produce; and (3) that case studies depend too much on the input from interviewees. The first disadvantage has been dealt with by collecting data up to the point of data saturation and analyzing the data with the assistance of computer programs such as NVivo 8 and QDA Miner 4 Lite. The second is tackled by presenting the research findings to the UA stakeholders and taking their feedback into account. Finally, to avoid an overreliance on semi-structured interviews, we used data triangulation. Data triangulation means the use of more than one data collection method (Yin 2009). It helps to cross-validate the data, but also to offer additional insights in the data analysis.

Generalization of the results has also been considered as problematic in case study research. Some authors state that results do not generalize well, while others state that they do or that generalizability is not relevant to case studies (Flyvbjerg 2006, Tsang 2014). Although it may be true that specific findings cannot be extended to broader populations or universes (i.e. scientific generalization), this research aligns with Yin (2009) that case studies, like experiments, are generalizable to theoretical propositions. Moreover, it is agreed with Flyvbjerg (2006) that the value of context-dependent knowledge is underestimated. Instead, case study researchers could aim for transferability or comparability (Chreim et al. 2007) and to optimize the understanding of the case rather than generalizability (Stake 1995), which is what has been done in most of the empirical chapters.

The empirical work is presented in the four chapters 5-8. However, much of the empirical data is also presented in Section 4.5 where the building blocks of the analytical framework to study UA governance processes (i.e. context, UA landscape, governance) are applied to the cases of Ghent, Warsaw, and Philadelphia. Each chapter is conceptualized as a case study. Each case study (i.e. chapters 5-8) has a different methodological approach and uses different or a

different combination of datasets (i.e. this thesis consists of four different datasets and they are presented in Table 4.3 in section 4.4.2). The case studies can be distinguished by three elements: (1) whether they are comparative case studies or not, (2) whether UA is analyzed from the perspective of the city level or the level of the UAP, and (3) whether FPCs are studied as a governance tool of UA (Table 4.1). All case studies draw on data collected in Ghent. The case studies in chapters 5-7 consist of comparative case studies. Chapter 5 is a comparison of single UAPs across Europe while chapters 6 and 7 are comparative case studies of UA from a city level perspective. Chapters 7 and 8 analyze the governance of UA by studying FPCs.

Table 4.1 Case study design

Case study	Chapter 5 <i>On diversity</i>	Chapter 6 <i>On context</i>	Chapter 7 <i>On scale</i>	Chapter 8 <i>On Participation</i>
Datasets used (Table 4.3)	UA practices across Europe	UA in Ghent UA in Warsaw	UA in Ghent UA in Philadelphia	UA in Ghent
Comparative	✓	✓	✓	
City level		✓	✓	✓
Food policy council			✓	✓

A detailed description of the methodology can be found in the respective chapters 5-8. For chapter 5, the purpose of the research was to understand the organization, dynamic and governance of individual UAPs across Europe. Chapters 6-8 serve to better understand the urban governance settings in which UA unfolds. In these chapters, UA is analyzed and/or compared in the context of Ghent, Philadelphia and Warsaw. The following section describes how these three contexts were selected. They are described in detail in section 4.5.

4.4 Research process

4.4.1 Selection of cities for in-depth analysis¹⁶

Three cities were selected purposefully and for specific reasons. The starting point of the research was the analysis of the development of UA in Ghent. Ghent proved to be an interesting context as UA has been developing for several successive years and the number of practices, stakeholders and policy initiatives was growing. Moreover, there was already affinity with the context of UA in Ghent as previous research had been conducted in this context. It was argued that further analysis would enhance the in-depth understanding of the context.

¹⁶ This section does not elaborate on the selection procedure of UAPs across Europe for chapter 5. For this chapter, 28, 12, and then 4 UAPs were selected to analyze the organization and governance of individual UAPs. To avoid repetition, this selection procedure is explained in detail in chapter 5.

The two cities for comparative analysis were selected case by case as the research process evolved. They were thus not selected at the beginning of the research process. There were several preconditions for the selection of other cities. The first was based on the strategy of most different design (Przeworski and Teune 1970), which means that the goal was to investigate and compare UA in Ghent with other cities that differ on important variables (Lovell 2010). These variables were the socio-economic context, the historical role of urban food growing, and/or the level of UA development.

Second, in the additional cities there also had to be an UA movement that is characterized by the diversity, multifunctional purposes and multiple stakeholders as described in chapter 1. This means that for instance, cities in which UA does not represent more than community gardens, would not be selected. Third, the goal was to rely as little as possible on other interviewers or translators, as the originality of the spoken words would get lost in translation. Hence, research had to be done in a context where the spoken language was understood, or where the interviewees and interviewer spoke a mutual language¹⁷. Fourth, research had to be done where there was support from a local research institution and staff that was involved in UA. This was important for the identification of UA stakeholders, to obtain important documents and resources, to participate in networking activities and relevant meetings, for feedback on the results and also for the dissemination of the results and reports. Fifth, it was chosen to compare UA between cities from different countries. In alignment with the first selection criterion of most different design, the international comparison serves our aim of gaining insight into context-specific details and how this explains the way UA is framed, negotiated and supported. It is the international comparison of very distinct cities that allowed to identify these context-specific details.

The opportunity to conduct research in Warsaw was offered by the COST Action TD1106 Urban Agriculture Europe. A grant was provided to explore UA in Warsaw and report on it in the frame of the COST Action. An initial desktop search was done to find UAPs and key stakeholders. Once in the field, further contacts were sought through the snowball procedure. After the first interviews, it was clear that Warsaw would be a good second case as it was very different from Ghent in terms of socio-economic context, its history of community gardens, and the role of the local government.

¹⁷ Before deciding on including Warsaw as a city for in-depth analysis on UA, it was explored whether interviewees mastered the language of English.

The selection of a third city was based on the aim to conduct research in a North American city. The reason was that the concept of UA was conceived in North America. New and contemporary forms of UA originated in North America and from there, have spread eastwards around the early 2000's to the UK and Europe (Bohn and Viljoen 2014). The North American context has thus served as a source of influence and inspiration for the development of UA on the European continent. Another reason was that academic literature on justice, fairness, and democracy in relation to agriculture and food almost exclusively dealt with the North American context (Daly and McClintock 2017). If the goal was to extend environmental justice analyses in UA, it would be most interesting to select a city in which (at least several) UAPs focused on justice issues in their city. Again, a desktop search was done to compare different North American cities. Philadelphia, was selected for several reasons. First, the analysis of UA in Philadelphia based on an internet search, analysis of documents and the review of existing research underscored the advanced stage of the UA movement. The number of projects, supporting organizations and UA stakeholders appeared to be much larger in Philadelphia than in Ghent. To understand the historical development of the Philadelphia UA movement and how the UA movement succeeded in developing into a substantial movement, would allow to reflect on how the successes and failures in Philadelphia UA may be extended to the case of Ghent. Second, it was expected that the differences in socio-economic and historical background of Philadelphia would allow for a comparison with Ghent that produces many new insights. Third, it was a pragmatic choice, because I was already familiar with the city of Philadelphia. Many important details of the context of Philadelphia were known and I was already part of a small network of people involved in UA or related activities. This experience gave me a head start in the research process in relation to mapping the context, UA movement, and governance setting, as well as dealing with the practicalities of fieldwork in a new context.

A critical reflection is in place on the comparison of cities that are considerably different in size. Ghent, a city of 251 133 inhabitants and on a surface of 156,18 km² is compared in this thesis with much larger cities: Warsaw (1 726 581 inhabitants and 517 km²) and Philadelphia (1 567 442 inhabitants and 349,80 km²). The different sizes in terms of population and surface have to be borne in mind when interpreting the results. It can be expected that critical aspects of our analysis on UA governance are sensitive to the size of the city (e.g. smaller cities may be less affected by urban heat island effects or larger cities may be more severely confronted with crime and murder, and therefore specific foci in UA governance become more emphasized or irrelevant). However, this thesis is less about absolute numbers (e.g. size of farmland, number of UAPs, number of citizens involved in UA) than it is to learn about which stakeholders are involved, for which reasons, how they advocate UA, and what kind of initiatives are constructive for or hamper an inclusive UA, regardless of whether this is related to the size of

the city. In this sense, it is more about identifying and comparing city-specific barriers and opportunities (and in some cases size may represent a barrier or opportunity) and comparing how these affect UA governance processes in different cities.

4.4.2 Data collection

Case studies allow to combine multiple sources of evidence to look at a phenomenon. The use of multiple methods of data collection is a way of validating results by checking the integrity of the inferences one draws (Baarda et al. 2005). This is called data triangulation (Baarda et al. 2005, Denzin and Lincoln 2005, Yin 2009). As Yin (2009, p.103) notes: *“For case studies, the most important use of documents is to corroborate and augment evidence from other sources”*. Ultimately, it is not only the quantity of sources that counts. The validity of the case study is strongly related to the quality of the data obtained through various sources. Each of the methods is discussed in detail below. The case studies are a combination of longitudinal and cross-sectional designs. The analysis of UA in Ghent can be considered as a longitudinal study, because the same context was studied over a longer period of time, i.e. four and a half years. The other case studies were cross-sectional, meaning that analysis was done at a single point in time. This implies that for the case of Ghent, more data was gathered as compared to the other two, especially data from participant observation.

Semi-structured interviews

Semi-structured interviews constitute the most important source of the research. Semi-structured interviews were used in all four cases. The advantage of this method is that interviewees can expand on their answers and that the feelings and perspectives of the interviewee can be explored, resulting in rich information (Warren 2002, p.85). This is especially important when the aim is to explore interviewees' experience and interpretation of events.

As described in chapter 2, all UAPs from production, to processing, distribution, sale and support are suitable for analysis on the condition that: (1) they take one or more aspects of sustainability into account, meaning they contribute positively to the urban ecosystem (Mougeot 2000), (2) they demonstrate a reflection on the side effects of the dominant agri-food system, and (3) they involve multiple stakeholders for the organization of the UAP (e.g. in relation to land tenure, sharing or selling of food)¹⁸. The practices were sampled in a first step

¹⁸ This is a slightly shorter version of the definition presented in chapter 2.3

through desktop search: search engines, websites and social media helped to identify UAPs. In a second step the snowball procedure was employed. A strength of the snowball procedure is that fewer interviews are declined (Reed et al. 2009). A weakness is that the sample may be biased by the social networks of the first interviewees. The search for new interviewees was stopped when almost no or only little information was added by new interviewees. Hence, when data saturation was achieved.

The data collection in the three cities resulted in rich datasets. In Ghent, two rounds of semi-structured interviews were conducted with 20 interviews in 2013 and 12 in 2014 (Table 4.3). In Warsaw, the data collection in 2014 resulted in the consultation of 20 UA stakeholders. The data collection in Philadelphia comprises 23 interviews. All the interviews lasted between roughly 30 minutes and two hours. Apart from three interviews that were conducted as telephone interviews, all conversations occurred face to face. Most of the interviews were organized in an informal manner. The aim was also to comply with the preferences of the interviewee, in order to make him/her feel at ease during the conversations. The interviewees were asked to choose a location and time most convenient for them. Most of the interviews took place in a bar or coffee shop. Others on the location of the UAP or in the home of the interviewee. The principle of informed consent was taken into account. Before the interview started, the interviewees were briefed about the subject and objectives of the research. Anonymity of the interviewee was guaranteed, unless the interviewee granted permission to use personal names, names of the organization, or the possibility of identification. Except for a single refusal to participate in the research, all interviewees were helpful and communicative.

To structure the data analysis, UA stakeholders were categorized according to their role in the UA governance process (Table 4.2). A first group of stakeholders is categorized as UA pioneers. These stakeholders are considered pioneers because they have in recent years set up an UAP with social, ecological and/or economic purposes, or they take up a prominent role in the UAP and UA network in the city. Among these stakeholders and projects are an UAP developed within an existing organization or institution, a new type of professional farm (CSA, rooftop, container farm etc.). A second category is professional stakeholders. These are food system stakeholders which have redirected their business toward the local food system or urban market. For instance, professional farmers, most often peri-urban farmers, who have reorganized their farm or developed more functions on the farm in order to respond to various demands of urban centers (e.g. local food, recreation and social activities). Also considered in this category are restaurants, processors, distributors, and marketers which, through their engagement with local food and UA, help to scale up UA development. A third category is all types of civil society organizations that support UA either by advocating UA or by providing

material resources. A fourth category are all stakeholders who have a function within the municipality and who are or may be relevant for UA development in the city. Among these stakeholders are environmental and health departments, policy makers, and coordinators of FPCs. Finally, in the category of research are universities, schools or research centers where research on UA is conducted, and which through various ways (e.g. partnerships, advocacy, research projects, teaching etc.) play an active role in UA development. Some stakeholders had more than one role (e.g. a professional who also belongs to a civil society organization or a researcher who is also an UA pioneer). In these cases, the stakeholders were categorized according to the role that was considered the more important in terms of UA development.

Table 4.2 Types of stakeholders selected for semi-structured interviews

Stakeholder group	Examples
Urban agriculture pioneers	Farmers, institutional garden, community project, volunteer
Professionals	Farmers, architects, restaurants, distributors
Civil society organizations	Supporting networks and organizations for UA
Municipality	Policy makers, public officers, council members
Research	Research centers, universities at different faculties

For the data collection in Ghent (in 2013 and 2014), Warsaw (2014), and Philadelphia (2015), a semi-structured questionnaire was used. A different version of the questionnaire was developed for civil society and for interviewees from the municipality. As the research process evolved and the analysis became focused on particular issues or topics, the first questionnaire developed for Ghent in 2013 also underwent some changes. New questions were integrated in the questionnaire or previous questions were reformulated in the other three questionnaires. Therefore, for the four periods of data collection (twice in Ghent, once in Warsaw and Philadelphia) there were ultimately four different questionnaires. However, the questionnaires remained comparable for the largest part.

In the questionnaires for civil society stakeholders, each interview started with questions on the background and personal characteristics of the interviewee and information relating to the UAP, such as the type of project, start year of the project, area cultivated, number of people involved, revenue etc. To glean information about UA governance, the questionnaires were broadly based on the theoretical framework as described in chapter 3. The interviewees in the three cities were asked about his/her:

(1) perspective on and involvement in UA (e.g. what is their understanding of UA and their purpose of involvement? Does the UA project want to address specific issues, and which ones? What is their own definition and how do they perceive their role in UA in their city?);

(2) perception of and experience with the UA network (e.g. questions relating to partnerships, networks at different levels, the access to knowledge and resources, and to potential power struggles);

(3) understanding of contextual factors that enable and constrain UA (e.g. what are drivers as well as the constraints for their UAP but also UA at large in their city? To what extent is there an awareness of existing policy on UA? What is the experience with the FPC? And how does the interviewee relate to the urban policies and planning?);

(4) predictions about the future of the local food and agriculture system in their city (e.g. how does the interviewee predict the value of UA in the future? What are preconditions for further development of UA?

For the questionnaires for interviewees from the municipality, the questions also revolved around the same four elements, but they were adapted to grasp insight from the perspective of a local government. Additional questions were asked relating to the role of the office, institution, or department of the interviewee to support UA, the vision on UA of the local government, the barriers and opportunities in local government, and the potential for interdepartmental cooperation.

Both types of questionnaires provided a lot of information and allowed to contextualize UA development, to analyze the goals of UA in different projects but also at the city level, to map who is part of the UA landscape, to identify the barriers or opportunities intermediating UA development. Furthermore, the datasets (together with the data from other sources) also allowed to reflect on inclusionary and exclusionary processes in UA governance. Finally, in the case of Philadelphia, the goal was also to explore the understanding of (environmental) justice among UA stakeholders and the relation between UA and justice. In the questionnaire of Philadelphia, several questions on environmental justice were also included. In the case of Ghent, understandings of justice in relation to UA were explored through participant observation and through various informal meetings.

For chapter 5, four semi-structured interviews were conducted with founders or coordinators of UAPs in four different cities: in Ghent, Belgium; Paris, France; Madrid, Spain; and Mechtenberg, Germany. The interviews were carried out in July and August 2016 and lasted between one and two hours. The questionnaire contained questions that were related to the characteristics of the original conceptual framework developed during the COST Action TD1106 Urban Agriculture Europe (see Prové et al. 2015). Only in this case three of the four interviews were conducted by two other colleagues. There was a semi-structured

questionnaire for the four cases and there had been ample discussion prior to the interviews on what kind of information was needed for the analysis. The risk of a researcher bias - meaning that different interviewers may produce different outcomes - is countered by the fact that all interviews were recorded and transcribed fully and that face-to-face meetings were organized to analyze the data together. Moreover, it is argued that the quality of the interviews has increased because each interviewer spoke the language of the interviewee fluently and the interview was conducted in a context in which each researcher was already conducting research on UA.

Document analysis

In case studies, documents play an explicit role in data collection to corroborate and augment evidence from other sources (Yin 2009). A broad range of documents were used in the analysis. They were collected both systemically and non-systemically. In the former, documents, websites, events etc. that were referred to during the interviews and formal and informal meetings were included in the dataset. In the latter, a desktop search explored additional formal and informal document sources with the purpose of the completeness of the analysis.

Formal documents were for example: policy documents, research reports, and minutes of formal meetings. Informal documents consisted of newspaper items, social media, websites, documentaries, opinions, emails, newsletters, folders, flyers, information about UA events, magazines on UA etc. They were helpful to find specific data or statistics, to complement the database, to offer additional perspectives and to compare official statements or perspectives on UA with those that were provided by the interviewees. They were used throughout the whole research process, among others, as a source to stay up to date with UA in the different cities.

Participant observation

Participant observation is a method that helps to go beyond knowing the different perspectives by learning about the interplay between the different perspectives (Mack et al. 2005). This can be done through observing as well as participating. Participant observation has, among others, two important functions. First, it serves as a control against interviewees' subjective interpretation of events and concepts. And second, it is useful for understanding the interviewee's physical, social, cultural and economic context. To collect data in Ghent, Philadelphia and for the analysis of UAPs in Europe, participant observation was conducted. I participated in the UAPs, attended meetings, seminars and events on UA. Field notes were

made during informal meetings, field visits, and during attendance at debates and workshops. During my participant observation in gardens, notes were made after the participation. In meetings and other events, I produced notes freely. These were unstructured, but served as a broad brainstorm tool to produce and organize ideas.

The reasons for the field visits varied. Observations were used during the data collection processes to triangulate the data sources. They were also used during data analysis as a guidance tool in the analysis. The results from the participant observation helped to narrow down the focus in the data analysis and to select research topics that would have practical relevance. For instance, participation in council meetings and in a community garden helped to identify important obstacles and opportunities in UA development in the city as well as within the community garden. During the different afternoons when I participated in the gardens, I did not explain my role as a researcher, in order to be treated as one of them instead of to be seen as a person who came to study them. In Ghent, key insights also came from participant observation in the Working Group UA (a forum composed of individuals dedicated to UA in and around Ghent), and attendance at board meetings of the FPC of GEG. The participation in meetings and events took place throughout the four years and provided new information on the latest developments in relation to UA.

Surveys

Surveys were used in chapter 5. The questionnaires were developed in the working group “Governance of Urban Agriculture” of the COST Action TD1106 Urban Agriculture Europe. All members of the working group were expected to select one case in their own research context, in order to collect a broad database of different UAPs located all over Europe. The questions related to five broad topics: (1) information regarding the case study location, type of UAP, and scale, (2) description of social and spatial context, (3) institutional context, (4) stakeholders and partnerships, and (5) implementation and monitoring processes. The interviewees responded to the survey questions by email or in person. This resulted in a broad data matrix, with data on 37 questions across 28 cases. The descriptive and comprehensive dataset was discussed and compared in a collaborative, iterative process with the members of the working group.

Research networks and projects

Although not explicitly used in the analysis for the empirical chapters, many insights into UA have been obtained through the participation in several research networks and projects. From

February 2014 until March 2016, I was involved in the COST Action TD 1106 Urban Agriculture Europe and participated in the working group “Governance of Urban Agriculture”. In 2015, ILVO was a partner in the research project “Vision for Agriculture in the urban environment of Ghent” that was carried out for the city of Ghent, in which participatory envisioning processes had to result in a vision for a sustainable agriculture in Ghent by 2030. During this project, interviews were conducted with multiple stakeholders (among which professional farmers, pioneers and entrepreneurs in UA), focus groups were organized, meetings with different departments were held and feedback was provided by participants of the workshops. Taken together, this provided a large amount of interesting data. More recently, in 2017, ILVO carried out another project for the City of Ghent called “Scaling up the local food chain”, in which action research brings potential stakeholders together to develop innovative partnerships between local producers and buyers. For this project, interviews and informal conversations were held; which offered additional insights into the context of Ghent. Taken together, the participation in these projects and networks were helpful to stay up to date with the latest UA events and developments.

Table 4.3 below gives an overview of the data that has been collected in this thesis and used in the analyses. The table indicates from each dataset the types of data collection methods used and in which chapter this data is used. The data collected in Ghent, Warsaw, and Philadelphia is also presented in this chapter 4. In section 4.5. the building blocks of the analytical framework (i.e. context, governance, and UA landscape) are applied to the three cases. The data collected for UAPs in Europe, in Warsaw, and in Philadelphia is used in one empirical chapter (chapter 5,6, and 7, respectively). The data collected in Ghent is used in the chapters 6, 7, and 8. As data collection in Ghent was a continuous process, the amount of data analyzed was more or less depending on the time of writing the empirical chapters. For chapter 6, data collected until April 2016 was analyzed. For chapter 7, data collected until October 2017 was analyzed. For chapter 8, data collected until December 2015 was analyzed.

Table 4.3 Overview of the data collected for urban agriculture practices in Europe, Ghent, Warsaw, and Philadelphia

Dataset	Type of stakeholder: n° of interviews (year)	Document analysis	Participant observation	N° of surveys (year)	Chapters
Urban agriculture practices in Europe	UA pioneer: 3 (2016) Entrepreneur: 1 (2016)	Website pages, documents and articles of the UAPs Secondary research sources	Field visits in three cases and participant observation (2 full days) in the case of Ghent	28 (2014) 12 (2015)	5,9
Ghent	UA pioneer: 10 Professional: 2 Civil society organization: 2 Municipality: 6 Research: / (2013) UA pioneer: 4 Professional: 3 Civil society organization: 3 Municipality: 1 Research: 1 (2014)	Website pages, documents and articles of the UAPs Formal policy and planning documents Minutes of FPC meetings and other meetings Media articles, brochures and leaflets Private email conversations between researcher and UA stakeholders (incl. feedback on results) Secondary research sources	In UA project focused on community development (one day a week for two months) In two research projects. One in 2015: Vision for agriculture in 2030. One in 2017: scaling up local food In FPC and working group meetings (+/- 8 per year, for 3 years) During seminars, conferences, meetings, field visits in Ghent (4,5 years)	n/a	4,5,6,7,8,9
Warsaw	UA pioneer: 7 Professional: 4 Civil society organization: 4 Municipality: 4 Research: 1 (2014)	Website pages, documents and articles of the UAPs Formal policy and planning documents Media articles, brochures and leaflets Private email conversations between researcher and UA stakeholders (incl. feedback on results) Secondary research sources	6 field visits to UAPs Attendance of 2 meetings or events	n/a	4,6,9
Philadelphia	UA pioneer: 12 Professional: 2 Civil society organization: 4 Municipality: 4 Research: 1 (2015)	Website pages, documents and articles of the UAPs Formal policy and planning documents Minutes of FPC meetings and other meetings Media articles, brochures and leaflets Private email conversations between researcher and UA stakeholders (incl. feedback on results) Secondary research sources	8 field visits to UAPs Attendance of 7 meetings or events	n/a	4,7,9

4.4.3 Data analysis

All the interviews were recorded and fully transcribed in the language of the interview. Interviews were mainly in Dutch and English, although one was also held in French and one in Polish. For the interview in Polish, a translator assisted during the interview. Only the selected quotes for this thesis were translated from French or Dutch into English. The data, i.e. transcripts from the interviews, documents and field notes, were coded in QDA Miner 4 Lite or NVivo 8.

The process of data analysis can be divided into five different steps (based on Spencer et al. 2014). For each empirical chapter (5 to 8) a new data analysis procedure was organized. It should be noted that the data analysis is a non-linear and iterative process. This means that in some cases, there were numerous rounds of questioning and analyzing. In other cases, the analysis procedure returned to previous steps before completion of the five steps.

In a first step, a preliminary analysis was conducted in order to become familiar with the data. This means that the data was explored with no specific research focus in mind, yet, with the theoretical focus and research questions in mind. The aim was to pay attention to details or important aspects that were not considered during data collection. In this step, memos were made to record ideas about any aspect of the research while going through the data.

In a second step, the aim was organization of the data. The organization of the data was partly based on the topics of the semi-structured questionnaires. Themes were identified by reading through the data several times. The themes represent idea categories that emerged from grouping lower level data points. For instance, recurring issues such as lack of financing, land tenure issues, or lack of public engagement would be categorized under the theme “barriers”). Also the memos helped to identify relevant themes.

In a third step, an initial thematic framework was developed based on the themes. For one specific analysis (e.g. the role of context in UA governance), the most relevant themes were selected, while others which were considered irrelevant for that analysis were excluded from the analysis. Although the exploratory frameworks were mostly guided by the data, they were developed through an iterative process with academic literature and the most general version of the research questions in mind (e.g. what constitutes UA governance? Which processes and contextual factors lead to divergent UA governance processes in different contexts?).

The fourth step represents the process of coding. The data was organized into the framework, meaning that the framework served as the coding plan. Labels were attached to (parts of the) answers in the transcripts, and text in documents and field notes. As the analysis progressed, the data was labelled in a more interpretive way. From the themes, categories were developed in order to capture the essential meaning of the data. It also occurred that the framework was adapted in this step.

The fifth step was meant to analyze the range of responses in the different categories. For instance, it was explored whether answers corresponded with specific interviewee clusters (e.g. stakeholder categories in Table 4.2). The focus was also on finding patterns in the data. Quotes from these categories were selected as illustrations in the empirical chapters.

In the three cities in which in-depth analysis on UA governance was conducted, feedback was considered an important part of the process of data analysis. In all cases, reports and/or papers were presented to the public, to the research institution or the municipality. In the case of Warsaw and Philadelphia, separate research reports were written with the aim of their dissemination among stakeholders (Prové 2014, Prové 2015, Prové 2016). The feedback on the results was taken into account in the further analysis. In addition, contact with key stakeholders and key UAPs or information sources in all three cases was maintained in order to get feedback on the analyses, as well as to resolve missing data, stay up to date on important events and processes, or enrich the comparison.

4.4.4 Reflections on the research process

Generally speaking, the research process in all the cases went smoothly, in part due to the ample documentation on UA and a remarkable preparedness of UA stakeholders to participate in the research and share their experience. The collection of interviews, observations and documents resulted in a wealth of information that provided an extensive overview of the dynamic underlying UA in Ghent, Warsaw and Philadelphia. Part of the explanation may be that UA as it is and how it was researched was not a very sensitive topic. Or perhaps because most of the interviewees were also advocates of social change, thereby explaining their openness on the topic and their expression of strong opinions - although this was not the case in all interviews. However, some interviewees appeared to be concerned about their privacy in the case of Philadelphia. During some interviews, some questions were avoided or labeled as sensitive topics, especially with questions that opened up to critical discussions on certain events, practices, policies or stakeholders. It is therefore assumed that not all questions were responded freely. This was countered by turning off the audio recorder during these questions,

stressing the anonymity and explaining clearly how the data would be used. I also tried to gain trust and create a spontaneous atmosphere by offering help or participation in their work related to UA. Another reason for the offer to help was to compensate for their time they invested in the interview, because most interviewees have a busy agenda and were already intensively involved in supporting UA beyond their own practice. Yet, some caveats about the research process are worth the mention below.

Because of the desktop search and subsequently the use of the snowball method to select interviewees, it is assumed that a sample bias may have existed. Precisely the UAPs that are less visible to the broader public, or the UA stakeholders with perhaps less resources to participate in the networks, public debates or social media may not have been included in my research. This was countered as much as possible through the participant observation. The participation observation allowed me to learn about other UAPs and stakeholders that were not yet identified. However, and especially because of the focus in this research on exclusion, it is important to take into account that although some UA stakeholders may have been identified, the research has been unsuccessful in reaching these stakeholders. On the other hand, it is also plausible that certain UA stakeholders have not been identified. Due to, among others, time constraints and data saturation (i.e. when interviewees or UA stakeholders that were spoken to during participant observation no longer referred new UA stakeholders that were not yet included in the UA analysis), the data collection process was stopped at a certain point and effort was no longer put in finding additional interviewees. Importantly, the fact that they are difficult to identify or reach because they are not part of the more popular network, is a useful finding for this research that studies exclusionary processes in the governance of UA. Reflections on the inclusion of interviewees that are difficult to identify and/or reach in the research are further discussed in chapter 9.5.2.

A researcher bias may also have occurred, especially in the case of Ghent where the network of UA stakeholders is rather small and where I participated for a longer period and more actively than in the other cases. Due to presentations and participation, my role as a researcher and observer was in most cases very clear. However, it was not experienced that my role as a researcher did affect the information I got from the interviewees. Also in the other contexts, where I had to explain my identity as a researcher in order to obtain semi-structured interviews, it did not clearly change the behavior of the interviewees once they knew they were being observed (Kumar 2005). I was often treated as an outsider or temporary resident in the cases of Warsaw and Philadelphia, which is assumed to be advantageous to collect a lot of information.

Emphasis should also be laid upon the value and use of the research findings. The findings and recommendations are based on an analysis of UA at a specific moment or period in time. Yet, the UA movements locally and internationally are changing very fast. This is partly due to the support of a growing number of practices and UA supporting organizations, involved citizens and governments, but also because there is a high turnover in the UAPs and stakeholders. Moreover, research findings and recommendations do not exist in isolation from the context in which they are generated. Research findings in turn also interact with and impact on the UA governance and development processes (see paragraph below). As a result, some findings or recommendations in the empirical chapters may by now be considered irrelevant or outdated, as governments and FPCs progressed on specific issues that are addressed in the chapters. However, this research as much as possible strives for theoretical generalization (cfr. Yin 2009) in the discussion and conclusion sections, so that the findings can help or assist comparative analysis of UA or recommendations for practice in other cases.

Finally, as an active participant, it seems inevitable that one is not only observing the situation, but is also contributing to changing the conditions by his or her presence. During the research process many of the findings were presented in the three cases in seminars, closed meetings and public events. It was observed that these findings were in specific instances taken into account. For instance, following the presentation of the research report at the Warsaw University of Life Sciences, the institution had organized a meeting with all the UA stakeholders in Warsaw to discuss recommendations formulated in the report. In Ghent, the content of chapter 8 was presented in a public meeting and in a closed meeting with representatives of the municipality. The recommendations made during these meetings also had an impact on the participatory processes of the FPC. In Philadelphia the research report was presented in a seminar and subsequently disseminated. The report has been used as an information source and as input in discussions on UA at the Penn State Extension Center and beyond. It should therefore be kept in mind that social researchers have to be aware of their own impact on the context. However, some researchers view this impact as one of the main responsibilities of sociologists. They state that sociologists should not only observe society, but also take moral responsibility for their work by actively engaging the broader public (Dunlap and Brulle 2015). In this perspective, it is desirable to conduct research “with” the interviewees instead of “on” the interviewees by taking their local knowledge as much as possible into account (Chevalier and Buckles 2013). This is called participatory action research. The principles of this method were used to provide practical and day-to-day insights and recommendations to UA stakeholders on the governance of UA.

4.5 Introduction of the three cities for in-depth analysis of urban agriculture governance

Before turning to the empirical chapters of the thesis, this section provides an introduction of the three cities in which in-depth analysis on the UA governance processes was conducted, namely, Ghent (Belgium), Warsaw (Poland), and Philadelphia (PA, USA; Figure 4.1).



Figure 4.1 Location of the cases: (1) Ghent, Belgium, (2) Warsaw, Poland, (3) Philadelphia, PA, USA © MapCustomizer.

As noted in chapter 3, this thesis posits that the description of UA governance processes at the urban level requires insight into three essential elements. These elements are also integrated in the analytical framework (Figure 4.2).

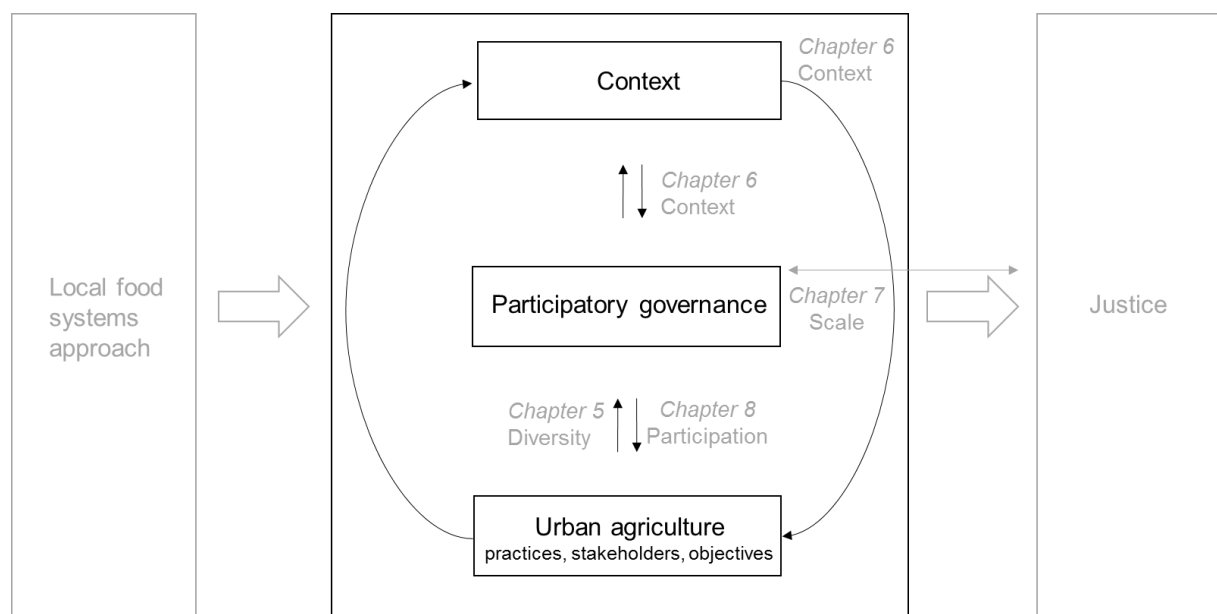


Figure 4.2 Analytical framework: Three building blocks to describe urban governance processes of urban agriculture.

First, it is necessary to obtain an overview of the UA practices, stakeholders, and objectives that emerge within the city. Second, the context in which UA emerges needs to be taken into account in the analysis. Third, an understanding of existing governance initiatives, platforms, tools, or processes is required. The arrows between the building blocks indicate that they are interrelated and can influence one another. A description of these building blocks (i.e. context, UA, governance) for each of the cities is considered as an essential first step which allows to follow the analyses in chapters 5-8. Information in the next sections is drawn from a combination of web sources, official documents and statistics, and from the data obtained through the in-depth case study research.

4.5.1 Context

To describe the context of Ghent, Warsaw, and Philadelphia, we elaborate on demographic, geographic, socio-economic, agricultural, and political characteristics.

Ghent, Belgium



Figure 4.3 Ghent from Sint-Michielsbrug © Waldo Miguez.

Ghent features in the list of small European cities (Flanders Today 2014). It has a growing population and owes much of its vibrant dynamic to the large student population, the relatively young population, and the booming tourism industry (Stad Gent 2016).

Ghent counts about 250 000 inhabitants, with an average of 1608 inh/km² (ADSEI 2014). These numbers are not including a large student population who generally live unregistered in the city. More than 70 000 people study at one of the universities or colleges in Ghent. Until 1999 the population decreased because people left the city for various reasons, among which the low quality of life. Since then, the population has been increasing again at a fast pace and

is increasingly diverse (Stad Gent 2016). The city is home to 156 different nationalities, with the largest non-Belgian populations coming from (in descending order) Bulgaria, Turkey, the Netherlands, Slovakia, Poland and Morocco (Environmental Department Ghent 2012). The group of ethnic-cultural minorities keeps growing in Ghent. Their share in the total population rose from 15,4% in 2008 to almost 19% in 2012 (Departement Sociale Dienstverlening OCMW Gent n.d.).

Ghent is located in the Flanders region of Belgium. It is the capital of the province East-Flanders. The city is the third largest in Belgium and has a surface of 156 km² (2008). The city is made up of 14 municipalities¹⁹. Much of the center's medieval architecture has remained intact with narrow streets, cobble stone streets, and well preserved buildings. Throughout history, the city developed around the major waterways of the Leie and the Schelde, which are now mainly used for leisure. The center is surrounded by a 19th century belt of low quality housing (Boussauw 2014). It is in the neighborhoods of this 19th century belt that most of the urban social problems related to poverty, migration, and social housing are concentrated. Much policy attention is also devoted to traffic mobility. Additionally, the city struggles with achieving the required surface of green space for its citizens. Space for UA is scarce, especially in the center due to the many restrictions on the urban planning and the protection of monumental buildings. The landscape in and around Ghent is mostly flat. The city forms part of a largely urbanized region with many cities at close distance. From Ghent it is 55 km to Bruges, 58 km to Antwerp and 55 km to Brussels, 76 km to Lille (FR), 110 km to Charleroi, 139 km to Tilburg (NL), and 154 km to Rotterdam (all cities with a population over 200 000).

Throughout the 18th-19th century, Ghent was an industrial city. The economic structure of Ghent is determined by the port of Ghent that provides more than 30 000 jobs and the high number of local entrepreneurs with small to medium businesses (Stad Gent 2016). Ghent is known for its creative and innovative economy (e.g. bio-economy). Other important sectors are culture and tourism. The gross domestic product (GDP) per capita was € 35 166 when adjusted for purchasing power parity (PPP)²⁰. The economic recession in 2008-2009 also affected Ghent. Since then, the city is dealing with growing unemployment rates, and problems related to poverty and hunger. The unemployment rate is high at 14,3% in 2014 (VDAB 2014). The

¹⁹ Gent, Mariakerke, Drongen, Wondelgem, Sint-Amandsberg, Oostakker, Desteldonk, Mendonk, Sint-Kruis-Winkel, Ledeborg, Gentbrugge, Afsnee, Sint-Denijs-Westrem, Zwijnaarde

²⁰ www.tradingeconomics.com. PPP are used instead of exchange rates in order to compare income of people in countries that use different currencies. The purchasing power of a currency refers to the quantity of the currency needed to purchase a given unit of a good, or common basket of goods and services. PPP takes into account the relative cost of living and inflation rates (http://www.economicsonline.co.uk/Global_economics/Purchasing_power_parity.html)

numbers of unemployment are also higher among social groups with a migratory background: average unemployment rate of people from Turkish origin is 15,6%, from EU13²¹ is 20,2%, and from Moroccan origin is 18% (OCMW Gent 2015). This is in stark contrast with the unemployment rate of people from EU15²² countries (including those with a Belgian origin), namely 5,6%. Increasingly at risk of poverty are lower educated people. The number of people with a lower education who are at risk of poverty rose from 19% in 2005 to 28% in 2014 in Belgium (Federale Overheidsdienst 2016). Also in Ghent, lower educated people are among the most vulnerable groups in terms of being at risk of long-term unemployment and poverty (Het Laatste Nieuws 2015). Other studies indicate that people at risk of poverty tend to be the “older” migration groups, namely from the Maghreb, Turkey, the EU13 and refugees (Van Robaey and Driessens 2011). The number of recognized refugees rose quickly during the past few years. Before September 2015, there were about 1200 recognized refugees in Ghent. Since April 2017, there are more than 2000 recognized refugees (Het Laatste Nieuws 2017). Ghent is also faced with severe numbers of child poverty. While in Belgium, the average number is one in ten, in Ghent, one in five children live in poverty (OCMW Gent n.d.). In the last 10 years, the number of births in poor families doubled from 11,2% to 22,6% (De Standaard 2015). Last, various data sources and organizations report a significant rise in the number of food aid over the past few years (Stad Gent 2017b, Nieuwsblad 2011).

The agriculture sector in and around Ghent is operating in a largely urbanized region. Agriculture faces stiff competition from other land use functions such as industry, housing, recreation, or nature. Over the last few years, several plans to relocate and reallocate farmland and land zoned for nature caused many frustrations among professional farmers in Ghent. Among the different agricultural practices, professional farms also have to defend their share of agricultural land from horse keeping and hobby farming (about 40% are considered hobby farmers; Sum Research 2015). However, the acreage of farmland has remained fairly constant between 2005 and 2012 (with fluctuations in this period). About 3132 ha is zoned for agriculture, but in practice about 3309 ha is used for agricultural practices in 2015. The number of farms has decreased significantly. Between 2000-2015 it went down from 282 to 154. The cultivation of the land is mainly used for grassland, maize, fodder, cereal, potatoes, ornamental plants, vegetables, fruit and nuts. Many initiatives at the local, provincial, regional and European policy level are taken to support local farmers and help them to innovate or reorganize toward the urban market in the form of direct support measures, innovation support,

²¹ Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, or Slovenia

²² Belgium, Germany, Denmark, Finland, France, Greece, Ireland, Italy, Luxemburg, The Netherlands, Austria, Portugal, Spain, United Kingdom, and Sweden

advice and counseling, marketing advice, promotion, project subsidies, networking and education (Departement Landbouw en Visserij n.d.(b)).

Ghent is located in a welfare state with a left-leaning municipal government (i.e. including the socialist and green party) since 2013, which results in many policies designed to protect the social and economic well-being of its citizens. The city has a reputation of being a green and vibrant city. It has a comprehensive sustainability plan with the objective to become a climate neutral city by 2050. One of the six themes through which that objective will be reached is food. In 2013, the city has developed a LFS called *Gent en garde* (GEG) to support a more local and sustainable food system in Ghent. It has a twofold aim: to align and support public and private action along the lines of a series of strategic goals (see below and chapter 8) and to set up a FPC that brings together local experts, pioneers in urban food practices and organizational representatives²³. The municipal government actively promotes UAPs, supports the UA network and integrates the different initiatives into the general strategy. In addition, there are various professional and civil society organizations supporting UA. Multiple events have taken place over recent years ranging from debates and lectures to practical courses and seminars where UA receives special attention.

Warsaw, Poland

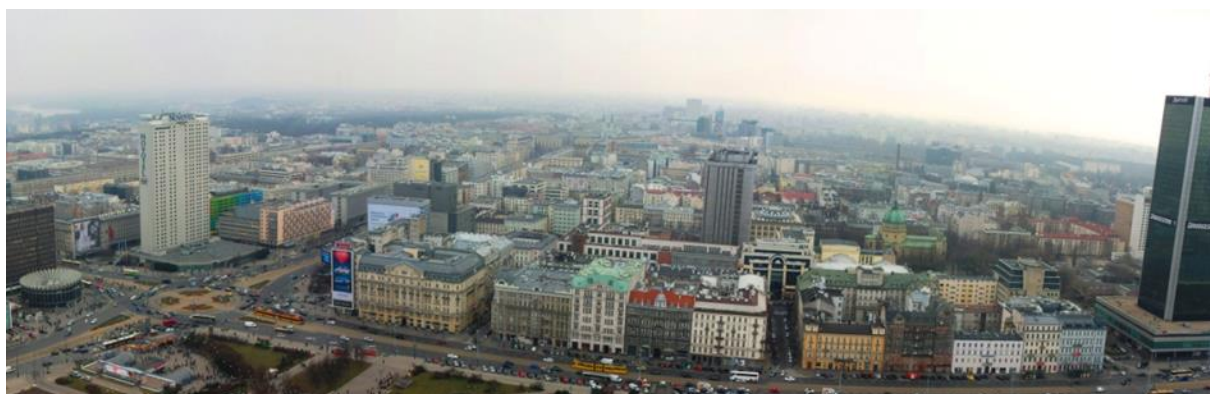


Figure 4.4 Warsaw from Palace of Culture and Science.

Warsaw is the largest city of Poland. With its modern appearance and fast growing economic activity, it has become the main ground for politics, business, trade and tourism.

In 2016, Warsaw had a population of 1 753 977 (Central Statistical Office of Poland 2016), which also makes it the largest city of Poland in terms of population. Poland's population has

²³ In this thesis, GEG will be termed either LFS (i.e. the strategy in its totality; especially in chapter 8) or FPC (i.e. the actual participatory processes; in the remainder of the thesis) to refer to the formal participatory governance processes of UA initiated by GEG.

stagnated since 1990 and even declined slightly. Even though net migration in Poland has been negative for many years, immigration numbers in Warsaw are mainly represented by Eastern European newcomers and internal migration (through rural-urban migration processes). The Architecture and Urban Planning Department warns that the population increase in Warsaw remains unnoticed in the statistical database because many choose not to register in the municipality of Warsaw.

Warsaw is the capital city of Poland and is located in the center-east. It associates 18 districts over an area of 517,24 km². The population density is high with an average of 3391 inhabitants/km² (Central Statistical Office of Poland 2016). The modern appearance of the city is to a large extent the result of large-scale post-war reconstruction. Although a broad architectural diversity can be found in the city, most of the construction in Warsaw took place during the post-war communist regime. The city is characterized by skyscrapers, broad streets, apartment building blocks and a high number of community gardens and parks. There are about 1770 ha (54 000 individual plots) of community gardens in the city (Office of Architecture and Spatial Planning of the Capital City of Warsaw City Hall 2007). Recently, however, apartment owners prefer using them as recreational private gardens rather than sites of food production. The principal waterway running through the city is the Vistula river. The urban planning places a major emphasis on the development of the Vistula river to protect nature and develop tourism, recreation and economic activity as much as possible (Office of Architecture and Spatial Planning of the Capital City of Warsaw City Hall 2007). The landscape in and around Warsaw is mainly flat. The areas around Warsaw are expanding quickly with many suburbs appearing at a fast pace. This fast development leads to remarkable situations where housing projects appear as islands in the middle of agricultural fields. There are not many cities surrounding Warsaw. The nearest cities with a population of +200 000 are Radom (105 km), Lodz (130 km), Lublin (169 km), and Bialystok (192 km).

Poland's economy recovered fast from the 1990s onward. The national economic planning in the post-communist era and the EU membership in 2004 - which resulted in massive structural funding from Europe - led to an economic boom in Poland (Foreign Affairs 2014, MO* 2016). It even avoided the economic recession in 2008-2009 that hit hard in the rest of Europe. Yet, poverty remains a key issue. The GDP per capita PPP stood at € 21 247,34 in 2015, which is far lower than the GDP per capita PPP in Belgium and the USA²⁴. About 17% live below the national poverty line in Poland²⁵. According to the World Bank *“the growth of the income per*

²⁴ www.tradingeconomics.com

²⁵ <http://povertydata.worldbank.org/poverty/country/POL>

capita for the bottom 40%, lags behind the growth for the whole population” (MO* 2016). There are also huge differences in economic development between regions (Organisation for Economic Co-operation and Development [OECD] 2011). The increasing level of wealth and income are concentrated in metropolises such as in Warsaw. The economic situation of Warsaw has long been advantageous in relation to the rest of the country (Niemczyk 1998, OECD 2011). Unemployment numbers for Warsaw are low and have even decreased over the past two years with the number of 52 256 unemployed people (4.5%) in August 2014 as compared to 33 899 (2.8%) in February 2017 (Statistical Office Warszawa 2014, Statistical Office Warszawa 2017).

Warsaw's agricultural sector is developing in the opposite direction from the rest of the country. Poland has a thriving agricultural sector, mainly characterized by smallholder farmers. Since its introduction into the European Union in 2004, Poland's export market has been growing. In 2013, 78% of Polish agri-food products made their way to other members of the EU and it is expected that export to non-EU markets will grow steadily in the future as well (Ministry of Foreign Affairs 2013). One of the drivers behind the increasing export is the government's priority to modernize and develop agricultural practices to the level of other EU-members (European Commission n.d., Ministry of Agriculture and Rural Development 2012). In Warsaw, the objective is rather to move agriculture toward rural areas and use farmland for urbanization purposes. A series of policy and planning measures have been taken to remove agriculture from the urban plans and prioritize other economic activities. In 2010, about 1694 agricultural holdings were counted (Statistical Office Warszawa 2010). Of the 517 km², 62 km² is land with an agricultural use (Office of Architecture and Spatial Planning, 2007), and this does not include the family allotment gardens which have a surface of 17 km². About 57% of the farmland in Warsaw is unused (Szulczewska and Bruszewska 2013). The reason is that this farmland, due to specific historical processes, is highly fragmented and takes on the shape of long, narrow strips of land. This structure of land is inefficient for farming, and therefore it is unpopular among professional farmers. Agricultural activity within the city has a low profitability. Major products are vegetables and fruits such as apples. According to the Architecture and City Planning Department, greenhouses and nurseries for shrubs used to be popular in the suburban areas. Now they have mostly disappeared. An upcoming trend is horse keeping in the peri-urban landscape.

The political-economic objectives of the municipality largely correspond with the economic-liberal policies that have directed the country toward a globalized economy. Equally, the local government's objectives are to expand the already large service sector and attracting foreign companies by investing in the infrastructure of the city. For instance, some community gardens

in the city center are threatened by plans for housing, commerce, and industry. During the period in which data gathering was done, the city had recently not developed policy or taken measures to safeguard vacant land or farmland in and around the administrative territory of Warsaw. Moreover, at the national level efforts are done to merge the suburban areas into the urban area of Warsaw, which would lead to a further urbanization of Warsaw (Citylab 2017). In such a political climate, the municipality appears to take no interest in UA as its advantages are either economically unviable or not directly measurable. It was observed that other organizations such as cultural institutions (e.g. the Warsaw Center for Contemporary Art) and universities were more strongly represented in the UA network as compared to the municipality.

Philadelphia, PA, USA



Figure 4.5 Philadelphia skyline, from South Street bridge.

Philadelphia can be characterized as a post-industrial city, which typically deals with severe issues of poverty, unemployment and urban blight in a context of limited government-funded social programs.

The city of Philadelphia counts a population of about 1 550 000 (2013 estimate; United States Census Bureau n.d.) and its administrative boundaries cover an area of 347,317km². The population density is 4471,89/km². In the second half of the 20th century, the city faced a population decrease due to the post-industrialization process and the fleeing of middleclass citizens. This led to significant issues with blighted neighborhoods, crime and poverty. The past decade, however, population is increasing again and many neighborhoods including the outskirts of the city are gentrifying at a fast pace. The current growth in population is largely due to immigration from outside the US. The four major ethnic groups (2013 estimates) are White (45.2%), African-American (44.2%), Hispanic (13.3%) and Asian (6.9%; United States Census Bureau n.d.).

Philadelphia is located in the North-Eastern part of the country. It is the fifth largest city in the USA in terms of population, after New York, Los Angeles, Chicago and Houston. Philadelphia is the largest city in the state of Pennsylvania, located in the south-eastern corner of the state and close to the borders of Delaware and New Jersey. Philadelphia is mostly surrounded by small towns with a population below 200 000. The only cities that are relatively close are New York at 152 km, and Baltimore at 165 km. Philadelphia is centrally located within a dense transportation system of waterways, roads, railway and airports. The many decades of de-industrialization and population decrease have resulted in a high number of vacant, abandoned lots all over the city (Hess 2005). While it is only an “educated guess”, most of the interviewees repeatedly referred to a number of 40 000 vacant lots, many of which have houses built upon. The blighted urban spaces are problematic because they often operate as spaces for waste dumping, drug dealing and use, prostitution, and other illegal activities. This blighted land has reduced property values in the neighborhoods, reduced local governments income in property taxes, and increased maintenance costs. In recent years, however, the city succeeded in reversing the downward spiral of deterioration and urban neglect. Philadelphia is taking advantage of infrastructural investment and redevelopment of buildings and land by private investors and public institutions. Philadelphia seems to have regained a vibrant energy accompanied with future perspectives. Housing, industry, manufacturing, and green spaces are all fields in which developers are currently active.

The GDP per capita PPP in 2015 stands at € 44 879,46 52 704,20 USD, which is the highest compared to Belgium and Poland. Yet, Philadelphia has long been one of the poorest cities in the country (Philly.com 2014). The city is facing major budget constraints that poses a great threat to the financing of public schools and infrastructure development or maintenance. These issues are prioritized in the local government. Poverty among the population is very high. In 2009, about 30% had an income below the poverty level, and 12% an income which lies 50% below the poverty level, known as deep-poverty (City-Data 2016). The majority of the poor are African-American. This is an indication that there are racial discriminatory dynamics at play. Consequently, the city of Philadelphia is dealing with severe issues of hunger, poverty and diet-related diseases.

Despite the increasingly urbanizing landscape, the Greater Philadelphia region is known in the country for its highly productive soils and qualitative agricultural products. The main reasons for this are a climate that provides a wide variety of crops and grains, high soil quality and well-known traditional farming areas in the region, such as Lancaster County, PA; Sussex, DE; and Chester, PA. Within the greater Philadelphia region, about 27% of the land is counted as farmland in the U.S. Census of 2003. The largest share of farm income comes from livestock,

dairy products, egg production and greenhouse and nursery products (United States Department of Agriculture [USDA] 2012). Main crops are corn, soybean, wheat, oats and hay. Fruits are apples, cherries, peaches and grapes. Vegetables are sweet corn, potatoes, beans and cabbage (see Delaware Valley Regional Planning Commission [DVRPC] 2010, p.31). According to the DVRPC report (2010), the number of agricultural holdings within 100 miles of Philadelphia is about 45 673 (2003). Over the last decades the Censuses of Agriculture have shown an increase in farm holdings and a decrease in farm acreage in the Greater Philadelphia region, which are opposite from the general trend of increase in farm scale and decrease in farm holdings. This situation is most likely due to an increase in registered hobby farming that generally have a smaller acreage and the high cost of land which is a barrier for farmers to acquire more land in the region. Geographically, the farming sector outside Philadelphia lies at a distance of about 70 miles from Philadelphia city center. It has been noted that this long distance creates a disconnection between the local food movement where farmers seek customers in the city and the inner city UA movement.

Similar as in Ghent, Philadelphia has developed a comprehensive sustainability plan called “Greenworks”. This plan has 15 sustainability targets in the areas of energy, environment, equity, economy, and engagement in 2009 (Greenworks 2009). The plan sets out the ambition to become the greenest city in the USA. In line with Greenworks, the local government of Philadelphia has become very supportive of UA and has a clear vision on governmental support for UA. There is a food charter that establishes the City of Philadelphia’s commitment to the development of a coordinated municipal food and UA policy. To be able to reach Greenworks’ targets specifically focused on food, the local government under Mayor Nutter also set up a FPC called the Philadelphia Food Policy Advisory Council (FPAC) in 2011. In other departments effort is also made to support UA, mainly with the aim to increase access to healthy, local food and to support entrepreneurship in UA. Besides the political support, many organizations and institutions that support UA are located in Philadelphia and provide technical and material assistance, information, education, and much more (e.g. Philadelphia Horticultural Society’s City Harvest Program; Farm To City). Other organizations advocate change in the legal barriers for UA development (e.g. The Public Interest Law Center of Philadelphia (PILCOP), Neighborhood Gardens Trust, Healthy Food Green Spaces). In addition, the research institutes in Philadelphia conduct research on UA, or are partners in many UA projects such as the Penn State Extension, Drexel University and University of Pennsylvania.

It is also interesting to know that the three cities under study correspond with global trends in food consumption, food production and food purchasing patterns. Ghent, Philadelphia, and

Warsaw all experience growing competition for (peri-)urban land. Changes in the agricultural sector are characterized by either a growth in scale of professional farms (Ghent), a disappearance of professional farm holdings (Ghent and Philadelphia), and/or a loss of farmland (Warsaw and Philadelphia). Although many differences in the diet and cultural aspects of food consumption exist between Ghent, Warsaw and Philadelphia, the climatic conditions offer more or less similar opportunities for agricultural production. Ghent and Philadelphia both have a temperate climate with moderate seasonality, Warsaw has a continental climate with strong seasonality. None of the cities has a dry season and their growing season is fairly similar, about 200 days. Supermarkets and wholesale stores are the main channel for food procurement. In the three cities, efforts are made to reduce the number of people with food and diet related diseases, to lower consumption of fast food, and to increase the consumption of healthy and vegetarian food. What also stimulated the positive attention for UA in all three cities is the increasing focus of governments, businesses, and civil society on public health and diet-related diseases.

4.5.2 Urban agriculture: Practices, stakeholders, and objectives

The three cities differ in the prevalence of UA and the impact it has on the city. Generally stated, it can be said that Philadelphia is the case where UA is developed most, followed by Ghent and then Warsaw. Developed in the sense that more UAPs and supporting organizations exist and that it has acquired a more permanent status in the urban landscape. This difference can be partly explained by the level of support from the municipality, civil society organizations, and formal and informal networks that are crucial for creating a conducive environment for UA development (Huang and Drescher 2006).

Urban agriculture practices

UAPs are in this thesis defined as all the projects, activities and businesses in which food is produced²⁶. The research has identified a diverse set of UAPs in Ghent, Warsaw, and Philadelphia. Local food markets are also increasingly popular given the growing number of initiatives (e.g. farmers markets) in the three cities.

²⁶ In some cases, the term UA initiatives is used in the thesis to refer to policy and planning initiatives of local governments or institutions. They are not called practices because they do not directly lead to food production. Instead, they are initiatives that support other UAPs.

The scope of UAPs are categorized in Table 4.4²⁷. For each city, the table illustrates which types of UAPs have been identified in the research. For each practice, it is evaluated whether it occurs relatively more in comparison to other UAPs in the same city (indicated with two check marks). Apart from several exceptions, the table shows that the scope of identified UAPs is comparable in the three cities. In Ghent, community gardens and peri-urban farms are the most common forms of UA. Ghent also counts many school gardens, although most of these are small. Warsaw has a remarkable number of community gardens. The newly established UA projects are often temporary projects embedded in socio-cultural institutions. Also in Philadelphia, the UA movement is predominantly substantiated by community gardens. There are also a range of urban farms (including non-profit UA projects) in Philadelphia. Remarkably, many interviewees in all three cases complained about the difficulties in realizing novel UAPs, despite observed differences in the level of support for UA. These difficulties revolve around funding, land tenure, logistical support, regulation etc. Partly because of these difficulties, the majority of UA projects remain traditional gardening projects. Innovations commonly associated with UA, such as aquaponics²⁸, hydroponics, LED-farming projects, or agroparks²⁹ are either scarce or non-existent in the three cities.

Table 4.4 Scope of urban agriculture practices in Ghent, Warsaw, and Philadelphia. One check mark (✓) if the urban agriculture practice has been identified, and two check marks (✓✓) if there are relatively more of that type urban agriculture practice as compared to other practices in that city.

	Ghent	Warsaw	Philadelphia
Guerilla gardening	✓	✓	✓
Backyard garden (Incl. shared private gardens)	✓	✓	✓
Community garden	✓✓	✓✓	✓✓
Urban farm	✓	✓	✓✓
School garden	✓✓	✓	✓
Institutional garden	✓	✓✓	✓
Artistic projects		✓	
Rooftop farming (greenhouses and open air)	✓	✓	✓
Indoor farming (Incl. aquaponics, hydroponics)	✓	✓	✓
Vertical farming	✓		✓
Edible walls	✓		
Edible landscape	✓		✓
Peri-urban agriculture	✓✓	✓	✓

²⁷ This typology is based on the scope of UAPs presented by Santo et. al (2016), but some adjustments were made. Guerrilla gardens, artistic projects, and institutional gardens (UAPs embedded in other institutions than schools) were also added. Backyard gardens is also understood as shared private gardens.

²⁸ Defined here as a symbiotic system combining fish production and cultivation of plants in water. Apart from fish fodder, it is a closed-loop system.

²⁹ Can be defined as spatial clusters of value chains in an industrial setup in proximity to urban areas.

Even though the three cities correspond in the types of UAPs, they are each characterized by a different dynamic. In Ghent, the number of UA projects is growing slowly. Due to space constraints, gardening projects are often initiated or incorporated by larger non-profit socio-economic institutions which can offer land or space. In other cases, the city provides public land temporarily or permanently. In general, UA projects tend to be temporary as they are organized on land that is waiting to be developed into housing or other urban functions. In Ghent, peri-urban agriculture is a strong part of the discourse on what is considered to be part of UA. Much effort is done in terms of research, debates, meetings, and projects to support peri-urban farmers and help them produce for the local market. Nevertheless, many frustrations among peri-urban farmers exist, as will be explained below.

Despite the various UAPs and the strong support of UA by a small network of civil society actors, the role of UA in Warsaw is rather minimal. Most of the UA projects are small-scale and temporary. UA projects most often have the purpose of experimentation, awareness raising or providing education. Examples are seasonal projects in a museum or other cultural institutions, rooftop apiculture and dropping of seed bombs in various neighborhoods. Apart from these, few active UA projects have been found. The locations in which UA is permitted further enhances the image of UA as a cultural leisure activity. Furthermore, it was observed that there is almost no connection between the UA movement and the historical community gardens. They operate fairly separately. In recent years, community gardens are more and more used as private gardens with no public access. Many have lost their purpose of food production.

The UA movement in Philadelphia was found to be characterized by a strong and enabling dynamic. Many UA projects are long-established and independent organizations or businesses (i.e. not integrated in larger organizations). They have become a permanent feature of the neighborhood and urban landscape. That is partly explained by the choice of authorities to devote public land permanently to community purposes such as food production. However, many UA projects claimed to be heavily burdened by the need for funding, and the time that needs to be invested in grant writing. There are also a range of initiatives in the fields of logistics, marketing, and funding to support peri-urban farmers and professional urban farmers.

Urban agriculture stakeholders

In the thesis, an UA stakeholder is defined as any person or group who may be positively or negatively influenced by UA development. This approach is helpful to reflect on inclusionary and exclusionary dynamics in UA governance processes. However, a distinction should be made between UA stakeholders who actively take up a role in UA development or have a potentially

influencing role^{30,31} on the one hand, and the UA stakeholders that are or could be positively or negatively influenced by UA on the other hand. This relates more to the question of whose interests UA is serving.

Regarding the UA stakeholders that play an active role, these were categorized into different stakeholder groups as shown in Table 4.2. Most of the categories of UA stakeholders are represented in Ghent, Warsaw, and Philadelphia. In the three cities, the UA movement is besides UAPs, further substantiated by the support of civil society organizations, institutions and networks, with most support found in Philadelphia, then in Ghent, and then in Warsaw where only few supporting organizations for UA have been identified. It was also found that municipality stakeholders in Warsaw were largely absent and did not fully recognize UA. Local and regional governments in Ghent and Philadelphia also issued measures and programs to support local farmers and local markets. From a governance perspective, we can say that participatory governance processes, in which stakeholders represent civil society, market, and government, are possible in the case of Ghent and Philadelphia. In Warsaw, governance processes of UA are exclusively informal and reside mostly in the sphere of civil society. Furthermore, in all three contexts, existing UAPs get extensive coverage in newspapers, magazines, blogs, websites, posters and other visual displays, which gives the impression of a growing UA movement.

Regarding the UA stakeholders that are or could be positively or negatively influenced by UA, it is necessary to go beyond analyzing their role, and also study the demographic backgrounds of UA stakeholders and their concerns that are determined by city-specific contextual issues. The stakeholder groups have been analyzed in each city through the interviews, participant observation, and document analysis.

In Ghent, various UA stakeholders from municipality are actively dealing with UA, partly because of the Climate Plan and this plan's focus on food. Various departments are involved, among others, the ones that deal with urban planning, environment and climate, education, green space management, and economy. The most active is the department of environment and climate, from where the FPC is coordinated. A large group of civil society stakeholders create both a substantiation of the UA movement through practices and discourses, but they also increase the demand for local and sustainable food. It was noted by UA pioneers that social groups who have

³⁰ To include potentially influencing roles, key stakeholders who were identified in one context, were also targeted as interviewees in other cities, even though these stakeholders were not involved in UA. For instance, the urban planning department is actively involved in UA in Ghent and in Warsaw it is not. Yet, it proved useful to conduct a semi-structured interview with the planning department in Warsaw, in order to provide explanations why this department is not involved.

³¹ These are also the stakeholders that have been selected for semi-structured interviews

traditionally been gardening, such as elderly people, tend to be overlooked as UA stakeholders in the UA network. The number of professionals and professional UA pioneers is slowly increasing. These market stakeholders respond to consumer demand, although many of them are also driven by sustainability objectives. Overall, UA has the reputation of a middleclass movement, supported by a large group of young, white individuals who are highly educated and prioritize sustainability. This is illustrated by the answers of two UA pioneers to the question for whom UA is:

Well yes, maybe it is still too much for that progressive middleclass.

A lot of people in UA are beginners, often young and busy with a lot of fun things, often with a role in the cultural sector. They want to do something, but they do not know what and how. They also have a desire to do things together. People that are more organized in UA are mostly people related to vegetarian restaurants, research groups, people who vote for the green party...

The latter quote illustrates that UA is mainly perceived to play a role in leisure and social activity. It is by few interviewees associated with objectives of increasing food access or reducing poverty. This is also recognized by municipal officers:

I do not think we have clear insights into the profile of the consumers [in UA and local food]. Instinctively, you think about the middleclass and that UA resides in that sphere. They can afford it and show interest in these topics. However, I am convinced that with social projects we can succeed to make UA more accessible for everyone.

Although many UA projects have social objectives, and some even explicitly put forward neighborhood development, food justice, and crime reduction as main objectives, the issue of social inclusion through UA is far from achieved. Because there is a lack of a common goal around these issues in UA governance processes in Ghent, many UA projects may not have the expertise or awareness to focus on social inclusion in their own UA project. The result may be unconscious dynamics of exclusion as illustrated in the following quote by an UA pioneer:

Are people from a different cultural background involved in your UA project?

Yes, one PhD student from Italy, and one artist from Portugal, but that is not really the prototype migrant. There was also a woman who signed up at one point. I do not know what country she was from ... And she was asking questions like: "Can you come pick me up?" I replied: "No, you have to get here yourself", and: "Can you email me the details of the address?" I said: "No, we assume you know where it is", and also: "Can

you email me the bus connections?”. At that point, I was like, you know what, I do not feel like she should come anymore.

The lack of focus on and structural investment in inclusion of minority groups and individuals with a socio-economically disadvantaged background in UA governance is questionable, given the growing numbers of inequality, poverty, unemployment and minority groups living in Ghent as described in section 4.5.1. These issues also tend to be concentrated in specific neighborhoods, which would call for a geographically targeted planning for UA³². UA is widely recognized as a strategy to address these issues (see also chapter 2.4). Furthermore, although the FPC of Ghent has shifted its focus over the years toward more attention to local food chain and professionals, many peri-urban farmers lament the urban planning (especially planning related to farmland) and food policies of the local government. Farmers, distributors, processors and retailers complain about the multiple difficulties to set up an economically viable UA business.

In Warsaw, the most active stakeholders are civil society stakeholders (i.e. pioneers and civil society organizations). Most of the interviewees either acknowledged that there was a small network of UA stakeholders in Warsaw, and/or that they felt part of that network. Many also mentioned, just as in the other two cities, that the same people tend to return to meetings and events. However, this network is very informal. UA is more often initiated by individuals who set up their own project, as compared to Ghent where many UA projects are established through longer-term partnerships and embedded in socio-cultural or socio-economic organizations. UA stakeholders also have the profile of young, highly educated individuals belonging to middleclass. Much of the effort in UA comes from young people who have had the privilege to spend time abroad. Many UA pioneers stated that their inspiration to get involved in UA came from visiting UA projects in foreign countries or through internet searches:

The parking day was quite a big movement that started in San Francisco and became big all over the USA, transferring parking spaces into parks ... So, I studied in the States and after a year I came back and decided to also do the parking day. I have done this the year I came back from the USA with a group of friends.

It should also be noted that many of what would be considered as UAPs in other contexts, are in Warsaw considered to be remnants of traditional cultural habits. There are the community

³² See De Standaard (2014): In this article, it is shown that poverty is concentrated in inner city neighborhoods, mostly in the neighborhood of Rabot, Nieuw Gent, Sluizeken/Tolhuis/Ham, Muide, Bloemekeswijk, and Brugse Poort.

gardens which are of historical significance and still highly valued among citizens, even though they are less and less used as a resource for food production. According to many interviewees, a significant percentage of the food is produced in and around Warsaw and this local food is sold through a variety channels such as small shops and street vendors. By lack of regulation, farmers or vendors often sell food in the streets illegally (Figure 4.6).



Figure 4.6 Unregulated food vendors in the center of Warsaw.

According to the following UA pioneer, these local food production and consumption practices play an important role in access to food for economically disadvantaged people:

In Warsaw there is no more place for cheap milk bars or some shops for poor people. We need to build banks and hotels ... But really sometimes they do not see the value in places for poor people. They don't understand that these spaces for poor people are important and not just for the luxurious people. Because all kinds of people live in the city.

Similar to Ghent, the UA movement is largely represented by middleclass advocates, even though UA could potentially mean an additional source of food access for a large group of people who live in poverty. Formal governance processes of UA are lacking in Warsaw, as the local government is absent in the support for UA (apart from some subsidies). It could also be stated that there is a lack of broader public support for the newly established UAPs. According to interviewees, citizens in Warsaw have concerns about the safety of food produced in the city. They also see UAP as contrary to the envisioned picture of Warsaw as a modern city. Food production is considered as a backward practice; a practice that was necessary in times of poverty. Furthermore, since many citizens have moved to Warsaw only recently from the

countryside, it is assumed that many of them have the hardship of their agricultural past still fresh in their memory. This lack of support from government and the broader public explains why many UA pioneers are more focused on demonstrating the use of UA through various objectives (e.g. sustainability, reuse of public land, beautification, food literacy, food access), instead of defining common goals or target populations. From the analysis it is concluded that the UA pioneers and civil society organizations poorly recognize the use of UA for food access and poverty alleviation strategies.

In Philadelphia, due to the city's sustainability plan Greenworks and its focus on food and equity, several municipal UA stakeholders have been identified. Various departments (e.g. planning, parks and recreation and sustainability), offices and governmental institutions and programs (e.g. Neighborhood Transformation Initiative) are actively involved in the support of UA. As compared to the other two cities, there is a remarkable number of market actors such as urban farmers, cooperatives, farmers markets and distributors. Many UA pioneers are employed whether in the for-profit or non-profit sector. However, it should be added that the employment and operation of many UAPs is very dependent on funding through grants, private founders, and subsidies. Yet, compared to Ghent and Warsaw there appears to be more organizations, institutions and private stakeholders that offer funding opportunities in Philadelphia. This in turn can explain the larger number of community non-profit UA projects. Furthermore, it was also observed that there is direct and indirect support from research institutes and universities. Sometimes UA projects are financially supported by universities, or are community outreach projects of the university. Other times, indirect support is offered through teaching, building expertise, conducting research in the UA projects, and training interns. In Philadelphia, interviewees all stated that there is broad public support for UA, and that the number of UA practitioners (e.g. gardeners and volunteers) is very high. In other words, there is a strong bottom-up dynamic in UA. Moreover, racially and economically marginalized groups are said to be well-represented in the community of UA practitioners. That is partly because these groups are targeted in UA community projects, which is explained by an UA pioneer below:

One of the first things we hear when African-Americans come out is that people feel like: "Oh, this³³ is like slavery again". So we stop and process that. This is something that Chris addresses. It is a conversation, he talks about his ancestors. There is a big

³³ Referring to farm slavery of African Americans in the southern states of the USA in the 18th and 19th century

difference in doing this and having a choice in doing this. So yeah, he speaks to the history.

Do you feel you can engage African American communities well?

That is the only, or major community we work with.

Do you have a problem engaging the white community?

White folks tend to come and volunteer all the time. And there is a huge ... like, black farming scene here. People that are doing that work too ... What we see is that they tend to be an older generation. The younger generation has very little idea and is very opposed.

Children and youth are other groups that have been a major target in Philadelphia. During the last decade, the city has seen a large growth in youth-oriented educational projects that focus on nutrition education, job skills training, youth empowerment and advocacy. The following quote from an UA pioneer illustrates the rationale behind a focus on young people:

The students are interviewing [new applicants] and asking all the questions. So students are kind of bringing on the new people in their crew ... which has been for me a turning point ... To see them be professional and select themselves who they want to see in this group ... Really for them I think is a solidification of: I am part of this group ... That is extremely important. So we try to infuse youth empowerment

Even though much of the UA discourse in Philadelphia deals with inclusion of marginalized groups and there is in practice a great diversity in the social groups involved in UA, interviewees also noted that on the ground, social groups tend to practice UA in separate networks. They repeatedly referred to different UA “scenes” in Philadelphia which represent (1) the new young urbanites who form part of the trend and are mostly white, middleclass citizens and who may or may not be working with target populations; (2) minority groups for whom gardening in their neighborhood has always been part of their lifestyle for various reasons; and (3) the older generations. According to some interviewees, it is the first group of UA stakeholders that receives most of the coverage in social media and other news stories. It is the “scene” that is most visible throughout the city. The implications of these different scenes are laid out by the following fragment of an interview with an UA pioneer:

If you look at everything that is going on in Philadelphia on UA, do you experience it as a network?

It depends on who you are. It is definitely ... a good 75-80% of my friends are people I met through urban farming. So in that sense it is definitely a network. And I feel it is still a small enough community that we are all pretty ... I feel like I know a lot of people in that community. But at the same time I think that - when you think about the urban farming community - you think of a certain subset of the community like the young, white, transplants of the city. And there are other people that have been involved in urban farming for a really long time, they maybe do not call it urban farming, they would call it gardening.

They are not necessarily connected?

No, they are not necessarily connected to each other and they are not necessarily connected to the scene, you know, whatever the scene is.

What do you mean with the scene?

Yeah you know the Philly Urban Farming Network³⁴? They [those not necessarily connected to the scene] might even not have email. And when the city organizes stuff, you see the same people always. But it is not necessarily the people who have been farming in the poorer neighborhoods.

Other interviewees argued that as a consequence of the higher visibility of newly established UA projects - often with a trendy image - (i.e. the first “UA scene”), the stakeholders involved in these projects are also more knowledgeable about the available resources and are also better equipped to obtain these resources. Minority and elderly groups which have been traditionally gardening throughout the 20th and 21st centuries, are less connected to the UA movement and may therefore receive less attention and resources to sustain their UA projects. Most interviewees stated that competition for funding is a major barrier. Furthermore, because of the strong focus on inner city community objectives in Philadelphia, some professional UA stakeholders stated that they feel excluded from the various opportunities in the city to develop their UA business in which the focus is primarily on food production:

So do you think there is a lack of professional farmers in the city?

That is also because there is a lack of opportunities. A lot of farmers are within the non-profit structure and that can be really challenging. People who are striving to become great farmers ... Most of them want to do that in the country because it is much easier.

³⁴ Philadelphia Urban Farming Network (PUFN) is a Google group with +1500 members. It serves to inform about all topics related to UA. Members can formulate requests, questions, and answers to the discussions. According to many interviewees PUFN has helped to solidify a large UA network.

But there are opportunities here [in the city]. There are probably more opportunities I would even say here. Or in the suburbs for something like that ... One of the things that is unique about urban farming is that you have access to all these people and there is all these positive externalities, so ... We want to take advantages as much as possible to serve our community as much as possible.

Urban agriculture objectives

As will be demonstrated in section 4.5.3, some UA objectives come to be prioritized in the UA governance processes in each city. This section aims to demonstrate the variety of objectives that are formulated on the level of individual UA projects. In all three cities, there are many perspectives on the role of UA. Table 4.5 presents a selection of quotes from interviews with UA stakeholders in Ghent, Warsaw and Philadelphia to illustrate the diversity. This diversity was observed in the three cases, except for the objectives of crime reduction and job skills training. The former was not identified in Ghent and Warsaw. The latter was not identified in Warsaw. The table shows that UA for the various stakeholders is not simply about food production, but is a means to work on issues of nutrition, health, and less evident topics such as racial integration, crime reduction, and job skills training (or a combination of those). This table demonstrates the multifunctional character of UA and helps to understand the challenge of taking all of these perspectives into account in UA governance.

Table 4.5 The scope of urban agriculture objectives in Ghent, Warsaw, and Philadelphia

Core focus	Vision
Health promotion	<i>"You know, what if the day ever comes that we get these people to try our vegetables and say: "You know, this is better than the other stuff I usually eat". If they could understand that it is better for them...That would be great!" (case Philadelphia)</i>
Nutrition	<i>"One of the projects that we do is to research everything that is grown. We now have signs, for instance, the eggplant: what is the nutritional value of the eggplant? And then the children build a sign. It gives the nutritional value. So the children have to do the research and they have to paint and make the signs. They are not only learning about eating good food, but the actual nutritional content of that product is what they learn about. They learn about things that are healthy." (case Philadelphia)</i>
Education	<i>"My project, actually, is more about education. My girlfriend focuses very much on access to food, access to water and humanitarian aid. So the project was more about having fun in the vegetable garden while essentially teaching classes on world food problems. For instance, access to food in Africa and Asia, teaching children on ethics of food sourcing. In my opinion, the most important part is the education. The vegetable garden is just a tool to show them it is fun and to attract them to this project." (case Warsaw)</i>
Therapeutic / Spiritual	<i>"You cannot grow food at the speed that people drive their car. It goes much slower. You have to prepare the soil, plant seeds etc. You become calmer as a person. Gardening is the best therapy there is. People find rest and peace. So beside production, UA also has other benefits that are more difficult to measure, but that are as important as the production factor." (case Ghent)</i>
Cultural valuation	<i>"People would come to our market but not recognize our vegetables. So that is why we provide kind of traditional African American foods like sweet potatoes. These are things that we want to provide because they are recognized by the community." (case Philadelphia)</i>
Social integration	<i>"In our neighborhood we have a lot of problems with homeless people, poverty, ethnic conflict between Bulgarian and Turkish people. So we decided to coordinate the project very well to tackle these issues. We noticed that the conflict between the Bulgarian and Turkish communities had resolved. Homeless people could still use the infrastructure and participate in the project. The abandoned land is now used by a diverse group from the neighborhood and in a more structured manner. We notice also that a whole group of Eastern Europeans now participate in the project, it has assembled into something that is supported by the whole neighborhood" (case Ghent)</i>
Community development	<i>"I try to make Warsaw a better place to live, in a way. I do not only want to complain that Warsaw is ugly. I do not think it is, I love the city. Instead of complaining I want to do something. And also, I want to encourage people to do something in their houses and their public space. Do something with the public spaces. So I tried to help with guerilla gardening and grow vegetables on the balconies.." (case Warsaw)</i>
Poverty reduction	<i>"And it is also a very poor neighborhood. So it is also a pragmatic way to get... There is no grocery store in the neighborhood... so it is literally a way to get food in people's mouth as well as kind of activating the community." (case Philadelphia)</i>
Crime reduction	<i>"It began as urban ecology. Environmental reclamation of crime-ridden lots... Some of them were really quite sweet. Others were more of a tangled mess. Especially where there is a lot of short dumping and a lot of crime. A lot of drug dealing. A lot of these places were used to hide drugs or beat people up. It was just yucky." (case Philadelphia)</i>

Food access	The Greenworks plan of the city of Philadelphia calls for: <i>"Bringing local food within 10 minutes of 75 percent of residents and creating an additional 86 fresh food outlets by 2015"</i> (case Philadelphia)
Job skills training	<i>"So... we work across different high schools. And our teenagers all get paid. There is a lot of job training infused in our programs... And this is also a fundamental: that participants become deliverers of services and not receivers of services."</i> (case Philadelphia)
Environmental remediation	<i>"... to grow food on useful waste. I think about which waste flows can we use for pharmaceutical fungi? Which fungi can we use to accelerate the composting process? There is also the waste cycle of small businesses in and around Ghent, for instance beer brewers. This is in essence UA: keeping all resources local and making sure that waste cycles are closed. A product that comes into the city, is being reused and keeps circulating in the city."</i> (case Ghent)
Green infrastructure and biodiversity	<i>"Now there is a whole other district built. I remember there were horses and people gathering or picking potatoes. I decided to contribute - it is quite naïve I think, but I decided to contribute to plant things on my balcony. And if everyone would start planting things like that, then there would be more diversity and greenery in the city. It was just a simple idea."</i> (case Warsaw)
Recreation	<i>"When you work with bees, a whole new world opens up. They are really crazy animals! And then I realize, I just love to spend my time on this. I do not have a feeling that I contribute to a certain commitment at a higher level to do UA. That is the interpretation of other people. We mainly have fun...as a sort of hobby."</i> (case Ghent)
Food production	<i>"So... One thing that I kind of noticed, I have seen some farms that are really focused on education. If that is your focus, I notice that at some point, your farm is kind of starting to fall apart, like the actual production model. I think this will eventually affect your ability to educate people. And so, I want to create the best production model first, before I really properly inspire and educate people."</i> (case Philadelphia) <i>"It is all non-profit and they are not interested in the business aspect. I want to produce farmers not grant writers. I want to produce business people."</i> (case Philadelphia)
Sustainable agriculture	<i>"About 1/3 of our global ecological footprint is related to our food. The possible steps to reduce the footprint are evidently reducing or stopping meat consumption and dairy, eating organic - because it scores better in terms of pesticides, water usage and use of land. But then still there remains the transport. Food comes from very far. So I started thinking: how can we find food locally that is organic, plant-based? It fits in that search for decreasing our ecological footprint. This engagement with UA also grew from the awareness that our current food system is very vulnerable. When the energy prices rise, we feel it immediately. Also when there is a drought somewhere in the world. Our current food system needs so much energy input and is so specialized that is very susceptible to disease or political conflict"</i> (case Ghent)
Local economy	<i>"Our mission is to strengthen regional farms while making the local bounty accessible to communities and the institutions that serve them."</i> (case Philadelphia)
Politics	<i>"...I came to understand that food is mainly a political issue...If we want another kind of society, we will also have to create another food system...I see UA as a concrete action to materialize certain ideas. I see UA as a process, as something social, accessible for everyone, something that can create another kind of society. The great thing about UA is that it is here, we can start with it and already change the current situation!"</i> (case Ghent)

4.5.3 Participatory governance

In this section, the participatory governance processes that have been studied are described based on the participatory governance framework developed in chapter 3.3. To avoid that this section becomes overly extensive, the description is limited to the aspects that are necessary to understand the discussions and conclusions drawn from the results in the empirical chapters 5-8. The participatory governance framework in this thesis comprises drivers, the participatory dynamic - consisting of a governance structure and a governance process - and outcomes. The drivers, which are in chapter 3 described as particular contextual factors that drive collaborations are also discussed in this section. Outcomes will not be discussed in this section. Regarding the outcomes of UA governance, this thesis focuses on outcomes in relation to inclusion and exclusion in the governance process. The findings are discussed in the empirical chapters (through the four concepts of diversity, context, scale, and participation) and chapter 9. The data for this section are based on a combination of interviews, document analysis and participant observation. For the case of Ghent, more observational data was available due to longer periods of participant observation. It should be noted that information provided in the descriptions of the UA governance processes reflect mostly the situation at the time of data gathering.

Ghent

Drivers

Several drivers are identified in Ghent that induce collaboration. The first is the *consequential incentive* of the Climate Plan. Citywide, there is the commitment to become climate neutral by 2050. Food is one of the six topics through which climate neutrality is aimed to be achieved. From this followed *uncertainty* between different stakeholders, as no clear pathway was outlined at the start of the Climate Plan to achieve the goals in relation to food. Many aspects on the form, content, and process were left to be decided. This uncertainty at the same time led to the recognition of *interdependence* between different stakeholders. The local government recognizes in the Climate Plan that its success will largely depend on the extent through which partnerships were able to be formed. The broad public support was recognized as a form of *leadership*, because it is argued that it pushes the demand for sustainable practices through politics and through consumption. Ghent developed over the years into an attractive city for new businesses and organizations related to local, sustainable food. It has

acquired the reputation of the green city of Flanders, but also that of the “Veggie capital” of Europe or even the world³⁵.

Governance structure

To formally guide participation and collaboration in UA, GEG, founded in 2013, can be considered as the prominent *institutional and procedural arrangement*. GEG consists of a plan with strategic and operational goals, and an FPC. The strategic goals are: (1) to push for a shorter and more visible food chain, (2) to stimulate sustainable food production and consumption, (3) to create added social value regarding food initiatives, (4) to reduce food waste, and (5) to turn food waste into raw material (see Table 8.1). GEG focuses on UA through the first three strategies. GEG is integrated in the Office of Environment and Climate and is coordinated by one fulltime employee. In the own words of the coordinator, the tasks are to carry out the local food strategy, to bring different stakeholders together, and to match demand and supply in relation to all aspects of the local food system. Formally, the FPC is described as a policy advisory organ. According to the GEG website: *“The policy group acts as a sounding board for the city’s policy on food, issuing recommendations on new or existing projects, proposing new ideas, discussing the city’s strategic vision and acting as a major ambassador to help promote the city’s vision on sustainable food production and consumption”* (Stad Gent 2017b). There are three official meetings per year, but additional meetings can be organized. The dates are decided and communicated well in advance by the coordinator. The meetings always take place in the city hall. Since 2016, there are also two working groups to create opportunities for local food chains on the one hand, and for the social aspects pertaining to a more local and sustainable food system³⁶. In the latter, topics of, among others, poverty, hunger, cultural differences in diets are discussed. These working groups also have about four meetings per year. However, the number and the dates are more flexible. Regarding external legitimacy, it is assumed that the role of GEG in the city may be hampered by the status and recognition it receives in the various departments, other institutions and wider government. First, although not clearly communicated, there is also an internal working group in the local government which meets in the frame of GEG. A list of government officials from various departments and offices are invited. One participant of this working group informally said that in this working group there is a lack of commitment to GEG among the various departments. It is also not communicated to the FPC meetings what is discussed in these meetings. Furthermore, the continuation of GEG is unsure, since it depends on the decisions and policy

³⁵ See <http://www.visitflanders.com/en/stories/flemish-food/ghent-the-vegetarian-capital-of-the-world.jsp>

³⁶ which, as can be read in chapter 8 had also been recommended by the coauthors prior to the organization of the working groups.

plans in each legislature. This may hamper long term planning and investment, but it may also result in the avoidance of discussions and decisions that could be evaluated as unfavorable by influential and powerful civil society groups or political parties. It is concluded by some UA stakeholders that UA is not yet considered as a legitimate urban function:

I'm just giving an example. If we talk about urban renewal projects. Then there is a project in the Dampoort area for instance. We look at housing, mobility, and recreation ... Those are the three that have to be financed. And then there is the question ... "Ah yeah, would you perhaps also do something with food and agriculture?" I am like: "No no, put food and ecology right next to housing and mobility?" [UA pioneer]

Apart from the coordinator, no official *roles* are designated (e.g. facilitator, convener). Yet, for the general council meetings, the city has designated from the start of the FPC a list of about 25 official participants. All other stakeholders involved or engaged in GEG (participants in the working groups and invited persons for a special topic) are informally considered as participants. For a number of general and working group meetings, a budget has been provided by GEG to hire an external moderator who coordinates the process and encourages engagement.

It has been observed in the analysis that a lack of *knowledge and information* presents a key barrier to develop collaborations. This is acknowledged by all types of UA stakeholders which participate in the FPC or in the working groups. In order to deal with this, a process was initiated in 2015 to collaboratively define the operational goals of the strategic plan (i.e. the five goals were made more concrete). This resulted in a broad and comprehensive plan in which every strategic goal is substantiated with several operational goals³⁷. The result was that lacking information or data to develop participation, collaborations, and policy recommendations became more easy to identify. Indeed, many discussions have been revolving around the role and position of GEG (also in relation to the practices in civil society), and what kind of information or expertise is needed at the table. The same issues with data and knowledge are presented in the working groups. For instance, despite the fact that the working group brought more expertise to the table regarding the relation between food and diets on the one hand, and poverty, minority populations, hunger, and health on the other hand, there remains a lack of insight into these problems at the city level. Furthermore, participants in the working group argue that there is a general lack of awareness around poverty issues internally in

³⁷ This plan can be consulted at:
<https://gentengarde.stad.gent/sites/default/files/bijlagen/Operationele%20doelstellingen%20Gent%20en%20Garde.pdf>

organizations and institutions in Ghent, and externally among all kinds of stakeholders in the food system. This thesis, however, argues that the local government has taken relatively more steps in relation to the economic aspects of UA and local food systems. Through various studies funded by the local government, specific issues such as preservation of farmland, spatial opportunities for UA, scaling up of local food were analyzed. It remains to be seen, however, how this new knowledge will be dealt with in the future. Last, there is also a barrier in relation to the transparency of the information and knowledge. It is observed that for many participants of GEG it is unclear which knowledge has to be shared, how, and for which purposes. Minutes of the meetings are provided by the coordinator of GEG and sent through email to the formally invited stakeholders. Apart from information about the objectives of GEG and the interactive platform for the broader public, little information is presented on the website. For instance, missing information is personal contact information, the roles that are carried out, the members of the FPC, minutes of the meetings, information about how to participate etc.

Various *resources* are available to support UA, although they are scarce. There is the administrative support through the coordinator of GEG. From the total climate budget of € 105 million, a small portion is granted to the LFS: about € 300 000 (approx. 0,3%). Additional budget comes from participation in international projects. In some cases research projects in relation to UA and local food are co-financed by other departments and other institutions. Land or space for UA is a more contentious topic. First land for UA is scarce. Furthermore, there is a lot of competition for land and space from other land use functions, especially nature and housing. Although the GEG on its own does not have the power to distribute land, it is an important facilitator in the initiation of UA projects on public land. Sometimes it arranges the public land for the UA project (e.g. temporary community garden, farmers markets). In other cases GEG uses its own network to help UA stakeholders find land or space for a new project. Finally, it was observed that UA stakeholders from the municipality tend to control the agenda and outcomes closely. While this may be positive to guard the focus and progress, it is also assumed that other UA stakeholders do not relate to the topics discussed and may therefore not participate or retrieve from participation in the process. Furthermore, the distribution of resources is by some UA stakeholders evaluated as unfair. Some UA stakeholders lament that the level of governmental support is insufficient to make structural changes in the food system. There also exists friction between some stakeholder groups. For instance, it was observed that professional farmers and representatives of farming organizations accuse the local government of devoting most of the available resources (including media attention) to UA pioneering projects.

Governance process

Various *principles of engagement* lay down the opportunities and constraints for participation in GEG. First and foremost, participants of the general FPC meetings are selected at the coordination level of GEG. These meetings are organized in a closed manner. They are invited to the meetings through email. The dates are communicated well in advance. This list of participants changes over time based on availability and relevance of the members. From the list of invitations, it is observed that mostly experts (e.g. researches), city officials (e.g. various departments), and representatives of institutions (e.g. farmers organizations, several of these organizations are regional or national organizations) and local food initiatives (e.g. community projects, UA pioneering practices etc.) are invited. It can thus be stated that a wide variety of stakeholder groups in the local food system are represented. Also the alderman and assistant participate in the meeting. The working groups are open to anyone, since participation is highly encouraged in the working groups. Once a person has participated, the goal is that this person receives an invitation for the following meetings. Also here, the invitations for the meetings are exclusively announced by email and by the GEG coordinator. With regard to the representation of minority and disadvantaged groups, it is observed that they are indirectly represented by coordinators and chairmen of various organizations and institutions focusing on children, poverty, ethnic minority groups, professional farmers. However, these groups are not directly participating. The profile of a participant in FPC meetings is almost completely that of the white, highly educated, middleclass. The deliberation and decision making processes in GEG are unclear and nowhere is this communicated to the participants and the broader public. Agenda setting occurs at the level of coordination in which the topics to be discussed are decided. However, participants can propose topics in advance. The meetings in GEG are mostly moments of information dissemination on the part of the local government about the progress or evaluation of projects and initiatives. In other cases, a participant of the FPC gives a presentation. It also appears that the deliberation process is not formally organized. The main expectations from the participants are to give feedback or ask questions in relation to the provided information. Often, meaningful discussion arises between different participants. However, it is unclear how the various standpoints are taken into account, nor how the feedback is processed, or how decisions are made internally. Participants stated various times that transparency on the decision making procedures is lacking. It is assumed that some UA stakeholders can exert more influence in the network than others. Taken together, even though there is a relatively broad representation of UA stakeholders (e.g. farmers organizations, UA pioneering projects, supporting institutions, community UA projects), the effectiveness of this representation should be questioned. It was observed that certain UA stakeholders or topics tend to dominate. Moreover, the impact of participation is unclear (i.e. no decision making

structure). Furthermore the presence of the Alderman in the meetings affects the discussion, as it creates a hierarchically dominant position/an unbalanced power relation.

For the case of Ghent, it cannot be concluded that there is a *shared motivation* among UA stakeholders. Although there is general agreement about the importance of GEG for the city, in the interviews and through participant observation, many complaints were heard about the format and the functioning of the FPC. Nor is there a strong commitment to GEG observed. A sign of this is the lack of vibrant and dynamic participation in the general meetings and in the working groups. Furthermore, a lack of a vibrant and active citizenry in the meetings may be caused by the approach of GEG toward civil society participation. In June 2015, an interactive platform was developed on the Ghent en garde website. The goal of this platform is to stimulate public engagement in GEG. The platform is a source of information, but it also stimulates collaborations within civil society by matching demand and supply, and announcing events. The platform is an actively used medium. However, it is fully disconnected from the political processes of the FPC. This platform reduces the role of civil society mostly to engaging in sustainable consumption and individual engagement.

Nor can it be stated that there is a *shared understanding* among the diverse stakeholder groups in GEG. The lack of a common purpose or goal has been another topic of major discussion. This may be explained by the local government's framing of GEG in terms of CO2 reduction and sustainability. This is a very broad focus which leaves room for a lot of discussion. It has been noted by one of the most prominent participants in GEG that individuals and organizations do not succeed in transcending their personal interests. While some representatives focus strongly on the role of professional farmers in UA and the local food system, other stakeholders focus on the relation between inner city issues and UA. According to this key participant's opinion, GEG is thus far incapable of finding common objectives or projects. This explains the amount of discussion on the role of GEG and the ongoing search for a common purpose that transcends individual or organizational stakes. Many discussions in the FPC revolve about its format, role, and focus.

Warsaw

Drivers

A number of drivers have been identified which are argued to be hampering collaboration between different partners. First, negative *consequential incentives* have been identified with regard to urban planning and land regulation. UA has not yet been adopted in any policy; neither in the Polish agricultural policy nor in the spatial development policy of Polish cities

(Szulczewska and Bruszevska 2013). It has been stated that Warsaw's urban plans are focused on economic development, hence prioritizing investments with high monetary return. This focus has led to a series of amendments and regulatory initiatives from which it becomes clear that the local government has ceased to support agricultural activities³⁸. Together, these regulations facilitate the conversion of agricultural land into other uses. The first policy initiative was that agricultural land has been removed from the urban planning policies in 2006. As an interviewee from the local government in Warsaw explained:

From this moment on, we have in Warsaw only urban areas. Functions such as housing, services, airports, and factories. Some areas still have farming activities, but in our policy, it was changed and we cannot change this decision. All what we do, the farming which we can find here or here ... in the future it should be changed. And we cannot do anything about the origin of this decision.

The second policy initiative concerns an amendment in an article, dating from 2008 (5b, which was added to the "Protection of Agricultural Land and Forest Land Act"). In this article it was added that consent from the minister of Agriculture and Rural Development was no longer needed to convert agricultural land into urban development purposes. This amendment paved the way for uncontrolled urban sprawl. This is illustrated in Figure 4.7 where housing projects emerge in the rural areas in and around Warsaw. Apart from the new housing, no services or commercial areas are in the neighborhood.



Figure 4.7 Urban sprawl as a consequence of recent land regulations and urban planning: new residential areas in the middle of agricultural landscapes.

³⁸ It should be added that municipalities are in favor of agricultural activities. In an interview with the mayor of one of the municipalities of Warsaw, it was clarified municipalities regret not having the tools and money to protect the agricultural land.

The third concerns the different legal status of the “local plan” and the “Spatial Planning and Development Act” (represented in the Municipality Study of Conditions and Directions of Spatial Development). The Spatial Planning and Development Act requires to take into account protection of agricultural and forestry production while setting the municipality spatial policy directions. However, this Act is not legally binding. It is the local plan which is the only legally binding spatial planning document. Although it is required that the local plan is consistent with the Spatial Planning and Development Act, the local plan is mostly prepared for fragmented areas. In other words, much of the agricultural land is not included in the local plan, and therefore has no legally binding status. The decision to invest in agricultural land for non-agricultural purposes is possible, even if this is not in accordance with the Spatial Planning and Development Act. To reconvert agricultural land into other development purposes now only depends on planning permissions issued by the local government council. In Szulczewska and Maksymiuk (2014) it is stated that most of the conversions of agricultural land was through planning permits.

Second, another negative *consequential incentive* is the structure of available farmland. Farming activities are less attractive in the undeveloped areas in and around Warsaw because of the structure of the plots, which are mostly very narrow and long (up to 1 km). Much of this land is left fallow, waiting for investors to give it another destination.

Third, a lack of *leadership* among UA stakeholders was observed. Most of the UA pioneers and farmers act on their own, pursuing their personal or organizational objectives. No common goal in the UA network was identified. Although some UA stakeholders were labeled as key stakeholders because they were referred to in many interviews, none of them takes up a role which successfully advocates UA in the local government or civil society. Partly stemming from the informality of the UA network and the individual motivations to engage in UA, there is also a lack of *interdependence* between the different stakeholders.

Governance structure and governance process

In Warsaw, formal governance processes initiated by local government and involving civil society and market actors are lacking. There are no institutional or procedural arrangements, apart from a few cases in which funding has been provided to a few UA projects. However, this funding and support was mostly temporary. Also missing are regulations and other kinds of support for local food markets. Current governance of UA relies on small, but coherent civil society networks. Therefore, the discussion of governance structure and process is not applicable for Warsaw.

Drivers

The data revealed several drivers that are claimed to stimulate collaboration among UA stakeholders. Similar to Ghent, the most important *consequential incentive* is the comprehensive sustainability plan Greenworks which puts forward strong ambitions, namely, the aim to become the greenest city in the USA. It formulates objectives in relation to equity and food. A second consequential incentive that stimulated collaboration was a study in 2010 of the DVRPC. In this study, all aspects of the Philadelphia regional food systems were studied and supported by a lot of information and data. The study raised awareness on food systems issues in Philadelphia and brought many stakeholders together for the first time. A third consequential incentive that stimulates collaboration are the broadly shared concerns among civil society, market, and government about the socio-economic issues of poverty, hunger, crime, urban blight, and racial and class discrimination. Because UA is a good strategy that has proven to address these issues, UA receives broad public support in Philadelphia, according to many interviewees. Another driver to collaboration was found to be *interdependency* between various UA stakeholders to address issues of land tenure. Despite the availability of land to develop UA, many interviewees stated that the protection of UA and land tenure arrangements are key issues in Philadelphia. Furthermore, some UA stakeholders and UA supporting organizations show remarkable *leadership*. For instance, there is one full-time lawyer who was referred to in nearly all the interviews. She is well-known for her work on defending gardeners' rights in the local government, and reverse, for encouraging UA practitioners to defend their rights in the governance processes.

Governance structure

To formally guide participation and collaboration in UA, FPAC can be considered as the prominent *institutional and procedural arrangement*. FPAC was created in 2011 by Executive Order to help guide the City of Philadelphia's food system planning by providing policy recommendations for the city. The Office of Sustainability administratively houses FPAC by managing staff, fundraising, and securing resources. FPAC is coordinated by one fulltime manager and one fulltime VISTA (Volunteers in Service To America) position to fulfill the role of coordinator. The role of the staff members is in their own words to coordinate the various activities and projects, facilitate collaboration, and bring people together. FPAC consists of nine subcommittees. Current (2017) programmatic subcommittees are anti-hunger, food and health, good food procurement, urban agriculture, workforce and economic development³⁹,

³⁹ The workforce and economic development subcommittee was born out of FPAC's January 2016 Executive Session. Before this, the subcommittee was called "workforce development". Because there

and zero waste. The names and content of subcommittees can change to enable that the most relevant and pressing issues in the Philadelphia food system are addressed. FPAC also operates two standing subcommittees to ensure the processes run smoothly. These subcommittees are governance and membership, and communications and outreach. There are various activities in the FPAC. First, there are three kinds of meetings: (1) general meetings, (2) executive meetings, and (3) subcommittee meetings. There are six general meetings per year. In those meetings information is disseminated about the subcommittees and internal business of FPAC. In addition, issues related to FPAC's work are explored in depth. There are also six executive meetings per year. The purpose of these meetings is to provide a space for broader discussion of FPAC-related issues, and to increase coordination across subcommittee projects. Each subcommittee meets monthly. They serve to research, study, evaluate, and make recommendations on priority issues. According to the FPAC website: "*The subcommittees drive the council's work forward through regular meetings and collaboration*". It is in these groups that much of the content-related work on individual policy areas is done. All the meetings are open to the public. They are organized in various places. Some take place in governmental buildings, others in public places, or on the location of UA projects and supporting organizations. There is also a commitment to organize meetings outside office hours. Another activity of FPAC is to provide testimonies. In case an issue arises that FPAC members want to support or comment on, an FPAC member takes the lead in drafting a testimony. These are presented before the City Council and other local bodies. Regarding *external legitimacy* the continuation of FPAC depends on elections and the decisions on FPAC in new legislatures⁴⁰. Yet, the data revealed that external offices, departments and institutions formally recognize FPAC as a legitimate partner. First, it was stated that most of the relevant departments are represented in FPAC and collaborate in the various projects of FPAC. Second, interviews also revealed that, apart from one or two exceptions, most council districts are in favor of UA and collaborate with FPAC to devote land to UA projects. Third, it was also illustrated through various cases that the city council and departments reach out to FPAC to collaborate on relevant issues. One example is the case where information on soil health in community gardens was needed after it was discovered that no evaluation standards for soil safety were adopted in any policy. The UA subcommittee

was a lack of expertise and dynamic in this subcommittee, it was abandoned for several years. FPAC made effort to find the right expertise, resulting in the re-establishment of the subcommittee. Since 2016, the workforce and economic development subcommittee aims to: "*implement policies and practices to build a stronger regional economy and just food system in which workers along the entire food chain enjoy quality jobs that provide economic stability and upward mobility*" (FPAC). However, as elaborated below, it has thus far remained the subcommittee in which least initiatives are taken.

⁴⁰ In 2015, steps were successfully undertaken to make the Office of Sustainability (in which FPAC is integrated) a permanent office in city government. However, the opportunities for FPAC would still depend on the capacities granted to the Office of Sustainability by new legislatures.

set up a soil safety working group that over the course of several months conducted research, brought different partners together (academia, non-profits, farms and gardens, city, state and local agencies) to discuss the soil issue. This resulted in a report offered to the city council.

In FPAC, a large number of formal *roles* are designated. Next to the staff members, there are ex-officio members (who serve as a function of their positions within the local government to foster successful collaboration between FPAC appointed members and the city), subcommittee members (who are volunteers and welcome anyone who wants to join), and appointed members (who serve voluntarily as individuals rather than representatives of their affiliated organizations). Appointed members are elected by the Mayor based on their expertise for three or six years. Appointed members often serve on the subcommittees and are required to attend general meetings. Such roles are likely to induce various roles of leadership since they imply fulfilling expectations and responsibilities, and they require a serious time investment.

Knowledge on the role and impact of UA is shared and generated in various ways. First, the majority of interviewees asserted that they collected data and evaluations in their UAP or UA supporting organization. This is generally required by funders. This data (i.e. evaluations, testimonies, numbers, impact measurements) is useful to substantiate specific topics in FPC meetings. Second, it was also stated that in case of lacking expertise or information in the meetings or projects, the open and flexible format of FPAC allows that new members can enter the FPC. Third, subcommittees set up various projects in which gaps in information or barriers in the food system are addressed. In this sense, new knowledge is created. The collaboration on soil safety presented above is one example of knowledge creation in FPAC. Furthermore, in the analysis it was also observed that the information is communicated widely and clearly. The website deliberately elaborates on all the details of the FPAC. Among others, it provides the agenda and the minutes of meetings; information on the objectives, activities, and the people involved; and details on the dates and places of the meetings.

Various *resources* of FPAC need to be discussed. FPAC has little or no budget available to fund projects. Most of the funding goes to one fulltime staff member, leaving only little budget for operational office costs. FPAC also has the responsibility to acquire the needed funding. It is currently financially supported by six sponsors. Instead of direct funding of UA, the coordinator of FPAC considers that support to UA is delivered indirectly through the administrative support by providing a network and functioning as a source of information. A lot of vacant land is available and many policies and institutions are focused on redevelopment of these inner city plots. FPAC is part of many initiatives and projects that help to facilitate the

acquisition of land and secure tenure. In comparison to the case of Ghent, it is evaluated that FPAC transfers power to a larger degree. The focus is rather on responding to the input that is given by the participants of the meetings, as can be read in the following quote:

All of FPAC's work is driven by our members who are largely external to city government and are experts in their fields or simply interested community members ... Their collective voice through FPAC is respected and recognized by City government, both on the executive and legislative levels. FPAC provides the space for all of these people to meet and collaborate regularly, when they may not have had the opportunity or impetus otherwise. [Municipality stakeholder]

However, interviewees stated that there is much competition for resources (funding, land, recognition etc.) among community projects in Philadelphia. According to some interviewees, resources are distributed unfairly, with most of the resources devoted to the most visible and competitive UAPs. The FPAC coordinator also clarifies that there have been instances where some participants tend to dominate the conversations, but added that the chairs in those meetings have side conversations with these people to restore the balance.

Governance process

Participation is an important aspect of FPAC. Therefore the *principles of engagement* focus strongly on ensuring broad participation and are more formally organized. FPAC focuses on getting a mix of city government officials, experts, and the broader public. It puts much effort in achieving a diversity of roles in the meetings. Moreover, inclusion is one of its founding principles. In fact, this is one of the core tasks of the subcommittees of communication and outreach, and governance and membership. As said above, there are a range of fixed participants, namely ex-officio and appointed members. Appointed members are approved by the mayor based on expertise. Their attendance is required and is, among others, necessary in the decision making process (see below). However, as all meetings are public, they are announced on the website, on the social media, and through email and newsletters. On the page of the various subcommittees and general meetings, dates and locations of the meetings are announced well in advance. Contact information is provided so that interested participants can notify their attendance or request information. According to the interviews, various stakeholder groups are represented in FPAC (including academics and legal experts), as well as a broad array of profiles. However, this has been disputed by other interviewees who stated that achieving broad representation remains a challenge. Despite the diversity in profiles of UA advocates, the UA stakeholders who tend to take leadership are often white, middleclass citizens:

So, are you saying that the people who are growing food in your programs are not present in the decision making processes?

I would say in certain situations that is the case. If you were to look at the food policy advisory meeting, you would not necessarily see it as a reflection of the city of Philadelphia. I think that is everywhere. I wish I could say that is about to change, but I do not think that will happen soon. [Civil society organization]

Agenda setting in FPAC is a rather collaborative process. There are more opportunities for the various members to express their concerns and topics in FPAC, because of the explicit focus on integrating various perspectives and expertise from the practices on the ground. Some meetings take the format of information dissemination, others are organized meetings of deliberation where decisions on various topics are discussed. A reason why the agenda of FPAC is set more collaboratively is that the focus on formulating policy recommendations has shifted to also include implementation. This way, participants in FPAC can help set the agenda on how policy recommendations will be implemented.

What we original would do: to provide the city of Philadelphia with policy recommendations on what they think the city should be working on. But since we have increased capacities and have two people working fulltime on this, we have been able to move more into implementation of our policy recommendations. [Municipality stakeholder]

The decision making process is made transparent through a voting system. A certain number of appointed members needs to be achieved in the meetings in order to validate a vote on a specific issue. When this number is reached, every participant in the meeting gets to vote. Examples of items on which a vote is organized are meeting minutes of last meeting or testimonies for the city council. The interviewees mentioned no particular conflicts between different stakeholder groups. In contrast, several interviewees stated that conversations have been productive. The councilman is not part of the meetings, and instead of being considered as a participant, this person is considered as the recipient of the policy recommendations.

Within FPAC it can be stated that there is *shared motivation*. Membership is high and active, both in the general meetings and subcommittee meetings. Also participants who are not appointed members tend to collaborate on the projects. This assumes a strong commitment to the process of FPAC among most of the participants. Interestingly, it was noted that FPAC in its initial stages faced the same issues regarding discussions on the goal and process of

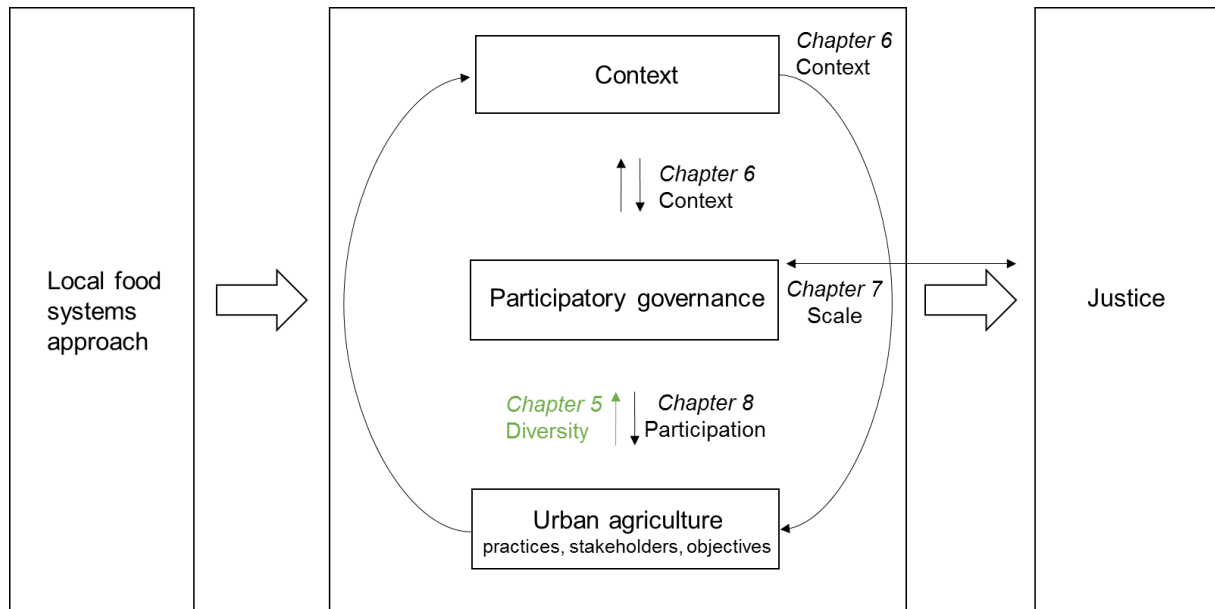
FPAC. Much effort was put into defining the goals and relevance of FPAC. However, given the current positive dynamic, this effort has proven an important primary step.

On the website, it is written that FPAC “*envision[s] that all Philadelphians can access and afford healthy, sustainable, culturally appropriate, local, and fair food*”. In general, it can be stated that among all participants of the FPAC, there is a *shared understanding* on the goal of FPAC to address issues related to food justice. Many of the participants in FPAC are also engaged in practice to address issues related to food justice, i.e. food access, food literacy, poverty, hunger, urban blight etc. The objectives of many UA projects are comparable to the one of FPAC, for instance: “*Mill Creek Farm is an educational urban farm located in West Philadelphia that is dedicated to improving local access to fresh produce, building a healthy community, and environment, and promoting a just and sustainable food system*”⁴¹. A shared understanding on the objectives of collaborations through an FPC enables the identification of data and information that is needed to support the objectives. Even though objectives are shared among participants, the data revealed that a focus on professional farmers around Philadelphia receives less attention in the local and sustainable food system envisioned by FPAC. This is acknowledged by a municipality stakeholder:

The connection between the urban center and regional farms is definitely a concern within FPAC ... FPAC does not currently have any representation from the conventional farming sector, though we have identified this sector as a gap.

⁴¹ <https://www.millcreekurbanfarm.org/>

Diversity in urban agriculture governance



This chapter examines the diversity in UAPs and explores how this diversity can be taken into account in UA governance. The starting point is the observation that on the one hand, there is much discussion on the usefulness of the concept of UA, and on the other hand, many simplistic categorizations of UA are made (e.g. when UA is understood as either economic practices or social practices). It is argued that analytical tools are lacking that enable more constructive discussions on the concept of UA. The aim is to explore whether there is a way to discuss UA that takes into account the diversity of practices. There will be less focus on the diversity of UA stakeholders and objectives in this chapter, a point that is discussed in the last section. A research approach and method is adopted that is different from the other three case studies (see chapters 6 to 8). It does not analyze data from the three cities, but explores a diversity of UAP's across Europe. Based on a comparison of the cases, a conceptual framework has been developed that lists 13 characteristics that appear to be key for the governance of all individual UAPs studied. The framework is then applied to four additional cases through semi-structured interviews to explore the applicability of the conceptual framework. The chapter discusses how the framework can be used (1) to systematize the diversity in UAPs in research and (2) how the framework can be used as a tool in UA governance processes at a city level to grasp the complexity that the diversity in UA entails.

Based on Prové C., Kemper D., Loudiyi S., in press. The modus operandi of urban agriculture initiatives: Toward a conceptual framework. *Nature and Culture*.

Diversity in urban agriculture governance

5.1 Introduction

In recent years, we have witnessed an increase in the number of UAPs across the Western world. The understanding of UA has shifted from UAPs in and around cities for food security purposes (FAO 2008), to the inclusion of other broader social, environmental or economic food production activities linked to goals of sustainable urban development (McClintock 2010, Mansfield and Mendes 2013, Morgan 2015, Partalidou and Anthopoulou 2016, Tornaghi 2014). UA encompasses a broad range of practices such as community gardens, guerrilla gardens, existing professional farms seeking connections with the urban center, and the more innovative forms of UA such as indoor farming (e.g. LED farming, container farming, aquaponics, hydroponics), rooftop farming, community supported agriculture, and healing, recreational or educative gardens. In broader understandings of UA, the regulatory (e.g. food councils), processing and distribution practices (e.g. farmers markets, vegetable box schemes) are also taken into account because they facilitate the integration of UA within the food system (Bailkey and Nasr 2005).

As UA has grown in scope and size, a series of challenges have emerged. First, enthusiastic proponents in government, the media, and research have high expectations of civil society in UA development, especially in relation to experimentation, establishing links with producers and the government, and contributing to urban sustainability (Barthel et al. 2013, Renting and Wiskerke 2010). Second, we observe that UA is increasingly discussed from aggregate levels in networks or governance platforms. This is the case, for instance, when UA stakeholders build strategic partnerships to strengthen their position in the city, when municipal governments translate their experience into advocacy at higher policy levels, or when UA is discussed in one of the many international discussion or networking platforms, such as the Milan Urban Food Policy Pact (MUFPP), Carrot City, Food-for-cities. However, these challenges are further constrained by the fact different understandings of UA are often not explicated (Neilson and Rickards 2016). Generally, stakeholders in the field rely on generalized definitions, all good or all bad understandings (Born and Purcell 2006, McClintock 2010), or overly simplistic categorizations distinguishing for example, between professional and non-professional (Hodgson et al. 2011), between production-oriented and socially-oriented (Draper and Freedman 2010, Evers and Hodgson 2011, Pourias et al. 2016), between food grown in the

soil versus in containers, on roofs or indoors (Sanyé-Mengual et al. 2015, Specht et al. 2015). Additionally, UA research mostly focuses on singular case studies or aspects of UA that affect UAPs, such as resources, land tenure, and actors.

In order to set accurate expectations for UA and allow discussions on UA from an aggregate viewpoint, analytical tools are needed that provide an in-depth understanding of the modus operandi of UAPs, but which also allow the study of UAPs in relation to each other. While there are important contributions to this gap (see e.g. Mougeot 2000, Quon 1999), we argue that they should be expanded in order to generate a comprehensive and in-depth understanding of UAPs. In an attempt to dismantle simplified understandings of UA, we seek to offer an analytical tool that is more specific and detailed in discussing UAPs, on an individual as well as an aggregate level.

The chapter elaborates on a conceptual framework that has been developed in the COST Action TD1106 Urban Agriculture Europe (eds. Lohrberg et al. 2015). In subsequent steps, databases were re-analyzed and academic literature was consulted to revise the first version of the conceptual framework. The revised framework elaborates on 13 governance characteristics that are identified as key elements in the dynamic and organization of all UAPs (Figure 5.3). In a last step, the focus is on the application of the framework to four case studies in Belgium, France, Germany and Spain. The research objective is to explore whether the framework allows deeper reflection on the questions how different forms of UA are organized, and how the diversity in UA can be grasped in collaboration/networks. The revised framework elaborates on 13 governance characteristics that are identified as key elements in the dynamic and organization of all UAPs: objectives, actors, timeframe, size, outreach, organizational structure, resources, partnerships, stakeholders, formality, power relationships, public policies, and urban context.

Below, we elaborate on the methodological steps that have resulted in the conceptual framework. Next, we present the findings from applying the framework to UAPs. We also elaborate on the findings of our comparative approach. Finally, we reflect on the heuristic value of the framework, by whom it can be used and future challenges.

5.2 Methodology

5.2.1 *Study design and data collection*

In this chapter, we consider all the practices that are commonly understood or labelled as UA (Warde 2013). To avoid a priori exclusion of cases, UA is broadly defined as all the urban and peri-urban food practices (McClintock 2014, Mougeot 2005, Vejre 2015) that *can* be labelled as UA because: (1) they take one or more aspects of sustainability into account, meaning they contribute positively to the urban ecosystem (Mougeot 2000), (2) they demonstrate a reflection on the side effects of the dominant agri-food system, and (3) they involve multiple stakeholders for the organization of the UAP (e.g. in relation to land tenure, sharing or selling of food). In the case study selection, we do not distinguish between: distance to the city, organic and non-organic (because some community gardens use pesticides, but contribute to the social or economic development of the city), the start year of the practice, food growing techniques, or level of community empowerment. For instance, a large conventional farm on the fringe of a city producing for the world market, will not be included if it in no way contributes positively to the local ecosystem. While these latter distinctions are very important topics for discussion on UA, again, the aim is to study the usefulness of bringing all the UAPs together in one framework.

A conceptual framework can be defined as the way in which ideas are organized to achieve the research purpose (Shields and Rangarjan 2013), namely to understand the diversity within and between UAPs. The conceptual framework can be a tool, i.e. an abstract representation, that organizes the data collection and analysis process into a comprehensive whole. More often, UA research focuses on single case studies or single aspects that affect UAPs, such as resources, land tenure, or actors. The data collection and analysis is summarized in four steps below (Figure 5.1).

As a first step, we collected data from 28 UA cases across Europe in collaboration with participants of the working group “Governance of Urban Agriculture” of the COST Action TD1106 Urban Agriculture Europe between 2013 and 2015 (see Figure 5.2 for the selection of the 28 cases). In line with the data collection method used by Lawrence et al. (2013) a survey questionnaire with five broad topics was developed. We asked questions relating to: (1) information regarding the case study location, type of UAP and scale, (2) description of social and spatial context (3) institutional context, (4) stakeholders and partnerships, and (5) implementation and monitoring processes. The interviewees responded to the survey question

by email or in person. This resulted in a broad data matrix, with data on 37 questions across 28 cases. The descriptive and comprehensive dataset was discussed and compared in a collaborative, iterative process with the members of the working group.

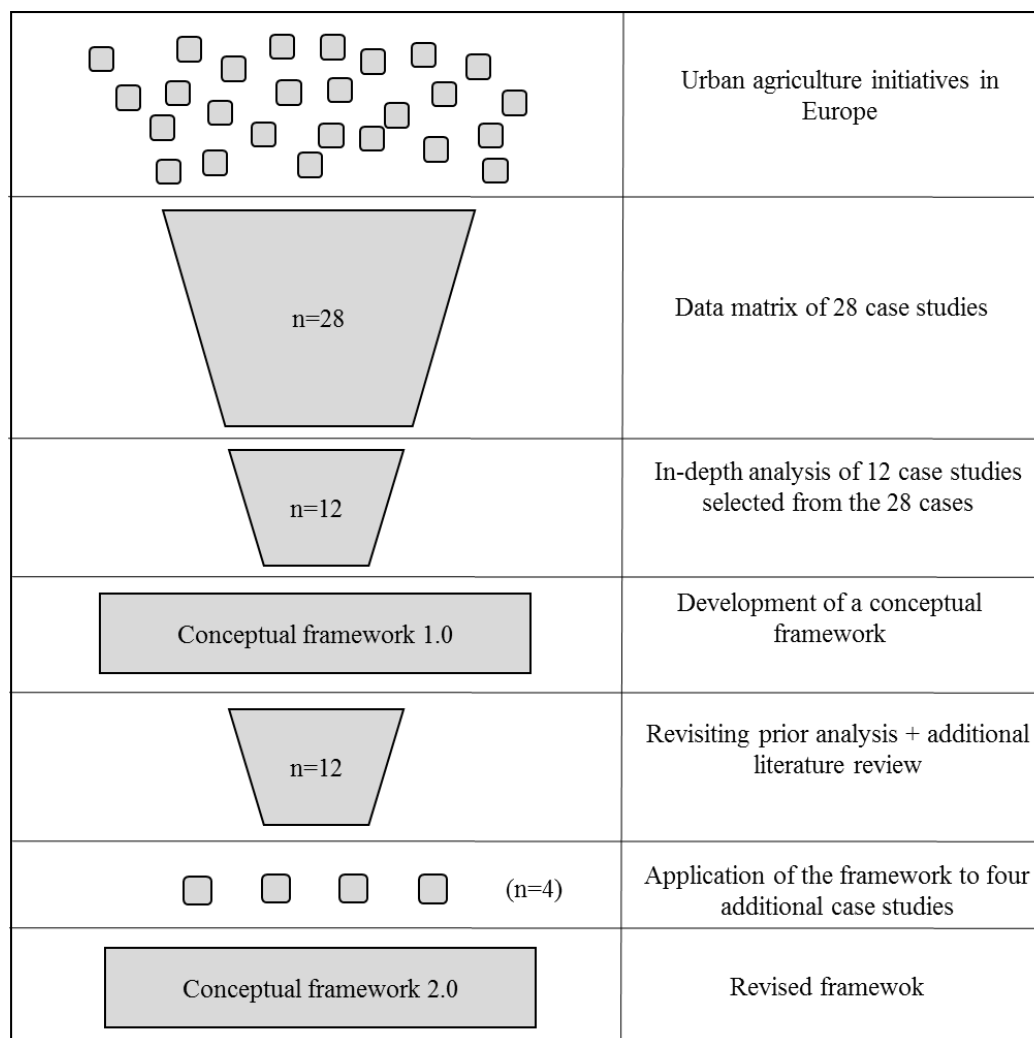


Figure 5.1 Data collection and data analysis process.

In a second step, 12 cases were selected for in-depth comparison (see Figure 5.2 for the selection of the 12 cases). To guarantee diversity in the analysis, we included cases that were diverse in scope and geographic location. We also focused on the available information on the case in the dataset. The structure and dynamics of the cases, as well as differences and similarities between UAPs, were explored. Subsequently, our findings were presented and discussed in the working group during COST Action TD1106 meetings. During the collaborative process, we also relied on the expertise of the participants, and academic literature to explore the relevance of each of the characteristics in UA. A first version of the conceptual framework with 10 governance characteristics was proposed (Prové et al. 2015).

The third step - also the key focus of this chapter - elaborates on the framework through further analysis of the 12 cases, additional literature study (again to explore the relevance of each of the characteristics, Table 5.1) and empirical research. We selected four case studies where we conducted semi-structured interviews with either the coordinator or founder of the UAP, complemented with field visits or participatory observation (Figure 5.2). The aim was that the authors of this paper selected one or two UAPs in a context in which they were already conducting research on UA. From this, a case was selected in Ghent (interview with an UA pioneer), in Paris (interview with an UA pioneer), in the Ruhr area (interview with a professional), and in Madrid (interview with an UA pioneer; see section 5.2.2). In this step, also a questionnaire for the semi-structured interview was developed containing questions relating to each of the characteristics of the original version of the framework, i.e. the framework as proposed in Prové et al. 2015. The interviews were carried out in July and August 2016. Each interview generated much discussion and lasted between one and two hours. The interviews were transcribed in English or French. Finally, after analysis of the four case studies and after feedback from reviewers, the framework was revised containing 13 characteristics as presented in section 5.3.

5.2.2 Introducing the cases

The main criteria for case selection were international variety and variety of UA forms to explore the comparative potential of the framework, and to study cases in the research contexts of the authors. We selected a rooftop farm “Roof Food” in Ghent (Belgium), a community farm in the association “La Recyclerie” in Paris (France), a multifunctional farm in the Mechtenberg landscape park in Essen (Germany), and an educational community garden located on the campus of the Complutense University of Madrid “Huerta Cantarranas” in Madrid (Spain).

Roof Food (°2014) is one of the first commercial rooftop farms in Belgium. It is located on the fringe of the city of Ghent and is housed by a sustainable business center “De Punt”. The preparatory work for the farm took two years and included the development of a business plan, and a roadmap for the construction and investment required. The farm employs one gardener and two cooks. The produce from the roof is processed for catering and business lunches. They also provide teambuilding activities. Besides the farming and food processing activities, the founders are active in platforms and networks that promote UA, healthy food and social entrepreneurship.

Overview European case studies on urban agriculture

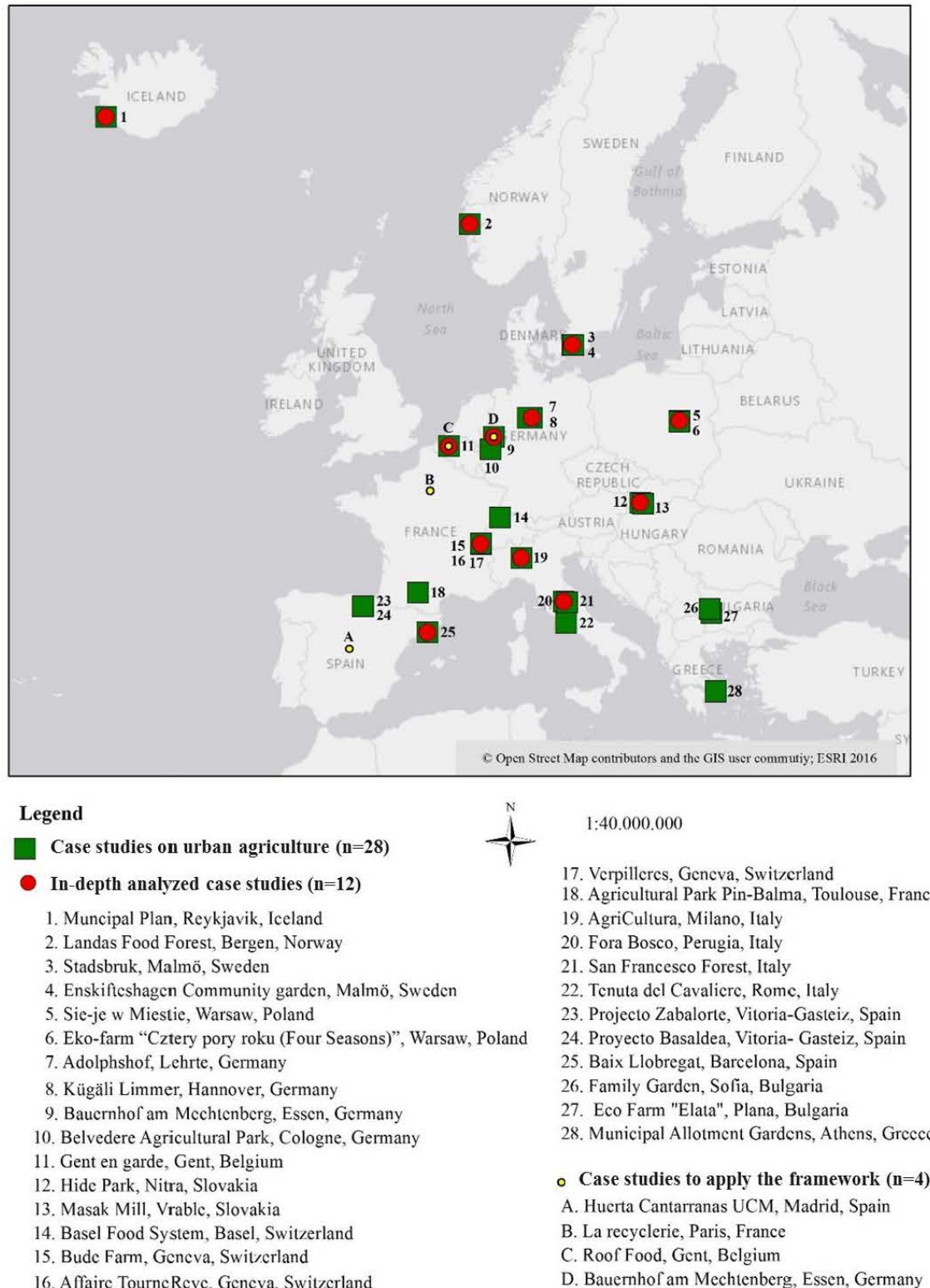


Figure 5.2 Overview of the selected urban agriculture practices for analysis (n=28 in a first analytical step, n= 12 in a second analytical step, n=4 in a third analytical step). The UAPs ranged from community gardens, to agriculture parks, municipal food strategies and multifunctional farms in peri-urban locations.

La Recyclerie (°2014) is a community project with a DIY-philosophy dedicated to leisure within a popular urban neighborhood. The city of Paris had launched a call for a project proposal for community development at a disused train station in the former Paris “green belt”. La Recyclerie is run by two entrepreneurs, and driven by the issues of biodiversity in the area and feeding our future population. The building on the land was sold to the project owners, but the land remains the property of the train company. The available productive space comprises a narrow but long stretch of land. La Recyclerie is both a private enterprise that manages the café and restaurant in the building, and an association that coordinates the garden, educational services, teambuilding activities and the recycling program. There is also a small demonstration site with an aquaponics installation. The association employs two people full-time and has a large pool of members and volunteers.

The farm at the Mechtenberg (°2007) is a conventional peri-urban farm run by a farming family. It mainly involves the production of field crops and eggs. The farmer is solely responsible for the agricultural production activities. During recent years, the peri-urban farm has extended its services for the public. Educational services, mainly for children, are organized by the farmer’s wife who is now a business partner, a café with a direct selling point is managed with support from employees, a petting zoo with goats and sheep has been established to attract recreational visitors, and gardening plots are rented to city dwellers in cooperation with another business. The farm is located within the landscape park Mechtenberg, which is a traditional farmland area, but has now also been repurposed for nature conservation and recreation within the larger Ruhr region. Located on the fringe of the administrative territory of Essen, the landscape park connects the three cities of Essen, Bochum and Gelsenkirchen.

Huerta Cantarranas UCM (°2010) is one of the largest community gardens in Madrid. It is located in the inner city on the campus of the University Complutense in the western part of Madrid. The garden has been set up as a creative space to cultivate for instance traditional plants and vegetables, but also to learn and experiment together. The garden was initially founded by professors from the university, but is organized in a non-hierarchical and participatory way by a dynamic group of about 20 people. Besides the goal to increase knowledge about food cultivation, the founders’ main focus is to stimulate initiative, inclusion and experimentation among the volunteers. The produce is used for auto-consumption and teaching. The members of the garden also offer free educational or social services on request.

5.3 Results

Figure 5.3 below presents the conceptual framework that organizes 13 characteristics on three levels of complexity: intra-governance characteristics, inter-governance characteristics and the urban context. They are defined as governance characteristics because they all affect the processes of interaction and decision making among the actors involved in an UAP which lead to a specific organization, dynamic and structuration of the practice (Hufty 2011). The intra-governance characteristics focus on key elements that concern the internal organization of the UAP. These are the aspects that can be influenced, managed or controlled, to a large extent, from within the UAP. The inter-governance characteristics point to the different processes of interaction between the UAP and its context. They can be understood as aspects that influence the operation of the UAP, but that lie outside its boundaries. There is still a level of control or influence, but less so than with the intra-governance characteristics. The wider urban context is included to refer to the multiple and more global processes that affect the UAP. These global processes set the conditions under which UAPs have to operate, because UAPs have little or no capacity to influence them. They adapt to these contextual conditions. The list of these processes is not exhaustive, but some illustrations are provided in Figure 5.3.

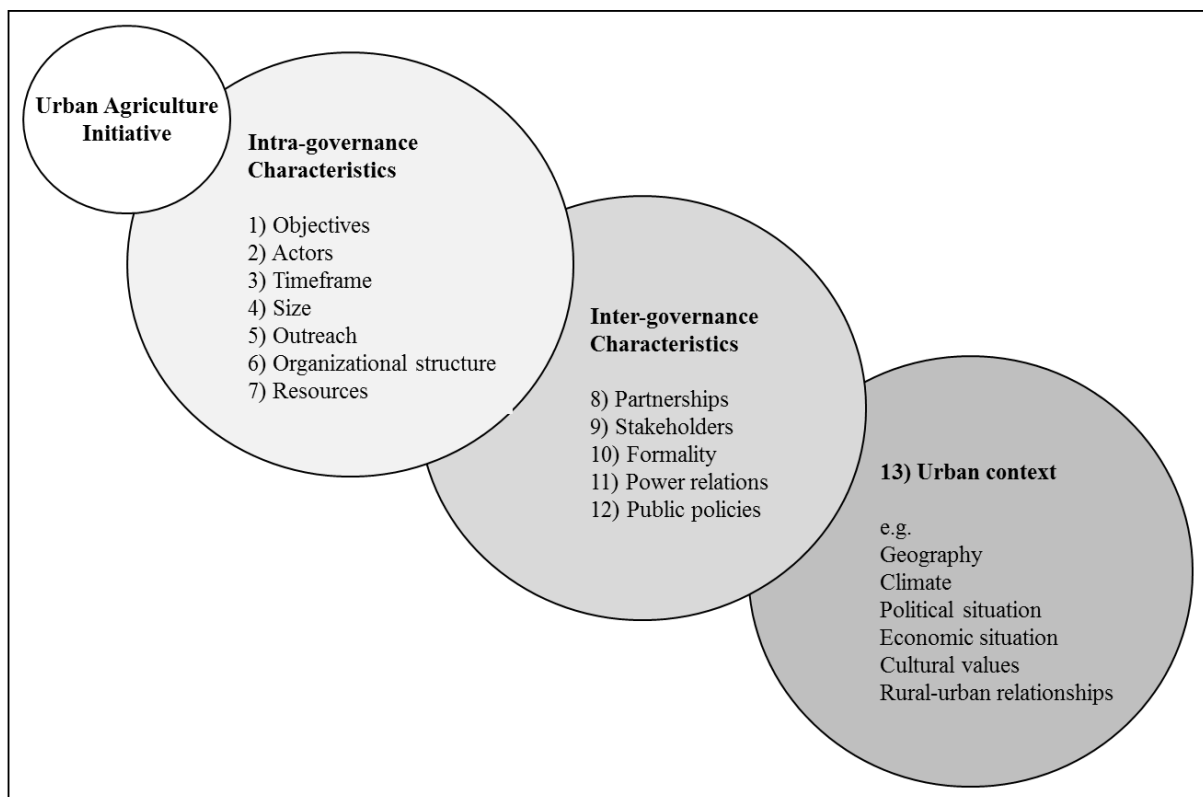


Figure 5.3 Conceptual framework for analyzing urban agriculture practices based on 13 governance characteristics.

5.3.1 Analysis of urban agriculture practices through the conceptual framework

The first major finding is that the questionnaire organized around the governance characteristics of the conceptual framework has resulted in a wealth of insights into the organization, operation, constraints and opportunities concerning the four UAPs. For instance, with regard to the characteristic of power relations, the following questions were formulated: Which type of organization is the UAP? Who takes the decisions in the UAP? How is the organizational structure experienced? Is there (a lack of) autonomy? These questions provided rich insights into the form and type of organization, but also shed light on the decision making processes of different UAPs. These questions also allowed to assess the extent to which founders and coordinators of UAPs are dependent on (external) partners or other stakeholders to manage the UAP. Around the characteristic of resources, several questions around funding were formulated, such as: How are financial resources provided for the UAP? Does the UAP need external funding? Does external funding come from private or public resources? Is structural financial support needed, or is funding mainly for initial phases of the start-up of the UAP? Such questions about funding allowed to identify and compare how financial resources are acquired and to what extent financial aspects pose a barrier. It also allows to assess the financial stability of the UAP. The results of our analysis are briefly described in Table 5.1. In the sections below, we elaborate on each of the 13 characteristics to illustrate the *modus operandi* of the four UAPs.

Intra-governance characteristics

The results have shown that the many different activities - such as food production, education and recreational services, composting, preservation of biodiversity - are tied into a combination of environmental, social or economic *objectives* which are the standard pillars of sustainability (Hansmann et al. 2012). The way in which the interviewees linked their objectives to the side effects of the current agri-food system, demonstrates a critical reflection on the food and agriculture system. This means that local authorities can consider the UAPs as strategies toward sustainable food systems. However, the interviewees indicated that it is difficult to be effective on the three types of objectives at the same time. Only the Mechtenberg farm succeeds in this by providing contractual nature conservation measures, conventional agricultural production and educational services. The other three are struggling to, or do not attempt to, combine social and economic objectives in one and the same practice. Interviewees claimed that these are incompatible. We argue that La Recyclerie succeeds in its social and

economic objectives only because the farm is part of the café/restaurant that is run by profit-oriented entrepreneurs.

The *actors* in the UAPs have a diverse background. The motivations for engaging in UA in the four cases is the result of being part of larger civil society networks that develop around topics such as ecology, healthy food, access to public spaces. Additionally, in most of the cases, the actors have no farming background and are rather involved as an entrepreneur or advocate for social or ecological causes. The founders of the four UAPs are also important pioneers and representatives of UA within their respective cities. Remarkably, the UAPs are - in different degrees - dependent on volunteers, except for the Mechtenberg farm where all the work is done by employees.

To set the *timeframe* of the UAP, land tenure appears as one of the dominant factors. In La Recyclerie, tenure contracts are uncertain and thus long-term projects or big investments are avoided. Yet, also dependence on volunteers or funding streams can hamper future planning. For instance, Huerta Cantarranas has flexible volunteering options and strongly supports collaborative coordination of the project. To be successful in this goal, the number of volunteers has to be constant. We see that Huerta Cantarranas as the most informal UAP, has been set up without a clearly identified timeframe, while the more formal ones (Roof Food and Mechtenberg) have scope for future planning.

The UAPs are very different in *size* and type of land or cultivated surface. This indicates that size or surface (roof or indoors) are not so important in realizing opportunities for UA. It is not surprising that the professional peri-urban farm covers a larger acreage than the inner city and/or more community oriented UAPs. The smaller and rather innovative locations of food production in the inner city were explained by the interviewees as the result of the cost, as well as the shortage, of inner city land, the arduous and complex regulations to practice agriculture, and the technical and logistical issues that emerge when operating in the center of the city. For instance, there is no ambition in Roof Food or La Recyclerie to upscale the farm, because additional professional machinery and other tools would be necessary. Those are very difficult to manage and use in a densely built environment.

In relation to *outreach*, the results show that all cases stress the public character of their UAP. All interviewees claimed to organize their project in a way that the public can connect with it. In all cases, this is done by developing a variety of activities in the UAP. It is thus not only about the produce from the project, but about creating a place that is to the benefit of everyone. Moreover, the interviewees expressed feelings of fulfillment when the project is voluntarily

visited. We also observed that small projects can reach relatively large audiences. In that sense, the scale of the project is not the only factor to increase outreach. Social media, Internet and news media often provide positive publicity for the UAPs, and this also results in reaching more people. In addition, project visibility generates a lot of interest from surrounding neighborhoods. In comparison to the other three cases, Roof Food has less capacity to involve passers-by, because it is less visible from the street and the roof is not easily accessible. Third, recreational and social activities are received with great enthusiasm and seem to respond to a growing societal demand for public green spaces.

The four UAPs differ in their organizational structure from the hierarchical and top-down way in which most farming businesses operate. Even at the Mechtenberg farm, the expansion of activities results in a farm that is managed in a more cooperative manner, because diversification on the farm requires feedback and input from more members who work at, or collaborate with, the farm. In most of the cases, there is central coordination and/or ownership, meaning that only a few people have initiated the UAP. Yet, in all of the cases, participation and collaboration between different actors is emphasized. The different actors recognize the importance of including external competences, different sources of knowledge and external resources. Even in the economically-oriented UAPs, the importance of shifting toward a more participatory and horizontal decision making structure is recognized.

Among the *resources* needed to develop UA, land, funding and knowledge are the most essential. Results indicate that technological innovations in UA and professional UA require more costly interventions than community-oriented UA. The specific configuration of the different resources also has major implications for the dynamic of the UAP. For instance, in the case of Huerta Cantarranas, they rely less on funding, but in return, other resources, such as human capital and permission to use land owned by the university, become critical factors. In terms of land or space, all of the cases explain that this factor is a contentious topic and that land is very difficult and expensive to obtain. A few cases expressed that they had “been lucky” to find space thanks to their network. The four cases demonstrate that start-up funding for UA is necessary. There are many funding streams available for UA. However, the interviewees mentioned that being informed about the funding opportunities and acquiring sufficient funding is a complicated task. The cases achieved funding through a series of income sources: subsidies, loans, foundations, crowd-funding, funding in kind, private funding. Remarkably, instead of a predominant focus on professional farming skills, it is the combination and equal valorization of different types of knowledge that is needed in UAPs, such as farming skills, scientific knowledge (e.g. to develop new growing techniques), lay knowledge (e.g. gardening, social networking), and entrepreneurial or other professional knowledge for instance to

develop recreational, education. This can be explained by the manifold expectations of UAPs established by urban and peri-urban actors, which makes operating in the (peri-)urban context for many reasons different from the rural context. We conclude from this that actors in an UAP are strongly served by a combination of different expertise. There are also other material resources that were found to be crucial in the success and efficiency of the UAP, such as water, electricity or composting systems. For instance, the composting system at La Recyclerie reduces costs and brings more urban dwellers to the farm who drop off compost. Roof Food has no composting bin, which leads to soil fertility as an investment cost.

Inter-governance characteristics

All four cases engage in a series of *partnerships*. Interviewees from Roof Food and La Recyclerie stated that there are many stakeholders or organizations that could be potential partners. This is explained, by the many functions UAPs play in an urban context, which raises the number of potential partners; but also by the list of resources that UAPs have to acquire outside their own organization. The list of partners is usually a combination of individuals coming from civil society, the market and the public sector. Some partnerships are set up out of necessity relating to land, funding, knowledge, or material resources. This is the case with Roof Food which is dependent on produce from other local farmers for its catering activities in some seasons. Other partnerships are voluntary and have been developed to increase the relevance or impact of the UAP. For instance, La Recyclerie engages with research centers on technical improvements at the farm, but it also gives tours to visitors of the farm. Notably, many partnerships are established informally. This is an indicator trust is an essential factor and that it is possible to run an UAP largely based on trust between partners and within networks. The role of the local government is different across the four cases. In the case of Roof Food and La Recyclerie, the municipality is a strong proponent of the project and is involved in different ways to support the project. In the other two cases, the local government neither actively supports nor constrains the UAP.

It is clear that broad groups of people have a stake in UA, or could potentially be *stakeholders*. This is again largely due to the intersectionality of UA and the plurality of functions UA performs for urban areas. A lot of UAPs are relevant to wider society through ecological and social services. In all cases, the interviewees claimed that the neighborhood in which the project is located benefits from its existence, or at least, is not negatively influenced. But often the stakeholders are located across the whole city and beyond. For instance, in La Recyclerie, Parisians are welcome to bring their composting material and in this way collaborate in their recycling program. In the Mechtenberg farm, anyone is welcome to enjoy the farm and its

surroundings for recreational purposes. Yet, the interviewees also expressed concerns about the exclusion of groups of people where participation or access is not free or not explicitly directed toward disadvantaged groups.

None of the cases have an illegal status in the way that guerrilla gardens are sometimes labeled. Moreover, the interviewees indicated that recognition and acknowledgement for UAPs are obtained without effort. The *formality* of UA can be established in a variety of ways. First, by complying with the regulatory and legal standards, an UA can gain legitimacy and thus further strengthen its role in the city. Second, through recognition and acknowledgement of the public. The interviewees indicated that they strongly engage with social media and other media sources, in order to give the UAP a more public character. The interviewees expressed that their UAP is positively received in the neighborhood, the wider city and the government, apart from a few rare critics.

The four UAPs differ greatly in the ways they are conditioned by existing *power relationships*. The Mechtenberg farm is generally constrained by market relationships in terms of price setting and access to land, while the others deal more with competitive relationships between other UAPs or community projects that compete for material resources, such as land or funding. However, Roof Food, Huerta Cantarranas and La Recyclerie all indicated that they are little affected by power relationships, due to their strong partnerships or independence from the market, partners or external resources.

Remarkably, the interviewees indicated that they were not fully aware of the existing *public policies* and support measures for UA, even though the municipal governments in two cases are active partners. They also mentioned that it was unclear whether there were any explicit governmental support measures for UA in their city, region or country. Yet, in all four cases governmental support is received in some way, either in material or symbolic form. For instance, the local government in Ghent often communicates about Roof Food, and policy makers in Paris organize meetings with La Recyclerie to strengthen cooperation. Some of the interviewees indicated that a more transparent and progressive set of measurements would be helpful in the further development of UA. For instance, according to the interviewees the administrative procedures to obtain permits or contracts are long and complicated. The support tends to be informal, voluntary and fragmented.

The UAPs are embedded within the broader context to which they have to adapt. We selected a series of contextual characteristics in our analysis and studied the impact of the climate, the political, geographical and economic situation, the cultural values and urban-rural dynamic on UAPs. Although the findings presented below need further scrutiny, they illustrate our argument that the contextual factors have to be taken into account to understand how UAPs operate and how they are mediated by external conditions. The comparison between the cases in the paragraph below show that these contextual characteristics are in some cases an asset, and in others a constraint.

Concerning *weather conditions*, Huerta Cantarranas manages in the dry, semi-arid climate thanks to the free and unlimited access to water provided by the university. Roof Food, by contrast, has to deal with a relatively short growing season by purchasing supplementary produce from other local farmers - with peaks in the winter - to organize their catering activities. In terms of *geographic location*, Roof Food benefits from its location on the fringe for logistical purposes, but projects such as La Recyclerie have a larger stake in a central location, where more people can be reached directly. The *political climate* in the four cities is not equally receptive to UA. Whereas Huerta Cantarranas has to rely on its own members to engage people, Roof Food and La Recyclerie can benefit from a local government (resp. Ghent and Paris) that has a comprehensive plan that includes UA to promote sustainability and engage the public. Also, the *economic situation* in which the UAP is embedded differs between the cases. La Recyclerie is located in a popular and economically disadvantaged community. Because unemployment is high and basic needs are often not met, the farm can help to fulfill these basic needs for disadvantaged people. Huerta Cantarranas, by contrast, is part of the university complex. The pool of predominantly highly educated people can contribute to more complex objectives than merely gardening: to have an experimental and collaborative organization, and to learn about forgotten and medicinal plants. In some cases, the *loss of farmland and disappearance of rural areas* act as a stimulant to arouse interest in farm and food topics. This growing interest is part of the reason for success in all four cases. At the same time, however, the relatively nearby physical presence of other UAPs is strengthening the business of Roof Food, for reasons of food supply, but also because it is part of a network that advocates for UA in the city. Finally, the dominant *cultural values* in the city also demonstrate different degrees of receptiveness to UA. According to the interviewees in all cases, there is general support for UA. Yet, Huerta Cantarranas only reaches specific groups who already show an interest in sustainable ways of living, because the broader population of Madrid is only starting to become interested in sustainability practices such as UA.

Mechtenberg farm, by contrast, succeeds in engaging all layers and groups of society, because the broader public already shows great interest in topics such as food, agriculture and access to green spaces.

Table 5.1 Conceptual framework for analyzing urban agriculture practices based on 13 governance characteristics

Governance characteristic	References	Description	Roof Food	La Recyclerie	Mechtenberg	Huerta Cantarranas
Intra-governance characteristics						
Objectives	McClintock 2010, Nugent 1999, Rödiger 2009	The main topics around which the activities of the UAP are organized	Ecological Economic	Ecological Social (Economic)	Ecological Economic Social	Ecological Social
Actors	Mougeot 2000, Mclvor and Hale 2015, Lovell 2010, Colasanti et al. 2013, Pölling et al. 2016	The actors who are directly involved in organizing, developing or supporting the UAP. They can be market, civil society or public actors. It is also important to understand their motivations, role and function within the UAP	3 founders 2 employees Volunteers Shareholders	2 founders of the café-restaurant 2 employees in the association Volunteers	Farmers family 8 employees	Group of 20-30 volunteers
Timeframe	Hardman and Larkham 2014	The capacity of an UAP to make long-term plans. Whether an UAP has a projected end date, due to for instance specific arrangements for land tenure, funding or human resources	Defined by tenure contract, in theory indeterminate	Constrained by land tenure; depending on funding from café/restaurant	Dependent on annual lease contracts for 92% of the fields; dependent on external funding	Undefined, but dependent on university and volunteers
Size	Pearson et al. 2010, Quon 1999, Mougeot 2000	The cultivated surface of an UAP	500 m ² vegetables 300 m ² for composting and raising chickens	1000 m ²	70.000 m ² agricultural land for wheat and maize plus farm house area	500 m ² garden for recreation, and planting vegetables
Outreach	Martin et al. 2014, Lovell 2010	The (number of) people, organizations and other actors who directly benefit from the UAP through the different activities (p/w = people per week; p/yr = people per year)	70 lunches/week 200 p/w with catering 10 p/w teambuilding	400 members of association	+/- 2500 p/yr for educational and social activities	+/- 200 p/yr for educational activities
Organizational structure	Tornaghi 2017, Lyson 2004, Saldivar-Tanaka and Krasny 2004	This includes: the decision making structure (horizontal vs. top-down), the organization of coordination, and the ownership structures	Horizontal structure Central ownership Central coordination	Horizontal (association) and vertical (restaurant) structure Central ownership Central coordination	Vertical structure Central ownership Central coordination	Horizontal structure Shared ownership (strong reliance on individual input) Central coordination
Resources	Smit and Nasr 1992, Specht et al. 2015, Fonte 2008, Tornaghi	The different resources the project disposes of or has access to. They can be categorized into (1) land/space, (2) public and private funding, (3) scientific, lay and farming/managerial	Roof and soil provided by partners; private and public funding; use of entrepreneurial and lay knowledge;	Land is rented, private funding only; use of professional, scientific and lay knowledge; experiments with	92% of farmland is rented; private and public funding; professional and entrepreneurial	Land, infrastructure, water and energy provided by university; independent from funding, but they

	2014, Cabannes 2012, De Wilt and Dobbelaar 2005	knowledge, (4) human resources, (5) material resources such as composting, water, and energy.	experiments with water; energy and composting	composting and aquaponics	knowledge; lack of material resources for educational activities	receive external funding; use of lay and scientific knowledge; experiments with recycling
Inter-governance characteristics						
Partnerships	Marraccini et al. 2013	The stakeholders or organizations that collaborate with the UAP and further stimulate the UAP, but act in their own interest. Partnerships can be formal or informal and represented by government officials, and private or public partners	Other farmers for supply Other UAPs Crowd funders External funders	University and research Other UAPs Municipality External funders	Private partners for resources Managers for garden plots Local grocery stores Public sector	Gardeners' network in Madrid University
Stakeholders	Hermans et al. 2011 Cohen and Reynolds 2014, Mansfield and Mendes 2013, Dubbeling and Merzthal 2006	The individuals, groups, organizations or institutions indirectly impacted by, or impacting on, the project (positively or negatively)	City (positive) Immediate neighborhood (positive) Business center "De Punt" Schools Research	Neighborhood (positive and negative) Inhabitants of Paris Specific groups for activities (children, disabled etc.) Tourists Schools	Neighborhood (positive and negative) Consumers	University (poorly engaged) Specific groups for activities (children, disabled etc.), People who pass by
Formality	Knapp et al. 2016, Press and Arnould 2011, Quon 1999	The extent to which the UAP is formally approved (by meeting legal and regulatory standards) and informally approved (through physical, verbal or symbolic support) by government, immediate surroundings and broader public	Well received in the neighborhood, city and municipality, but critics within the business center "De Punt"; the project is in alignment with most regulations and laws	Well received in the neighborhood, city and municipality, but some critics in neighborhood and other UAPs; the project is in alignment with most regulations and laws	The farm is well embedded within the city; works well with the public administration in relation to compulsory rules and regulations and is accepted by neighbors and clients	Part of an informal social- ecological movement in the city; well embedded in the university, but weak participation among university students and professors
Power relations	Tornaghi 2017, McClintock 2014	The relationships between other actors, institutions or organization that define the opportunities, constraints and scope of action of the UAP	Project has significant autonomy because it is the first of its kind in the area, and all the activities are managed by the project owner	Some tensions with the neighborhood; risk that private funders can influence the scope	The farmer's family has considerable autonomy in managing the project, but is constrained by external power relationships to expand the farm	No constraints from power relationships; high level of independence because few external partners

Public policies	Curry et al. 2014, Pearson et al. 2010, Dernbach and Mintz 2011, Angotti 2015, Clausen 2015, Cretella and Buenger 2015	Existing public support that conditions the opportunities and constraints for the development of the UAP. The relevant policies can be found in the domains of agriculture, urban planning, green space, economic affairs, food and health, education, culture, and social welfare. We take into account both written and unwritten regulations	Pro-active and supportive municipal government No direct involvement from higher policy levels Strong hygiene rules UAP unaware of existing public support	Supportive city Long administrative procedures Restrictive hygiene rules	Not very supportive local government Many regulations More concrete measures on UA should be taken	Government focused on support for UA; it is initiating stakeholder meetings Project has few regulations to fulfill
External governance characteristics						
Climate	Smit and Nasr 1992	The impact of the climate on the project	Short season, supply from local farmers	Lack of sun and sandy soil are constraints	Always a factor to take into account	Good soil and access to water are opportunities
Geographic location	Quon 1999 Mougeot 2000	The impact of the location of the UAP (inner city/peri-urban/surrounding rural area) on the project	Fringe, positive for distribution	Inner city, positive for project	Peri-urban, close connection to three cities, positive for project	Positive impact because located within university and close to city center
Political situation	Prové et al. 2016	The impact of the political climate at different policy levels on the project	Green-socialist parties in power are very receptive to sustainability and UA	Supportive for UA in general in Paris, but support can be very different among neighborhoods	Poor understanding of the role of agriculture in the area; agricultural policies and regulations push farm toward diversification	Government responds positively to the demands in society for UA
Economic situation	Prové et al. 2016	The impact of the economic situation of the city and its region on the project	Mainly for middleclass consumers	The economic crisis encourages interest among the public in the UAP	Low income area less interested in UAP Low revenues in agriculture sector push toward diversification	The economic crisis encourages interest among the public in the UAP
Urban-rural context	Mougeot 2000, Prové et al. 2016	The impact of the dynamics between the urban and the rural areas on the project	Presence of farmers who produce for local market strengthen the project	Growing interest in agriculture due to urbanization and disappearing surrounding rural areas	Farmland acreage threatened by industry and urbanization processes Many visitors	Growing interest in agriculture due to urbanization and disappearing surrounding rural areas
Cultural values	Prové et al. 2016	The impact of the cultural values and trends on the project	Supportive for UA because of enthusiasm for food, health, ecology	Variable: interest and level of involvement depends on background of the people	Growing interest of the public in engaging in farm activities	Specific groups show interest in UA

5.3.2 Comparison of urban agriculture practices across the governance characteristics of the framework

The framework is not only useful for an in-depth study and comparison of UAPs. It also allows for the identification of important commonalities as well as differences across all governance characteristics. In this section, we highlight three topics of uncertainty, adaptability and pioneering which emerged as core in the dynamic of the four cases, regardless of their many differences in governance characteristics as shown above.

Uncertainty

A first key dynamic in the governance of all four UAPs is the high level of uncertainty. By this, we mean the different uncertainties that stem from operating in an urbanized context. UAPs have to take many factors into account in their strategic planning that they cannot, or can only poorly, control. A few illustrations are the UAPs that rely on volunteers, often need a series of external resources, have many informally arranged partnerships and uncertain tenure contracts, or are threatened by processes of urbanization. This not only affects the timeframe of an UAP, but also the motivation or type of activities that are developed.

We also found an imbalance between how UAPs are received versus the uncertainty that affects them in practice. The cases illustrate that they are generally positively supported by their partners and stakeholders, as well as the neighborhood, city and beyond. Media attention further supports the positive attitude. This, however, results in rather uncritical and generic support for UA, while most of the cases need very specific support that cannot be resolved by merely supporting UA in general terms. For instance, in the Mechtenberg farm, improved facilities in schools are needed, in order to develop the educational services. Roof Food mentioned the need for a tool-sharing service organized by the municipality in order to run the farm more efficiently. Both cases receive broad support, but the specificity of their needs and the fact that there is no platform to advocate for these needs, keeps them in uncertainty in many respects.

Adaptability

The second dynamic is the ability to adapt to a rapidly changing context. Because an UAP is dependent on many different elements and resources, minor changes easily result in the reorganization of the UAP. These elements represent, first of all, the many contextual characteristics that have an impact on the UAP. Second, new regulations or changes in the

public support require flexibility from the actors to adapt to changing conditions, which can represent both opportunities or constraints. Third, the dependence on volunteers, uncertain land tenure or external funding are roadblocks for long-term planning and thus constitute other elements that demand UA be able to adapt to changing conditions. As a result, it has been noted that the UAPs have objectives that are not very fixed and that change according to the situation or specific opportunities.

Another example of the adaptability of UAPs is the way in which they organize the practice around the available space or land surface. Land prices are very high and land or space for UA is difficult to obtain. In all four of the cases, the available space is rather contingent, and dependent on many specific factors. For instance, permission by the university to allow the educative and experimental project Huerta Cantarranas, or the fact that Roof Food matches the strategic objectives of the business center “De Punt” are both examples of space that is provided only because objectives between different UAPs and their hosts are aligned. However, regardless of the constraints to find and maintain land, all the cases seem to have organized the required resources in such a way that they are very well adapted to the scale of their UAP. Apart from the farm in Mechtenberg, which had previously lost farmland to the land owners, none of the UAPs indicated a desire to scale up or down, because that would mean that too many organizational characteristics of the UAP have to be reconsidered.

Pioneering

As explained earlier, the cases demonstrate the aim to contribute positively to the urban ecosystem and stress the public, collaborative nature of the UAP. What emerged strongly in the analysis, is that all four cases are led by determined and creative personalities. They can be labeled as pioneers because next to mastering food growing techniques, UA project leaders also have to take on the role of for instance an entrepreneur or social networker. Moreover, different kinds of knowledge are needed to run an UAP efficiently. In Roof Food, for example, expertise is required about business management, agricultural or gardening skills, educational services skills, gastronomy and food processing skills. In La Recyclerie, scientific knowledge to tackle some invasive species is needed. To address this problem, partnerships are built with other UAPs and the university. In the case of lacking expertise in a specific field, the ability to build partnerships and social networks becomes very important.

Indeed, the pioneers in the four UAPs recognize the importance of collaboration for a broad set of reasons: UAPs generally have to acquire a series of resources (land, materials, volunteers etc.) and partners from a variety of backgrounds and organizations. Non-

materialistic factors, such as knowledge, motivation, enthusiasm and acknowledgement, are also important to bring an UAP to fruition. However, we observed different degrees to which the actors were engaged in broader networks of collaboration. The professional UAPs are somewhat more independent from partners and external resources, but in practice all the cases stressed the importance of tackling issues or grasping opportunities in a collaborative way.

The success of an UAP therefore seems to be depending on the pioneering within the UA and the willingness to engage in labor intensive or time consuming activities next to food production. It appears to be crucial to develop the necessary partnerships and to acquire the necessary support or resources. For instance, the founder of Rood Food had the main goal to prove that UA can be a profitable business. After a search, she found the location in a sustainable business center De Punt, where both partners can mutually benefit from each other for marketing purposes. Roof Food was supported by broad public and governmental interest which helped the further development and growth of Roof Food. Also in the other three cases, the establishment of the UAP seems to have been possible only because of a specific combination of opportunities that the pioneers in the UAP were able to grasp.

5.4 Discussion

5.4.1 The conceptual framework as a tool to systematize urban agriculture practices

How can we analytically deal with the diversity and complexity that characterize UA? This chapter has elaborated a conceptual framework through three analytical rounds that included 31 cases in total across Europe. In the data, we sought common characteristics that appear to impact on the dynamic or operation of an UA across the different UAPs that were included in the analysis. This conceptual framework then provides a more comprehensive overview of all the characteristics that are important to understand UAPs. Although, each of the governance characteristics is only briefly touched upon and deserves more in-depth analysis, the novel aspect is that they are all brought together in one coherent framework. Interestingly, the framework does not only provide an in-depth understanding of individual UAPs, but it also allows comparison of different UAPs and the identification of commonalities and differences across all governance characteristics. By systematizing the elements that are most important in the operation of an UA, we can engage in more sensitive and detailed discussions on UA that respond to the issues raised above.

First, the research organized around the framework, complemented by field visits and/or participant observation resulted in a large dataset that provided insights into how the UAPs operate, and more specifically how the different governance characteristics constitute the dynamics, processes and structures of individual UAPs. The framework also allows to explore how the different governance characteristics are interdependent. In this way, we can obtain a more advanced answer to the question of how UAPs operate. For instance, we have observed that the objectives of an UAP are rather fluid and chosen as a result of, for example, available resources, specific tenure contracts or the involved stakeholders. Additionally, case-study research based on the conceptual framework is possible for a very diverse set of UAPs. The questionnaires have generated equally insightful data in the four cases, regardless of whether the UAP is a profit-driven professional peri-urban farm or a community-oriented ecological project. The framework helps to delineate the role of civil society (and other stakeholders) in UA more precisely, because a range of mediating factors are now taken into account.

Second, by applying the cases to the conceptual framework, we can compare similar (e.g. different community gardens) as well as different UAPs (e.g. a community garden and farm in a landscape park). We found that there are important similarities between seemingly different UAPs and there are important differences between seemingly similar UAPs. For instance, Huerta Cantarranas and La Recyclerie can both be categorized as community-oriented UAPs. Yet, the cases are very different in the way they stress collaboration and input from the different members. In La Recyclerie food production is the main goal, and community involvement is desired but not critical for the realization of the food production. By contrast, the interviewee from Huerta Cantarranas explains that the project is perhaps more an experiment on collaborative decision making and shared ownership. Yet through the practice of food growing. In the other case, our analysis has shown that between seemingly different UAPs, such as Mechtenberg farm and Huerta Cantarranas, important similarities exist in relation to governance characteristics. Both cases experience relatively few negative impacts from power relationships. Both operate fairly independently and therefore have a broad scope for defining the strategies and organization of their UAP. This paragraph demonstrates that a comparison between different UAPs is all the more valuable, because it highlights aspects that do not catch our eye when using overly simple categorizations or definitions of UA.

Third, the comparison of the cases across all governance characteristics allows the identification of topics that are central in the dynamic of UAPs. This is an indication that within a specific set of UAPs (in a city, neighborhood, or UAPs in a network), there are similar issues that can be identified and then advocated by different kinds of UAPs which supports: (1) the engagement in networks or collaborations, and (2) the usefulness of the term UA as a unifying

term. Indeed, through the framework we can also explore what sets UAPs apart from for instance rural agriculture or private gardening (e.g. uncertainty, adaptability, pioneering). However, it is important to note that results from the comparison are case-specific and should by no means be generalized.

5.4.2 The conceptual framework as a governance and networking tool

Besides the relevance of the framework in academic work, we contend that the framework also serves practitioners and local governments for a number of purposes. For practitioners, we believe that the framework can be a useful tool to stimulate reflection on their own UAP. Feedback from the interviewees on the discussion generated in the interviews was generally positive. They indicated that it was an interesting exercise to reflect on the strengths and weaknesses in their own practice. As collaboration between different UAPs, and between UAPs and other stakeholders become increasingly relevant for the support of UA, it is strategic to identify shared issues, barriers or opportunities for synergistic relationships. For instance, international networks of UA could discuss the role and the different constraints that pioneers or entrepreneurs face in terms of knowledge or expertise; they could question how different uncertainties can be reduced, or how the adaptability of UAPs can be enhanced.

The framework can also become a tool for government officials. Since their task is to make decisions in the interests of the public, they benefit from a better understanding of the diversity in UA - one that also takes the different needs, constraints and opportunities of UAPs into account. For instance, governments that support urban food production, could focus on reducing the uncertainties that many UAPs face, support pioneers in UA by stimulating collaboration or developing the different expertise needed, or they could recognize that partnerships are important both in community-oriented projects and in profit-oriented UA.

For practitioners, as well as government officials, however, the question remains as to how the framework should be used in practice. These stakeholders are generally constrained by time and resources to invest in empirical and analytical work. Therefore, further research should explore how and in what formats the conceptual framework can become a user-friendly tool for both groups, and in which governance contexts or processes the use of the framework is an asset.

5.5 Conclusion

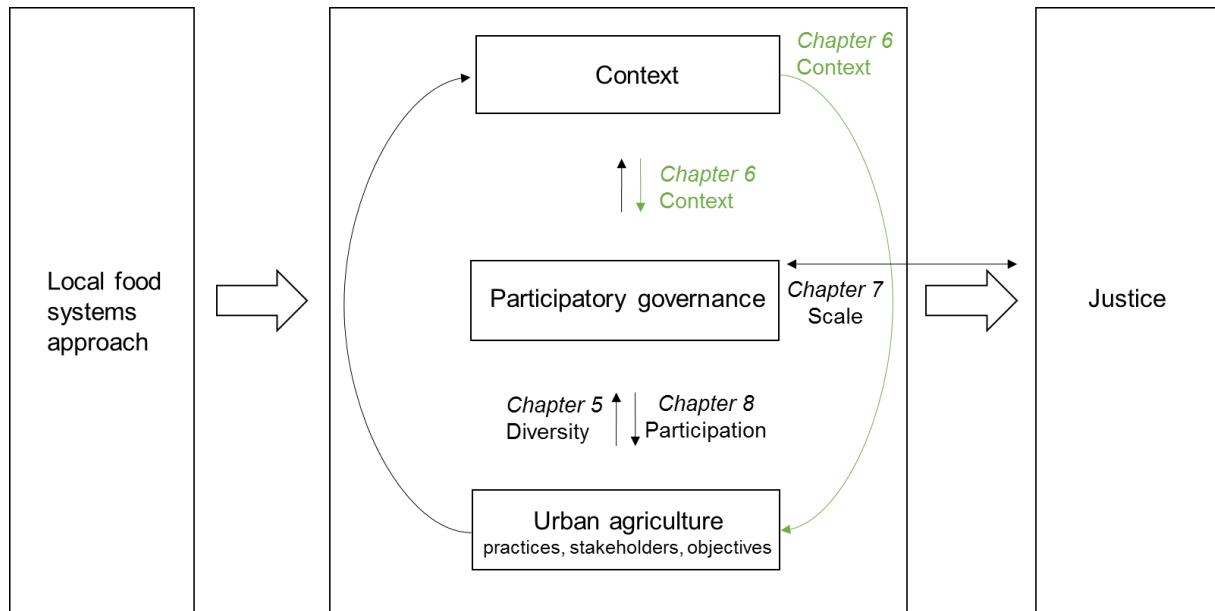
The chapter started from the observation that top-down support for UA is increasingly provided through governance and collaboration networks. Yet, attention to the fact that many different practices and activities are assembled under the term UA when providing that support, is sometimes lacking. It is contradictory that a lot is expected from civil society in relation to UA and sustainable development (McClintock 2010), but at the same time, there is a lack of insight into how different UAPs operate and thus how precisely they need to be supported in order to grow in relevance as a strategy in sustainable cities.

The analysis has identified a series of key characteristics that co-constitute the dynamic of UAPs. By identifying and organizing these in a conceptual framework, we developed a tool that can assist researchers, practitioners and government officials in dismantling simplified understandings of UA. To return to the twofold research objective, it can be concluded that the framework allows a detailed and comprehensive understanding of the *modus operandi* of different UAPs on an individual as well as an aggregate level. It provides important insights into the dynamics, structures and development processes of UAPs, and allows to identify similarities and differences between UAPs. Additionally, we have shown that a comparison of UAPs based on the framework generates insights that are strategic for advocating support for civil society in UA, but also for setting accurate expectations of the role of civil society in UA within policy and collaboration networks. Engaging with the framework also responds to Mougeot's (2000) call to find ways to define UA's position more precisely in relation to its opposites. By analyzing different practices that fall under the label of UA, we can more precisely assess how UA is different to rural agriculture or private gardening.

Further research on the conceptual framework is necessary for several reasons. First, more case studies (across different contexts, but also within the same context) are needed to assess the applicability and comprehensiveness of the framework. Second, this research has found that the use of the conceptual framework results in large and rich datasets. Only when structured and consistent analysis is conducted, is it possible to select and report on the most compelling findings. Further research is needed to explore whether other case studies can succeed in reporting on the findings in a structured and consistent manner. Third, it should be explored if findings resulting from a comparison across cases (e.g. uncertainty, adaptability, pioneering) can become generalized and understood as more universal characteristics of UA governance. Fourth, as the conceptual framework - which was developed through an inductive approach - has become rather generic, it would also be worthwhile to test the framework in other fields related to urban sustainability (e.g. community-led energy projects). This approach may lead

to making linkages between other urban sustainability practices and thus result in broader coalition building in urban sustainability. Ultimately and most importantly, it should be explored how the use of the framework can engage with more critical analyses on the potential of UA in sustainability (Born and Purcell 2006, Dupuis and Goodman 2005, Hinrichs 2003, McClintock 2014). That is, the analysis should not lead to uncritical support of UA, but simultaneously assess UA governance in relation to issues of gentrification, exclusion or other potentially adverse outcomes. In that sense, it should be further explored how the characteristics of actors, stakeholders, and objectives in the framework can make issues of inclusion and exclusion more explicit. For instance, an UAP can be successful in its project objectives, but it may in various ways simultaneously adversely affect the wider neighborhood or city because it is exclusive for other stakeholder groups.

Taking context into account in urban agriculture governance



This chapter analyzes the concept of context and studies how context plays a role in UA governance and UA development. It starts from the observation that discussions on UA are often generically positive and uncritical. Enthusiasm for UA spreads at a fast pace across cities, networks and countries. Yet, UA seems to play a different role in different cities. It is argued that uncritical enthusiasm results in an overly instrumental approach to governance of UA with a main focus on stimulating formal (e.g. policy making) and informal advocacy (e.g. civic engagement in UA). We do not deny the importance of formal and informal advocacy in UA development, but rather claim that the potential of UA needs a more nuanced analysis. The chapter uses case studies of UA in Ghent (Belgium) and Warsaw (Poland). It explores the interplay between UA advocacy and these cities contextual characteristics and demonstrates that such analysis provides significant and more profound explanations for the divergence observed in UA developments. It is discussed how the inclusion of city-specific needs, opportunities and pitfalls of UA in the governance strategy can help to move UA toward its full potential.

Based on Prové C., Dessein J., de Krom M., 2016. Taking context into account in urban agriculture governance: Case studies of Warsaw (Poland) and Ghent (Belgium). *Land Use Policy*, 56, 16-26.

Taking context into account in urban agriculture governance

6.1 Introduction

In recent years, the concept of UA has caught the attention of city authorities, citizens, academics and the media across the globe (Dimitri et al. 2015, Mansfield and Mendes 2013, Morgan 2015). Although food production practices in and around urban areas are not new (e.g. wartime gardens), the recent interest in UA reflects a reinvention of the concept in which new purposes are assigned to UA (Wortman and Lovell 2014). The attractiveness of UA lies in its potential response to a range of urban issues that are often linked to the overarching goal of sustainable cities (FAO 2008, Lovell 2010, Mendes et al. 2008, Mougeot 2006, p.10). As a consequence of its popularity, a narrative on UA has emerged in popular discourse that is both uncritically positive as well as decontextualized (Lawson 2005, Classens, 2015, Mares and Alkon, 2011). This narrative has been eagerly adopted by the media and online platforms, with headlines such as “*Farming and the city: How local-grown agriculture can feed the world’s urban areas*”⁴² (website of Milan World Expo 2015), “*There will be billions more hungry people in 2050. Growing our food on vertical farms or under radical new lighting systems may be key to ensuring they have enough to eat*”⁴³ (BBC) or “*Urban Farming Is Growing a Green Future*”⁴⁴ (National Geographic).

The assumption that UA is a valuable goal in itself often results in an instrumental approach to governance. UA advocates tend to consider the actual development of UA policies and projects to be of greater importance than the precise form, objectives and impacts of such practices (Cohen and Reynolds 2014, DeLind 2015, McClintock 2014, Smit n.d.). Policy responses at various levels generally situate UA in the field of food and agriculture, with a strong focus on preservation of farmland and the supply of local food (Cohen 2012). The European Commission launched a campaign entitled “*Europe’s Common Agricultural Policy: Taking care of our roots*” to promote the link between urban dwellers and agriculture (European Commission 2014).

⁴²<http://www.expo2015.org/magazine/en/sustainability/farming-and-the-city-how-local-grown-agriculture-can-feed-the-world-s-urban-areas.html>

⁴³<http://www.bbc.com/future/story/20130603-city-farms-to-feed-a-hungry-world>

⁴⁴http://environment.nationalgeographic.com/environment/photos/urban-farming/#/earth-day-urban-farming-new-york-rooftop51631_600x450.jpg

Under the societal challenges priority in the Horizon 2020 program (2014-2020) “Food security, sustainable agriculture, marine, maritime and inland water research, and the bio-economy”, UA has become a Food, Agriculture and Biotechnologies (FAB) priority (Arnold 2013). Furthermore, all measures within the Common Agriculture Policy (CAP 2014-2020) will be applicable to farmers located within urban and peri-urban areas who fulfill the eligibility criteria (European Parliamentary Research Service 2014). At the international level, the Food and Agriculture Organization (FAO) assists national and city governments in optimizing policies and support for UA (FAO 2015).

But the benefits of UA are not limited to food production alone: it also provides green, open spaces, mediates the urban heat island effect, helps to manage storm water, enhances food literacy, improves health through stimulating physical activity and consumption of fruits and vegetables, integrates traditionally excluded social and cultural groups, builds community, reconnects agricultural sectors with urban populations, and facilitates participation and democracy in the food system (e.g. Draper and Freedman 2010, Feenstra et al. 1999, Hodgson et al. 2011, Howe et al. 2005, Lovell 2010, Nugent 2000, Smit and Bailkey 2006, Van Veenhuizen 2006). The above examples clearly show how an uncritical popular discourse on UA and a policy focus on food production endangers the diversity, multifunctionality and richness that characterizes the UA movement. The first step to taking this diversity into account is generating an in-depth understanding of the policy implications. Current research easily adopts the generic, positive narrative and the instrumental approach to governance (Classens 2015, Lawson 2005). In general, these studies (implicitly) start from the assumption that UAPs are inherently benevolent. They ask how bottom-up and top-down processes can stimulate the development of UAPs by examining how civic engagement (e.g. DeLind 2002, Kaufman and Bailkey 2000, Levkoe 2006) and urban planning and policy making foster growth in UAPs (e.g. Cohen 2012, Certomà and Notteboom 2017, Halloran and Magid 2013, Hardman and Larkhman 2014b, Lovell 2010, Pearson et al. 2010, Pothukuchi and Kaufman 1999, La Rosa et al. 2014). In accordance with this assumption, insight into UA governance, defined in terms of arrangements that effectively stimulate, facilitate and coordinate UA advocacy, becomes key to understanding how UA developments can be successfully advanced (Dubbeling et al. 2010, Huang and Drescher 2015, Pearson et al. 2010).

Without underestimating the merits of these academic approaches or seeking to contradict them, in this chapter and in agreement with notable exceptions (Certomà 2015, McClintock 2014, Tornaghi 2014), we seek to critically discuss the assumption that UA developments are inherently desirable and are mainly shaped by UA stakeholders’ advocacy. In particular, we address the current lack of academic consideration of the city-specific material and socio-

political contexts in which UA advocacy and developments are situated. We argue that when these city-specific contexts are taken into account, differences in UA developments in different cities can be better understood, and arguably, a different approach to UA governance - including broader policy making - is needed.

We empirically substantiate our argument by discussing UA dynamics in the cities of Warsaw (Poland) and Ghent (Belgium). Remarkably, similar types of stakeholders advocate UA in these cities, but UA developments take on different shapes and content in the two cities, largely due to different contextual dynamics. These findings indicate that the meaning of UA governance is not universal or generic - as the understanding of UA as inherently benevolent suggests - but is rather dependent on city-specific circumstances. Below, we continue by explaining our conceptual and methodological framework. We then empirically explore UA developments in Warsaw and Ghent by making an inventory of UAPs in these cities, and by discussing how UA advocates and context-specific characteristics interactively constitute these practices. We conclude by reflecting on the implications of our findings in understanding the potential and the pitfalls of UA developments in different cities, and what UA governance entails by discussing socio-politically and spatially embedded public policies for UA that go beyond narrowing UA to food production.

6.2 The role of local particularism in the governance of UA

The complexity of the UA advocacy movement, involving different (state, market, civil society) actors operating at different governance levels and advancing different (sustainability) goals, makes novel demands on urban policy making and planning processes. In light of this complexity and uncertainty, scholars have pointed out the need to identify governance arrangements and tools that can orchestrate the new creative multi-actor, multi-level, multi-purpose and multi-sector trajectories (Healey 2004). As Hajer and Wagenaar (2003, p.3) explain, governments often face “*open-ended, unusual, ad hoc arrangements*” when seeking to further sustainability as a goal (e.g. Brodhag 1999, Block et al. 2013). In many cases, city governments focus on single projects or experiments, when implementing UA policies, and support for UA is given shape through trial and error, instigating lengthy learning processes on how to support and implement UAPs. Strategic decisions on UA are mostly taken within a governance setting in which a convergence of circumstances determines the policy making process (Kingdon 1984), and decisions are only reached incrementally (Block et al. 2012, Mintzberg et al. 1998, Teisman 2000). Explicit or clear-cut governance frameworks for UA have

mostly remained absent, incoherent or unclear in academic literature (Lovell 2010)⁴⁵. In many cases, policy making marginalizes UA as food production without the consideration of other relevant policy domains that embrace different aspects of UA.

We agree that an academic focus on UA governance is needed in areas such as urban planning and policy making, participatory processes, civic engagement, and the institutionalization of UA decision making processes (Pearson et al. 2010, Rosol 2010). However, we assert that governance involves more than accounting for the diversity of needs, objectives and strategies of UA stakeholders (Pierre 2000, p.3-4), or identifying and adopting best practices and successful governance tools (Mendes et al. 2008). In accordance with the approach of Pollitt (2013), this chapter makes a novel contribution to the governance of UA by considering context as a co-constitutive factor. The wealth of case studies on UA in a single country, city, neighborhood or site clearly indicates that variations in a given context sculpt the shape and content of UA developments. Nevertheless, academic literature on the governance of UA often either bypasses or merely describes the context in which UA developments unfold (Cohen 2012, Garnett 2000, Padgham et al. 2015) rather than considering it to be a constituting factor (for notable exceptions, see McClintock 2015, Lovell 2010).

We suggest that the interconnectedness of stakeholders and city-specific contexts creates complex dynamics that cannot be adequately explained by focusing on one or the other: they have to be considered simultaneously. Such an exploration requires insights into both stakeholder support for UA developments and the broader social, political and material context in which UA is being advocated. This approach enables us to make sense of the vital relationship between the particularism and micro-politics at the city level and the homogenizing effect of globalization that informs the universalized, generically positive narrative on UA. In doing so, we suggest that the prospects for governance of UA cannot be assessed without taking the specificity of city contexts into account (Andrews 2010). A governance structure that works in one context might not work in another.

By making conceptual space to explore the role of context in UA developments, we also aim to address a growing academic critique on the understanding of localized food production as sustainable or “good” in itself (Born and Purcell 2006, Dupuis and Goodman 2005, Guthman 2004, Hinrichs 2003, Reynolds 2014, Winter 2003). We argue that by uncritically adopting a

⁴⁵ Although the conceptual framework in chapter 5 is proposed as a useful tool in UA governance processes, it remains to be further explored how and for which questions/issues it can be used. Furthermore, it is also assumed that, since the concept of governance entails so many aspects, the type of governance framework will to a great extent depend on the formulated research questions.

generically positive UA narrative, actors may unwittingly help to perpetuate inequalities within city-level social and political structures. In accordance with Pierre and Peters (2000), we argue that a proper consideration of context brings more critical insights into UA governance, as it highlights how local inequalities, exclusionary mechanisms and injustices are overcome or (re)produced (González and Healey 2005).

Before identifying contextual factors that affect UA developments, the notion of context needs to be operationalized (Meyer and Minkoff 2004). To do so, we have made the following conceptual choices. First, while we acknowledge that different governance levels (e.g. international, national, community, and project-levels) affect UA developments, we have chosen to focus on governance dynamics that play out on the urban scale. In doing so, we aim to include specificities of urban contexts, which can be easily overlooked when uncritically adopting the positive narrative that is especially strong at the international and national levels. At the same time, we aim to steer clear of adding to the empirically strong, but often under-theorized discussions about single UA projects or experiments that aim to identify “best practice” on how to support and implement UAPs.

Second, we face the challenge of identifying a series of stable contextual characteristics within the urban context that can be held as a constant for comparison purposes (Meyer and Minkoff 2004), allowing us to identify “differences that make a difference” (Bakker and Bridge 2006, Rucht 1996). In the case of UA, creating space for urban food growing is a key aspect of governance processes (Roth et al. 2015, Taylor and Lovell 2012) and the opportunities for creating such space depend to an important degree on the existing spatial layout of a city. These material or geographical characteristics, which are the result of specific socio-historical patterns of spatial development, are likely to differ strongly between cities. We categorize these characteristics under “urban layout”. Furthermore, we agree with McClintock (2015) that the interpretations of and attitudes toward the material city context, as well as the notion of growing food in the city, are themselves also grounded in a socio-historical and geographical context. These interpretations and attitudes are likely to result in different public stances regarding use of urban space for UA, which we categorize under the heading of “perceptions and attitudes toward use of urban space”. These interpretations and attitudes are also likely to inform and, in turn, be affected by the existing broader political frameworks in which UA policies and strategies are embedded. We label these “political climate” (cf. Strategic Urban Planning (SUP)). In sum, we discern three analytically distinct categories of city-specific contextual factors: urban layout, political climate, and perceptions and attitudes toward use of urban space.

Finally, for the definition of UA and UA stakeholders we refer to chapter 2.3 and chapter 4.5.2, respectively. In adopting broad definitions of UA and UA stakeholders, we include a broad range of possible meanings and perspectives on what UA may entail, and thus avoid an a priori restrictive focus on how city contexts affect the shape of UA advocacy and developments.

6.3 Research method

6.3.1 *Case study research*

The case study method is adopted because it best fits our aim of exploring contextual conditions relevant to the complex and relatively novel phenomenon under study, namely UA (Baxter and Jack 2008, Horton et al. 2004, Yin 2003). Case studies produce empirical evidence in context-dependent knowledge and provide reliable information for the broader topic of UA governance (Flyvbjerg 2006). However, they pose several limitations: (1) the data is difficult to structure and exhaust, (2) the findings cannot be generalized, and (3) such studies depend on the knowledge of the interviewees, but we have countered this by using various data sources that allow triangulation (Yin 1993). To facilitate in-depth understanding into governance of UA, we used case study material from two European cities: Warsaw (Poland) and Ghent (Belgium). We selected these cities because of their distinct socio-historical backgrounds, which are respectively based in communist and social democratic pasts. In view of these different pasts, we anticipated that these cities would likely differ in terms of urban layout, political climate, and public perceptions and attitudes toward use of urban space. These differences are essential to meet our aim, namely to gain insight into how these contextual factors affect UA advocacy and developments. An additional motivation for selecting these two cities was the early stage of UA development in both places. This enabled us to identify and locate key stakeholders, practices and events at the foundation of an UA movement, and thus generate a good overview of the UA governance process in both cities.

To explore, describe and explain UA developments in Warsaw and Ghent, we mainly used semi-structured interviews and participant observation (Yin 2003). Both cases were studied using the same empirical methods, namely similar criteria for stakeholder selection, comparable topic lists and similar field observation methods. Selection of interviewees in both cities began with participant observation and a web search to identify key UA stakeholders, followed by a snowball procedure. We questioned each interviewee about their perspectives on, and involvement in, UA developments in their cities, their perspectives on the constitution of the network of UA stakeholders in their cities, their understanding of contextual factors that enable

and constrain UA developments in their cities, and their views on the future of UA developments in their city.

We collected our data during three periods: two in Ghent (spring 2013: 20 interviews, and spring 2014: 12 interviews) and one in Warsaw (spring 2014: 20 interviews). All interviews were recorded and fully transcribed. During the same periods, we also made field notes during informal meetings and field visits, and collected relevant documents (including policy documents, newspaper articles and website texts) to complement our interview data and to enable data triangulation (Yin 1993). In Ghent, we also collected data during focus group meetings for a project launched in 2014 by the department of urban planning called “Vision for agriculture in Ghent 2050”. Conventional farmers and their representatives, pioneers, entrepreneurs, academics, representatives of social and cultural institutions and public officers were consulted for feedback regarding opportunities and bottlenecks for the agriculture and food system in Ghent. The goal was to explore the potential for a local agriculture and food system supported by a common vision. We maintained contact with key stakeholders from both cities after the data collection periods through email or personal contact, in order to stay updated on important events and developments relating to UA. In both cities, our data analysis focused on the following: determining the presence of UAPs, the network of stakeholders involved in governing UA developments, and the impact of the urban layout, political climate, and public perceptions and attitudes toward use of urban space on UA advocacy and developments.

6.3.2 Introduction of the cases

To introduce the cases, we outline a number of structural differences between Warsaw and Ghent (Table 6.1). The capital city of Warsaw comprises 18 districts. It is the main Polish center for politics, business, innovation, trade and tourism (Clark and Moonen 2015, Foreign Affairs 2014, Metaxas and Tsavdaridou 2013). The modern appearance of the city is largely the result of post-war reconstruction. After introducing the market economy in the 1990s and joining the EU in 2004, Poland’s economy has been booming. Warsaw’s economic situation has long been advantageous in relation to the rest of the country (Euromonitor International 2016, Niemczyk 1998). Immigration numbers in Warsaw mainly represent Eastern Europeans and rural-urban migration. Net migration in Poland as a whole has been negative for many years, however.

Table 6.1 Structural characteristics of Warsaw and Ghent

	Warsaw	Ghent
Capital of	country	province
Population	1,726,581 ^a	251,133 ^f
Population density	3,317 inh/km ² ^a	1,608 inh/km ² ^f
Total surface (ha)	51,700	15,600
Agricultural land (ha)	12,243 ^b	3,132 ^f
Allotment gardens (ha)	1,770 ^c	6,4 ^g
Average monthly income	1,191.78 eur (2014 ^d)	2,224.67 eur (2009 ^h)
Unemployment rate (%)	4.5 (2014 ^d)	14.3 (2014 ^h)
People at risk of poverty (%)	22.9 (2012 ⁱ)	27.5 (2012 ⁱ)

^a central office for statistics 2014; ^b panorama of warsaw districts 2013; ^c office of architecture and spatial planning of the capital city of warsaw city hall 2007; ^d statistical office warszawa 2014; ^f algemene directie statistiek [adsei] 2014; ^g departement landbouw en visserij 2007; ^h vlaamse dienst voor arbeidsbemiddeling en beroepsopleiding [vdab] 2014; ⁱ eurostat 2012

Ghent comprises nine townships and has a reputation for being one of the most progressive and vibrant cities in Flanders, i.e. the largely urbanized northern part of Belgium. Ghent is home to a relatively large population of young, leftist and highly educated people (Certomà and Notteboom 2017). The population is becoming increasingly diverse, with significant numbers of residents with roots in Bulgaria, Turkey, the Netherlands, Slovakia, Poland and Morocco (Environmental Department Ghent 2012). In both Warsaw and Ghent, the general food purchasing and consumption patterns follow global trends: the supermarket is the main food supplier and the consumption of fast food and snacks is increasing. In 2012, the number of people at risk of poverty in Poland (before changes in social support) was lower than in Belgium (Eurostat 2012). These numbers reflect Warsaw's recent economic boom (Foreign Affairs 2014) as well as the economic banking crisis in 2008, which led to increased risk of poverty in Ghent residents (Environmental Department Ghent 2012). In Ghent, people eligible for social assistance increased from 19/1000 in 2008 to 24/1000 in 2010.

6.4 Results

In the following section, we describe the UAPs in both cities and discuss the configuration of stakeholder networks that advocate UA in Warsaw and Ghent. Subsequently, we analyze how the contextual characteristics of “urban layout”, “political climate”, and “public perceptions and attitudes toward use of urban space” affect the configurations of stakeholder networks and the

development of UAPs in both cities. These contextual characteristics are summarized in Table 6.3.

6.4.1 UA practices in Warsaw and Ghent

Under the umbrella of UA, many diverse practices have recently been developed in both cities, marking an upcoming trend toward urban food production. In both cases, UA projects are primarily initiated by non-governmental agents and involve practices such as guerilla gardening, rooftop gardening, community gardening, CSA, apiculture, vertical farming, educational farming, institutional/social gardens, artistic and experimental projects. Moreover, in both contexts, existing UAPs get extensive coverage in newspapers, magazines, blogs, websites, posters and other visual displays, which gives the impression of a growing UA movement. However, interviewees complained about the many difficulties in realizing novel UAPs. Partly because of these difficulties, the majority of UA projects are traditional vegetable gardening projects. Innovations commonly associated with UA, such as aquaponics, hydroponics, LED-farming projects, or agroparks are either scarce or non-existent in both cities. The research also identified a higher number of UAPs in Ghent as compared to Warsaw⁴⁶.

In Warsaw, in addition to the wealth of community gardens (Table 6.1) - which, in the case of Poland, can be best described as individual plots of green open space on public land assigned to citizens or groups - we predominantly find artistic and experimental projects, examples of which are rather scarce and whose goals are often not made explicit. Examples are seasonal projects in a museum or other cultural institutions and dropping of seed bombs in neighborhoods. Apart from these, few UAPs were observed. In Ghent, community gardens are the most common form of UA. Due to space constraints, gardening projects in Ghent are often initiated or incorporated by larger non-profit socio-economic institutions that have relatively large amounts of land or space available. Accordingly, Ghent UAPs adopt similar socio-economic objectives. Examples are incorporating food production activities within social employment or job skills training programs and horticultural training in educational institutions. In 2013, for-profit UAPs emerged for the first time in Ghent.

UA is an emerging topic in both Warsaw and Ghent. A range of different stakeholders are involved in the UAPs mentioned above. For reasons of analytical clarity, we have grouped

⁴⁶ An inventory of the various practices is not included, because (1) it has been observed that UA projects often tend to last for only a couple of years, and (2) there is the risk of omitting UA practices, as these often occur in informal settings. An inventory may soon be obsolete or outdated.

these different stakeholders into five categories (Table 6.2). Based on an appraisal of interviewees concerning the presence of different UA stakeholders in their cities, we have given the involvement of the different stakeholder groups in UA advocacy a relative score from – to ++, to give an indication of the strength of the presence and visibility of UA stakeholders in relation to the other context.

Table 6.2 Categories of stakeholders and their presence in Warsaw and Ghent. (A qualitative evaluation of the degree of presence of different stakeholder groups within both contexts, with -, not represented; +/-, weakly represented; +, actively represented; ++, very actively represented according to interviewees)

Stakeholder group	Examples	Warsaw	Ghent
Urban agriculture pioneers	Farmers, institutional garden, community project	+	++
Professionals	Farmers, architects, restaurants, distributors	+/-	+
Civil society organizations	Supporting networks and organizations for UA	+/-	+
Municipality	Policy makers, public officers, council members	-	++
Research	Research centers, universities at different faculties	+/-	+

What immediately emerges from Table 6.2 is that similar categories of stakeholders advocate for UA in both cities. Strikingly, however, (1) municipal government stakeholders are absent in the case of Warsaw, and (2) the other categories (research, civil society organizations, professionals, and UA pioneers) are more strongly represented in Ghent than in Warsaw. Evans (1996) suggests that connections between state and society can forge synergistic relationships that in turn foster action - in this case, UAPs.

The paragraphs below demonstrate how the presence of municipal government stakeholders in the governance process and the focus on networks can create a strong platform for UA in Ghent. Indeed, Ghent benefits from a large number of UAPs and supporting organizations. Multiple events have taken place over recent years ranging from debates and lectures to practical courses and seminars where UA receives special attention. A Working Group UA, formed in 2011, wrote a charter to provide the city of Ghent with a vision for UA development. More than 15 local and regional organizations have signed the charter and the municipal government has revised and adopted it. Accordingly, UA was officially mentioned for the first time in the municipal policy agreement of 2013-2018. Having become aware of its influential role in the network, the municipal government actively promotes UAPs and integrates the different practices into a general strategy for a more local food system. This local food strategy was formally launched in October 2013 under the name *Gent en garde* (GEG). An interviewee from

the municipality describes the work done for GEG as:

I try to get an overview from all these UAPs, make connections between them, create synergies and move things forward. Some projects are led from within the department, but many others are not in our hands.⁴⁷

Interdepartmental cooperation has also recently started in Ghent. The Department of Urban Development and Spatial Planning, the Department of Work and Economy, and the Department of Environment have jointly launched a study entitled “Vision for agriculture in Ghent 2050” in January 2014. The aim of this study is to develop an urban planning vision that will safeguard the availability of land for agricultural purposes in Ghent. The following quote illustrates that the municipal government is actively seeking opportunities to promote UA by stimulating stakeholder interaction:

But we can also bring them together, let everyone cooperate in the search for opportunities. Who knows what kinds of cooperation mechanisms will emerge? Maybe some farmers will lease a hectare to initiatives and then maybe they will no longer experience UA as a competitor. Or do you give them a percentage of the yield? I mean, there are many possibilities. [Municipality, Ghent]

Strikingly, similar support for UA on a city scale, either located within the government or in civil society, was completely absent in Warsaw. Cultural institutions - such as the Warsaw Center for Contemporary Art - had hosted individual UA projects, but only when cultural aptitude was demonstrated. However, these institutions hardly contribute to creating a more substantial UA movement:

I think that cultural institutions should play a strong educational role. If they also do not feel that this [UA] is something very important ... I thought this was the most important place to start something like that [UA]. [UA Pioneer formerly working in a cultural institution, Warsaw]

Interviewees in Warsaw also experience the network of UA stakeholders as small and inexperienced in promoting UA. At the same time, we found that stakeholders in Warsaw have either no or very imprecise expectations of the municipal government in terms of how it could

⁴⁷ Quotes from interviews held in Ghent are translated from Dutch into English. Interviews in Poland were all held in English, or in one case, translated from Polish to English.

support UA development. This can be largely attributed to the poor understanding of UA within the municipal government and the large socio-economic and cultural institutions. Interviewees stated that they were operating in isolation from other relevant networks. Some added that only an exclusive group of pioneers is involved. They stated having problems with engaging the broader public, connecting with other stakeholders such as governmental agents, and ensuring that their efforts are taken seriously. A pioneer (Warsaw) expresses his discontent as follows:

I think the city does not see these UAPs as the start of something bigger, I think they see us as those kids, these weirdos, doing their thing. Accordingly, they support us only sporadically. Nothing big can grow out of this. As long as these remain interventions, the city will see them as a sort of entertainment. The city would use it strategically as an advertisement [for cultural purposes], but not connect these ideas to larger scale urban planning.

In contrast, interviewees from Ghent indicated that a wide range of different stakeholders are connected in a broad UA network. This might be related to the networking efforts and support of the city government, as described above. However, linking of different groups of stakeholders always involves some degree of friction. Even though the majority of the interviewees believe that the UA movement is socially inclusive, some added that in practice, primarily highly educated and white middleclass families are the most active in UA governance. Ghent is home to a relatively large number of migrants with different backgrounds and although some of them participate in UAPs such as gardening projects or some UA projects are specifically targeting minority populations, they tend to be absent in discussions (e.g. FPC meetings, debates, research projects) that have an important influence on the form and content of UAPs in Ghent. Nor is there an explicit focus on including different cultural backgrounds in UA governance processes. Hence, the way UA currently develops in Ghent reconfirms rather than overcomes existing socio-cultural inequalities (McClintock 2014). Interviewees repeatedly mentioned that existing socio-cultural tensions are reflected in the UA movement in Ghent.

Comparing the UA situation in Warsaw and Ghent with the sole focus on stakeholder involvement would lead us to conclude that support by the city government and a strong network of UA advocates that covers a wide variety of stakeholders are indeed crucial aspects for creating an environment that fosters UA development (Huang and Drescher 2006). However, if we consider local particularism in an analysis of UA governance, do we then reach different conclusions or increase our explanatory power for its potential in Warsaw and Ghent?

6.4.2 Contextual characteristics that co-shape UA developments

The urban layout of Warsaw

After the Second World War (WWII), more than 80% of Warsaw was reconstructed according to the principles of the Communist regime: broad streets, many open, green spaces and compact high-rise housing. Allotment gardens represent a major land use category. Table 6.1 illustrates that the amount of farmland is fairly comparable between Warsaw and Ghent, but the amount of land dedicated to allotment gardens in urban areas shows a stark difference. Allotment gardens have been very popular in Warsaw because they served as a major source of food under the Communist regime (Bellows 2004). Furthermore, due to the expansion of the city, many previously isolated community gardens are now located in the city center and form a very visible aspect of the urban landscape (Figure 6.1).



Figure 6.1 Map of allotment gardens (green) and agricultural land (yellow) in Warsaw. Source: Office of Architecture and Spatial Planning of the Capital City of Warsaw City Hall, 2007. The red circles point at the areas with the most agricultural land left. It is also here that agricultural land is disappearing fast

Even though the amount of food produced in Warsaw's allotment gardens has diminished significantly, they still remain functional urban green spaces. Broad public support for safeguarding these spaces creates strong resistance to their potential removal for economic development purposes. This is important according to some interviewees, because there have been cases that allotment gardens were at risk of being removed for urban development purposes, despite the fact that allotment gardens are included in the "Act on arable and

forested lands protection” that provides them a legally protected status (Szulczewska and Maksymiuk 2014). Another characteristic of Warsaw’s post-WWII reconstruction was that land use functions became strictly divided. Interviewees mentioned the clearly distinguishable rural areas that immediately surround the city. Despite the large amount of green space available, UA pioneers indicated difficulties in finding new space as discussed below.

The political climate in Warsaw

Interviewees stated that Poland has always lagged behind Western Europe in socio-economic terms, despite the recent and successful economic development efforts. Currently, the municipal government of Warsaw is mainly investing in the economic development of urban space. Projects such as high-rise office buildings and suburban housing developments are popping up all over the (peri-)urban landscape. UAPs by the municipal government are thus currently located within the logic of economic and entrepreneurial city development, in which these practices - which have a low economic value - are confined to places where experimentation is temporary and socially appropriate, such as cultural institutions and public squares. The municipal government and large socio-economic institutions do not see very much societal value in novel UAPs. During interviews, representatives of the municipal government equated UA with the remaining professional farmers in the peri-urban areas, while UAPs that were initiated by other stakeholders were not recognized at all. When asked about practices that involve growing food in the city, the municipal government referred to the existing allotment gardens, even though these serve currently primarily as recreational gardens. Overall, the agricultural sector receives little attention or support. Agricultural land as well as green spaces such as allotment gardens and parks are under threat from investors, who are supported by the municipal government because they foster the economic growth of the city. This trend has been formalized in an amendment to the “Protection of Agricultural Land and Forest Land Act” in 2008, which states that formal consent is no longer required to convert agricultural into non-agricultural land use in all Polish cities. Combined with the non-obligatory nature of “Local Development Plans” which specify land use functions in Poland, zones that are unspecified in the planning system succumb quickly to urban sprawl. These are illustrations of a general political-institutional orientation in which UAPs are poorly recognized, where opportunities to link farmers, UA pioneers, institutions and government departments are left unaddressed due to an opposing focus in urban planning. The following quote from a public officer illustrates that interdepartmental cooperation on cross-sectoral topics such as UA is absent:

It is strange ... For the first time I have to talk about something I know absolutely nothing about: agriculture ... Nobody in our department knows. We are only responsible for the

green areas such as parks or forests [Municipality, Warsaw]

Public perceptions and attitudes toward use of urban space in Warsaw

UAPs in Warsaw are only weakly supported by the broader public due to several persistent perceptions and values regarding food and agriculture. First, urban dwellers associate agriculture and rural life with a difficult past. Migration from rural to urban areas is an ongoing phenomenon in Poland and regarded as a strategic socio-economic choice. An UA pioneer explains:

Class perception is very strong in Poland. Many people who live in Warsaw originally come from the countryside. If your family has spent their whole life digging in the dirt, you do not come to the city to grow potatoes. You want cars, shopping malls and movie theaters.

Second, interviewees strongly emphasized that many Warsaw citizens consider growing food in the city unacceptable. There is a strong belief that food should be produced in rural areas for food safety reasons. An UA pioneer and member of the local council (i.e. participation as citizen in municipality) further elaborates this point:

People still think that the city center is not for growing food, because the soil and air are too polluted. When people heard that apiaries were placed on top of a building, discussion arose about growing food in the cities at all. But the people did not think about the next step: how to prevent that air pollution.

Third, interviewees stated that until today much confusion remains about public and private ownership titles (Niemczyk 1998) which leads to public spaces being traditionally avoided for urban (re)development purposes or community projects. The weak associational and community activity among Warsaw citizens (which is, according to interviewees, a result of decades of oppression of such activities under the communist regime) further contributes to the persistent underutilization of public space. Interviewees stated that people in the city are not used to undertaking initiatives in their neighborhoods nor is it common to cooperate in formulating or achieving community objectives (see also Czapinski and Panek 2011 as cited in Jakubowska and Kaniasty 2014). This naturally also applies to formulating and achieving UA-related objectives. An UA pioneer aims to address the above dynamics with her guerilla gardening project:

We do more than just gardening. We try to connect neighborhoods, make the city safer and show that public space can be used instead of just going from work to the shopping mall or movie theater.

Finally, within Warsaw, “local food” is generally equated with food that has been produced within Poland. Hence, citizens are not motivated to promote the production of food in (the immediate surroundings of) Warsaw to establish a truly local food system.

The urban layout of Ghent

Table 6.1 shows that Ghent currently provides little official physical space for UAPs such as gardens or new farms. Similar to Warsaw, allotment gardens thrived during and after WWII, but their relevance waned earlier than in Warsaw, as the citizens’ economic status quickly rose and suburban housing development also provided private gardens. During the 19th and 20th century, the number of professional farms and acreage of farmland has decreased significantly due to processes of industrialization and urbanization (De Beukeleer 2001, Sum Research 2015). The result was an increased overall farm-to-city distance.

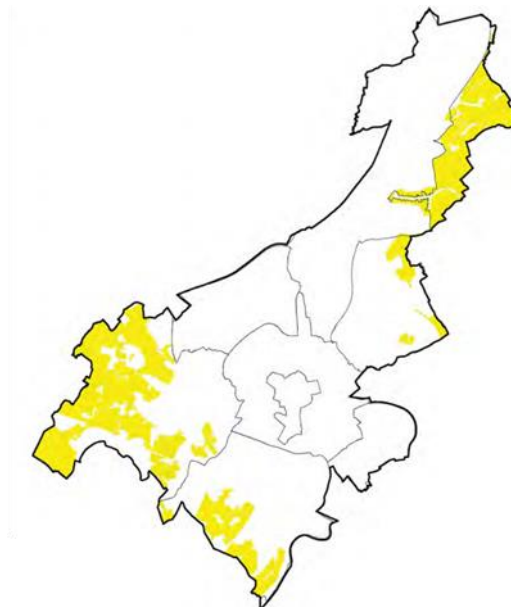


Figure 6.2 Map of land zoned for agricultural use in Ghent (yellow). Source: Sum Research 2015.

In Figure 6.2, the yellow marked areas indicate the land which was zoned for agriculture in 2014. It is mostly located on the outskirts of Ghent. What the map does not indicate, is that farmers (and other stakeholders) are confronted with the increasing use of agricultural land for horse keeping and nature preservation. In short, urban land and space is a very contentious issue in the Ghent context. Space is needed for nature, parks, social housing, industry and

business, all of which are difficult sectors for UA to compete with. There is also an increasing perception in Flanders that urban-rural distinctions are difficult, if not impossible, to sustain in this Belgian region as it is almost entirely (semi-)urbanized:

In all honesty, I think that there are only a few really uninhabited areas left in Flanders. In that sense, almost every farmer here is an urban farmer. [Professional]

The political climate in Ghent

The social democratic party has been part of the municipal government coalition since the late 1980s, with an accordingly strong influence on the political climate in Ghent (Boone and Deneckere 2010). Since the Green party joined the coalition in 2012, socio-ecological problems have been high on the policy agenda. The current focus of attention is the stated goal to make Ghent climate neutral by 2050. As part of its Climate Plan, the municipal government manages a participatory trajectory in which citizens are encouraged to join. One of the main functions of this plan is that it provides environmental practices and organizations in Ghent with an overarching goal. The local food strategy GEG has also been placed within the framework of establishing a climate neutral Ghent by 2050. UA is adopted as one strategy that contributes to diminishing Ghent's ecological footprint. Consequently, UA is placed within the logic of stimulating change in the food system to ultimately achieve climate neutrality. This strategy includes all stakeholders seeking connections from around the city with urban dwellers and so-called "urbanites" who seek to establish "rurality" in the city by setting up food production practices. Projects explicitly focusing on this environmental goal are strongly embraced by the municipal government.

However, such positive political discourses on UA do not necessarily reflect the local needs as expressed by advocates of UAPs. This may be due to a lack of societal discussion about the objectives of UA, a point which is further elaborated by an UA stakeholder located in research:

My starting point has been from the beginning that discussions should actually be about dealing with complexity and insecurity ... this is something you cannot solve from a linear solutions thinking ... It is like a wicked problem ... It cannot be like: this is the problem, we will think of alternatives and optimize these ... and then the whole society should agree with that. In fact, there is an insecurity about the objectives and the means. Some people [in government] act as if there is a guided consensus about the objectives, and this can be done by calling everything sustainable. However, this at the same time leads to a reduction of what UA can be. The problem with such issues is

that today, a decent political conversation about it has become impossible. When they ask me, is it desirable, I always say: "It depends", because it will depend on how we will deal with it.

More concretely, interviewees referred to FPC meetings in which the municipal government, experts (e.g. academics), and representatives of well-established organizations (e.g. *Boerenbond*, the largest Flemish farmers' association) regularly meet in a private setting, without (much) involvement of the stakeholders representing all sections of the broader public. Various interviewees also stipulated that little has been actively done to include historically underrepresented minority groups in public debates on UA developments - such as migrants, elderly, or economically disadvantaged citizens - that are part of the participatory trajectory in the FPC which the municipal government has initiated as part of GEG (see also chapter 4.5.3 and chapter 8). That may partly be explained by the fact that the city mostly invests in awareness raising campaigns, while avoiding more politically sensitive topics such as the lack of available land or space, and how to invest public means in the support of UA. Both topics imply taking a stance in whose interests UA should be serving. The need for structural support is illustrated in the following quote of an UA pioneer:

If the government says that they will do a campaign to give short chain and UA a chance, then I think that they should not spend their money on nice posters. They should give the money to projects like ours so that they can take place regularly and that people can really experience it ... For instance, the ongoing projects are all temporary projects.

It is further on in the interview argued that, as long as UA is supported as a temporary practice few incentives are created that make it worthwhile for citizens to invest their time, money, or energy in UA.

Public perceptions and attitudes toward use of urban space in Ghent

According to the majority of the interviewees, space for UAPs is a roadblock to further UA development in Ghent. Because the municipal government offers only limited financial support, volunteers are left to find and legitimize space for UAPs in creative ways. This takes the form of reallocating land (e.g. the regional government has been budgeting new community gardens in Flanders), temporary gardening projects on vacant land (e.g. the city grants permission to use public land for a fixed number of years), multifunctional land use (e.g. the inclusion of a rooftop garden on a newly constructed building, community farming on recreational land), and

innovations in the use of land that is already being utilized for urban food production (e.g. the incorporation of educational programs or social projects within existing community gardens).

All interviewees argued that topics relating to food and agriculture are being re-evaluated and re-appraised in Ghent. The idea of local food - generally interpreted by stakeholders and formal documents as food that is produced in, or in the vicinity of, Ghent - has become increasingly popular. UAPs practices, such as gardening projects in public spaces, receive broad support. Only low to moderate food safety concerns were observed in relation to eating food produced in urban areas. An UA pioneer and representative of a civil society organization argued that Ghent:

is one of the few places in Flanders where the idea of UA could develop ... There is public support and enthusiasm ... When I think of how many volunteers and organizations support my project [a gardening project for children from underprivileged neighborhoods] ... You cannot but conclude that it [support for UA development] is [part of] the mainstream mentality.

This enthusiasm is captured in a dynamic network, partly because associational life is strong in Ghent and because local food is currently of major public interest. Multiple UAPs connect stakeholders, forge collaborations and stimulate the formation of an overarching network:

In Ghent, you have a young population. There is automatically a desire to do things together, associational life is important. I think UA stimulates this. [UA pioneer]

I notice that a good network is very helpful. Immediately, it opens so many doors. The network keeps on growing and this is crucial in developing a successful UA project. [Civil society organization]

Notably, this enthusiasm for UA is not always shared by professional farmers who are located in (close proximity to) the city of Ghent. Several professional farmers who were already operating prior to the discussion on UA in Ghent indicated that they feel threatened by the growing enthusiasm for UA. Professional farmers see UA in opposition to their own farming practices and currently tend to distance themselves from UAPs.

Table 6.3 Key contextual characteristics based on semi-structured interviews with stakeholders in Warsaw and Ghent

Warsaw			Ghent		
Urban layout	Political climate	Public perceptions and attitudes toward use of urban space	Urban layout	Political climate	Public perceptions and attitudes toward use of urban space
Warsaw is characterized by broad streets, green and/or open space and compact high-rise housing	Focus on economic and infrastructural development	“Agriculture” and “rurality” are associated with the past, unfavorable conditions and economic hardship	Lack of green and open space, densely populated city; strongly urbanized; well-developed suburban housing with private gardens	Socio-ecological problems are high on the policy agenda	Broad public support for UAPs
High number of allotment gardens	Poor understanding of UA	Community gardens as appropriate location for urban food production	Resurgence of allotment gardens, but few gardens	Substantial attention given to UA and UA-related practices	Shared perception of lack of space as a major barrier to UA development
Strict division of land use functions; poor use of public land	Poor support in administration, planning and policies for UA, and agriculture in general	Safety concerns relating to urban food production	Less strict division of land use functions; multifunctional land use and public land use are common	UA understood as a strategy in the Climate plan that will make Ghent climate neutral by 2050	Low to moderate safety concerns
Urban and peri-urban land increasingly transformed for economic development	UA referred to as an activity for professional farmers or citizens in community gardens; focus on inclusion is lacking	“Local” is generally understood as “Polish”	Agricultural land increasingly transformed into land used for keeping horses, urbanization and nature preservation.	Lack of explicit focus on the process to include historically under-represented social and ethnic groups in the public sphere	Local is understood as “food produced in or around the Ghent region”.
Clear identification of rural areas surrounding Warsaw, namely in close proximity to the city		Weak associational life	Urban-rural distinctions are difficult to sustain in the immediate areas around Ghent		Strong associational life
		The topics of food and agriculture are increasingly popular, but with a select audience			Increasing attention on topics of food and agriculture
		Mainly young, white, educated, middleclass citizens enthusiastic about UA			Mainly white, educated, middleclass citizens enthusiastic about UA

6.5 Discussion

Despite a remarkable number of analogies in UA advocacy in Warsaw and Ghent, strong differences in the underlying dynamic of UA development were identified. The UA movement in Warsaw is characterized by isolated, short-term projects, whereas in Ghent it mainly represents well-established socio-ecological projects and a resurgence of community gardens. There is a growing public discourse on UA in Ghent, while UAPs in Warsaw receive little support and are generally poorly recognized by the public and the municipal government.

To explain these differences, this chapter went beyond an analysis of advocacy and included context-specific characteristics - grouped in categories of “urban layout”, “political climate”, and “public perceptions and attitudes toward use of urban space”. The results have clearly shown that the norms and values in Warsaw steering social change do not reflect a positive attitude toward UAPs. Citizens and government actors prioritize economic development of the city. Current ideas to integrate agricultural activities into urban areas have been pushed aside. In this situation, enthusiasm for UA and UAPs becomes rather subversive and often lacks legitimacy. Accommodating space for UA becomes a difficult task. This partly explains why advocacy for UA primarily finds a purpose in cultural expressions and experimenting despite having plenty of green space in Warsaw. The lack of attention to UA can also be explained by the historically important allotment gardens. In Warsaw, they have been manifest, intensively used urban spaces for decades and reflect deeper cultural attachments (McClintock 2015). The ongoing association of community gardens with food production - even though they are increasingly used as recreational spaces - results in public perceptions of green, open space as an abundant resource in Warsaw. These perceptions also obstruct the recognition of UAPs as exemplary cases in the search for creative opportunities to deal with unused or underdeveloped public land.

In contrast, the comparable advocacy for UA plays out very differently in Ghent and can also be explained by particular contextual characteristics. The development of a local food system is included in the broader political agenda on sustainability. This, together with the receptive attitude of citizens toward innovations in the urban food system, makes UA an increasingly popular topic. UA in Ghent benefits from a strong associational life that generates public debate, new practices and cohesion between a wide variety of stakeholders. The fact that space is a very contested and controversial issue is an additional trigger for stakeholders to meet and discuss this common barrier. Finding space for UAPs becomes a shared goal of municipal government, pioneers, institutions and entrepreneurs. This is by no means an easy process. UAPs that do develop mostly resort to temporary spaces or become incorporated into existing,

more established (cultural or socio-economic) organizations, where UAPs can be set up relatively easily with limited investment. In the urge to match enthusiasm with the realization of UA projects, financial dependency and a lack of representation of all social groups become significant barriers.

The above shows that context-specific characteristics and advocacy are intrinsically interwoven. They synergistically pave the way for particular development pathways for UA, signaling a high degree of complexity in which UA comes to serve different purposes in different cities. In the remainder of this section, we wish to focus on what this implies for governance of UA. Although we agree that community advocacy, municipal support and cooperation between different stakeholders are crucial (Franklin and Marsden 2015, Huang and Drescher 2015), we have also demonstrated that an analysis of contextual dynamics has several implications for UA governance strategies.

In the case of Warsaw, the persistent focus on economic development by public and government actors leads us to conclude that a larger network of advocates or UA policies would offer few additional opportunities for UA in the near future. An UA pioneer in UA stated that people in Warsaw do see what the urban development problems are, but they do not consider UA as a potential solution:

There is no need for it [UA] ... you cannot propose a solution when there is no problem.

There are other problems here right now. [Pioneer, Warsaw]

Nevertheless, this does not mean that there is no use for UA development at all. The allotment gardens do represent an extraordinary opportunity for a significant number of food production practices - on healthy soil. Efforts to purposely connect UA advocates to this resource might begin to result in a more substantial UA movement. Currently, UA advocates are largely disconnected from the existing gardens. As long as these advocates are not linked to these resources, we argue that these pioneering efforts will continue to be considered as temporary and subversive acts. At the same time, the existing community gardens might evolve further into recreational gardens that lose their food production function. In Ghent, the strong enthusiasm for UA in Ghent is at risk of ultimately remaining for the large part a movement that is fixed in the sphere of public discussion and debate, rather than in the materialization of UA projects or businesses. When advocates of UA and government actors respond to this risk by quickly substantiating the UA movement with tangible and visible practices, their attention is taken away from important questions that should be addressed first: Who is (and is not) participating in shaping the UA movement? How will adequate material and non-material

support be provided to match the current enthusiasm for UA? What kind of UA do we want? If these questions are not addressed, merely establishing stronger municipal support and UA advocacy does not guarantee a more socio-politically and spatially embedded UA movement that will not disappear when public attention shifts away from UA to other topics.

Finally, while there is nothing wrong with an UA movement that resides in the sphere of cultural and socio-economic institutions (Ghent) or socio-cultural experimentation (Warsaw), we argue that if these governance recommendations are not taken into account, the result will be an a priori narrowing down of what UA could be in a city. Each case has specific opportunities and barriers (i.e., abundant land opportunities in Warsaw but opposing public perceptions, versus supportive public and policy discourses in Ghent but a lack of adequate support and spatial opportunities) that require more strategically formulated and grounded strategies than those inspired by the generic, universalized narrative on UA.

6.6 Conclusion

Cities are facing complex pressures, both from higher policy levels as well as from citizens, to engage in a sustainable development agenda (Bulkeley and Castán Broto 2013, Evans et al. 2005, McCormick et al. 2013). The potential of UA in such an agenda has been welcomed in the search for concrete and action-inducing strategies. However, in practice, celebrating UA's potential in sustainable urban development often prematurely results in generic and uncritical plans to advance UA - generally within policy fields relating to agriculture and food production. Such an approach hinders reflection on the broader impact that UA could have on current social, political, economic and cultural structures.

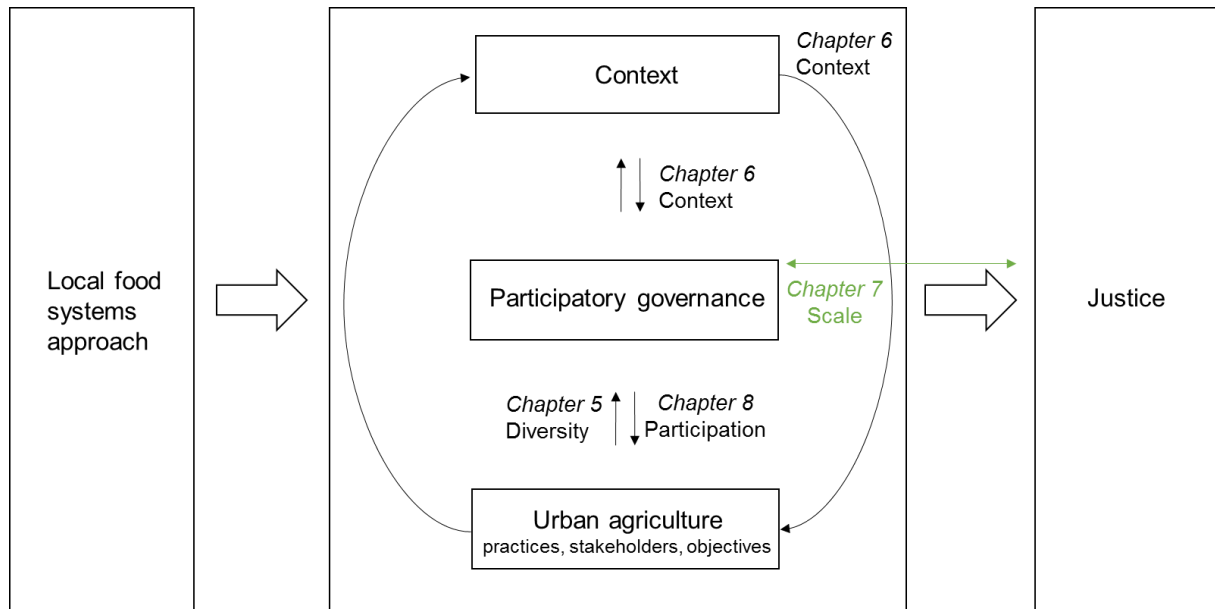
Some authors argue that the mediocre results of current sustainable development practices are rooted in the forms of governance, and we therefore have to evolve to more cooperative and interactive approaches (Crivits et al. 2016, Franklin and Marsden 2015). We advance this argument by stating that a strategy of merely stimulating advocacy and cooperation between government, private and civic actors will be insufficient to sustain an UA movement over time. Opportunities or barriers to UA are not only created or overcome by direct action, they are mediated by context-specific factors. For instance, in Warsaw UA advocacy currently remains marginalized because it functions in isolation from the existing food production activities (i.e., agriculture and community gardens). In contrast, UA advocacy in Ghent should not be overstated. The lack of space, investment and critical reflection could easily dampen enthusiasm for UA as time goes on. To realize UA's full potential, it is important to understand

the relationship between governance of UA and the context in which UA emerges. This approach offers a more comprehensive and nuanced image of the opportunities and pitfalls in the governance of UA, because it takes us beyond generic positions on what UA can and should be. Instead, it explores what it can be *within a given context*.

The implications for public policy making are obviously case-dependent. In a governance approach that includes context, in any case we would be informed by broader policy making that is responsive to the city's specific needs, barriers and opportunities. Besides food production, UA can contribute in manifold ways to sustainable urban development. Openness in policy making would not a priori situate UA in the policy field of agriculture where particular opportunities are defined in a top-down manner. Perhaps UA will find more significance in other policy domains or, through innovative cooperation, among several policy sectors. By taking contextual factors into account, government stakeholders in Warsaw would possibly no longer deny the value of UA, or strategic matchmaking between stakeholders and resources could result in a more diverse UA movement.

While it is widely accepted that UA should not be understood as a single conceptualization (Mougeot 2006), little research explicitly demonstrates that an empirical assessment of context-specific characteristics furthers the interpretations of the role that UA can play in sustainable urban development. We have demonstrated that focusing on the particularisms of place in public policy making addresses critiques by a growing number of scholars that warn of the potential adverse social, economic and environmental effects of UA (Dupuis and Goodman 2005, Guthman 2004, Hinrichs 2003, Winter 2003). Additionally, it would prevent us from falling into the "local trap" that Born and Purcell (2006) have warned us about. Taking context into account in governance approaches allows UA to be more complex than only merely contributing to the local food system. With newly provided insights on the role of context in UA governance, this chapter advances the discussion how governance tools for UA could orchestrate "*the new creative multi-actor, multi-level, multi-purpose and multi-sector trajectories*" (Healey 2004). It seems useful to build further on the findings of this chapter, because it is important for citizens, policy makers, as well as scholars, not only to learn how to cooperate, but also to understand how to make the most of the existing opportunities for UA and how to maximize societal value under specific, local circumstances.

Politics of scale in urban agriculture governance



This chapter analyzes the concept of scale and explores the relation between the scaling of UA in governance processes and the outcomes in terms of justice. It argues that UA can be conceived at different scales in FPCs and that each of these scales has profound implications in terms of justice, i.e. for whom UA is intended. The politics of scale are studied in FPCs of Ghent, Belgium and Philadelphia, PA, USA and discusses the implications for inclusion and exclusion of practices, stakeholders, and objectives in the UA governance process. The chapter discusses the usefulness of adopting a multi-scalar approach to UA and local food systems, and of adopting the concept of (environmental) justice in governance strategies.

Based on Prové C., de Krom M.P.M.M., Dessein J., 2017. Politics of scale in urban agriculture governance: A transatlantic comparison of food policy councils. *Manuscript submitted for publication*.

Politics of scale in urban agriculture governance

7.1 Introduction

The idea that local governments should become involved in food issues and promote sustainable food policy has been substantiated by the growing dissatisfaction with the globalized and industrialized agri-food system (DeLind 2006, Lyson and Raymer 2000). Also the withdrawal of the state from food systems issues (Blue 2009, Renting and Wiskerke 2010) has led both international and local policy levels to emerge in the food governance landscape (Oosterveer and Sonnenfeld 2012). Efforts to invoke or reconfigure the local scale in the food governance regime have, among others, spurred the growth of FPCs. FPCs originated in North America in the 1980s. Since then, FPCs have resonated with local governments worldwide (although FPCs can also be situated at regional or national levels; Agyeman 2013, Harper et al. 2009). A FPC can be defined as a policy advisory organ, meaning that it operates outside regulatory government structures, which seeks food systems change by influencing existing political processes and institutions (Schiff 2008). FPCs generally focus on the representation of different segments in the food system, on multi-stakeholder collaborations, knowledge sharing and building, and shifting power to the local level. FPCs can be government-sanctioned at city level, but they can also take the form of civil society organizations.

FPCs are often embedded as part of cities' comprehensive sustainability plans which commonly place explicit emphasis on sustainable and local food systems (McClintock 2010, Mansfield and Mendes 2013, Morgan 2015, Partalidou and Anthopoulou 2016). Local food systems are believed to contribute to sustainable development by addressing ecological, sociocultural, and economic issues that the dominant globalized and industrialized food system tends to externalize (O'Hara and Stagl 2001). FPCs are considered as ideal platforms to address the various perspectives, interests and actors involved in local food practices. The cross-sectoral nature of food issues require interdepartmental cooperation or coordination. The effectiveness of governmental initiatives is also very dependent on support from civil society. This complexity of actors and interests points to local food as a governance issue (Mendes 2007), not exclusively as a matter of policy development or urban planning. Moreover, it is claimed that FPCs are ideal institutions to integrate environmental justice concerns, not only because they embed concerns for the ecological and health consequences of the industrial

agri-food system, but also because they are localized forums with a great capacity for democratic participation and equitable social change (Purifoy 2014).

A series of authors, however, warn for overly positive assessments of efforts to localize food systems (Born and Purcell 2006, Dupuis and Goodman 2005, Hinrichs 2003). Indeed, insight into the role and impact of FPCs in localizing the food system is lacking (Scherb et al. 2012). The steering capacity of FPCs, especially concerning the relation between the sustainability of local food systems and issues of fairness, democracy and justice, has only received scant attention (Lo and Delwiche 2016, Purifoy 2014). Do FPCs simply help to reveal the local governance level, or do they actually have transformative potential in the food system? And if so, how? To gain insight into the transformative potential of FPCs, their governance principles have to be critically assessed (Crivits et al. 2016). This implies an analysis of their objectives, stakeholder involvement, and decision making processes and outcomes.

In this chapter, we analyze the FPCs of Philadelphia, Pennsylvania, USA (Food Policy Advisory Council, FPAC) and Ghent, Belgium (Gent en garde, GEG). FPCs commonly take action in the field of, among others, public procurement, school meals, short food chains, recycling and composting, and UA. Among the various transformative food practices that can be supported through FPCs, we focus on UA precisely because it tends to involve a range of different practices, stakeholders, and objectives, and therefore it is a good case to study the governance processes and outcomes in different cities⁴⁸. In the past, food growing in urban areas has been politically supported to secure food supply, curb labor revolts or slow down urban abandonment (Hynes 1996, Kurtz 2001, Lawson 2005). Such practices are therefore not necessarily new, nor are they strictly confined to the urban sphere. However, these practices are labelled as UA as the result of a renewed interest among local governments, academics, civil society and media (Warde 2013).

The purpose of this chapter is to critically assess the role of governance processes (involving FPCs) in promoting environmental justice in local food practices (here UA). More specifically, the aim is to respond to the key questions of how FPCs address the local scale; how a particular scaling steers political action; and what the impacts are of a particular politics of scale, especially on justice outcomes? To carry out this investigation, the chapter in the first place acknowledges that there are numerous contingent contextual factors (e.g. specific persons, historical events, social, political, economic conditions) which arguably strongly influence the course and content of the governance process of UA in FPCs. Moreover, FPCs

⁴⁸ See the definition of UA developed in this thesis in chapter 2.3

evidently frame strategies in a way that responds to the most urgent urban issues (Prové et al. 2016). Yet, given the broad range of sometimes contesting claims for UA, we consider it incomplete to accept context as the sole determining factor in governance processes. To add an alternative perspective, this chapter explores governance processes by analyzing the politics of scale in FPCs, arguing that UA governance is a politically contested activity. The analysis advances insights into UA governance in two ways. First, by exploring the politics of scale in FPCs, we show that scale is at the core of FPC support for UA. The “local” or “urban” is not merely local or urban, but entails practices at various scales. Second, by embedding the analysis of politics of scale in the framework of environmental justice, we analyze UA governance as a potential environmental justice issue. This approach highlights the contested power relations and inclusionary/exclusionary dynamics that emerge in the rescaling of the food system (Kurtz 2002).

The following sections elaborate on the theoretical connection between local food systems, environmental justice and politics of scale. After a description of the methodology, the results section demonstrates how the two FPCs through the scalar practices of scale framing, scale negotiating and scale matching come to pursue a different scalar focus which has implications for which practices, stakeholders, and objectives are prioritized. Subsequently, we reflect on the implications of our findings in understanding the transformative potential of FPCs and make suggestions to engage in constructive approaches to UA governance. The chapter concludes that it is theoretically relevant to expand academic discussions on environmental justice across different contexts and different topics.

7.2 Assessing environmental justice in UA: An analysis of politics of scale

Motivations for UA vary from food production, to reducing urban heat island, preserving green spaces, social integration, stabilizing farm income etc. (Chrisman 2005, Hodgson et al. 2011, Smit and Bailkey 2006, van Veenhuizen 2006). Because there are multiple practices, stakeholders, and objectives the question is: how can FPCs take this diversity in UA into account and ensure equal access to the governance process? In other words, it needs to be scrutinized whether locally oriented FPCs are efficient and effective enough to resolve issues of justice (Hinrichs 2003, Levkoe 2011, Wald and Hill 2016).

The theory of environmental justice posits that *“all people and communities are entitled to equal protection of environmental and public health and law regulations”* (Bullard 1996b). For

decades, environmental justice research has focused on demonstrating that race and/or poverty were the most significant variables in association with unequal distribution of environmental goods and bads (Sze and London 2008, Walker 2009). Those findings reveal the intertwinement of the environment and social difference (Taylor 2000, Walker 2012). Different social groups have different levels of exposure to such problems (Bullard 1996b, Bullard 2000, Mitchell and Dorling 2003) as well as different levels of access to environmental goods and the benefits of environmental goods (Jennings et al. 2012, Walker 2012). An important dimension of environmental justice is *“the recognition of the diversity of the participants and experiences in affected communities, and participation in the political processes which create and manage environmental policy”* (Schlosberg 2004). Thus, environmental justice can only be achieved when one has the ability to express concerns and to participate in decision making processes (i.e. framing of the problem and the solutions). While inequalities such as unequal access to healthy food should be addressed, simultaneously a focus on livable, sustainable communities for all people is needed (Agyeman and Evans 2004, Schlosberg and Collins 2014). According to Gottlieb (2001), this dual focus on addressing inequalities and forging sustainable practices can represent the pathways through which broad social change can be achieved.

Following this, the issue of justice in UA can be understood as the equal access of all stakeholders to the governance and decision making process to forge sustainable cities. Ultimately, the transformative potential of a sustainability plan and FPCs relies on attention to issues such as inclusion, fairness, access, democracy and participation. Until recently, however, studies on food system localization have been largely unconcerned about the transformative potential of local food practices and policies (DeLind 2010, Dupuis and Goodman 2005, Winter 2003). One of the explanations may be because of their approach to the concept of scale. Local food studies have predominantly approached the local scale as geographically given (Dupuis and Goodman 2005), or they have oversimplified scale by positioning themselves on the local-global binary (Goodman and Dupuis 2005, MacKinnon 2010). Moreover, there has also been a tendency to prefer the local scale over other scales because it is associated with a range of sustainable attributes (Born and Purcell 2006). However, efforts to reconfigure the global agri-food system toward more localized food systems constitutes a spatial scale reconfiguration, which implies the emergence of new practices, stakeholders, and objectives, as well as the redirection of resources to this scale. This chapter argues that without proper consideration of such scale reconfiguration, local inequalities, exclusionary mechanisms and injustices can be easily overlooked.

Human geography conceptualizes scale as a social construction (Delaney and Leitner 1997, Kurtz 2003, Marston 2000, Smith and Kurtz 2003, Swyngedouw 1997). These studies refute the notion that scales are fixed entities which exist independently from social processes (McMaster and Sheppard 2004, Smith 1992a). Massey (1995, p.188) states that scalar configurations are “*constantly shifting articulations of social relations through time*”. Hence, they are “*always in the process of being reorganised, challenged and reconfigured. Just like social processes, therefore, scale processes are always in a state of becoming*” (Wald and Hill 2016). Scalar relations are thus not bounded and homogenous (Bulkeley 2005), but are actively used and constructed by actors, groups and organizations (Moore 2008). Furthermore, scale is not only socially produced, but once constructed, it is also socially producing: scalar arrangements can become routinized into enduring structures (Born and Purcell 2006, Williams 1999). Such a conception of scale implies that scale related choices can never be isolated from the context in which they are established (Lerin 2015). Simply labeling all UAPs as “local” would therefore obscure how these practices are constructed and for whose benefit (Hinrichs 2003, Wald and Hill 2016).

The notion of politics of scale is an appropriate analytical tool that helps to understand the governance of UA as a politically contested activity (Smith 1990). According to Born and Purcell (2006) scales have no inherent qualities, but are rather strategies pursued by social actors with a particular agenda. Framing policy problems at specific scales can be seen as a tool for actors to gain control over a limited set of resources (Herod and Wright 2002, Lebel et al. 2005, Lerin 2015, Swyngedouw and Heynen 2003), or to legitimize processes of inclusion and exclusion (Kurtz 2002). The focus of analysis should then be on the agendas of stakeholders to learn about which claims are made, how material differences are shaped and environmental governance takes shape (Bulkeley 2005, Dewulf et al. 2006, Kurtz 2003). In other words, it is the content of that agenda, not the scales themselves, that produces outcomes such as sustainability or justice (Born and Purcell 2006).

Several studies have approached UA governance as a politics of scale. Ernwein (2014), Smith and Kurtz (2003), and Mendes (2007) have analyzed how the local scale is (re)framed in emerging issues of UA and local food policy within an urban context. These articles demonstrated that the framing of UA and food policy at specific scales brings into focus different issues, actors, and interests (Ernwein 2014, Mendes 2007); and that through a politics of scale, competing actors and groups attempt to gain control over the problem definition and solutions to serve their interests and strategies (Ernwein 2014, Smit and Kurtz 2003). However, to the best of our knowledge, there has not been a study which critically compares politics of scale in UA governance in different contexts against the background of the generic claim that

UA contributes to just and sustainable food systems. We argue here that an analysis of politics of scale challenges the defensive and uncritical localism described above and allows for a focus on the issue of environmental justice. At the same time, we bear critiques in mind that warn us about scale fetishism, explaining everything through scale, or focusing on scale at the expense of other important aspects of governance (Brenner 2001, Ernwein 2014, Leitner 2004, Marston et al. 2005, Whitehead 2003). Three key concepts in the literature on politics of scale can be treated as scalar practices to study how UA stakeholders engage and UA activities unfold: scale framing, scale negotiating and scale matching (Table 7.1).

Table 7.1 Scalar practices, description and analytical questions

Scalar practices	Description	Analytical questions
Scale framing	The practices where scale is discursively employed to strategically communicate a specific understanding of a policy issue	Which scale(s) are applied to define the issue of UA?
Scale negotiating	The practices where the deliberation of the scaling of a policy issue is organized	Which practices are used to involve stakeholders in the process of scaling the issue of UA?
Scale matching	The practices where the framed scale(s) of the policy issue are (mis)aligned with the mobilized resources	To which degree does (do) the scale(s) at which UA is framed align with the way UA is handled?

The well-documented concept of scale framing addresses the way actors discursively engage geographical scales to frame the policy issue at stake and subsequently suggest a particular vision for a given place (Delaney and Leitner 1997, Kurtz 2003, McCann 2003, Termeer et al. 2010). Spatial anchoring is also closely tied to a specific understanding of the public and community concerned with the issue at stake (Ernwein 2014). By identifying which political, social and economic issues are expressed and which strategies are suggested in FPCs (Kurtz 2003, Marston 2000, McCann 2003, van Lieshout 2011, Whitehead 2003), we can trace how these scale frames are explicitly and implicitly mobilized to define and use different strategic concepts in the local food system.

Scale negotiation defines the spatiality of a given issue as a continuous process of negotiation (Cox 1998, Herod 1991). The relationships between different actors are understood here as being competitive, because actors exert control by confining activities to a certain scale, network or group of actors. The aim is therefore to scrutinize the different practices and activities that shape the negotiation process and understand the different mechanisms through which actors at different levels can negotiate the local scale to advocate for their concerns (Lebel et al. 2005, Whitehead 2003). Here we analyze the organizational and decision making processes of both FPCs.

The practice of scale matching examines the alignment between the mobilization of resources and the framed scale(s) of the policy issue (Borgström et al. 2006, Pelosi et al. 2010, van Lieshout et al. 2011). Scale mismatches are seen as a problem of fit between mobilized resources and scale(s), such as occurs when a policy issue is addressed at a scale that differs from the scale(s) at which available resources are situated (Cumming et al. 2006, Cumming et al. 2013, Guerrero 2013). The aim is not to objectively determine the best scale(s) for resolving a policy issue but rather to identify which resources are mobilized to substantiate the suggested strategies in the local food system, whether the available resources allow the framed policy issue to be addressed, and whether all groups of stakeholders have the ability to translate their concerns to the scales at which the resources are mobilized (Smith 1992b).

7.3 Methodology

7.3.1 *Comparative case study method*

A case study based method (Berg and Lune 2012) was used to analyze how politics of scale in FPCs enable and constrain UAPs and developments. The case study method consists of in-depth, systematic and holistic investigation within a specific context, with a focus on nuance, detail and wholeness (Baarda et al. 2005, Bromley 1990, Stake 1995). Because FPCs and UA are complex and relatively novel, a case study is a good method to explore these phenomena within their real-life context (Baxter and Jack 2008, Yin 1994). This is especially relevant when “*the boundaries between the phenomenon and context are not clearly defined*” (Yin 1994). As Stake (1995) explains, we look for the detail of interaction between the case and its context. A major benefit of case study methods is that they enable a researcher to provide in-depth and holistic explanations of social problems from the actor’s perspective. To study the scale frames of different actors, we use the interpretive approach (Yanow 2000, Yanow and Schwartz-Shea 2006) which starts from the assumption that the social world is characterized by a multiplicity of interpretations. The issue of finding structure and drawing valid conclusions in large datasets (Guba and Lincoln 1981) is dealt with by discussing the findings with the consulted key stakeholders. The issue of overreliance on input of interviewees is addressed through data triangulation (Yin 2009). Finally, instead of aiming for generalizability, we agree that case studies should instead aim for transferability and comparability (Flyvbjerg 2006, Ness and Mistretta 2009, Tsang 2014).

When the goal is to understand which and how specific circumstances within a context influence governance processes of UA, it is suitable to conduct a comparative analysis. This is underscored by Lund (2014) who writes about analysis from a comparative perspective that:

“It may be the difference in context that make the particular qualities of organization, dynamics, and relations resonate and be mutually illuminating. Resonance can inspire us to look for elements, which we had not initially thought about but which are obviously significant in work by others. And it may help us to generalize, abstract, and theorize our own [work]”. Thus, by analyzing the particular organization, dynamics and relations in FPCs’ governance of UA, comparative case studies allow to explore similarities, differences and patterns across multiple cases.

This chapter compares UA governance in the Food Policy Advisory Council (FPAC) in Philadelphia, PA, USA and the FPC of Gent en garde (GEG) in Ghent, Belgium. Academic literature has already demonstrated important differences in the drivers and motivations for local food systems between North America and Europe. In the EU, food re-localization has been encouraged as part of attempts to stimulate endogenous economic development in lagging regions in order to maintain the rural image in Europe (Watts et al. 2005). Under the second pillar of the Common Agricultural Policy (CAP), the aim has been to move away from a narrow focus on agriculture toward a more territorial approach (Ilbery and Maye 2005). To enhance social, cultural and ecological dimensions of rural areas, it supports, among others, the local processing and marketing of agricultural products. Research has been mostly concerned with institutional change, addressing policy makers (Goodman 2003). By contrast, North American literature on local food systems is closely allied with activist circles and is consequently more concerned with the oppositional character of local food systems (Dupuis and Goodman 2005, Goodman 2003). This for example explains the food justice movement which resonates strongly in North American contexts, while it is fairly absent in Europe (Bickerstaff and Agyeman 2009). These studies have made clear that differences between the two continents can explain much of the dynamic underlying local food systems, its practices and policies. The potential downside is that these studies reconfirm or even justify the lack of focus on justice in local food systems in Europe. The aim of this chapter is to go beyond the common understanding that justice is a relevant perspective in a North American context only. This is especially relevant given the observation that UA, but also UA in relation to justice, are increasingly discussed in international research projects and global networks (e.g. Carrot city, Milan UFPP, COST Action TD1106 Urban Agriculture Europe). These international networks can then begin to benefit from more critical and substantial discussions on the issue of (environmental) justice in UA.

The selection of Philadelphia and Ghent was partly based on the two cities’ distinct historical backgrounds. Philadelphia can be characterized as a post-industrial city, which typically deals with severe issues of poverty, unemployment and urban blight in a context of limited

government-funded social programs. Ghent is located in a welfare state with a socialist-leaning local government, resulting in many policies designed to protect the social and economic well-being of its citizens. Despite these apparently striking differences, both cities share challenges associated with an immigrant population, poverty and unemployment (see below). Because of the differences and similarities we anticipated that these cities would likely differ in terms of political engagement of the public and understanding of local food systems. This international comparison serves our aim of gaining insight into how local food systems are socio-politically framed, negotiated, and supported.

7.3.2 Data collection

Data collection and analysis were done in three steps (Table 7.2). First, semi-structured interviews were conducted with key informants in both cities. Interviewees were initially selected from participant observation and web searches, supplemented by additional names generated via the snowball procedure (see Table 4.3). In Ghent, 20 interviews were conducted in the spring of 2013 and 12 in the spring of 2014. In Philadelphia, we conducted 23 interviews in the winter of 2015. All interviews were recorded and fully transcribed. To glean information about the UA landscape, the interviewee was asked about his/her: (1) perspective on and involvement in UA, (2) opinion on the constitution of the network of the local food and agriculture system, (3) understanding of contextual factors that enable and constrain UA (4) predictions about the future of the local food and agriculture system in their city, and (5) understanding of (environmental) justice in relation to UA. Interviewees include stakeholders from the local government (administration and policy making), board members and representatives of the FPC, representatives of NGOs and farming organizations, farmers, non-profit organizations and pioneers or key stakeholders in UA. To counter a possible overreliance on input from interviewees, we triangulated data sources: field notes were made during informal meetings, field visits, and during attendance at debates and workshops. In addition, we collected relevant documents (including policy documents, newspaper articles and website texts). In Ghent, key insights also came from participant observation in the Working Group UA (a forum composed of individuals dedicated to UA in and around Ghent), and attendance at FPC board meetings.

A second step was to highlight the different scalar strategies in FPCs that steer UAPs. From the dataset, we selected semi-structured interviews with the UA stakeholders that either participate in or evaluate the FPCs, used field notes from participant observation, and analyzed websites, reports, social media of both FPCs. To compare the politics of scale, we searched

for both commonalities and differences, but our analysis focused predominantly on the differences.

Table 7.2 Data collection process

	Step 1 Understand UA and the context	Step 2 Understand FPCs, their content and dynamic	Step 3 Collect missing data to complete comparison
Philadelphia	23 semi-structured interviews Document analysis Participant observation	Selection of interviews from the dataset that discuss FPAC Document analysis	Feedback session with key actors in FPAC Document analysis
Ghent	20 + 12 semi-structured interviews Document analysis Participant observation	Selection of interviews from the dataset that discuss GEG Document analysis Participant observation	Feedback session with key stakeholders in GEG Participant observation Document analysis

Third and last, we maintained contact with relevant stakeholders or conducted additional interviews to get feedback on our analyses, as well as to resolve missing data, stay up to date on important events and processes, or enrich the comparison. Together, the resulting overview allowed us to make an analysis of the politics of scale in relation to UA in Ghent and Philadelphia.

7.3.3 Introducing the food policy councils and their context

The FPCs of Philadelphia and Ghent are similar in how they are organized (Table 7.3). FPAC and GEG are direct outcomes of comprehensive urban sustainability plans, Greenworks and Climate Plan Gent, respectively. Both plans have a strong focus on food. In Philadelphia in 2009, the Greenworks document stated a commitment to become the greenest city in the United States (Greenworks 2009). Greenworks considers sustainability through five lenses: energy, environment, equity, economy and engagement. The issue of food is targeted under equity. Similarly, Ghent has developed a Climate Plan with a stated goal of becoming climate neutral by 2050 (Climate Plan 2014-2019). It has six themes: food, housing, the city as an example, businesses and service sector, renewable energy and heat, and mobility.

Philadelphia and Ghent are very different in size and population, but similar in their central location within the region, proximity to other major cities and the economic importance of their ports.

Table 7.3 Comparison of Ghent and Philadelphia

Ghent (Belgium)		Philadelphia (USA)
City-specific characteristics		
City	Capital of the province of East Flanders	5th largest city in US; largest city of the state of Pennsylvania
Population	251,133 (2014) ^a	1,567,442 (2015) ^b
Population density (inh/km ² /inh./mi ²)	1,608/4164.72	4,480.96/11621.87
Total surface (km ² /mi ²)	156.18/60.30	349.80/134.87
Food policy council		
Name	Gent en garde (GEG)	Philadelphia Food Policy Advisory Council (FPAC)
Founded in	2013	2011
Food policy council	Government created	Government created
Function	Policy advisory	Policy advisory
Location	Office of Environment, Climate, Energy, and North-South	Office of Sustainability
Employees	1 coordinator	1 manager + 1 coordinator
Funding	Local government	Local government + funders
Strategic objectives	A shorter, visible food chain More sustainable food production and consumption Stronger social value in food practices Reduce food waste Maximum reuse of food waste as a resource	Anti-hunger Local food procurement Vacant land Zero waste Governance and membership Communications and outreach

^a Algemene Directie Statistiek [ADSEI] 2014, ^b U.S. Census Bureau 2015

Within the administrative territory of Ghent, about 20% of the land use is specified as agricultural land (SUM 2015). In Philadelphia the agricultural areas are located further away as the city is densely urbanized (see population density in Table 7.3), although a large amount of public and private land within the city is vacant, often blighted, and waiting to be redeveloped (Wachter et al. 2010).

Both cities face considerable challenges with poverty, immigration and unemployment. Many sources report that Philadelphia is one of the poorest major cities of the United States, with about 25.8% of the population living in poverty (US Census Bureau). Approximately 32.4% of

the residents has an income below the poverty level, with 12.2% at below 50% of the poverty level (City-Data 2016). While no such comparable statement can be found for Ghent, the majority of indicators related to poverty have been growing for a number of years, leading us to conclude that poverty and unemployment are growing problems (OCMW 2015).

7.4 Results

The data used in this chapter are explored in light of the scalar practices of scale framing, scale negotiating, and scale matching with the aim of illustrating how the politics of scale in FPCs influence UA governance. The comparison of the two FPCs (GEG and FPAC) are discussed below.

7.4.1 Scale framing

A comparison of the two cities' comprehensive sustainability plans and their FPCs reveals remarkable differences in framing the localization of the food system, the issues that are related to the FPC, and the suggested strategies to support UA. UA in Ghent is framed primarily at a broad city scale, while UA in Philadelphia is linked to more specific locations within the city.

Philadelphia's "Greenworks" document (i.e. the comprehensive sustainability plan for Philadelphia) placed UA in relationship to a goal of equity: the aim is to provide "*walkable access to park and recreation resources and affordable healthy food for all Philadelphians*" (Greenworks 2009). The interviews revealed that the role of UA in FPAC is most strongly embedded in concerns about poverty, vacant land, and crime. To achieve the goal of increasing "*access to local food, Greenworks set a goal of adding 86 new gardens, farms, and farmers markets by 2015*" (Greenworks 2009). This specific and targeted focus on walkable access and establishing a number of new UAPs results in an UA that strategically tackles issues in specific locations often conceptualized at the neighborhood, street or even individual human scale.

In contrast, Ghent's Climate Plan - which aims to benefit every citizen - is largely expressed in terms of CO₂ neutrality (Climate Plan 2014-2019). The rhetoric of developing a local, sustainable food system is embedded within the image of a climate neutral Ghent and has few or no predetermined targets or figures. The systemic approach and lack of stated targets leaves GEG free to develop in many different directions.

Scale framing has implications for the issues that UA is supposed to respond to in a given context as well as for the actors and activities that ultimately receive support. This is illustrated by the following quote:

I do think it is the city's responsibility to support in whatever way they can a healthy food system that gives equal access to all residents ... to the benefits of having that healthy food system. So it is not just about wanting to get that local food system everywhere. For whatever... it has to be local and organic and affordable. If it is really expensive and you cannot give it to the people or they cannot buy it, it is not being equitable. [Interviewee from municipality, Philadelphia]

We observe that FPAC strives to support people who lack access to affordable, healthy and local food. The main focus of Philadelphia's UA is therefore to address neighborhood problems of food access and affordability, providing job training skills for youth, and education for children. In contrast, GEG does not target specific actors. The GEG website states that it wants to be a FPC that serves all the citizens of Ghent: *"Who are we? Well, in fact, we are you, me and them. GEG is an interactive forum of the city of Ghent for all residents of Ghent"*. Such a reference is inclusive, anonymous, and does not prioritize any specific group or audience. In practice, however, GEG does emphasize one group within the Ghent UA context: professional farmers. They justify this by the more certain future offered by professional agricultural practitioners.

You know, that is a question that is often asked: is UA a trend or a hype? ... I truly hope we will evolve toward a food system which is more local and more sustainable. I think there is no alternative. But to what extent the non-professional UA will remain, is hard to predict. Maybe in 20 years the community gardens will be long gone again ... But the professional UA? I am convinced that the farming system will have to change in order to stay livable. [Interviewee from municipality, Ghent]

The above quotes reveal that Ghent considers UA most beneficial as an economic sector at the city scale, while Philadelphia perceives the beneficiaries of UA as those in any specific location who are dealing with equity issues. This framing of the beneficiaries reconfirms the scale of the local food system.

Another way to illustrate the scale framing of UA is to look at how physical space for UA is considered and subsequently what kind of practices are prioritized. We found that productive

spaces are approached as a constraint in Ghent and as an opportunity in Philadelphia, even though both cities give major attention to providing space for UA.

In Ghent, lack of space has become a contentious issue. It is discussed more in general terms as an issue of the city at large that ultimately leads to a constraining dynamic. Although the different types of interviewees all expressed the ample possibilities for new food production spaces in the city, few measures are taken to discuss more specific opportunities for collective action. Moreover, existing UA networks do not organize around specific barriers or opportunities. In this situation no one becomes accountable for the issue. This could be another motivation for government employees to shift the focus to the remaining professional farming sector, as a way to substantiate the current enthusiasm for UA among stakeholders in the city.

In comparison, Philadelphia has created a more enabling approach to turn vacant land into food producing sites. The city has relatively more vacant land than Ghent but the spaces are often small and could be considered insignificant in terms of food production. Furthermore, land access and tenure for these plots have been one of the major issues in the UA movement. Yet, we observed that a more specific and targeted focus on neighborhoods, groups or organizations incited these very local and specific plots to be considered as the scale at which UA can be realized. Concerns about land access have even led to a separate Vacant Land Subcommittee in the FPAC.

Notably, certain topics are avoided or not framed at all in both contexts. In Ghent, stakeholders of GEG (including municipality officers) often recognize that UA identifies predominantly with a white, highly educated middleclass, but they treat it as a given instead of an outcome of scalar politics in a local food system. This is in contrast with Philadelphia. When a middleclass bias or exclusion of minority groups occurs, UA stakeholders in interviews would explicitly formulate this phenomenon as a political issue. The observation that the perhaps overrepresentation of middleclass in UA and UA governance in Ghent is not recognized by UA stakeholders as a political issue or an issue that has to be addressed in urban politics is illustrated by the quote below:

Does your project also have social objectives?

Yes absolutely, the members have contact with each other. New networks emerge ... It is mainly young, Flemish families. We reach the middleclass. We also barely have elderly people in our project. And normally, once people are a member, they stay a

member. Sometimes they stop, but I notice that after a while they miss our activity and they come back. [Civil society organization]

After this statement, the interviewee continued to focus on the different activities organized in the UA project and made no more references to the type of stakeholders in the organization, which indicates that the type of stakeholders they include and exclude are not problematized. Also on the GEG website where information is provided on the goal and activities, nowhere in its emphasis on the social dimension is the link made with access to local and sustainable food:

The new GEG platform is next to a source of information also a participatory tool where the social dimension is put up front. Citizens from Ghent find, among others, locations where local food products can be purchased, an overview of vegetarian restaurants, restaurants that offer doggie bags, and the locations of Food Teams. This way, GEG offers for the first time a citywide platform where citizens, organizations, and businesses can find each other in their shared interests for sustainable food. (Stad Gent 2017b)

Furthermore, it was also observed that issues relating to social inclusion receive almost no attention during GEG meetings, while in FPAC much emphasis is laid upon them. These issues are for instance the question of who is and should be part of the meetings, the lack of participation from minority groups, the question of how UA could benefit vulnerable groups in Ghent (e.g. lower educated and young people, children).

Similarly, in Philadelphia the efforts to support professional farmers or connect them with the action in FPAC are mostly left to other organizations or market dynamics outside the work of the FPAC. An issue often mentioned is that farms are located far from the city center, implying serious logistical and supply challenges. This is in contrast with GEG, where much of the discussion in the meetings and initiatives revolve around the professional farming sector.

7.4.2 Scale negotiating

The practice of scale negation allows analysis on how UA stakeholders in both FPCs try to control the governance processes by confining UA to a specific scale. The data reveals divergent outcomes in FPAC and GEG regarding the scale at which UA is assumed to be most appropriate.

In Philadelphia, both the representatives of FPAC and the non-profit community UA organizations are aligned in negotiating the scale of UA at the community or neighborhood level. FPAC sees its role to organize a platform for these organizations and even individuals focused on food justice:

“... A lot of non-profits work together but the city really needs that expertise and like ... from appointed members and residents in Philly who are doing the work ... we NEED them at the table. We cannot make decisions without hearing what they want.”

[Municipality, Philadelphia]

A representative of one of the UA community organizations explains that one important outcome of Greenworks and FPAC is the collaboration among non-profit organizations and their common goal to hold the city accountable for its commitment to the goal of equity. These organizations have thus built negotiation power in FPAC and further claim their voice at the urban level. This alignment between FPAC and the non-profit UA, goes at the expense of other claims for UA. One specific project focused on the scaling up of entrepreneurial farming in and around Philadelphia experiences exclusion from the negotiation process on UA:

It is all non-profit, and they are not interested in the business aspect. I want to produce farmers not grant writers I want to produce business people ... Nobody believed in this report in which we laid out the economies of scale that could be done. But the city was just not interested and remains uninterested ... When I go to speak at some of these conferences the non-profits get up and say what they need from the city and their list is like this long. Then I get up and say: you know I am kind of representing the entrepreneurial farmer and they do not have a list. They [the non-profits] just reply: “Stay out of our way and do not make it hard for us”. [Professional, Philadelphia]

In Ghent, the negotiation process of the scale of UA remains on the level of the city as a whole. One of the reasons is that, being the first food council in Belgium, GEG has to put much effort into proving its relevance in the context of Ghent. Moreover, there appears to be opposition from stakeholders in Ghent who see agriculture in opposition to the policy goals related to nature:

The Green Party has an issue with urban agriculture. They are mainly supported by people who have no focus on agriculture, but rather on nature. They do not see that agriculture for the city could be enriching. For them, it is difficult to accept that green

spaces would be used for agriculture because they see both as mutually excluding. [UA pioneer, farmer, Ghent]

The fact that legitimacy is an important concern for GEG, may explain why it prioritizes negotiating the role of UA at the level of Ghent as a whole, why it seeks regional and international partnerships, but also why it is strongly controlling the coordination of the stakeholder collaboration by appointing itself as the matchmaker:

In the first place, my role is to carry out the strategic plan internally and externally. And then, the matchmaking of course. Much comes down to that ... Often, I just try to connect people to each other. We are a point of contact for individuals and initiatives in UA. [Municipality, Ghent]

In order to be effective, partnerships and networks come to be seen as means to achieve the goals in the Climate Plan (i.e. CO₂ neutrality). As a consequence, UA stakeholders focusing more on the neighborhood or individual scale have less entry points for participation in GEG. This is confirmed by many interviewees who stated that there is a lack of organization among UA practitioners, and that a common goal is missing. This further decreases the negotiation power of the grassroots scale in the FPC.

Besides the negotiation process itself, the way the negotiation process is organized appears equally important to define the scale at which UA is considered most relevant. Analysis of the organizational aspects of both FPCs highlights that FPAC is organized to include and stimulate participation from below, while GEG is tailored to the needs of expert or professional participation.

Interviewees stated that FPAC allows adjustments to the subcommittees to ensure that the content remains most relevant to the practices in the field and that civic engagement is stimulated. For instance, the name of the Vacant Land subcommittee was changed to “Urban Agriculture”, underscoring the focus on UA within communities (FPAC 2016). FPAC alternately meets in public places - not only in government buildings - and after office hours. Many participants - mostly experts in the field - are government-appointed members. Although their presence validates the outcome of a vote, everyone in the room is allowed to vote, thus ensuring the impact of their attendance. To deal with the challenge of ensuring constant civic engagement, specific subcommittees have been set up, i.e. one for governance and membership, and one for communications and outreach.

GEG operates with a different logic and rather sets and coordinates the agenda in a top-down manner. Before the meetings, attendees can request to discuss any relevant topic. However, in practice the council meetings mostly serve as an information dissemination platform on the part of the city instead of an opportunity for deliberation. The meetings are held during office hours, which hinders public participation and leads to attendance predominantly by professionals such as academics, representatives of larger organizations, and other governmental actors who attend the meetings in their professional role. Inclusion of new participants in FPC is organized in a closed manner. Despite GEG investments in developing participatory processes and encouraging more stakeholder engagement, especially in the different working groups, participation remains an often-stated issue.

Furthermore, guaranteeing transparency is another aspect that highlights FPAC approach to the public as a legitimate stakeholder in the FPC. FPAC establishes transparency through publishing minutes from the subcommittees and general meetings; publicly announcing upcoming meetings; and providing contact information. FPAC also confronts the public with politically and socially sensitive topics. This is illustrated by a quote in one of the posts of FPAC on Facebook (Nov. 4 2016): *“How do you build real, authentic food sovereignty? By talking about governance. You do that by talking about community control over food systems”*. On its social media platform, topics such as the inequality effects of a potential soda tax, hunger among children, and the affordability of local food are discussed or at least introduced.

GEG does not prioritize transparency of its work toward the broad public. It sends reports of meetings only to the attendees, upcoming meetings are announced through email and invitations are sent to a group of stakeholders selected by GEG, and contact information is missing on the GEG website or social media, meaning that less informed citizens cannot directly get in touch with the GEG at the coordination level. Furthermore, activities of GEG on social media can be summarized as a dissemination of information on public events, as a celebration of government-led and civic initiatives in the local food system, and as a stimulation for individual participation in the projects that are initiated or supported by GEG. Political debates are only rarely started or encouraged. Posts in the GEG Facebook group such as these illustrate the focus on individual action (Oct. 24 2016): *“Are you still looking for a place to garden? Then quickly take a look at the offers for sharing a garden on the forum!”*

Taken together, this section has illustrated that through negotiation processes over the local scale between different groups of stakeholders, UA comes to gain relevance at different levels in different contexts. In Ghent, the role of UA is mostly discussed from the perspective of Ghent as a whole, while in Philadelphia, it is more specifically located expertise within Philadelphia

that is sought to address issues of food justice. Furthermore, it is also shown that the organization of the negotiation process further enhances and confirms the scales at which UA is embedded in both contexts. While the focus on public participation in FPAC empowers grassroots to negotiate their interests, GEG is focusing more strongly on opportunities at the city level and beyond that justifies its relevance.

7.4.3 Scale matching

In this section, we examine how the practices of resource mobilization for UA (mis)align with the scale(s) at which UA is framed. Both municipal governments proactively collected data or information required for policy making and implementation. However, they both prioritized knowledge that confirms the major frames related to UA and the partnerships and networks that share a similar approach to local food systems. For instance, in 2015 the city of Ghent invested in a large study to develop a vision for agriculture. Key aspects were preserving farmland and professional farms and supporting a climate neutral city in 2050 (SUM 2015). GEG also matches its city scale approach with partnerships that also adopt a systemic approach to the food system. GEG invests a great deal of time in supra-local partnerships, for example by engaging in regional and international networks (e.g. Milan Urban Food Policy Pact, Eurocities Network, RUAF) and by focusing on the consumption of fair trade foodstuffs. In 2015 Philadelphia started the Philadelphia Land Bank, a platform for converting blighted land into community spaces by facilitating the acquisition process of a plot of land. The Philadelphia Land Bank is an illustration of long-lasting effort to collaboratively develop UA by matching the framed problems of poverty and urban blight with the available resources (*i.e.* community demand for gardening space, available land).

In both cities, thorough communication about the GEG study and the Land Bank in FPAC suggest that the professional agriculture question in Ghent and the access to land issue in Philadelphia are made explicit and tangible. The communication around specific issues also facilitates organization around them and increases the likelihood that new practices or civic engagement will also revolve around these topics. This serves to confirm the scale(s) at which UA will be developed.

Scale mismatches occur when the scale at which the problem is framed cannot be met by the available resources. The cases below illustrate that in Ghent, such a specific focus in UA governance can result in scale mismatches or an immobilization of available resources (including people and their concerns). A first scale mismatch illustrates the insufficient budgets in GEG in relation to its ambitions:

When you read the policy program you think: wow, that is really unusual - they are so driven. But when you see what resources are made available ... It is only peanuts. I find that very unfortunate [UA pioneer and participant in FPC, Ghent].

In other words, the aspiration to develop a fully functioning local food system is slowed by a shortage of resources such as funding and land. In the meantime, interviewees have expressed concern about momentum in the UA movement and that now is the time to further substantiate the current enthusiasm for UA. Although interviewees repeatedly mentioned concerns such as lack of productive spaces, soil health, and regulatory barriers, we observed that instead of addressing those concerns, GEG tends to celebrate exemplary UA cases. Observation of GEG meetings revealed that their capacities are insufficient to gather data that inform UA stakeholders about their concerns, such as the middleclass nature of the UA movement, access to land and access to food. GEG thus leaves these concerns to be addressed by organizations or networks outside the FPC, where they are not necessarily effectively communicated to a broader public.

The Philadelphia FPC can match its scale frames more appropriately with available resources. For instance, it has developed a citywide guide on food access, the Philly Food Finder, by joining partners and collecting available data:

So, what they did was gather all subcommittee partners at the table. They said: "These are the databases that we have, we have data about food cupboards, soup kitchens, farmers markets, low cost supermarkets, food access programs". So we put that in the guide too. [Municipality, Philadelphia]

Who collects all that data? [Interviewer]

Well I ask for all that data, and they provide it to me. Farmers market data from the Food Trust and health department, because they collect that ... We got food cupboard data from the Coalition Against Hunger, because they do a very comprehensive poll survey to the food cupboards. [Municipality, Philadelphia]

In this case, the specific focus to make healthy food accessible to all citizens can be matched with a number of organizations and a number of available datasets. In other words, what FPAC sets out to do, can substantially be realized through the mobilization of available resources.

Another example of a scale (mis)match was found at the grassroots level in terms of organization of civic engagement in UA and in the FPC. In Ghent, we observed only little civic

engagement, except with professional farmers who appear to be strategically organized to exert political pressure. Interviewees identified that citizens are involved in UA for primarily personal or social motivations; a commitment to discuss or engage in politically sensitive topics related to UA was largely absent. The Working Group UA is one notable exception, which is very active in the field as well as in the FPC. Furthermore, UA stakeholders in Ghent show little or no attention for the neighborhood level, except in one neighborhood which had acquired the reputation of a success story in terms of the role of UA in community development. As stated above, GEG lacks strategies and resources to include the concerns from the different networks at different scales. Although the interviews with UA stakeholders in Ghent revealed that clear and ample support from the local government exists, it is provided in an ad hoc manner and on a case by case basis. To progress UA, strong collaborative action is required, and not a reliance on individualistic actions and involvement. However, the scale mismatch between grassroots concerns and GEG framing of the purposes of UA (i.e., CO2 neutrality, increase of local food) further decreases the incentives for civic participation in FPC processes.

There are more opportunities for citizens in Philadelphia to translate their concerns in relation to UA in FPAC and form a broader political movement. The strong dynamic in civic engagement can be explained first by the fact that in Philadelphia, the concerns among communities and UA stakeholders - whether government, citizen or other - in the field are shared to a great extent. Second, numerous bridging actors or organizations (e.g. lawyers at Public Interest Law Center of Philadelphia, Neighborhood Gardens Trust) provide important assistance by collecting and translating citizens' concerns to higher governance levels. Third, the interviews revealed contrasting attention to the scale of the neighborhood. In Philadelphia, UA stakeholders focus much of their efforts at the neighborhood scale. Finally, food justice is a well-established vocabulary in Philadelphia, as in other U.S. cities. Food and food access have become embedded in a food justice frame that has gradually evolved into a social movement throughout the USA. However, it should also be noted that - as demonstrated in previous sections - objectives of UA which are not aligned with food justice tend to become excluded from the UA governance process. This indicates that different grassroots concerns related to UA do not find equal access to the governance process.

7.5 Discussion

This chapter elucidates the dynamics of politics and environmental justice in sustainability transitions as called for by a number of authors (Agyeman 2013, Avelino et al. 2016). We have examined the generic and positive conceptualizations of local food practices using an analytical focus on politics of scale and environmental justice.

As said before, we can begin to imagine a wide range of contextual factors that explain the specific focus in UA governance in different cities. Yet, given the multiple and often competing claims in UA, this chapter argues that an analysis exclusively on the context is incomplete as it overlooks power struggles as well as inclusionary and exclusionary dynamics. Our analysis of politics of scale in the FPCs of Ghent and Philadelphia shows how food governance on the local scale is both socially and spatially constructed. Although the FPCs share comparable objectives, are similarly integrated in comprehensive sustainability plans, both substantially focus on UA, and deal with comparable socio-economic issues in their city, they embed local food systems at different scales. Using an illustration of scalar practices, we show that these different scales have profound implications for UA governance in FPCs.

UA in Ghent is predominantly approached from a focus on the scale of Ghent as a whole, *i.e.* with the aim to contribute to a food system that produces significant amounts of food in and around Ghent. On the political level, UA is connected to the underlying idea of achieving city-level CO₂ neutrality while effectuating a climate policy to the benefit of everyone. These ambitious, complex aims require a strong top-down coordination, collaboration with experts and professionals who adopt a local food systems perspective, and a mobilization of new resources to provide insight into these complex issues. We observed that this happens at the expense of attention for important concerns that originate from civil society, partly because civil society actors do not strategically organize the FPC or collaborate in it.

In Philadelphia, UA is used as a strategy to address issues of poverty, hunger and urban blight at the neighborhood or lower scales. A broadly inclusive grassroots movement brings its concerns to the FPAC, which is organized to be active on scales ranging from individual to neighborhood, and the city level. Initiatives from FPAC often combine available resources with existing expertise in order to progress on the goals of food justice. Our analysis of the scalar practices in both cities reveals that “the” UA movement is more diverse than meets the eye. We have shown that two cases with very divergent goals that involve different groups of people and use resources quite differently, within a different context.

The differences in outcomes of both FPCs lead us to question the political mobilization of the local level as a strategy to restore notions often associated with local food systems, namely justice, fairness and democracy in the food system. First of all, our analysis of the FPCs has illustrated that the reinvigorated local level allows local concerns related to the food system to be voiced and defended. Both FPCs succeed in the mobilization of human and material resources, and in influencing food policy. However, since resources are scarce, divergent conceptualizations of UA in FPCs can become competing. Therefore, it is important in a

particular scaling of UA to identify the beneficiaries, the new power relations, and inclusionary and exclusionary dynamics that emerge in the governance of UA.

In Philadelphia, UA is explicitly organized around a vocabulary of food justice. FPAC's strong focus on its public character results in the inclusion of the public as a political actor to co-create the objectives and work within the FPC. However, it has also been shown that among the public concerns, FPAC prioritizes participation and inclusion of stakeholders which address healthy and sustainable food access, or issues related to blighted neighborhoods. As illustrated above, entrepreneurial UA farmers indicated to not feel part of FPAC. Its various initiatives and strategies focus on empowering the skills of community members in UA as well as in the FPC. Moreover, FPAC is less concerned with collaboration between other FPCs or negotiating the relevance of UA at regional, national, or international levels. In contrast, as Ghent is focused on a comprehensive city approach to forge transitions in the food system, it has thus far mostly been relying on experts and professionals to forward reflection and strategy development to achieve transition in the food system. This focus has resulted in a FPC that is neither deliberately exclusive nor successfully inclusive. Citizens are not perceived as political actors, but rather as the recipients of the outcomes of the policy measures and initiatives taken within the council. The agenda topics and research projects funded remain abstract and are thus difficult for many groups to connect with. The closed organization makes it difficult for citizens to engage with the FPC. A rather implicit (not strongly voiced nor substantiated) but still strong justice concern was uncovered related to the farming sector, as many resources are indeed being directed toward the local farming sector.

We do not argue that a clear and strong discourse on justice in the food system means that justice is actually being restored because of local UAPs. Instead, the above analysis is in alignment with Towers' (2000) argument that "*environmental justice is defined by scale*". Different conceptualizations of UA result in different empowering strategies and a focus on different groups, types and functions of UA. Injustices that do get addressed by focusing on a specific scale may neglect injustices that could be addressed by focusing on a different scale.

The insights provided above allow us to further reflections on the transformative potential of FPCs. This chapter argues that to build transformative power of FPCs to restore issues of justice, fairness, democracy in UA and other local food practices, governance processes have to be adapted to its context, taking into account the different practices, stakeholders, and objectives in UA. These can be realized through (1) an understanding that local food systems are multi-scalar in nature (Wald and Hill 2016), and (2) the explicit adoption of environmental

justice as a governance principle. It is argued that the potential lies in adopting these governance principles simultaneously.

Rescaling the food system to a more local level - by providing support for UA - is a multi-scalar issue. Justice issues are therefore also multi-scalar in nature. In both contexts, the multi-scalar nature of the “local” or “urban” food system is understood only to a certain extent. In Ghent, the politics of scale can be understood as a process of upward scaling; from the urban level to regional, national, and international (Miller 2009). In Philadelphia, we identified processes of downward scaling (Miller 2009), focusing on food systems change through advocacy at lower levels. Several environmental justice scholars argue that transformation will only come from addressing the root causes of unfair societal structures, instead of treating the symptoms (Williams 1999). Tackling these root causes must happen at several scales simultaneously, precisely because they are situated at various scales (Wald and Hill 2016). In that sense, we need to find strategies that foster multi-scalar approaches in the governance of UA, meaning that it can organize strong civic engagement of citizens and communities, but also advocacy to address structural issues at higher levels in the food system. According to several authors, there lies much potential for such dual focus in the concept of food sovereignty (Mares and Alkon 2011, Wald and Hill 2016).

The second suggestion for UA governance is that FPCs adopt environmental justice as a core principle. Notions of justice make policy making processes more complicated and make governance processes more conflictual (Sze et al. 2009). However, such an approach includes different visions and is *“radically different than the status quo in which the state characterizes the needs and desires of socially vulnerable populations”* (Sze et al. 2009). By focusing on abstract terms and generalizations, such as “serving all the citizens”, GEG avoids conflict, which would politicize the food system if they were to focus on environmental justice. Although in Philadelphia there is a strong focus on justice, its predominant attention for food justice in FPAC is exclusive for other claims in UA. As a consequence, the formation of a broad and diverse UA movement is constrained as the UA governance process a priori narrows down what UA can be in Philadelphia. By no means do we suggest that successful strategies or foci in FPCs should be copied from one context to another. For instance, it would be little effective to claim that the same policy objectives of FPAC related to poverty or land and food access should be inserted in the context of Ghent in a top-down manner. Yet, by adopting environmental justice, governance processes focus on the crucial aspect of taking into account the diversity of practices, stakeholders, and objectives. In other words, the FPC’s adoption of environmental justice as a key governance principle, outweighs the topics that the FPC chooses to focus on.

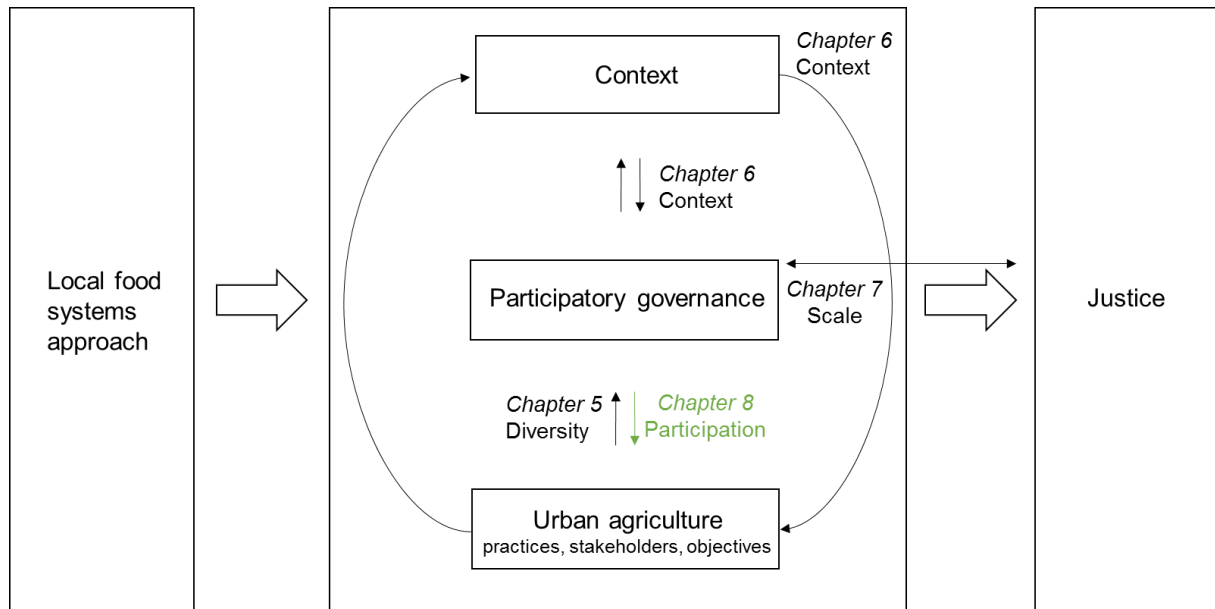
7.6 Conclusion

Because FPCs are currently one of the most comprehensive and flexible governance tools to discuss agriculture and food issues, they will likely gain relevance in food systems governance in the coming years. Precisely because of their projected relevance, this article wanted to critically explore if, and under what conditions, FPCs actually contribute to just and sustainable food systems. We identified that FPCs in Ghent and Philadelphia both take advantage of the momentum for the emergence of the local scale in food governance. However, the analysis demonstrated that under the banner of “local” and “urban”, FPCs steer practices such as UA through a politics of scale. Hence, UA becomes contingent and context-specific (Ernwein 2014). In different contexts, UA represents different practices, stakeholders, and objectives, at the expense of the exclusion of other practices, stakeholders, and objectives in UA. This analysis leads us to the conclusion that local food systems, its practices and policies, are not automatically just. In order to increase the transformative potential of FPCs toward just food systems the article concludes that FPCs should stimulate the formation of broad, inclusive UA movements. This can be achieved through a focus simultaneously on adopting a multi-scalar approach to local food systems, and on environmental justice in order to embrace the multiple sustainability claims made in UA.

Finally, we have adopted environmental justice to explore its theoretical relevance among different topics and contexts. First, we sought to explore the less obvious or more everyday spaces of environmental justice (Milbourne 2012, Whitehead 2009). In most accounts of environmental justice, the focus is on clear distributional injustices (e.g. the siting of controversial waste plants; Bullard 2000). We demonstrated that even in practices which tend to be celebrated for their contributions to justice and sustainability, there are important power struggles at play which have to be taken into account to ensure the transformative potential of UA. Second, we used a transatlantic comparison to extrapolate analyses of environmental justice to a European context where this framework is largely absent in political and activist contexts (Bickerstaff and Agyeman 2009). We demonstrated that even in a context without explicit socio-political attention for matters of environmental justice, using it in analysis provides important insights into the (dis-)empowering strategies of local actors. This helps to make issues related to justice in the governance processes of UA and local food in general more explicit. In order to make the case for a focus on environmental justice in research on UA, FPCs and local food systems, the research questions of this article could be replicated in additional contexts.

Finally, having shown the added value of building on the notions of the politics of scale and environmental justice in analyzing the dynamics of FPCs and UA governance, this chapter does not only encourage the adoption of these two conceptual lenses to study the role of local food systems, practices and policies in agri-food change. Additionally, our research shows that using multiple concepts and theories enables us to gain innovative and rich insights into questions of UA and local food systems governance and their ability to foster just and sustainable transformations in the dominant agri-food system.

Participation in urban agriculture governance



In chapter 8, the concept of participation is analyzed. It analyzes how the conceptualization and approach to participation in governance processes affect the participatory dynamic from below, i.e. how the dynamic in UA practices, stakeholders, and objectives is reflected in the UA governance process. The FPC of Ghent studied. It is explored how, when and where participation and inclusion of different stakeholders is stimulated. The analysis is based on the four perspectives of sustainability of Hajer et al. (2015). The chapter suggests various strategies, measures and actions that could result in a more inclusive and democratic FPC.

Based on Crivits M., Prové C., Block T., Dessein J., 2016. Four perspectives of sustainability applied to the local food strategy of Ghent (Belgium): Need for a cycle of democratic participation? *Sustainability*, 8 (1), 55, doi:10.3390/su8010055

Participation in urban agriculture governance

8.1 Introduction

In a recent contribution to the journal *Sustainability*, Hajer et al. (2015) have written a nuanced critique of how to redefine the Sustainable Development Goals (SDGs), a set of globally binding targets and goals adopted by the United Nations General Assembly in September 2015. Hajer and colleagues assert that “cockpit-ism”, meaning the idea that top-down steering by governments alone can address global problems, will not work. Instead, multiple perspectives on sustainable development are needed to engage civil society, business and local actors as well as to respond to their needs, interests and capacities. Hajer et al. then propose four connected perspectives (hereafter referred to as “the four perspectives”) that can strengthen the transformative potential of global sustainability:

1. “Planetary boundaries”, to address environmental concerns and protect public goods;
2. “Safe and just operating space”, to highlight the interconnectedness of social and environmental concerns and the issue of distribution;
3. “Energetic society”, to grasp the willingness of a broad range of actors to take action;
4. “Green competition”, to stimulate innovation and new practices.

All four perspectives share a common transformative potential for sustainable development. When taken separately, however, each highlights a different way of responding to “the various motives and logics of change” of the governance actors involved in establishing sustainability programs and objectives (Ribot 2014). Each perspective involves different change agents and aspects that together conceptualize a more responsive model of sustainability governance. The concept of planetary boundaries delineates how human behavior impacts the ability of the Earth System (ES) to continue in a resilient and accommodating state. In this perspective, individuals have to organize their activities safely and responsibly within a set of environmental preconditions (e.g. CO₂ emissions). As a concept it has persuasive strength toward national governments, but actions that respond to environmental boundaries will only be effective when the targets being set are sufficiently concrete. We will argue that seeking a positive conceptualization for how to live within the environmental planetary boundaries is equally important. The perspective of “safe and just operating space” speaks to the social pillar of sustainability. Here, the authors call for *“the construction of a social foundation to stimulate*

equity-based action” where resource distribution and inclusion in decision making processes will become more fair. Competition for scarce natural resources places the most vulnerable people in society at a disadvantage (Ribot 2014). Ribot (2014), with the idea of “substantive citizenship”, urges that individuals who lack the knowledge, skills and time to “influence those who govern” should be empowered to do so. We will illustrate how a local government can start to address empowerment in relation to: (1) the economic conditions of farmers and (2) inclusion in spatial development projects. The third perspective, “energetic society” focuses on a broad group of actors who already take action in sustainable development. Policy makers and politicians are slowly recognizing that bottom-up action can become a synergistic relationship between state and society (Evans 1996). Citizens, consumers and civil society should not only be referenced in policy objectives as a symbolic gesture, but they also have a responsibility to take action and should be called upon to do so. This perspective also relates to the challenge of bridging between public space and empowered space. Finally, the fourth perspective, “green economy”, highlights the entrepreneurial dimension of sustainable development. Innovation processes in sustainable development should be self-sustaining, either on the mainstream market or via alternative market mechanisms. Governments are crucial here. They must provide support to businesses that actively strive toward sustainability, while discouraging unsustainable practices. We suggest several strategies that governments can use to encourage sustainable entrepreneurship.

While the authors (Hajer et al. 2015) focus on the scale and dimension of global governance, we would like to strengthen the importance of the local level (Bulkeley 2013). We argue that similar challenges and opportunities are applicable at the local and global levels. The bottom-up, contextual approach to social change of Hajer et al. resonates with other frameworks such as the socio-ecological perspective which has been developed in the context of health promotion (McLeroy et al. 1988, Whitehead 2007). That perspective explicitly identifies the interdependence of existing policies, interventions and contextual conditions to inform policy making. Also here, it is argued that different approaches and strategies for improving health should be considered for sustainable health promotion strategies (Moore et al. 2003).

Because cockpit-ism is also a potential problem in local food strategies (LFSs), the four perspectives serve as a good entry point for developing good governance principles (Graham et al. 2003). Cities are facing complex pressures from higher policy levels as well as from their citizens’ demands for high quality urban life (McCormick et al. 2013). In response, cities have become increasingly aware of their role in mitigating climate change and have become committed to sustainable development (Bulkeley and Castán Broto 2013, Evans et al. 2005), with local food system planning often being a major priority. Local food systems are believed

to contribute to sustainable development, by addressing ecological, socio-cultural, and economic issues that the dominant global agri-food system tends to externalize (O'Hara and Stagl 2001) in a more flexible way (Seyfang and Smith 2007). They support local autonomy of food production and encourage focus on local urban and rural concerns, such as farmland preservation and food access (Bellows and Hamm 2001, Feenstra 1997). Local food systems re-establish spatial, social, economic and cultural connections (Seyfang and Smith 2007, Stagl 2002) that can result in the following contributions to sustainable development: seasonal consumption, reduction in food packaging and food transportation, generation of trust in the food system, community-building and social cohesion, education on food and sustainable development, development of local networks that stimulate ecological entrepreneurship, use and re-use of local resources, and more (Marsden and Smith 2005, Seyfang and Smith 2007, Stagl 2002). This list of benefits is long, but some authors do point out that local food systems are not sustainable unto themselves (Born and Purcell 2006, Dupuis and Goodman 2005, Hinrichs 2003, Winter 2003). Local is not inherently good. Without proper consideration, local food systems are at risk for overlooking the local inequalities, exclusionary mechanisms and injustices. Implicit in this critique is the notion that local sustainable food systems cannot be managed by top-down policy making alone. Instead, cities should be shifting toward a dialogue-oriented approach (Evans et al. 2005). The assessment of a local food system for sustainable urban development should not be based on the sum of practices, but rather on the efficiency and effectiveness of governance principles in terms of their transformative potential. In other words, good governance is a precondition for sustainable development (Evans et al. 2005). This gives rise to questions about democratic participation, inclusion and governance by a wide range of actors. In response to Hajer's (2015) concerns about cockpit-ism, we propose using deliberative governance formulated by Dryzek (2010) to bring all of the affected groups and representatives of relevant discourses together for the formal or informal organization of deliberative processes and collective problem solving. The intent here is to place the *"local food system approach on a better political footing, one that can contribute to a more democratic local food politics"* (Dupuis and Goodman 2005).

We now explore how the city of Ghent can deploy a LFS that is aligned with Ghent's Climate Plan. We adopt Hajer and coworkers' (2015) perspectives of sustainable development in our analysis and apply them to the case of the Ghent LFS. More specifically, we wish to suggest the use of these four perspectives as a heuristic framework for governance actors when developing a LFS. With "heuristics" we mean that the perspectives are intended to help structure the debate among the various stakeholders, to help them to gain insight into key issues, change logics and interdependencies while developing a LFS (As an example, see Switzer et al. 2013).

In the following section, we explain the key concept of the Ghent LFS, *Gent en garde* (GEG) as well as the data gathering and analysis process. We then explore each of the four perspectives from Hajer et al. (2015) in relation to the recent developments in the LFS and in the food and agriculture system in Ghent as a whole. In the discussion, we prove the heuristic potential of Hajer and coworkers' perspectives (2015) by proposing a governance approach for government officials and other responsible stakeholders. Additionally, we reflect on the scope of LFS and show how a LFS can be relevant and important even beyond the local level and suggest development of a regional food system as an additional governance principle. The overarching goal of this chapter is to overcome overly abstract or technical approaches to sustainability and to provide policy makers, stakeholders and citizens with a concrete and accessible approach to using LFS as one pathway to sustainable development.

8.2 Methodology

8.2.1 The context of local food strategies

For years, support of food and agriculture issues by local governments has been increasing (Schiff 2008). A LFS is one way that local governments study the food system as a whole and promote sustainable food policy (Harper et al. 2009). Institutionally, this governmental task is comparable to the role of a FPC - also called food council or food policy advisory council/committee depending on their structure, function, or resources (Doing food policy councils right 2015). FPCs are typically government-sanctioned advisory organs that exist outside regulatory government structures; they operate on small budgets with few staff and resources (Pothukuchi and Kaufman 1999). FPCs can also take the form of civil society organizations, unsupported by local governments (e.g. Water-Duxbury Food Council in Vermont, USA; Pittsburg Food Policy Council, USA; Just Food in Ottawa, Canada). A FPC can thus be defined as a board of representatives of different segments of the food system community (e.g. stakeholders or farm representatives, hunger prevention organizations, food retailers, nutritional educators, sustainable agriculture organizations, citizens, and some government officials), that shapes the food system using the political process (Doing food policy councils right 2015, Harper et al. 2009, Schiff 2008, Pothukuchi and Kaufman 1999).

In 2013, the Belgian city of Ghent launched its LFS (i.e. GEG). The city of approximately 250,000 citizens is currently governed by a socialist/green/center-right coalition and has committed itself to becoming a climate neutral city by the year 2050. The Climate Plan - also called a climate strategy - serves as an overarching plan for many public and private actions. Food is one emergent focus. The policy agreement for 2013-2018 included the aim of

establishing a LFS with a clear focus on local food practices and UA (City of Ghent 2012). The Ghent LFS refers to a program, sanctioned by the Alderman of Environment, Climate, Energy and North/South relations. One full-time employee within the Department of Environment, Public Green and Health coordinates the LFS. It has a twofold aim: to align and support public and private action along the lines of five strategic goals (Table 8.1) and to set up - what they term themselves as - a food council that brings together local experts, pioneers in urban food practices and organizational representatives. Although Ghent has taken important steps toward realizing a LFS - as have many other European and global cities - it is struggling to find its position as a mediator, facilitator and innovator in the governance of the LFS.

Table 8.1 The five strategic goals of the Gent en garde local food strategy

Gent en garde program
<u>Objective 1: push for a shorter and more visible food chain</u> Consumers and local producers must re-establish their alliances as much as possible. This requires robust relationships and the elimination of as many intermediate chain links as possible. City-oriented agriculture means that farmers should gain easier access to the local market; on the consumer side we wish to place agriculture in the limelight, in part so they will learn more about the source of their food.
<u>Objective 2: stimulate sustainable food production and consumption</u> The City of Ghent wishes to encourage farmers, residents, and users to participate in sustainable urban farming, and to encourage users to consume in a more sustainable manner (e.g. buying local, seasonal, organic, vegetarian, or fair trade products). Ghent supports the growth of Community Supported Agriculture (CSA), organic farming, and sustainable agriculture in and around the city. Because the scope for new urban farming projects in the city is limited, the available space must be utilized innovatively. Urban farming on roofs, terraces, in streets, and temporary public spaces are all included as possibilities.
<u>Objective 3: creating added social value regarding food initiatives</u> Sustainable food connects young and old, men and women, rich and poor. Based on this social potential, the city of Ghent is pioneering a food system to create added social value. New food initiatives are meant to bring people together in communal gardens, enhance local employment in relation to food etc.
<u>Objective 4: reducing food waste</u> Currently, one-third of all food is wasted globally. Losses are particularly high at the beginning and end of the food chain. Delicious vegetables that fail to meet our aesthetic expectations never make it to the shelves. A more efficient food system merits our attention, where food leftovers find new markets or better processing. Finally, we wish to encourage Ghent residents to buy in a conscious manner, store food in an optimal manner, and process it better.
<u>Objective 5: food waste becomes raw material</u> Some food will inevitably go to waste but currently too much of it ends up in the trash.. Because biological waste can generate ecological added value, the City of Ghent wishes to go one step further to optimize waste collection and processing.

8.2.2 Data collection and analysis

In this chapter, we use a combination of qualitative research methods to understand the content and the operationalization of the LFS and the different actors involved. Starting in 2012, multiple data sources have been collected through various research projects. First, we gleaned insights from semi-structured interviews with key informants in the food and agriculture system (specifically UA) in Ghent. Interviewees were selected from participant observation and a web search, followed by snowball sampling (see Table 4.3). Questions included their (1) perspective about, and involvement in, local food production practices; (2) perspective on the constitution of the network of the local food and agriculture system; (3) understanding of contextual factors that enable and constrain local food practices; and (4) predictions about the future of the local food and agriculture system in Ghent. Twenty interviews were conducted in the spring of 2013 and another 12 in the spring of 2014. Interviewees include stakeholders from the local government (administration and policy making), LFS board members, representatives of NGOs and farming organizations, farmers, non-profit organizations and pioneers in UA. The interviews identified the strengths and weaknesses of the local food system in Ghent, the goals of the different stakeholders and perceptions of GEG. Key insights also came from participant observation as a member of the Urban Agriculture working group (a forum composed of individuals dedicated to UA in and around Ghent), as an attendee in relevant debates and workshops, or as a member/attendee at LFS board meetings. Analysis of formal (policy) and informal documents (e.g. newspapers, magazines, blogs, websites) yielded additional insights. Last, a comparative case-study was performed on UA in Philadelphia (USA) and Warsaw (Poland) supplemented by participation in focus group meetings for the 2015 launch of the “Vision for agriculture in Ghent, 2050” project (organized by the City of Ghent Department of Urban Planning). Combining the data from various time periods, sources and research goals has generated a good overview of the current developments in the food and agriculture system in Ghent. The data were consulted, (re)analyzed and discussed in light of the four abovementioned perspectives. Our analysis was validated by presenting a first draft of this paper to public officers and key stakeholders in the local food system in Ghent, then taking their feedback (including only few dissensions) into account.

The following sections address each of the four perspectives. First, the perspective is reformulated and/or expanded upon according to literature, followed by a description of recent developments and local food practices in Ghent. Insights in all four sections are based on semi-structured interviews, participant observation and informal documentation; in sections 8.3.1 and 8.3.4 formal policy documents were also used; and in section 8.3.2, insights

also come from focus group meetings. Based on our own reflections and best practices from other cases, we make suggestions about how to organize a LFS and propose potential solutions to pitfalls or barriers that render a LFS ineffective.

8.3 The four perspectives of sustainability

8.3.1 *Planetary boundaries*

The concept of planetary boundaries, first mentioned by Rockström et al. (2009), delineates how human behavior impacts the ability of the Earth System (ES) to continue in a resilient and accommodating state. A science-based analysis named nine global priorities relating to human-induced changes to the environment: (1) climate change; (2) loss of biosphere integrity; (3) land system change; (4) altered biogeochemical cycles (phosphorus and nitrogen); (5) stratospheric ozone depletion; (6) ocean acidification; (7) freshwater use; (8) atmospheric aerosol loading (microscopic particles in the atmosphere that affect climate and living organisms); and (9) introduction of novel entities (e.g. organic pollutants, radioactive materials, nanomaterials, and micro-plastics). A recent update by Steffen et al. (2015), published in *Nature*, specifies that four out of the nine boundaries are currently being crossed, namely climate change, loss of biosphere integrity, land system change, and altered biogeochemical cycles. The other five priorities are currently within the boundary. Concrete, measurable targets are crucial in the effort to maintain the Earth's carrying capacity, but environmental concerns are often vaguely worded and/or lack reference to clear goals or specific time frames (Hajer et al. 2015). We argue that local policy goals regarding environmental concerns can learn from such global environmental efforts.

Ghent belongs to a network of cities committed to becoming climate neutral by 2050. The current policy objective is to reduce carbon dioxide (CO₂) emissions to 20% under the 2007 levels by 2020 (Urban Climate Plan 2014-2019). To this end, € 105 million has been allocated for direct reduction of CO₂ emissions in Ghent. More than 90% of this is earmarked for structural improvements: housing (e.g. insulation, energy-efficiency, renewable energy), spatial planning projects and renewal of city infrastructure. In line with Ghent's social climate policy, about 5% of the budget is dedicated to combatting energy poverty. The last portion - about €1.1 million - is dedicated to social innovation projects such as sustainability campaigns, a crowdfunding platform, and subsidies for local projects on climate change. Despite the social dimension in Ghent's climate governance, its central policy question is framed in terms of drastic CO₂ reduction (Urban Climate Plan 2014-2019, p.8). Individualized and mainly

technical solutions to sustainability are proposed. While in the climate strategy, the 22 most polluting companies in Ghent are excluded in the CO₂ calculations due to the EU emissions trading system, the focus is on initiatives such as insulating houses, infrastructure refurbishment, or energy subsidies. However, these means to reduce CO₂ do not tend to invigorate either social awareness or action (Kenis and Matthijs 2012). Although CO₂ targets are laudable, resolving climate change and promoting sustainability involves far more than CO₂ reduction and public communication. Shove (2010) convincingly shows that this type of environmental policy is based on an individualist account of autonomous choice, leaving less room for alternative conceptions of how social change can be attained, such as connecting sustainable practices, creating a stimulating environment, and understanding social norms.

An over-focus on CO₂ reduction presents a risk of overlooking the potential positive or adverse effects of that climate strategy. Some related initiatives that produce intangible environmental, social and economic effects can be given too little attention or disregarded. For example, Community Supported Agriculture (CSA) practices cannot be fully characterized by CO₂ reduction, but they do serve as a promising strategy to increase the sustainability of the food system. By contrast, reductions in CO₂ by transferring business to another locality could be celebrated, whereas, in fact, on a global scale, no reduction in CO₂ has been achieved at all. However, we can see that the strong focus on CO₂ in Ghent has been partly abandoned with the deployment of a LFS: the climate strategy for the city explicitly emphasizes that sustainability within the local food system cannot be reduced to CO₂ emissions. The city states that “many consumer goods are not produced in the territory of Ghent” and therefore the city “opt[s] in favor of developing a LFS, considering the substantial impact of food production and consumption on the emission of greenhouse gases” (Urban Climate Plan 2014-2019). This is in accordance with Davis and Caldeira’s (2010) notion of consumption-based accounting, accounting for the import and export of goods and services that involve CO₂ emissions. Because of the technical difficulty of measuring CO₂ emissions for activities related to the local food system, a distinct but parallel approach to the LFS was developed as part of the overall climate strategy. Interestingly, this has resulted in a framework of five strategic objectives for a more sustainable local food system (Table 8.1), in contrast to other topics of the climate strategy (mobility, energy, and housing), where a coherent framework is lacking. However, it remains unclear how the divergent approach of the LFS should be assessed in relation to the core objective of climate neutrality of the city. City officials acknowledge this difficulty and said that they are exploring different positions. Instead of discussing how the LFS affects the overall climate policy of Ghent, we instead use the four perspectives to analyze the course of the LFS as part of the climate strategy and the LFS activities themselves.

To move forward with the abovementioned issue of forging action within the planetary boundaries, we propose here (1) the formulation of concrete targets and (2) the focus on concepts that stimulate rather than discourage action. Although GEG clearly sets out a decisive and inspirational vision based on social, ecological and economic sustainability, it still lacks clear, measurable targets and a clear monitoring and evaluation system relating to planetary boundaries for these five goals. At the time of writing this chapter, several actions are being executed or planned: one day of eating vegetarian per week, a festival about food waste, encouraging restaurants to box up leftover food (“doggy bags”), and a “thinking group” about providing agricultural land. These LFS-related actions follow a communication-based and ad hoc logic, rather than working toward a definitive operationalization of targets defined in a deliberative and participative process (see section 8.4). The first step is to formulate relevant questions that can both serve to assess the societal impact of a LFS and simultaneously stimulate action on concrete targets. For example:

1. How much land will be provided to organize multifunctional agriculture?
2. What types of food hubs will be developed in the city?
3. What percentage of city infrastructure will be greened from an agro-ecological perspective?
4. Who will participate in nutrition education programs and how will it be organized?
5. How much will food waste be reduced?
6. How many school meals will be prepared in schools, with how much locally sourced food?
7. How will unsustainable consumption be changed or reduced?
8. Because the city of Ghent cannot feed itself, how will the Ghent LFS work toward a more regional food system?

These examples illustrate the relevance of having concrete targets as the object of deliberation. Without a specification of the strategic goals, the deliberative process of the LFS might not be consequential, i.e. have a direct or indirect impact on collective decisions or social outcomes. After all, such influence is essential to a democratic system (Dryzek 2009). The best strategy for a deliberative process is not simply to collect the different perspectives of participants but also to negotiate potential targets and find engagement across discourses and explore integrative solutions (Damay and Delmotte 2009).

In addition, we suggest that - specifically in relation to environmental policy - a LFS with a strong focus on UA offers the potential for a positive conceptualization of dealing with planetary boundaries. Whereas the reduction of CO₂ frames the climate problem in terms of reducing human impact, UA as a strategy within LFSs proposes agro-ecological interventions that have the potential to increase the Earth’s carrying capacity. For instance, through rooftop gardening

the number of green spaces can be increased, or through waste water recycling, the use of freshwater can be diminished. The integration of ecological corridors (Bohn and Viljoen 2011) and other types of “green infrastructure” (Tzoulas et al. 2007) on the fringe between nature and agriculture allows for positive actions toward changing the relationship between human-induced changes and the environment. Therefore, the concept of planetary boundaries should not only lead to an understanding about decreasing the impact on the environment but also to one of increasing the earth’s carrying capacity.

8.3.2 *Safe and just operating space*

The perspective of safe and just operating space adds a social dimension to the concept of planetary boundaries. Human well-being depends on the balance between social and environmental boundaries. The logic of equity-based action should be integrated into the distribution of limited resources and reflected in the outcomes of the LFS such as social integration through UA, availability of locally-produced food, and access to green space. In order for everyone to benefit from a local food system, equal access to the playing field should thus be enabled. Walker (2012) notes that equal access is not only about fair and efficient distribution of resources, but also about participation and inclusion in decision making processes. As Hanagan (2015) aptly puts it: *“The reason why most alternative food institutions appeal primarily to middleclass whites is not simply that other groups lack the means to participate in farmers markets and CSA, but also that working class people and people of color have little input into the goals and practices of these institutions”*. From this, we come to understand inclusion as fair and equal opportunities to participate and benefit from the outcomes of a LFS.

Ghent is known for having a rather progressive image, represented by high numbers of students and middleclass people. At the same time, statistics reporting on poverty and migration numbers in Ghent show that both have been growing steadily during the past years (as illustrated in chapter 4.5). Interviewees stated that in Ghent topics of food, agriculture and UA receive increasing attention and that urban food activities (UA, debates, LFS) are have an open, accessible character. However, some also raised the objection that stakeholders and practitioners in the LFS - and thus those who define the shape and content of the local food system - and other related activities (such as UA) are mainly represented by the same group of young, educated, middleclass citizens. Even though the social focus of the LFS cannot be ignored, in reality it pays only scant attention to groups or individuals who lack the power, skills or knowledge to participate. According to Ribot’s (2014) substantive citizenship, the excluded, vulnerable social groups must be seen and responded to. As a matter of fact, social and

economic inequality is increasing in Belgian cities (Federale Overheidsdienst 2016). Increasingly at risk are children and less educated people. The number of people with a lower education who are at risk of poverty rose from 19% in 2005 to 28% in 2014 in Belgium. As shown in chapter 4, numbers of poverty and unemployment are similar or even worse in Ghent. Ambitions in policy should therefore go beyond symbolic actions which do not exert real political influence. An explicit focus on diversity, which implies addressing socio-economic issues in the LFS, should be a priority.

The social foundation of equity-based action and the role of government authorities need to be rebalanced in order to restore people's political and economic entitlements. In the following paragraphs we wish to illustrate this, starting with farmers and then citizens. It is worth noting that "social concerns" implies different things for different stakeholders: of course, equity-based action and inclusion for a farmer plays out in different areas of the food system than it does for a citizen, entrepreneur or policy maker.

Recently, an investigative journalist Pluymers revealed the need to review certain aspects in the agri-food chain (Pluymers 2014). Agricultural cooperatives can no longer guarantee prices that cover farmers' expenses and a process of scale enlargement and increased anonymity have created inequitable positions in the agricultural sector. Farmers cannot easily diversify their sales channels because many of their buyers demand exclusive contracts. Because the management of cooperatives is also under pressure from retailer tactics that have increasingly moved toward a buyer strategy, identifying the locus of accountability is not straightforward. In March 2015, various political actors have proposed that an adjudicator for the Flemish food chain would be assigned to ensure fair and legal relationships between supermarkets, suppliers and farmers (VILT 2015c), but that proposal was not approved. Equity in the food chain remains an unsolved, contested and extra-local issue. Although the food chain is becoming less democratic and more (inter)national, with speculative external forces exploiting local conditions for high-value niche markets (Sage 2013), significant levers do exist at the local level to increase distributive justice (Agyeman and Evans 2003) This begs the question, how can a city enhance the just distribution of available resources and responsibilities?

A City of Ghent project launched in 2014 called "Vision for Agriculture in Ghent, 2050" (Sum Research 2015) may illustrate one way forward. In this project, conventional farmers and their representatives, pioneers, entrepreneurs, academics, representatives of social and cultural institutions and public officers were consulted in focus groups and interviews for feedback regarding opportunities and constraints of the agriculture and food system in Ghent. The Ghent context is characterized by the lack of farmland and space to develop and sustain the farming

sector. Conventional farmers have shown animosity toward new entrants to the sector focusing on local, organic and/or multifunctionality - but the project revealed a nearly complete lack of communication between the different parties about their grievances and constraints. These different parties attended workshops and began to dialogue. The participants started from many assumptions and prejudices, then gradually they began to realize that they were all facing the same constraints and they could even become partners in tackling them. Partisan and interest groups are often responsible for communication, wishing only to articulate their own interests. A LFS could therefore stimulate and promote communication between these parties, thus promoting common solutions for their shared constraints. We do not intend to suggest that stakeholder interaction is sufficient for the governance of complex issues. It remains yet to be seen what will eventually be the outcome of increased communication between competitive stakeholders. However, we argue that this is a very powerful strategy in initial phases of problem-definition and deliberation processes aiming to generate common decisions (Damay and Delmotte 2009).

Beyond the economic realm, the aspect of justice in this context also applies to the field of urban development. Hajer et al. (2015) state that a social foundation must first be built to stimulate equity-based action. Citizens need to have a fair say in, and equal access to, a local food system. In the Ghent case, much can be learned from a project called De Site. In 2003-2004, a large urban renewal project, Bridges to Rabot, was set up in the Rabot neighborhood of Ghent, one of the poorest areas in Flanders. Key to the whole process was that a one-acre brownfield became available for renovation. Initially, the neighborhood was supposed to be upgraded in the urban planning by attracting potential investments from abroad, but a whole range of socio-cultural organizations wanted to stimulate social cohesion and participation by the current residents. A local socio-artistic organization (Rocsa) wanted to write the *“story of the residents to claim the space from the existing needs and requirements within the district, not from potential new residents, who are likely to be middleclass groups”* (Rocsa vzw 2015). Interestingly, when external facilitators in the neighborhood asked what residents were missing, an overwhelming majority indicated the lack of a garden or green area. This resulted in a plan to make 150, 4 m² container gardens. Construction started in 2007, and the 150 gardens are still becoming increasingly popular. Strikingly, this project has brought together white middleclass residents, the Turkish community, newcomers, previously unknown groups, and many others. They met together, engaged for the first time in the community and instigated shared ownership of the space. New social networks created awareness of spatial development and forged increased inter-group solidarity. Sharing the produce, the public space and the infrastructure on the site all brought them together, as well as a cooperative organization of public events (Debruyne 2015). This project also heightened awareness among

the wider population and spurred discussion about the social cohesion and poverty issues in the Rabot neighborhood. The external facilitator of this project was clearly an asset for creating diversity, substantive citizenship and empowerment.

A similar project to develop a community garden was initiated in the Brugse Poort, a neighboring district. No external consultants were involved in the creation of this project, called the “Boerse Poort”. The decision making and design processes were largely undertaken by the local government and key stakeholders in the district, in this case, white middleclass men. Ghent officials put forward the requirement that this be a demographic and cultural mirror for the district. However, project stakeholders had a hard time establishing this mirror: migrant populations remained absent or refused to participate. These seemingly similar projects had a different approach to democratic participation in the initial phase. In De Site, a local and independent organization was given responsibility for the project. That organization had the capacity, resources and local knowledge to involve the different social groups and migrant populations at the beginning and give them a voice in the future development of their neighborhood. In contrast, the Boerse Poort project was owned by a few individuals who had already shaped the project to the needs of a specific group. Residents of the target groups remained absent, perhaps because they had no interest in developing community gardens or perhaps they felt excluded from the design process. In the realization of the project, the plots for minority groups were then assigned to people on the waiting list, regardless of their background.

The role of the local government is not to step away from all involvement, but it should be aware that its role is to know how, and especially when, to stimulate deliberation and participation. Decisions that project implementers might consider trivial in the initial phases have been shown to impact on the overall dynamic and societal relevance of the two projects. This is in accordance with Mendes (2008) who claims that inclusive participation is particularly important at the beginning of a trajectory, which is characterized by problem identification and solution crafting. Additionally, governance processes should account for the dynamic character of a LFS, thus resulting in changes to goals and actors. The participatory processes must include mechanisms to ensure that actors’ positions and shifting goals are represented throughout the process. Community groups in sustainable development tend to become more homogenous over time (Newman and Dale 2007), reducing the bridging capacity these projects have. This is a particularly important issue to address, given that participants with less time, knowledge and the least resources are most likely to disengage first (Ribot 2014). We therefore argue that setting up participatory projects requires time, resources and courage and cannot be merely standardized or replicated (Rogge et al. 2013); inducing participation and

guaranteeing diversity can never be achieved in the evenings alone or on the margins of a project. Instead, it should be considered as a distinct governmental task or be assigned to an independent organizer. Local government can actively support the creation of a safe and just operating space: it can act as an arbitrator in practices and organizations that aim to create a fair playing field and equitable distribution of resources and it can stimulate deliberative involvement and co-creation in the governance process of a LFS in which customization is required. And fortunately, a government is not alone.

8.3.3 *Energetic society*

Citizen action, social movements, knowledge institutes and companies are taking the lead in urban renewal practices, creating an ever-increasing epistemic challenge for politics and governmental administrations. Bulkeley and Castan-Broto (2013) argue that a blurring of public and private authority is occurring. One example is urban sustainability experiments that create new urban political spaces within the city (Devolder and Block 2015). Hajer's (2011) concept of the energetic society shows how change agents all over the world have taken action for sustainable development. Ostrom's (2010) idea of "polycentric governance" steps away from the hierarchical system to a system undertaken from multiple centers linked only within a structure of mediation. The actors involved are free to experiment with different cooperation strategies and learn collectively. These actors can be families, individuals and other small groups of people, as well as larger organizations such as businesses, local, regional and national authorities. In other words, although we understand that local governments are increasingly driven toward expenditure control, the maxim "do it yourself" cannot be equated to the maxim "do it alone".

The city of Ghent is characterized by a wealth of efforts from a very diverse group of local actors (e.g. autonomous citizens, civil society actions, innovative farmers and companies, network-based groups and non-profit organizations (NPOs)). It is unclear how these new relationships between citizens, businesses, and public authorities will progress in the future, and whether the different concerns that emerge will be dealt with in a careful and proper manner, as society transitions from a welfare state to a participation society (Devolder and Block 2010). It surely cannot be the intention that public authorities, under pressure from expenditure cuts, shift numerous (generally social) responsibilities onto citizens (Uitermark and van Beek 2010) or that "big society" serves to aggravate inequality. Ghent has supported the growth of CSA practices, organic farming and multifunctional agriculture in and around the city, but mostly only by providing communicative and moral support. Two cases illustrate how focusing on "energetic society" can establish a more equitable and inclusive role.

The first case is a citizen project relating to one of the four green development areas in Ghent, the Vinderhoutse bossen (Forests of Vinderhout). The city has acquired four acres of land with agricultural land, nature and a city-operated petting farm. A citizen project is now envisioning a multifunctional agro-ecological space where (city owned or public-private) CSA practices combine agro-tourism and ecological food production, with a potential spin-off to integrate urban farming techniques within the educative setting of the petting farm. An old farm near the city-owned acreage is for sale. The citizen group is searching for the means to acquire this estate as a public or public-private good with the aim of using it as a communal resource. A LFS could prioritize such unique possibilities for a multifunctional urban farming area and look for approaches, tools and processes to organize and envision the development of such a space. The combination of city-owned land and an actively engaged group of local citizens creates an opportunity to link the otherwise rather segregated and mono-functional zoned areas, and to stimulate further linkages between a broader set of stakeholders. Unfortunately, the local and regional planning agencies have not yet developed institutional procedures or the necessary planning instruments to combine local visioning with alternative, multifunctional modes of spatial planning. The process is still ongoing; the city's role could be decisive in the creation of the first agro-ecological and multifunctional (recreation, agriculture, nature, education) zone in Flanders⁴⁹.

The second case is about a missed opportunity in which the city could have facilitated the energetic society by searching for new farmers and thus acquiring land for self-organizing new local food systems (e.g. CSA) as well as for farmers who could potentially target food sales to city dwellers. In Flanders, many new farmers are searching for land to buy or lease. While the city of Ghent was at first unsure as to whether they could allocate land for any type of UA projects, an article published in the specialized press for agricultural news (Vlaams infocentrum land- en tuinbouw, VILT) revealed that the Ghent Public Centre for Social Welfare (OCMW) - which comes under the direct authority of the city - sold 250 acres of the 2900 acres it owned at the beginning of this legislature. The article stated that in *"the past two years, seven farms and 53 acres of farmland, 20 residential houses, three acres of building land and 17 acres of forest and woodland have been sold for a total of € 14.5 million"* (VILT 2015d). This observation is in sharp contrast with the scheduled budget of € 300 000 over six years for the deployment of a LFS. It raises questions about how seriously the deployment of such a strategy to increase local and sustainable food systems is taken.

⁴⁹ In the meantime, the project proposal for that farm was retrieved due to both internal legal struggles on the side of the owners of the farm, as well as a lack of public support. The project is now developed on a farm outside of Ghent.

Of course, the government cannot be held accountable for the success of an energetic society. The challenge of reconnecting top-down with bottom-up is part of the larger political challenge of re-thinking the relationship between the state and civil society. Within the LFS, Ghent has the potential to develop a social perspective on democracy. However, an energetic society also requires the citizens to shift their perspective. Engaged citizens tend to approach policy makers individually to discuss personal projects and seeking to gain specific support for them. Interviews revealed how this mechanism of “playing favorites” still prevails in spite of calls for participatory governance. Even when governments do organize participatory events, citizens often use these instances as a means to protect personal interests or complain about policy dynamics. This perpetuates a context where the most knowledgeable, empowered and organized citizens benefit from governmental support and any opportunities that open up through the LFS. An energetic society is thus a two-way street: political agents will need to go beyond electoral concerns and consensus-based politics, and citizens will need to adopt a stance that goes beyond complaining and personality-based voting. Governance approaches are needed that sustain the energetic society by grasping and channeling grassroots efforts to effectively meet the goals of a LFS. Three examples provide inspiration.

To ensure that public land is devoted to public needs, a land bank could be established. In this way, a specific acreage of public land can be leased or sold to individuals for sustainable food production activities. For example, in Philadelphia, PA (USA) a broad group of public and private actors have been developing a land bank that came into effect in January 2015. While this has been set up because of specific problems relating to vacant land and poverty, the mechanism behind it and its intentions are a source of inspiration. From now on, public land brought into the land bank can be transferred to individuals who intend to revitalize neighborhoods or communities, including development of community gardens. On the one hand, this increases transparency in the governance process for public land and creates opportunities for new actors, while, on the other hand, it expands the group of stakeholders involved in urban renewal practices, i.e. energetic society (Hajer 2011).

Local food councils can also bridge between citizens and government, when they explicitly invest in public involvement and clear assignation of responsibilities (Coplen and Cuneo 2015). The Food Policy Advisory Council in Philadelphia (FPAC) shows how this process could be developed and steered. The FPAC is represented by members appointed by the mayor, but it is strongly driven by the participation of individual citizens. The subcommittees and focus of the FPAC have been defined through debate, with the focus of the subcommittees shifting depending on the needs and dynamics at the time. The meetings are alternately held in government buildings, and in public spaces after office hours, to stimulate the inclusion of

stakeholders from outside the policy realm. The FPAC employees stimulate and promote action within Philadelphia's food and agriculture system and regularly formulate policy advice. But the voices and efforts of citizens, representatives of NGOs and institutions, and local experts are also significantly represented. It is not argued that the GEG program is exclusive to individuals outside the policy, institutional and organizational realm. We merely point out here that openness and encouraging individuals to bring their concerns and needs into the debate within the FPAC is a valuable starting point for creating an energetic society, while also contributing to the establishment of a safe and just operating space.

The third strategy to meaningfully connect the public sphere with governance space could be participatory budgeting, already applied in many cities around the world. This process of democratic deliberation and decision making empowers citizens or neighborhoods to allocate part of a municipal or public budget. This engages the citizenry in public spending on issues of food and public open space. However, it is important to note that this will only work on condition that the participatory budgets represent more than a symbolic action and are not a hidden means of scouting for political campaigns (Uitermark and van Beek 2010). Here, another reference to the danger of benefitting the most knowledgeable, informed and empowered citizens is in place (Ribot 2014). Taken together, and parallel to the conclusion for the second perspective, Similar to creating a just operating space, governance approaches that feed an energetic society will require time, resources and courage, and will have to go beyond only communicating about bottom-up projects and businesses, or the LFS in a generic way.

8.3.4 Green competition

Processes of innovation have always found their way to the market and challenges of sustainability can be addressed in large part by developing business models. We approach the concept of green economy in a critical but constructive manner. Maintaining a link with the other dimensions of sustainability is a serious challenge and cannot be attained by merely shifting rhetoric and corporate communication. Corporate Social Responsibility (CSR) and business strategies oriented to sustainable development have become increasingly important. As the World Business Council for Sustainable Development (WBCSD) states in its Vision 2050 Summary Report: *“Rather than follow change, business must lead this transformation by doing what business does best: cost-effectively creating solutions that people need and want. The difference is that the new solutions will be based on a global and local market place with true values and costs, the truth being established by the limits of the planet and what it takes to live well within them”* (WBCSD 2010). First, radically new ways of delivering goods, services

and well-being will require experimentation among business, policy makers and consumers. That will provide an enabling environment in which new business strategies can be developed (DeLind 2002, Lyson 2000, Tolbert et al. 1998). These businesses can begin to account for all additional costs, such as environmental and human health costs, associated with food production that are usually not internalized in price setting (Foodtank 2015, Schaltegger and Burritt 2000). Degrowth thinkers go even further and advocate for a full ensemble of environmental and redistributive policies, including policies for a basic income, reduction of working hours, environmental and consumption taxes and controls on advertising (D'Alisa et al. 2015). They argue that pricing and market mechanisms alone are unlikely to secure smooth adaptation to a society that lives better with less and that alternatives such as governing of the commons or exchange of goods and services should be explored (Daly and Farley 2010, Kallis et al. 2013). Hajer et al. (2015) in turn rightly indicate that governments have a clear role in (1) stimulating new business practices that actively implement sustainability as a core strategy and (2) dis-incentivizing unsustainable systems and practices. Second, fair competition is particularly important for creating economic sustainability. To exploit all possible innovations toward sustainability, every type of businesses must be able to access resources and potential market share.

The public procurement policies of Ghent in which the LFS is an active stimulator regarding public procurement of food, can illustrate both of the above points. A bottom-up campaign in Ghent called the Campaign for Local, Ecological and Fair School Lunches (LEF initiative) strives for farm-to-school programs. It has received a positive evaluation from the Alderman for Education as well as Ghent's Services and Logistics Unit. Considerable effort has already been made to integrate ecological and social sustainability criteria within the city contract for school meals, the challenge remains in finding a solution to include more business practices in a fair and sustainable manner (Allen and Guthman 2006, Tolbert et al. 1998). Currently, all school meals are provided by a large national company specializing in delivering pre-prepared meals all over Belgium. Novel business practices could be given a chance in two ways: by changing procurement procedures and fostering food hubs. The procurement procedure called "lotting", a well-established and legal procurement practice, creates opportunities for smaller providers to enter the market by breaking a current contract into smaller lots. A contract to provide 450 school meals per day (=approximately one lot) offers a more realistic market segment for a small- or medium-sized enterprise (SME) specializing in sustainable school meals than the current contract of 4500/meals a day. Larger companies can still bid for one or even all of the lots, but an element of fair competition has been added, thus leveling the playing field to support innovation. This shows how a city has a lever to enhance fair competition and support green niches.

Justice in food distribution can also be created via a LFS by reconnecting food producers and consumers and using more sustainable forms of logistics (Blay-Palmer et al. 2003). The organizational model of the “food hub” focuses on adding environmental and social criteria associated with sustainable food systems and market management procedures. Although the concept of a food hub is dynamic and evolving (Horst et al. 2011), we know that it can take several forms, both physical and virtual. These can be in the city (e.g. a food hall) or in the peri-urban region (e.g. multifunctional farm or food innovation center). In Ghent, existing food hubs take the form of 18 Food Teams (organization of direct farm sales among a group of consumers and the recently introduced Fermet business (an online farmers market). Both alternative food distribution systems feature online food ordering with delivery or pick-up of the farm products from a specific location. Both businesses have been specifically set up to support local farmers by guaranteeing a fair price. Although these types of businesses originated from a societal concern, they are now embedded within routine consumer behavior and have a clear growth potential (Crivits and Paredis 2013). Even though these alternative food networks can operate successfully outside the sphere of the local government, the apparent interest and demand for such businesses and projects should be an incentive for local governments to support these types of practices (e.g. by providing space to organize food deliveries) and - going one step further - to initiate more structurally integrated and physically visible food hubs. These places can become more than mere consumption junctions (Oosterveer et al. 2007), and can initiate socio-cultural processes relating to sustainable food consumption and UA. Cities such as Drumshanbo (Ireland) and Parma (Italy) actively integrate new food hubs into the city’s infrastructure, allowing local economic actors to attain and secure profitable channels of sale.

We acknowledge that the development of a food hub as a safe and just operating space entails a series of interventions such as: (1) actively recruiting new potential producers; (2) investing in city infrastructure; (3) consistent engagement of citizens and other stakeholders; and (4) mediating a price setting that achieves a balance between a fair price for the producer and an affordable price for all local residents. Robust evidence - although confined to the global South, with a large farmer population - suggests that higher food prices reduce poverty and inequality in the long run (one to five years), because over time they also generate wage impacts and thus income redistribution (Headey 2014, Ivanic and Martin 2014). By considering a food hub as a public space, as well as a means of invigorating consumer-producer interactions based on fair prices, a city can become both a facilitator and an arbitrator to enhance economic activity within a just, operating space.

8.4 Discussion

8.4.1 Toward more democratic governance of local food strategies

In this chapter we have adopted four interconnected perspectives on sustainability (Hajer et al. 2015) in the context of developing a LFS in the city of Ghent. We have demonstrated the relevance of each perspective in the case of a LFS in Ghent by describing current developments in the agriculture and food system in Ghent, including pitfalls and constraints. We have illustrated how local governments can become a facilitator, mediator and innovator in sustainable development through LFSs.

The city of Ghent explicitly advocates its choice for a social climate policy that addresses the well-being and participation of all citizens as well as achieving environmental goals (Urban Climate Plan 2014-2019). We have contended that the LFS operations can lead to a process of social innovation for sustainability. As the five goals of the GEG program (Table 8.1) illustrate, and as we have shown for various ongoing cases in Ghent, projects relating to food and (urban) agriculture are a stepping-stone to enhance sustainability in its various forms and from different perspectives. Hajer et al. (2015) specify that one way of operationalizing a sustainability strategy, is to link social well-being to sustainable management of resources (a safe and just operating space). From this perspective, a LFS should not be a strategy on its own, but should also be an impetus for other policies and programs. Poverty reduction, health policy, education, social welfare, economic development and spatial development policies could potentially be addressed by engaging in the specific practices of local food production and consumption and the development of a greener or agro-ecological infrastructure. Although these goals can be partially funded by connecting existing policy budgets to the social, economic and environmental benefits of local food systems, a LFS requires a substantive budget and priority status, which is usually not the case GEG has only been granted a budget of € 300 000 over a six-year period, in stark contrast with Ghent's total climate budget of € 105 million. This budget seems inadequate to meet their five stated strategic goals (Table 8.1). Despite the small budget, numerous actions are currently being undertaken by the department, such as providing space to UAPs or participating in international projects that generate money for the LFS. However, without a larger budget, existing support cannot be consolidated and organization of local food activities on a larger time frame is impossible. At the same time, more weight should be given to physical resources (e.g. providing land, space for food hubs) and non-physical resources (e.g. communication, time, participation and inclusion) for the substantiation of a LFS.

Top-down local governance of a LFS is not appropriate or sufficient, however. The LFS also needs support to create a setting that enables all relevant actors to design and participate local food projects, policies and enterprises that enhance sustainability. A LFS can thus only be truly successful when the energetic society is mobilized to work together with administrators to form governmental goals and when they integrate their own views and life experience into those goals (Evans et al. 2005, Graham et al. 2003). One must keep in mind here that the design of a setting never neutrally represents the public and the issue; it always constructs and transforms them, inevitably implying inclusion and exclusion. A “good” setting, then, is not one which is neutral, but one *“which deforms, constrains and enables in interesting ways”* (Gomart and Hajer 2003, Lahsen 2004). We agree with Farrell and Shalizi (2015) that democracy is the best way to solve complex problems, and that aiming for democratic improvements *“is a commitment to making power relations more equal”*. This is also an important insight for the further deployment of the Ghent LFS and its overall sustainability strategy.

We now formulate some suggestions on how to develop a coherent and effective LFS in a complex, unequal and rapidly changing context by integrating the four perspectives of sustainability within a governance approach (Figure 8.1). This approach can be employed by government agencies and local authorities in the operationalization of the strategic goals of a LFS.

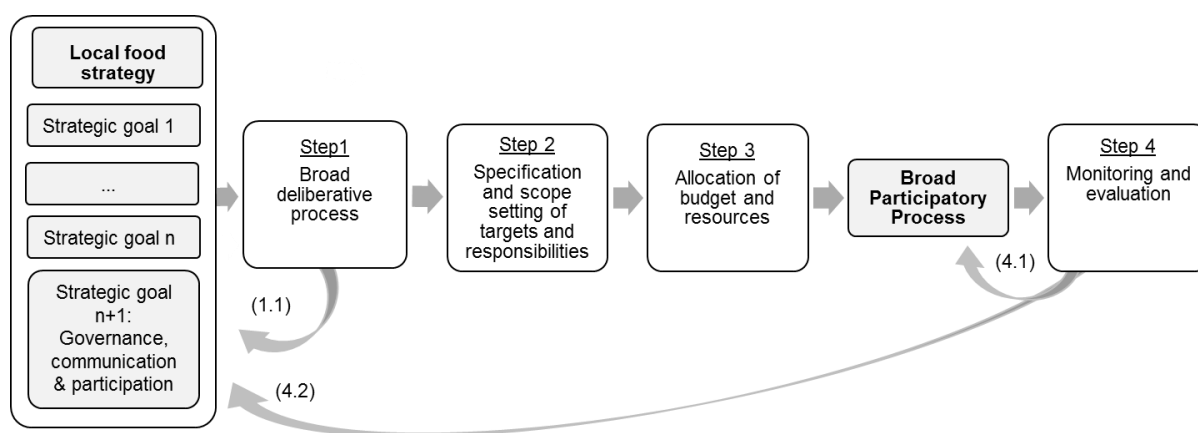


Figure 8.1 Governance of a local food strategy (LFS): cycle of democratic participation.

This simplified cycle of democratic participation illustrates how (LFS) governance processes could take shape in practice. As it is often argued, strategic decisions on complex issues are mostly given form and content within a governance setting in which a convergence of circumstances determines the decision making (Kingdon 1984), or whereby only incrementally - either through a learning process or not - decisions are reached (Block et al. 2012, Mintzberg et al. 1998, Teisman 2000). Nevertheless, the figure does illustrate how local authorities could

effectively make sense out of the complexity and insecurity inherent in governing a LFS. The steps can thus best be approached as a heuristic framework that enables experimentation and trial and error and that embraces insecurity, through which multiple networks can develop, grow, cooperate, evolve and take responsibility. A strong and explicit focus on substantive citizenship is imperative (Ribot 2014), in which actors or groups generally excluded from participatory and decision making processes become represented and responded to. Well aware of the tension between ideal scenarios of democratic participation and pragmatic solutions that start from a specific situation, we present our suggestions in a four-step sequential logic.

(1) In a first step, the operational goals of a LFS should be openly shared in order to obtain deliberative assent (Dryzek 2010). In other words, when a local government is setting operational goals, the goals and their development should be presented in a transparent manner to all stakeholders, followed by a discussion or negotiation of those goals as needed (Steps 1.1 and 4.2). Dryzek (2010) argues that such outcomes “*are legitimate to the extent they receive reflective assent through participation in authentic deliberation by all those subject to the decision in question*”. Deliberative processes thus enable the creation of a fair and just operating space in the sense that operational goals require the inclusion of a broad set of societal actors. We have shown that by organizing a deliberative process where different and traditionally opposing groups and discourses can meet, opportunities are forged for new alliances and collective problem-solving (see the communication exercise between different types of farmers in section 8.2.2). GEG could play a role in creating a platform for more public and bottom-up involvement and deliberation. Governance actors can play a decisive role in the design phase of sustainable practices. We argue that a context-driven approach is required, because each project or business is unique. The history, physical context, policy situation and complexity of the urban food context are so specific in nature that it is difficult to assess how an urban project can contribute to a sustainability transition if it is based solely on certain standardized or uniform criteria (Devolder and Block 2015). A general reflection on this first step leads us to suggest that more or less independent working groups could form around the strategic goals. Such working groups would allow participants a greater input based on their own experience or views, which fosters identification with the strategic goals and subsequently facilitates a sense of responsibility and ownership. We argue that such an approach is likely to generate more public enthusiasm than the current search for participants within the predefined strategic goals. In light of the above, we argue for the need to set up a “governance working group” for the GEG program. In this context resources and/or staff should be made available for the following: engaging (new) members or stakeholders across the different strategic goals of the LFS; communicating the LFS to the broader public; safeguarding

the democratic notion of the LFS; and communicating and elaborating core concepts within the LFS, such as “local” or “sustainable”. This suggestion is formulated on the level of meta-governance, but could be concretized for instance, in the form of an additional strategic goal (Strategic goal $n + 1$ in Figure 8.1). An outsourced, external working group could also fulfill these duties.

(2) The second step is to generate outcome targets, outcome indicators and responsibilities. The deliberative processes generate the specifics and the scope of the targets. The program for the LFS will create an openness toward the concerns of different policy departments, organizations, social groups, and other individuals. It will also pave the way for a more integrative convergence of policy goals and targets across city administrations. As stated above, the expected outcome is a ripple effect of engagement, innovation, and integration not only within the local government but also in the energetic society and businesses.

(3) In time, the relevance and significance of the LFS becomes clearer and more policy domains, NGOs, organizations, businesses, farm holdings, citizens etc. start to relate to it. As a result more adequate budgets and resources can be allocated to operationalization of the strategic goals (Step 3). Complex issues as in the cases of the multifunctional farm and sale of farmland (see section 8.3.3) or public food procurement (see section 8.3.4), which are beyond the control of the LFS, will increasingly be recognized as potential strategies to use within the LFS. As the LFS starts to encompass many environmental, social and economic benefits, mutually reinforcing synergistic relationships between government and citizens will start to be forged (Evans 1996). Concrete ties between state and society, trust-building and creation of social capital will then foster more democratic participation as a result. Instigating reciprocity between civic and entrepreneurial participation and local sustainability policy can become a means to create a new constituency, partially independent from electoral representation and attached to an overarching vision of regional food system (see section 8.4.2).

(4) In Step 4, collective and careful evaluation of the strategic goals, targets, action and actors in relation to the context ensures that the assigned responsibilities and formulated targets of the LFS are representative and relevant and remain so (Step 4.1; Coplen and Cuneo 2015). As already mentioned above, a LFS operates in a highly contextualized and dynamic sphere. Goals, stakeholders and responsibilities are likely to change, and at a relatively fast pace. Here lies the main argument for the use of outcome indicators. If the evaluation and monitoring phase identifies a discordance between the operationalization of the LFS and what is

happening on the ground or, in the event of electoral change, the cyclic process should be revisited, starting again at step one (Step 4.2).

This is in no way another version of a top-down, linear management approach with local administrators holding all of the responsibility and accountability for the LFS. Even if the LFS is sanctioned by a government, the LFS is a channel for communicating different interests, voices and languages, in which responsibilities are assigned to multiple governance sources. This is line with Beck (1997) who describes the emergence of a “*negotiation state that arranges stages and conversations and directs the show*”. Nor should this be seen as a macro-governance approach, in which the LFS is coordinated from one central point in a cooperative network of stakeholders. Instead, this resonates with Ostrom’s (2010) notion of polycentric governance, in which governance of sustainability occurs within a structure of mediation. As stated above, the local government could take on the role of mediator, facilitator or innovator in multiple cooperative networks that coalesce around the strategic goals.

The cycle of democratic participation (Figure 8.1) describes how a LFS can be most efficiently and effectively organized within a given administrative territory. In the next section we expand the scope by proposing that a regional food system can be a second, complementary governance principle that directs action in an interconnected, globalized world.

8.4.2 Local strategies within a global network of sustainable development: The regional food system as a guiding principle

An important question and concern that has so far remained unanswered, is how a shift toward the proliferation and grounding of LFSs can be a driver for global sustainable development. In the agri-food domain, the concept of sustainability is often interpreted along the lines of ensuring global food security leading to an overarching global strategy (Godfray et al. 2010). A key issue with this prominent discourse on global sustainable development is the danger of universal application regardless of local dynamics (Wesselinck et al. 2013) and an inadequate analysis of inequalities, such as the distribution of power, costs, profits and responsibilities (Lahsen 2004). In contrast, a LFS is essentially concerned with the production and consumption of local resources, often seeking to move away from the global agriculture and food market (Hines 2000, Pretty 1998). While some authors warn of defensive localism, in which localization takes protectionist proportions, the local and the global scale should not be seen as being in binary opposition (Born and Purcell 2006, Hinrichs 2003, Winter 2003). Such a LFS would only get into competition - for being the “greenest” or most progressive - or ignore neighboring areas that do not dispose of enough resources or a large enough energetic society

to engage equally. It would also result in an exclusive alternative food system that does not address unequal social structures. Ignoring the reality of the global market on the one hand or suggesting that cities are capable of feeding themselves are equally naïve. Hinrichs (2003) argues that a LFS can install a greater receptivity for diversity on the part of producers and consumers. By applying the four perspectives, we have seen that LFSs encompass more than the mere production of food (i.e. food security). They serve as a means to create social cohesion, civic engagement, economic equity and spatial planning in a context of sustainable development. We therefore argue that a LFS should aim for a broader, more inclusive integration into regional food systems and global networks, instead of striving for local food systems alone. By operationalizing a LFS from a regional food systems perspective, the global market perspective does not disappear, but rather departs from a more social and just operating space. In this sense, “local” comes to be understood as a relational and networked concept, rather than a mere geographic or administrative boundary (Horlings et al. 2015, Paasi 2009).

In 1992, Di Chiro (1992) had already rephrased the catch phrase “think globally act locally” to “think locally, act locally and global transformation can be negotiated and realized”. In other words, in addition to the question what will be produced and consumed locally, a LFS should have the ambition to ask what should not be consumed globally, in order to promote the sustainability of local food systems around the globe. This leads to modest transformation happening at the grassroots level through progressive socio-economic, cultural and environmental changes within the global food system. Organizing from the grassroots is key here - to start from the multiple, local, historically and culturally specific contexts in which people are trying to improve their social and environmental conditions (Pretty 1998). The next step is then to forge a larger movement by connecting farmers and citizens’ interests around the globe. LFSs should not then entail a preoccupation with the local, but be understood as a lever of local, regional and global networks for global sustainable development.

8.5 Conclusions

Global sustainability thinking can inspire local governance levels (Prugh et al. 2000, Bulkeley 2006). In this paper, we have adopted Hajer and coworkers’ perspectives of sustainable development and applied them to the local case of the Ghent LFS. Citizen participation in the LFS, farmers co-deciding the evolution of prices, smaller enterprises gaining access to the market, or less affluent groups gaining ownership of the neighborhood all contain some form of inequality and power struggle. The role of a government is to enable a safe and just operating space, to stimulate interaction and engagement of the energetic society and to allow

a broad group of actors to experiment and co-develop a LFS. In this way, they anchor a social basis for human interaction within the nine planetary boundaries. Developing a participatory governance approach - with a focus on regional food systems - to create a LFS would allow a tangible form of public discussion to determine which food system citizens imagine.

Cities all over the world are only just starting to develop LFSs. Our analysis indicates that when a government at a local level can benefit from an energetic society, as is the case in Ghent, a LFS can be a valuable social foundation for its sustainability policy. This social strategy can provide a sound starting point to establish an empowered and effective policy, which is likely to create political legitimacy. If a city succeeds in creating a large group of active stakeholders in the development of its local food and sustainability policy, this can effectively start a process of exchange with other cities, both neighboring ones and across the globe. From this perspective, local participatory arrangements contribute more effectively to global sustainability than the currently mostly top-down approaches. Making sustainability governance responsive to the different actors and logics of change allows for a reflexive and political approach toward global sustainability neither yielding to a defensive localism nor to an all-encompassing understanding of sustainable development.

Discussion and conclusions



Discussion and conclusions

9.1 Introduction

The picture on the previous page shows a sign denying public access to public land. This picture was taken in Les Jardins de Luxembourg, in the center of Paris. Presumably, there are a range of legitimate reasons why the public has to steer away from the grass. However, when taken out of its context, this picture raises some important questions, such as: “Who wrote the sign? Who has decided that the sign would be placed there? Who was part of the decision making that no one would be granted access? Who was consulted in the process of decision making? Who is enforcing the sign? Where and how can people express their concerns related to the inaccessibility of the land? The picture symbolically represents how people are excluded from the right to their city (Harvey 2008). These are the questions that are asked in this thesis, but then applied to the governance of UA.

The main objective of this research is to understand inclusionary and exclusionary dynamics in UA governance processes and explore how these different dynamics interrelate to urban and agricultural sustainability. The main objective has been operationalized through six research questions. Chapters 1-4 have been important in guiding this research and providing a broader perspective on the topic. Yet, insights from chapter 4 are also used to answer RQ 1, RQ 2, and RQ 3. To answer RQ 1, insights from chapter 4, 6, and 7 are used. For RQ 2, insights from chapter 4, 7, and 8. For RQ3, insights from chapter 4 and 8. For RQ 4 and RQ 5, insights from the chapters 5 to 8 are used. RQ 6 will be answered based on the insights provided by chapter 7. Table 9.1 indicates in which empirical chapters the material is provided to answer the different research questions.

The following section (9.2) elaborates on the findings of the research in terms of inclusion and exclusion in urban agriculture governance processes. In this section, RQ 1, RQ 2, RQ 3 and RQ 4 are answered. Subsequently, section 9.3 answers RQ 5 and presents a list of governance recommendations for government and UA stakeholders in civil society. Section 9.4 answers RQ 6 and reflects on the contribution of this thesis to the UA literature. The chapter closes with a reflection on the main research question and suggestions for further research.

Table 9.1. Overview of the chapters that address the different research questions 1-6

Research question	Chapter				
	4	5	6	7	8
RQ 1: Which UA practices, stakeholders and objectives can be observed within a city and how does this differ among cities?	✓		✓	✓	
RQ 2: Why do formal governance processes of UA emerge and what are their purposes?	✓			✓	✓
RQ 3: What is the role and impact of formal governance processes of UA in terms of stimulating participation and collaboration?	✓				✓
RQ 4: Which elements are key in the production of inclusionary and exclusionary dynamics in UA governance; and how do these elements pose challenges for inclusion of different practices, stakeholders, and objectives in UA governance?		✓	✓	✓	✓
RQ 5: How can participatory governance processes actively stimulate inclusion of the diverse UA practices, stakeholders, and objectives within a governance context?		✓	✓	✓	✓
RQ 6: What is the relevance of integrating a justice perspective in the analysis of UA governance processes?				✓	

9.2 Studying inclusion and exclusion in urban agriculture governance processes

9.2.1 Which UA practices, stakeholders and objectives can be observed within a city and how does this differ among cities? (RQ 1)

This research has purposefully conceptualized UA in its broadest sense, thereby allowing to study what the term UA encompasses. This thesis has investigated the diversity of UA practices, stakeholders, and objectives in three cities, namely Ghent, Warsaw, and Philadelphia. The analysis below illustrates the challenge of pinpointing what UA precisely is due to its diversity in practices, stakeholders, and objectives (this has been further analyzed in chapter 5).

Regarding UAPs, a wide range of practices are found in the three cities, ranging from informal guerilla gardens to newly established urban farms and conventional peri-urban farms (see Table 4.4). However, in all three cities, community gardens are the most common UAP. In Ghent, there are also many school gardens and peri-urban farms in comparison to other UAPs. In Warsaw, next to the community gardens, there are also many institutional gardens, and in Philadelphia many urban farms (i.e. farms that create employment and sell produce). Innovative, high-tech UAPs such as aquaponics, hydroponics, LED-farming projects, or agroparks are either scarce or non-existent in the three cities.

Regarding UA stakeholders, it was found that in all three cities networks of UA practitioners and UA stakeholders are formed. The different stakeholder groups as categorized in Table 4.2 are represented in all three cities, except for the local government in Warsaw. Furthermore, the analysis revealed that UA is brought under the attention and pushed forward mainly by young, highly educated, white, middleclass citizens in the three cities. The stakeholder groups in UA were more diverse in terms of their background in Philadelphia than in Ghent and Warsaw. Yet, in all three cities, it was found that UA can be linked to existing socio-economic issues and play a role for marginalized groups (e.g. professional farmers, ethnic and cultural minorities, people living in poverty).

Third, also in the three cities, a broad array of objectives of UA were identified. Next to food production, other objectives were formulated by the UA practitioners. These are related to health promotion, nutrition, poverty reduction, social inclusion, sustainable or profitable agriculture, education, racial integration, local economy, culture, community development, environment, recreation, crime reduction, or food access. Remarkably, in the majority of the interviews, the objectives were linked to a broader goal of sustainability.

As shown in chapter 6, the UA movements of Ghent and Warsaw - but also of Philadelphia - are largely comparable in terms of the amount of diversity of UAPs, UA stakeholders and objectives that can be found. However, it was also found that each city is characterized by a different governance dynamic, which brings us to the next two questions on the influence of governance processes on UA development.

9.2.2 Why do formal governance processes of UA emerge and what are their purposes? (RQ 2)

The comparison of UA in, on the one hand, Ghent and Philadelphia where formal governance processes exist and, on the other hand, in Warsaw where formal UA governance processes

are missing, was insightful. It allowed to identify key drivers that lead to or prevent collaborations between different stakeholders in UA. Three important drivers are discussed below.

First, the role of a favorable political climate and broader policy plans through which UA can be supported are crucial. In Ghent and Philadelphia, this was illustrated with the comprehensive sustainability plans, the Climate Plan, and Greenworks, respectively. These plans bring forward citywide sustainability objectives in which food receives a central focus. However, in both cities, uncertainty about how to fulfill these sustainability objectives and the acknowledgement of interdependency between the different stakeholders were among the core reasons to develop FPCs in both cities.

Second, broad public support for agriculture and food issues is another driver that leads to collaboration among UA stakeholders. This public support was found in Ghent and Philadelphia, albeit for different reasons. In Ghent, there is a lot of demand for sustainable food practices. For instance, there are waiting lists in organizations such as Voedselteams [Food Teams] in which supply of local food is arranged for members, there are waiting lists for participation in community gardens, and the concept of “local” is increasingly used in commercial businesses (restaurants, cafés etc.). UA is then one of the practices that can respond to such demands of citizens in Ghent. The analysis in Philadelphia showed that many stakeholders aim is to contribute to urban regeneration. Concerns around urban blight, poverty, crime, and hunger are shared among civil society. UA is broadly supported among the population as a strategy to deal with these issues. The broad public support in Ghent and Philadelphia contrasts with the situation in Warsaw, where public attitudes toward agriculture and urban food production have been shown to hamper collaborations in UA. In general, agricultural practices are not supported, because farming is associated with an undesirable rural past and because food produced in the city is considered unsafe.

Third, it was found that context-specific attributes significantly affect UA stakeholders’ motivation to engage in collaborations. In Philadelphia, the stakes to collaborate are high. There is much vacant land in the city and the institutions to which the land belongs are actively looking for procedures that allow them to permanently assign this land a particular function. UA is one of the purposes that gets a lot of support. Yet, land tenure remains a key issue. Both the aspect of available space, and the need to arrange the assignment of this space to particular functions in a proper way, are likely a combination that encourage collaboration in the UA governance processes. In Warsaw, by contrast, the identified contextual incentives discourage collaboration. For instance, the urban policy and planning of the past ten years

have made the disappearance of farmland almost certainly irreversible. Not any form of advocacy or collaboration to preserve farmland would be able to change this easily.

The analysis of the FPCs in Ghent and Philadelphia (GEG and FPAC, respectively) revealed that the purposes of both FPCs are in the first place to bring different stakeholders in the local food system together and establish a formal network. Other shared goals are to function as a platform for information exchange, to match food demand and supply, and to create awareness around food and agriculture issues. Although GEG and FPAC are officially set up as policy advisory organs, in practice only FPAC provides policy advice. Because its capacity grew over the course of several years, FPAC and its participants have also begun to play a role in implementing their policy recommendations.

9.2.3 What is the role and impact of formal governance processes of UA in terms of stimulating participation and collaboration? (RQ 3)

Role of formal UA governance processes

A first key role of formal UA governance processes is actively involving stakeholders from the local government in the governance process. The involvement of local government stakeholders is important because they can bring important resources to the table and are able to reach and involve a wide public. The comparison of UA in the three cities reveals that the level of formal support for UA in these cities corresponds with the levels of UA development. In chapter 4, it was stated that Philadelphia is the case where UA is developed most (in terms of number of stakeholders and practices and the duration of the UAPs), followed by Ghent and then Warsaw. This difference is linked to the level of support from the local government and its institutions and organizations (Huang and Drescher 2006). The local government in Warsaw was largely missing as an actor in the network. At the time of data collection little or no formal platforms for advocating UA and planning for UA in the city existed. It was observed that the local government did not recognize the UAPs and rather focused on industrial economic development of the city, which removes policy goals further away from planning that is supportive to UA. By contrast, in Ghent and Philadelphia, the local government has an active role, is more supportive and in some cases, the city takes the lead in certain events or topics related to UA. It should be added that this finding by no means suggests informal networks, collaborations, and governance processes are of little importance in explaining UA developments. Dynamics in civil society or market are equally important to substantiate UA movements. UA as revolting or revolutionary acts are crucial in initial phases of UA development, but as the differences between the three cities show, at some point

institutionalization of UA and public participation in policy programs are necessary to create structural opportunities for UA.

A second role of formal governance processes is that they help create a problem definition around UA. In the three cities Ghent, Warsaw and Philadelphia, some stakeholders mentioned that they did not necessarily consider themselves part of an UA movement, nor did they see their food production practice or organization as an UAP. This indicates that not all UAPs are the result of a growing discourse on UA. As has been seen in the case of Ghent and Philadelphia, the formal introduction of the concept of UA may have a unifying effect on the different UAPs, stakeholders, and objectives. Even though some interviewees did not see themselves as a UA practitioner, they did participate in FPC meetings and were part of the network of UA stakeholders in Ghent and Philadelphia. The advantages of bringing various UAPs together under an all-encompassing term is that common barriers or opportunities may be found, expertise exchanged, collaborations supported, and the different food production practices recognized. From a strategic point of view, when the various UAPs are recognized as “UA”, the image of UA is enhanced in the city. At the same time, UA practitioners may strengthen their own position in the city as their UAPs become more visible and become part of a more established UA movement. That is not to say a policy focus on specific UAPs or a distinction between different UAPs is pointless. In some cases (for instance with regard to regulations to allow food production on rooftops, professional assistance in community gardens or farmland preservation strategies for peri-urban agriculture), policies or regulations directed exclusively toward these particular practices may be necessary for their support and development (Specht et al. 2013, Veen 2015). However, it is argued that it would be strategic if these discussions can take place under the broader frame and governance network of UA.

Impact of formal UA governance processes

Even though formal governance processes fulfill key roles of (1) bringing stakeholders from market, civil society, *and* government together, and (2) creating a problem definition of UA at a city level, the analysis also revealed differences between the participatory dynamic of FPAC and GEG. In the case of Philadelphia, the FPC is more successful in organizing an active and vibrant UA network than GEG in Ghent, which struggles with the issue of participation. In the paragraphs below, key success factors that determine the impact of formal governance processes are discussed (partly based on the concepts of the analytical framework for participatory governance as developed in chapter 3.3.2).

Success factor 1: the organization of a well-defined and transparent governance structure.

In FPAC there are many organizational aspects formally arranged, such as the activities of FPAC, the subcommittees, the various roles, the procedures within FPAC. This structure is made very clear to the participants and is also publicly available through the website. In GEG, a formal and detailed organization of GEG is missing, which was observed to lead to a lot of confusion and skepticism regarding the role and impact of GEG in the city.

Success factor 2: the development of partnerships outside the structure of the FPC.

In FPAC, various partnerships are forged with city departments, organizations, and institutions around various topics, but mostly around the organization of public land. Such partnerships enhance the role of an FPC as a legitimate partner in the city. In Ghent such formal partnerships are largely missing.

Success factor 3: investment in the organization of participation and communication.

The organization of a clear and transparent governance structure should be complemented with a continuous effort to stimulate participation and disseminate information as widely as possible. In FPAC, next to the content-related subcommittees, two subcommittees are set up especially for the management of the governance process. This ensures that there is a continual renewal in the FPC, but also that the right expertise and stakeholders are brought around the table when facing particular topics. Furthermore, the wide and transparent dissemination of information within FPAC but also about FPAC on the website (e.g. minutes of the meetings, reports of the policy advice) are found to lower the barrier and increase the motivation to participate. By contrast, the FPC in Ghent is less transparent about its organization and decision making processes. Almost no information on the FPC is publicly available. This is found to hamper participation by new as well as existing participants.

Success factor 4: shared commitment to the process.

In the case of Philadelphia it was found that UA stakeholders were more committed to the process of FPAC than in the case of Ghent. In FPAC, a voting system is put in place which ensures that engagement of all the participants is effective. This way every voice is taken into account. Furthermore, this voting system and focus on input from below enables a shift from a top-down culture of command and control to a learning culture that enables deliberative engagement with the wider community. In the case of Ghent, the analysis showed that a dispersion of power and collaborative decision making is often replaced by a mere hearing or consulting of civil society stakeholders. It is unclear how feedback is taken into account and how decisions are made in GEG.

Success factor 5: the definition of common goals.

While participants in FPCs can hold personal or organizational objectives, it was found that a common purpose or objective in an FPC are crucial to stimulate partnerships and collaboration. In FPAC, the shared objectives to employ UA as a strategy to deal with issues related to food justice helps to formulate strategies and initiatives. In Ghent, the common goal of sustainability, or of supporting a local and sustainable food system is too broad and leaves too much room for the advocacy of individual or organizational objectives.

It should be noted that for both FPAC and GEG, participation remains a complex issue to coordinate and is not in the least unproblematic. Both FPCs face challenges with ensuring that a diverse set of UA stakeholders (or stakeholder groups) are directly participating or are represented. The aim in FPAC and in GEG is to support local, sustainable food systems. This aim implies a systemic approach and thus requires a focus on all aspects relevant to induce transformation in the food system. In both cases, UA is reduced to a practice having only one function, namely that of producing food (e.g. agricultural sustainability) or consuming food (e.g. food access). To advocate both simultaneously was found to be very difficult according to the interviewees. Bluntly stated, in the case of Ghent, the focus in UA governance is shifted toward the goal of food production, while in Philadelphia focus is shifted toward food consumption (food access). In both cases, it seems inevitable that these foci lead to inclusionary and exclusionary dynamics in the FPC. The question is then how this focus is established and whether this goes at the expense of an a priori exclusion of UA practices, stakeholders, and objectives that have a different focus in UA. This issue will be addressed when answering RQ 4.

Critical note on the transformative potential of UA governance processes

Before going into the inclusionary and exclusionary dynamics in UA governance, it is important to conclude that it still remains to be seen to what extent UA will be a relevant and significant urban function in many cities. This is for instance the case in Ghent, where many UAPs are temporary projects and a lot of discussion among UA stakeholders still revolve around the purposes of UA in Ghent as there is no common purpose as of yet. In the case of Philadelphia, the relevance and impact of UA is more clear. Common purposes are shared by a broad array of stakeholders. Also, if that is not already the case, much effort is put into devoting public land permanently to various community UAPs. It is argued that the role and impact of UA in food system transformation will depend very much on whether UA can address unequal societal structures at large. Here, the opinions are divided.

Some theorists argue that first and foremost, unequal structures have to be addressed. According to theorists like Harvey (2008) and Soja (2000) the root causes of inequality and social exclusion lie in the capitalist urban-industrial process with its free market, capital accumulation and its expanding privatization. Capitalism is not only a mode of production; it also has to be understood as an intrinsically contradictory moral and societal order (Rossi 2017). Following their line of theorization, the point is that the goal of food system transformation through a focus on inclusion in UA governance will not be achieved because the people that are to be included face larger, structural problems related to poverty, oppression, unemployment and others. Therefore, inequalities have to be addressed systematically (e.g. housing, work, food etc.) and this cannot be done through a focus on food practices alone. Similarly, from a structural-systemic approach to poverty, Ghys (2016) concludes that policies of food aid are inadequate to address more vulnerable groups. He claims that due to an increasing monetization of goods and services to organize social interaction, people with limited means become excluded in important domains of housing, education, or health. There thus exists a structural gap for people that leads to poverty and social exclusion and prevents people from living up to commonly accepted living patterns. Also in this case, if people are expected to participate in shaping their own food system, the structural forces that lie at the basis first and foremost have to be addressed.

By contrast, Cohen and Reynolds (2016) are more optimistic to revert the oppression and structural inequalities that dominate the social, economic and political order. For them, UA is a way to build power in communities. UA practitioners learn to develop strategies to overcome the barriers created by structural oppression. They do that, among others, through their practices, by embodying their visions of a more just society, and by advocating policy change.

This thesis is positioned in the middle and is aligned with Santo et al. (2016) who state that *“while UA alone will not solve the many dilemmas of our food system, it can be part of a constellation of interventions needed to transform the food system into one that is more socially just, ecologically sound, and economically viable”*. The many UAPs studied in Ghent, Warsaw, and Philadelphia have demonstrated that UA holds considerable potential to address injustices and exclusions in food systems. UA practitioners acquire skills and capacities such as organizational skills, the ability to constructively express opinions, and community engagement. These skills and capacities can have a reach beyond the UA project, as they are useful to contest broader forms of social exclusion and structural oppression. However, it is also argued that such agency will only be effective in empowering socially disadvantaged groups when broader structural forces of oppression and domination are addressed simultaneously.

9.2.4 Which elements are key in the production of inclusionary and exclusionary dynamics in UA governance; and how do these elements in UA governance produce inclusionary and exclusionary outcomes? (RQ 4)

The previous sections elaborated on the role and impact of UA in terms of stimulating a participatory dynamic. Yet, participation in UA governance does not mean that there are no issues with inclusion and exclusion in the governance process. The question addressed here is: how can UA governance processes include the different UA practices, stakeholders, and objectives within a governance context? As noted in chapter 1 and 8, the organization and operation of formal UA governance processes is never neutral and therefore inevitably implies inclusion and exclusion (Gomart and Hajer 2003, Lahsen 2004). To deepen insights into the inclusionary and exclusionary processes in UA governance, this thesis identified and focused on four key elements that surfaced in the dynamic and course of UA governance processes (see chapter 3). They have been identified by consulting academic literature and through comparison of the datasets. They are diversity, context, scale and participation. The role of each of these elements in UA governance processes has been analyzed in a separate empirical chapter. All the empirical chapters have a different research approach, use different cases or a different combination of cases, or employ a different theoretical framework. Yet, the analysis on the four elements in chapters 5 to 8 allow a reflection on important inclusionary and exclusionary dynamics in UA governance processes. Below, it will be discussed how each of these elements produces or may produce specific exclusionary outcomes in UA governance processes.

Diversity

The first element that has been identified as key in the inclusionary and exclusionary dynamics of UA governance processes is diversity, and more specifically how governance processes can understand and deal with the diversity that UA comprises. Chapter 5 started from the observation that although UA is increasingly supported in governance platforms and networks, the term itself tends to be used in general or overly simplistic ways. Different sources of media or stakeholders use the term UA, often without specifying what falls under the label. Also in academic inquiry, there are only few tools at hand for generating more in-depth understandings of the diversity and dynamic (for notable exceptions see e.g. Mougeot 2000, Quon 1999). The analysis in chapter 5 demonstrated that more complex understandings of the diversity in UA practices, stakeholders, and objectives are needed to avoid exclusions in UA governance processes. The three phases of analysis in chapter 5 revealed that there are important similarities between seemingly different UAPs and there are important differences between

seemingly similar UAPs. For instance, community gardens do not always primarily focus on community engagement (e.g. the community project of Huerta Cantarranas). Among some community gardens, the focus may shift toward gaining expertise in food production techniques or seed saving. At the same time, it was found that there are professional peri-urban farms that focus in a similar way on public access and community engagement as intra-urban projects such as community gardens or CSAs. By developing and applying the conceptual framework in Chapter 5, the thesis has demonstrated that the different UAPs are interrelated in more complex ways and are thus not as disconnected as is often believed. Overly general understandings of UA can become exclusive when for instance simple categorizations to make sense of the diversity in UA form the basis for policy or planning support. When a specific category or type of UA is supported for specific purposes, it may exclude other types or categories of UA while they in fact may have the same objectives or barriers. Conversely, it is also the case that there exists support for similar UAPs that is little discriminatory, while in fact these practices may strive for different results or objectives that perhaps do not align with policy objectives. For instance, there may be financial or material support for projects with the aim to increase community food or enhance social cohesion. However, not all UA community projects increase community access to food or stimulate social cohesion. Some may benefit specific individuals or families, but are closed toward other community members. Taken together, such analytical frameworks may enable support for UA in a more nuanced and reflexive way.

While chapter 5 focused predominantly on the implication of exclusion of UAPs and less directly on the exclusion of UA stakeholders and their objectives, the data analysis in the three cities allow to reflect on the implication of the findings in chapter 5. For instance, in Ghent it was found that on the ground, there is a lack of awareness on the diversity of UA stakeholders that are involved in UA. As seen in the analysis in chapter 7, the observation that GEG is largely carried by white, middleclass, highly educated citizens has not been problematized by the majority of the UA stakeholders. Furthermore, the focus on scaling up the local food system in GEG and the local government has led to frustrations among professional UA stakeholders who claim that they cannot be readily compared to inner city UA pioneering projects. These stakeholders thus call for a more complex understanding of the various UAPs in the city instead of approaching all commercially oriented UAPs in the same way.

Context

The second element is the role of the context in UA governance. An important shortcoming of general approaches of UA is that they often result in a celebratory and uncritical discourse of

UA. This research has identified that positive UA discourses disperse across cities internationally, leading to a copy/paste effect of different practices and policy initiatives. For instance, many interviewees in all three cities stated that they got inspired by UA projects or policy initiatives abroad. Interviewees in Ghent would often mention cities in The Netherlands as a source of inspiration, Berlin was brought up by interviewees in Warsaw and New York by interviewees in Philadelphia. No matter how important exchange between different cities is, when this uncritical UA discourse becomes dominant, it leads to important shortcomings. Namely, it does not properly identify or address context-specific barriers, needs and injustices where UA is developed. Chapter 6 has demonstrated that advocacy for UA and context-specific characteristics such as the urban layout, political climate and public attitudes toward the use of urban space are intrinsically interwoven. Not taking these into account in UA governance can a priori narrow down the potential of UA, or exclude potential UA practices, stakeholders, and objectives. It may furthermore lead to a disregard of needs, barriers, and opportunities of stakeholders that have remained thus far disregarded in UA governance (Saldivar-Tanaka and Krasny 2004, Mount 2012). The disregard of contextual factors has been identified in the three cities. It was found that in Ghent, the focus on UA governance was mostly on ecological sustainability. This focus is broadly supported by a large group of middleclass UA stakeholders and citizens. Although there is much attention for UA, and for several years the interest in UA has been growing, it was also observed that the lack of land and space for food production (but also for other urban functions) is a strong grievance among most of the UA practitioners (including professional peri-urban farmers). It is suggested that if the governance processes aim to keep UA practitioners on board, it will have to move beyond a communication solely about already existing UAPs. In addition, it is important to recognize the lack of space as a topic that has to be dealt with collaboratively in the governance processes. In Warsaw, because of little support for UA, the strongest concern among UA practitioners was in the first place to increase the visibility of UA and to demonstrate its relevance. This movement is now represented by a small network in civil society and a range of short-term UA projects. It was found that UA practitioners, in their effort to increase visibility, did not take into account two contextual factors that could potentially increase the relevance of the UA movement. First, the historical and significant number of community gardens were not recognized in UA advocacy as a way to substantiate the UA movement. Additionally, there are many local farmers around Warsaw and many informal channels through which local farmers sell food. The UA movement could also make a link with these stakeholders and their practices in order to substantiate the UA movement. In Philadelphia, prominence was given to securing food justice and overcoming food poverty. Many interviewees stated that mere invisibility due to a long distance between local farms and inner city consumers in Philadelphia has resulted that professional UA stakeholders have not been included in the governance process thus far.

Also in this case, the contextual factor of urban-rural lay out (and the distance of local farms to the city) is an aspect that tends to create exclusionary dynamics.

Scale

A third key element in the production of inclusion and exclusion in UA governance is scale. Chapter 7 has demonstrated that governance processes of UA and local food systems seek to localize globally organized food systems, and re-spatialize food systems that are perceived to have become placeless (Harris 2010). This change leads to a more diverse landscape in terms of food production and consumption choices. Yet, despite the promising potential of localized food systems, this process invokes a politics of scale which deserves explicit attention (Scherb et al. 2012). This research has identified that the three cities under study framed UA differently, thereby re-spatializing UA in different ways. The FPC in Ghent adopts a citywide approach that stems from a focus on CO2 neutrality, without much specification of opportunities, barriers or needs at lower levels such as neighborhoods, streets, organizational or group level. In that whole city approach, the focus comes to be on the supply of local food. The emphasis shifts to the professional farming sector in the administrative territory of Ghent. It does so for instance by providing budget to conduct research on how to support the farming sector and preserve farmland in Ghent. By contrast, the FPC in Philadelphia, focuses strongly on food justice. As a result, the city targets the support of UA in specific neighborhoods, social groups or organizations. Although there are targets and indicators at a city level, the aim is to achieve these by focusing on the locations where food justice issues are most strongly felt. Although not part of the analysis in chapter 7, it was observed in the research on Warsaw that local food is referred to as any food that is Polish. As this implies that local food would be matter of regional or national policy, it may clarify why there is little interest at the municipal level to engage in policy making or planning for food production in and around Warsaw.

A specific scalar focus can have important exclusionary outcomes. Under the terms urban or local, many different groups and people can be supported. But they can also become excluded from the benefits of UA when these terms do not specify whose interests are being served in UA governance. The comparison of the politics of scale in GEG and FPAC has shown that in Philadelphia there is less attention for inter-city, regional, national or international collaboration as compared to Ghent, where much effort is put into collaborating in national and international networks. FPAC rather addresses more specific issues of food justice, poverty and urban regeneration which leads to a support of UA in specific targeted locations in the city. The more general, city level support for UA in Ghent, shifts attention in UA away from linking UA as a strategy to issues such as growing social inequality, poverty, hunger, problematic

neighborhoods etc. The result is that, from a comparative perspective, in FPAC there is much less attention for regional farmers around Philadelphia to substantiate UA, while in GEG there is less engagement with day to day concerns of the broader public. Without further specifying the “local” or “urban”, justices addressed at one scale (e.g. neighborhood level), may leave injustices unaddressed at other scales (e.g. regional or international). While it should not be expected from UA and local food systems to address all issues, the analysis in chapter 7 illustrated that through a specific scalar focus some stakeholder groups become a priori excluded from the decision making processes.

Participation

Participation is a fourth and last key element that was identified to have an important role in the inclusionary and exclusionary dynamics in UA governance. As noted above, FPCs are beneficial for the support of UA for various reasons. Potentially, FPCs succeed in gathering stakeholders with different backgrounds (civil society, market, government) and different perspectives; FPCs have a unifying, overarching effect; FPCs are a platform for communication dissemination, social networking, exchange of expertise, generating ideas and inspiring stakeholders; when FPCs dispose of a budget, it can further substantiate UA through for instance resolving missing data by the proposal and funding of research projects, subsidizing UA or taking away barriers for UA. However, the results also indicated that there are many important organizational aspects and details to take into account in order to stimulate and guarantee participation from a diverse set of stakeholders.

The analysis in the empirical chapters showed that through different mechanisms and approaches, participation is inhibited, constrained, or hampered. Also in this case, it can lead to exclusion in the UA governance process. In some instances the reasons why some people or groups refrain from participation in the UA governance process are more easy to observe. For instance, it was found through analysis of FPAC that meetings held during office hours, exclude potential participants with fulltime jobs and tend to include only the very committed and the ones who are allowed participation during working hours. Participation can also be hampered because of a lack of transparency in the FPC. That is the case when little information on the FPC can be found on websites or elsewhere, when roles or responsibilities are not linked to persons or organizations, when there is no contact information, or when information dissemination outreach to participants is inadequate. But there are also more complex reasons for a lack of participation in UA governance. For instance, when the city does not match its publicly available land with the demand for farm land by new farmers and the local food strategy of Ghent (MO* 2017). Or when it appears that only the strongest interests are

defended, instead of advocating a common goal, with the result that input from different participants is not equally taken into account. Another example refers to situations when the most powerful stakeholders claim UA and impose their problem framings and their proposals of preferable solutions. It limits the opportunities for alternative issues, practices, stakeholders, and objectives to co-determine the aim and role of UA. Some interviewees in Ghent have expressed concerns that the local government promotes UA for greenwashing or as a city marketing strategy, while government support for UA remains restricted. It was also stated that some UA practices, stakeholders, or objectives are dominant in the media or in the public discussions, and therefore influence the perception of UA within a given context. Moreover, it was also shown that participation does not automatically guarantee that different people and their interests or visions are taken into account in decision making procedures. Interviewees in Ghent stated that they did not assess GEG as a participatory decision making structure. Instead it was considered by many as a tool for public hearing, while it tends to avoid politically sensitive topics.

9.3 Recommendations for urban agriculture governance

9.3.1 How can participatory governance processes actively stimulate inclusion of the diverse UA practices, stakeholders, and objectives within a governance context? (RQ 5)

The main argument of the thesis is that UA can only contribute to urban and agricultural sustainability if governance processes explicitly focus on the inclusion of the different UA practices, stakeholders, and objectives within the governance context. The empirical chapters 5-8 demonstrated through a focus on four key elements that depending on how these four are dealt with, specific inclusionary and exclusionary dynamics are forged in UA governance. Based on the insights provided by the analysis of the role of diversity, context, scale and participation in UA governance, this section reflects on strategies to stimulate inclusion of the various UA practices, stakeholders, and objectives. In doing so, we also make use of academic literature to further support the proposed strategies.

Inclusion through engaging with diversity in urban agriculture

A first general finding is that engaging with the diversity of practices, stakeholders, and objectives that UA encompasses, is an important strategy to support inclusion in UA governance processes. In the broader systemic analysis of urban sustainability, it is crucial to consider the whole of actual UA practices, stakeholders, and objectives in order to reflect how

and where system changes may (or not) be achieved. In chapter 5, a tool has been developed that helps to systematize the diversity in UAPs. Although it was suggested that also diversity in stakeholders and objectives needs further elaboration in the framework (i.e. to be able to problematize issues of race and class discrimination), the analysis showed that the framework is constructive to gain a more complex understanding of what UA comprises and what kind of stakeholders are involved. Further research is needed, but it could be explored how analytical frameworks assist UA governance processes in practice. For instance, by applying the same framework to a wide array of cases, the different UAPs can be considered simultaneously, thus enabling comparison and an understanding of UAPs in relation to one another. That may be an important undertaking when resources that have to be distributed among UAPs or between UA and other functions, are scarce. Two concrete strategies are proposed in the next paragraphs.

The first strategy to engage with diversity is to conceive governance processes, tools or networks (such as FPCs) as platforms where different and contesting objectives or visions can meet, instead of only a forum for seeking consensus under the frame of sustainability (see chapter 8). The opportunity of formal governance processes is that they can become platforms of deliberation, places where a diversity of injustice claims can be heard. However, this leads to the question of how to deal with contesting objectives. Schlosberg (2007) calls for an insistence on unity, rather than uniformity, between different concerns and claims and a focus on particular experiences and knowledges. He then refers to the much cited phrase of Follet Parker (1918) of “*unity without uniformity*”. Schlosberg (2007) and Parker (1918) both point out that government approaches often focus on uniformity in the discourse, proposed solutions and networks. According to them, an insistence on uniformity is debilitating in the construction of broader discourses and movements. As illustrated in chapter 8, during the project ILVO conducted with Sum Research (Sum Research 2015) an opportunity to form a broader movement and uniting discourse between different UA stakeholders was created. It was often mentioned in focus group meetings that there is stark competition for the limited governmental resources between conventional farmers interested in the local market and new UA farmers or practitioners. After several focus groups, it became clear that they are capable of listening to each other’s standpoint and eventually recognized that there are barriers and opportunities they are both confronted with. While this opportunity for broader UA movement and discourse formation was an unintended outcome, it nevertheless was an important realization. Such attempts to bring different groups and stakeholders together should thus be strived for in formal governance processes. This is a task that cannot be left to coincidence, but one that deserves coordination, organization and support with resources.

A second strategy and related to the former, there is especially the need to form bridges between concerns or protests related to agricultural sustainability (e.g. farmer income, ecological farming) and those for urban sustainability (e.g. food justice, poverty, green space). This research has demonstrated that for many UA stakeholders the purpose of UA could be related to either one, but they claimed that it was very difficult or even impossible to address both kinds of injustices simultaneously. The decision to form two separate working groups within GEG in 2016 - one on short food chains and one on social value of UA - is an outcome of this perceived incompatibility. Yet, the analysis on the FPCs highlighted that even though the two kinds of concerns are identified, FPCs tend to strongly support one type of concerns at the expense of the other. In Ghent, the focus in UA shifted largely to issues relating to agricultural sustainability such as the preservation of farmland, the viability of new agricultural business and upscaling the local food sector. In Philadelphia, the focus was principally put on issues relating to urban sustainability, among which countering urban blight, increasing healthy food access, and addressing crime and poverty. Tornaghi (2017) also identifies the problematic divide between both kinds of concerns or injustices and notes that more inclusive political praxis is needed to overcome this divide. Debates and strategies on the ground have to be linked and coordinated so that alliances and coexistence can be facilitated between different urban functions, agroecosystems, and human and non-human biotopes (Dehaene et al. 2015, Tornaghi 2017). The result would be, on the one hand, a less isolated food justice movement as it enacts deeper socio-ecological changes. On the other hand, agrarian struggles would be more strongly advocated as they become linked to urban advocacy for more just and sustainable food systems. Such achievements would address Morgan's (2014) concern that to form broader social movements, local food movements need to obtain a trans-local reach and need to become organizationally coherent. Several farmers markets in Philadelphia are an illustration of how both concerns can be merged. A large portion of Philadelphia citizens receive social security aid in the form of SNAP benefits, commonly called food stamps. Governments are taking efforts to ensure that farmers at a market can accept SNAP tokens, papers, or electronic cards (USDA 2017). Additionally, there is the Double Dollar program. Any person who receives SNAP benefits can take part in the program. That means that for every \$5 spent, the program gives another \$5 to spend on the same market. This does not imply that all UA projects and stakeholders have to embody both kinds of injustices. However, it indicates that UA governance can stimulate projects and initiatives that bring about a less fractioned UA movement.

The second general finding is that UA advocacy and the context in which UA is advocated, are mutually constitutive. While UA advocacy creates certain opportunities for UA development in specific contexts, specific UA developments and contexts also affect UA advocacy. Chapter 6 demonstrated that UA governance processes and advocacy can be more inclusive when they take into account context-specific needs, barriers and opportunities for UA developments. In a context-sensitive governance approach, the outcome is not an evaluation of or support for singular UA projects or a positive and uncritical assessment of UA. Instead, it promotes a broader reflection on how UA can be most relevant to address specific needs at the neighborhood, city or regional level.

A first strategy to ensure that UA becomes more substantial and relevant within a given context is the collection of data. This means that in a first step, a series of relevant contextual factors are identified such as available land, historical and cultural relations with food growing, rates of poverty, hunger and unemployment, and insight into the political and economic situation in the city. In a following step, it has to be assessed how these contextual characteristics serve as opportunities or barriers for UA. It was found that the availability of data on specific topics or issues is an impetus for problem recognition, problem framing and consequently the experimentation with UA projects. At the same time, a specific problem framing of UA in governance processes also co-determines which data and research will be considered relevant. In Philadelphia, one of the main problems that UA is expected to address is the lack of healthy food access in impoverished communities. The availability of data on poverty and urban blight, socio-economic statistics on different communities, and reports on the Philadelphia regional food system are helpful to focus on healthy food access. Additionally, many UA projects focusing on food justice collect data on their own impact and results, thereby demonstrating the relevance of focusing on issues such as food poverty. Moreover, projects which can demonstrate their relevance in terms of contributing to broadening food access, find their way easier to financial support, thus further strengthening UAPs with that particular focus. By contrast, in Ghent, a focus on food poverty and food access has since the beginning of the FPC been mostly missing, or such objectives have not been substantiated (cfr. the working group on social value of UA in GEG which is only in its initial phase) since the beginning of the FPC. That can be co-explained by the unavailability of relevant data on poverty and immigration, which would help to frame the potential of UA in relation to these issues. Indeed, during FPC meetings between 2014- 2016 it was discussed several times that because of a lack of insight into food consumption habits of socially and economically disadvantaged

people, there has been little basis to justify future strategies addressing food poverty in UA development.

The support of organizations and individuals that function as intermediaries between government and UA practitioners is a second strategy to gain insight into the context. Among others, community organizers⁵⁰, independent professionals, supporting organizations for UA⁵¹, or universities and research centers have been identified in the research as an indispensable link between government and what happens on the ground (Fisher 2004). Fisher (2004) notes that intermediary figures have problem-solving, negotiation, research, and writing skills which are helpful to defend UA practitioners' concerns in local policy making processes. Additionally, universities and research centers can gather many insights into the contextual factors through research on UA, internships, collaborations with UA projects and community outreach centers. By identifying and defending the context-specific different needs, barriers and opportunities in governance processes, intermediary figures may ensure that support for UA becomes responsive to the context in which UAPs are embedded. As seen in chapter 8, the UA project that was coordinated by an independent community development organization succeeded in the involvement of larger and more diverse groups of gardeners. The other project in the same neighborhood was initiated on similar conditions and support from the municipality. However, because it was initiated exclusively by members from the neighborhood and without the support of an independent community development organization, it did not manage to engage people with a background different from the initiators of the project. The asset of individuals and organizations that operate independently from the government and in the neighborhood is that they neither belong to the city, nor are they considered merely as a member of the community. They are able to gain trust from the community because they are expected to act in the general interest of the community, while also having a more authoritative voice in the government because they are regarded as experts on matter regarding community development. A notable illustration is the support of UA practitioners by The Public Interest Law Center of Philadelphia (PILCOP) which employs one lawyer fulltime to defend the rights of UA practitioners in Philadelphia. Interviewees stated that her role is invaluable as a translator between the different vocabularies spoken by governmental agents and gardeners. UA practitioners do not always understand the language of policy making and regulations, and UA practitioners are not always aware that they have specific rights that can fruitfully be defended in governance networks.

⁵⁰ In Ghent, these organizations would be among others Samenlevingsopbouw, the “wijkregisseurs” in each neighborhood, and VZW Jong.

⁵¹ In Ghent, these would be among others Werkgroep Stadslandbouw [Urban Agriculture Working Group], Lunch met LEF.

A third general finding is that inclusion in UA governance can also be broadened through a multi-scalar understanding of UA and local food systems (Wald and Hill 2016). A local or urban food practice is then not merely local or urban, but a practice that defends specific interests or people at a specific scale (Bulkeley 2005, Kurtz 2003, Marston 2000, Moore 2008, Smith and Kurtz 2003). Wald and Hill (2016) point out that food systems should be understood as multi-scalar issues. That means that localizing food practices have to be assessed against all scales of a food system (from individual to global scales). A multi-scalar understanding of UA helps to study more precisely how different UAPs are contributing to which particular sustainability or justice goals, and which ones it is not addressing, as demonstrated in chapter 7. Attention and awareness for who and which practices are supported may lead to more accurate assessments of local food systems, their potential, what they address and what they do not address (i.e. what may have to be addressed in the future).

The first suggestion that could promote a multi-scalar understanding of UA is through engagement with scholarly work that theorizes UA and local food. Tregear (2011) argues that all strands of theoretical endeavor tend to provide rich insights at different scales but rarely do they provide multi-scalar understandings. However, based on insights from the analysis of UA governance in Philadelphia and Ghent, it is argued that participatory food systems studies can be one way to promote multi-scalar understandings within a given context. The first example is based on the DVRPC study on the food system in a radius of 100 miles in Philadelphia (DVRPC 2010). The DVRPC conducted an extensive and comprehensive analysis of the Philadelphia food system, including topics of agricultural resources, the food economy, the food distribution and the food system stakeholders. The report presents a wealth of insights into the food and agriculture system in Philadelphia and has become an important source of reference. One of its most important outcomes is that it has assembled a network of people adopting a food systems perspective. According to interviewees, it had also stimulated the development of the FPAC in 2011. Also in Ghent, the municipality ordered a study to develop a sustainable vision on the agriculture sector in Ghent. The report is an extensive analysis of how agriculture can be planned for in the future. The project has brought together new UA practitioners, conventional farmers, organizations, governmental officials, and others. Again, the study is a source of information and inspiration, but it most importantly succeeded in generating a more systemic understanding of agriculture and food in the city, namely that under the term UA many different practices are assembled. However, it should also be noted that interviewees stated that these reports did eventually not (yet) lead to a multi-scalar and systemic approach in policy making. FPAC in Philadelphia is predominantly concerned with

urban centered sustainability issues, and in Ghent it remains unclear how the municipality will adopt the study in future urban planning.

Participation in networks is another strategy to generate a multi-scalar understanding of the food system (Reynolds 2014, Vanderplanken 2017). Through networking, participants may recognize that their own needs and barriers are advocated elsewhere or that they are linked to other domains and scales of the food system. In chapter 7 it was noted that the city of Ghent, and more specifically the FPC, is part of several international networks. It supports collaboration and exchange between different cities, but also integrates an extra-local perspective into the FPC. The FPC of Ghent, for instance focuses also on fair trade consumption, as it understands that it is not only about production and consumption locally, but also about what the city imports from abroad. Yet, at the same time, the prominence given to the extra-local networking activities by the city of Ghent, may subsequently reinforce the whole city approach in the FPC. The advantage is that Ghent as a frontrunner in addressing food systems issues is increasingly recognized in Europe and beyond. The downside, however, is that in its governance approach, rarely a distinction is made between different neighborhoods, streets, or areas.

The adoption of (environmental) justice as a core governance principle is a third potential strategy to generate a multi-scalar understanding of UA. Environmental justice offers a political dimension to the potential of UA in sustainability. It helps to see that UA is a political issue, and that not everyone is benefiting from the support for local food systems and UA. A justice perspective points attention to the fact that there are many individuals, organizations and social groups that are easily excluded from decision making processes (Schlosberg 2003). For instance, the specific focus on food justice in UA governance in Philadelphia helps to identify and target groups and communities that have unequal access to healthy and sustainable food. It also directs attention toward addressing the dynamics and structures that lead to unequal access. However, it should be noted that environmental justice remains predominantly a North American concept that has not traveled much beyond that context (Agyeman 2004, Walker 2012). It is not suggested that environmental justice as such has to be integrated in European or other contexts. It is recognized that concepts and terms matter; they are politically charged and used because they serve interests of particular groups and practices. Therefore, it is perhaps more strategic to find comparable concepts and which have the potential to carry out the key tenets of environmental justice. For instance, in Ghent it is noted that other concepts in the sustainability and transition field are more popular than the food justice concept in Philadelphia. Currently in Ghent, the commons is a concept that recruits many different sustainability advocates and that gets attention from a broad public. Using the concept of the

commons as an intermediary concept may result in broader awareness raising and integration of the principles of environmental justice. At the same time, such a strategy would avoid that concepts such as the commons, which are susceptible to hypes, are seized by dominant groups and the most powerful interests.

Inclusion through stimulating meaningful participation

A detailed and strong focus on the organization of participation in UA governance is the fourth and last suggestion that can support inclusion in UA governance. There are many different dynamics and issues that lie at the basis of people refraining from participation in governance processes of UA and local food systems (Crivits et al. 2016). A larger and more diverse group of stakeholders is then one way to ensure that different perspectives are included in decision making processes. This should be accompanied by strategies to take different voices into account in the decision making processes.

To increase participation, it is first and foremost important to generate a context-specific understanding of what participation in governance processes implies. Indeed, the comparison of UA governance processes between different cities leads to conclude that what participation, diversity, and inclusion means varies from context to context. A context-specific understanding of participation requires ongoing discussion on who is expected to participate, why and to what extent (Crivits et al. 2016). Also in terms of diversity it should be clear from the outset what is meant by diversity, which groups or organizations have to be included and for what purposes a particular diversity is strived for. In addition, participation and diversity should not be confused with inclusion (Farrell and Shalizi 2015, Ribot 2014). An important element of defining what participation implies, is the clarification of how different perspectives are going to be taken into account in collaborative decision making. In the FPC of Philadelphia, all participants get a voice through a vote. Their perspective can thus weigh in the decision making ensuring that the FPC becomes more than a public hearing. An understanding of diverse participation can also be achieved by adopting principles of environmental justice. By understanding that UA and local food systems do not automatically contribute to more just and sustainable food systems, it is clear that also in these practices there are dynamics of inclusion and exclusion at play. The adoption of a justice perspective helps to actively look for these groups and organizations that are left out of the governance processes.

A second important strategy is to continuously invest in participation through outreach, communication toward the public and evaluation of the governance process. A passive attitude toward the issues of participation, inclusion, and diversity, will not be sufficient to engage an

active and vibrant citizenry. As Agyeman and Evans (2004) contend, governance cannot be accepted as an unquestioned good. Governance is not about providing the already represented groups better and easier access to decision making, it is about ensuring that all voices are represented. If the participation from minority groups is not increased, the authors contend that governance has failed. Moreover, Donald and Morrow (2003) suggest that social inclusion is not the same as the absence of exclusion. They state that “*social inclusion has its own logic; that is, in thinking and practicing social inclusion, we must give equal weight to both social inclusion as a goal and a process*”. They propose to focus on increasing tolerance, the acceptance of others and celebrating difference as important entry points in discussions on social inclusion. The FPC in Philadelphia has besides five thematic working groups, a working group that is devoted to the issue of governance and outreach. It is a working group that strives to include organizations, groups or individuals that are missing at the table. When resources are provided to focus on participation and inclusion, it becomes possible to develop strategies (as seen in chapter 7 and 8) such as the organization of a voting system so that the perspectives of different participants are officially taken into account; holding at least a part of the formal meetings outside public hours and in accessible public places (e.g. a community center, school, book shop); developing participatory budgeting or land banks; reform the voluntary work and roles into more official roles and responsibilities. Additionally, the intermediary figures that were referred to as bringing contextual factors into the governance process, are also valuable to positively influence the participatory dynamic. It should be noted that organizations and institutions that are supportive of UA (e.g. community development organizations, gardening organizations), as well as strongly invested individuals (e.g. lawyers, community activists, researchers) can have a powerful role. In all three cities, prominent figures in UA advocacy or practice could be identified. For instance, in nearly all conversations and interviews in Philadelphia, a reference was made to the lawyer of PILCOP as an invaluable resource for the UA network and the integration of different groups and UAPs in the governance processes. From the perspective of the local government, it is important to, in addition to supporting and recognizing established organizations and institutions, identify and support these individuals in their role (Messely 2014). Several key UA advocates and practitioners in Ghent expressed disappointment in governmental institutions, as they do not feel recognized for their efforts and innovative work in UA, which also contributes to substantiating policy commitments relating to sustainable food systems.

9.3.1 Overview of recommendations for urban agriculture governance

The previous sections enclosed various governance recommendations. To reiterate the recommendations in a structured way and include additional governance recommendations,

Table 9.2 provides an overview. The table focuses on recommendations to stimulate inclusion of the diversity of UA practices, stakeholders, and objectives in UA governance processes. In other words, they are suggestions to enhance collaborations and networks in UA. The question whether support for UA is relevant within a given context, is out of the scope in this section. The recommendations are divided into four categories. The first set relates to increasing the resourcefulness of FPCs. The second category provides recommendations related to the promotion of learning about food systems issues. The third category focuses on empowerment strategies to enhance the governance structure and process of FPCs. The fourth category suggest strategies to build an UA movement that is recognized by external stakeholders (e.g. departments, civil society etc.).

For each recommendation, examples for how local governments and civil society can address the recommendations are provided. In some cases, examples for government and civil society are fairly similar, and sometimes one example applies to multiple recommendations. The category local government comprises all relevant policy departments and administrations, governmental organizations, including FPCs in cases where these are government-sanctioned. Civil society is a necessarily broad category, but the aim is to not overcomplicate the table. The category civil society includes UA practitioners and advocates (from gardeners to professional farmers and project coordinators), civil society organizations, organizations that support UA, universities and research institutions, businesses that enhance UA etc.

Table 9.2 Recommendations to promote inclusion in urban agriculture governance processes for UA stakeholders in government and civil society

Recommendations to promote inclusion in urban agriculture governance, relating to:	Government	Civil society
RESOURCES		
1. Provide financial support for UA	Provide budget to support policy goals relating to UA Provide budget for coordination of FPCs	Apply for funding and grants Search for foundations willing to supply financial support
2. Support organizations and individuals who function as intermediaries between government and UA practitioners	Recognize intermediary stakeholders Develop mutually enhancing relationships (e.g. ideas and expertise in exchange for material or financial support)	Recognize intermediary stakeholders Share information and collaborate with intermediary stakeholders
3. Address the needs, barriers and opportunities for UA development with governmental and private resources	Devote public resources to substantiate policy commitments	Report needs, barriers and opportunities concerning UA development to public authorities and private funders
LEARNING		
4. Facilitate a food systems understanding of UA	Develop comprehensive sustainability plans or food systems studies Develop or support multi-stakeholder UA networks Get an up-to-date overview of the UA landscape in the city	Participate in FPCs and other UA networks
5. Conduct data gathering and analysis to allow problem identification and formulation in UA	Conduct studies on sustainability topics relevant for UA, but for which data or insights are lacking (e.g. neighborhood analysis, quantitative data on food access)	Conduct analysis from within the UAP or initiative to demonstrate relevance and stimulate self-reflection
6. Provide education and raise awareness on broader systemic issues relating to UA (food systems issues, social and political structures of oppression and domination, environmental justice, democracy)	Organize publicly accessible debates, symposia, lectures, courses, workshops on the social and political aspects of UA and local food systems Collaborate with universities, research centers, and higher education institutes	UAPs and organizations teach about the broader social and political impact of their work Participate in networks, interact with different UA stakeholders
EMPOWERMENT STRATEGIES		
7. Adopt principles of environmental justice, i.e. equal access to benefits of UA	Adopt environmental justice or its key tenets as governance principles in UA governance processes and UA policy making	Adopt environmental justice or its key tenets as governance principles within UAP or organization

8. Assign roles, responsibilities and develop evaluation methods in governance process	Define roles and responsibilities in governance processes Hold authorized departments and institutions accountable Enhance the visibility of efforts of civil society actors	Define roles and responsibilities within UAP or organization Stimulate UA stakeholders within initiatives or organizations to take on responsibilities in governance processes
9. Share decision-making power and expert roles	Adapt governance structure and decision making procedure Recognize community actors as experts	Take on responsibilities in formal governance processes Develop more inclusive research and universities
10. Invest in participatory and inclusionary techniques	Hire assistance from participation expert Experiment with participatory and inclusionary methods	Reflect on and develop inclusionary strategies in UAP or organization Reflect on barriers for inclusion in UAP or organization
BUILDING AN UA MOVEMENT		
11. Development and support of networks, partnerships and collaboration in UA	Invest in FPCs and UA networks from local to international level Collaborate and exchange expertise between different departments and administrations	Engage in UA networks beyond the UAP Food justice movements collaborate with farmer movements
12. Advocate common goals in governance processes that extend beyond goals and objectives of individual UA stakeholders	Stimulate engagement for broader community or city goals, besides the stimulation of individual goals and roles in UA (e.g. food growing, attending events) Organize platform to discuss common goals in governance process	Discuss goals and set objectives within and between UAPs and organizations Communicate objectives to local authorities
13. Invest in communication and transparency in governance process	Develop communication strategies, e.g. social media, reports, public hearings Communicate openly about all aspects relevant to UA, including politically sensitive topics	Communicate goals, activities, impact of UAP or organization to local authorities, other UAs and broader public
14. Avoid assessments of UA and local food systems that are entirely positive, uncritical and generic	Approach UA as a political matter that involves contesting objectives and interests Avoid the adoption of UA as merely a marketing tool or for greenwashing urban policy	Develop more inclusive research and universities Make critical assessments on social media and within the UAP Link UA and local food systems to broader social, economic, and political issues

9.4 Contributions to urban agriculture literature

This thesis has made several contributions to the UA literature. First, the approach to UA as a governance issue generated many novel insights into the collaboration and participation processes in UA. In this research approach, two novel methodological choices were made: (1) the analysis of UA from a city level, and (2) the inclusion of other UA stakeholders in the analysis besides UA practitioners (e.g. government officials, stakeholders that indirectly support UA development). The analysis revealed that UAPs are influenced by processes and dynamics at higher levels (in this thesis the urban level was studied), and therefore, they do not operate independently and in seclusion. An influential dynamic resulting from an interaction, contestation, and collaboration between different UA practices, stakeholders, and objectives defines to an important degree the outcomes of UA within a given context. Moreover, the research showed that the way context-specific factors (e.g. urban layout, political climate, public attitudes toward UA) are addressed in UA governance will also affect the role and relevance of UA in a given city. Furthermore, the comparative approach - based on an analysis of UA governance in three cities - was insightful to learn and explain how and why UA develops differently in different contexts. It is instructive to learn about why and how different governance processes result in distinct objectives and outcomes of UA. This corresponds with what Lund (2014) called resonance as explained in chapter 4, meaning that because of the multiple obvious differences and the surprising similarities between cases, the comparison highlights important elements that prove to be illuminating but that perhaps would not be identified when focusing on only one context. The comparison of UA governance between Ghent and Philadelphia led for instance to theorize the politics of scale as a co-constituting factor in UA development.

Second, the thesis further contributes to the claim in academic literature that critical analyses of UA's potential in urban and agricultural sustainability are needed to nuance the generically positive approach to UA in practice and in research. Based on a local food systems approach, the research integrated the various UA practices, stakeholders, and objectives in the analysis. This approach allowed to assess the transformative potential of UA. The thesis has demonstrated that the link between UA and sustainable, just food systems cannot simply be made. While UAPs may contribute successfully to (elements of) sustainability through their own objectives, on a governance level it is shown that governance processes face various challenges to address local food systems comprehensively. Generally stated, it was found that governance processes tend to focus predominantly on either issues relating to agricultural sustainability (e.g. farmer income, preservation of farmland in the city, development of new

food and agricultural businesses), or issues relating to urban sustainability (e.g. poverty, social inequality, migration, urban quality of life). While a specific focus, or the setting of priorities should be encouraged, it is argued that a specific focus becomes problematic when this implies an a priori exclusion of other UA practices, stakeholders, and objectives in the governance process. From this insight it is concluded that the study of the social and political aspects of UA - and thus the processes of problem definition, and decision making - need to be studied, if we want to understand in which ways UA is contributing to sustainability.

9.4.1 What is the relevance of integrating a justice perspective in the analysis of urban agriculture governance processes (RQ 6)

The use of environmental justice in a study on UA is not common, but this research has demonstrated that it contributes to the UA literature for several reasons. First, a focus on UA from a justice perspective has shown that inclusionary and exclusionary dynamics are also at play in practices of food production and consumption. In other words, it has been demonstrated that environmental injustices do not only occur in extreme cases related to toxic waste and environmental pollution such as in the cases of Warren County and Love Canal as described in chapter 3.4.2. The socio-political structural processes that tend to discriminate against marginalized groups in the distribution of environmental harms are also found in everyday practices and in the distribution of environmental goods. Although further inquiry is needed, the thesis uncovered that inclusionary and exclusionary dynamics in UA governance define to an important degree the outcomes of UA. Through an analysis of key elements of UA governance processes (i.e. diversity, context, scale, and participation), the thesis has provided insight into how these inclusionary and exclusionary dynamics unfold.

Second, it has been demonstrated that for sustainability practices that involve many different practices, stakeholders, and objectives, the use of the term environmental justice over other justice-related concepts may reveal a broader scope of inclusionary and exclusionary dynamics within a given context. For instance, in the case of Philadelphia it was found that food justice explains much of the dynamic in the UA governance process. Yet, food justice focuses predominantly on access to healthy and sustainable food. The analysis of environmental justice allowed to identify that professional farmers have been largely absent in the FPC processes. So, while one would conclude that there is a strong focus on justice-related issues in UA in the case of Philadelphia, also in this case there are exclusionary dynamics at play. The thesis concludes that the adoption of the concept of environmental justice is more useful to fully understand the inclusionary and exclusionary dynamics in UA governance.

A third reason is that the adoption of the critical, North American environmental justice literature helps to create awareness on the many implications of environmental discrimination and exclusion in research conducted in a European context. Even though the protection of safe and healthy living environments is incorporated in the treaty on international human rights (Treaty of Aarhus from 25 June 1998), and in the Belgian constitutional law (art.23, 4° G.W.), there are many indications that environmental justice among the broader public is not very well understood⁵². As illustrated with the data of Ghent, it was shown that UA stakeholders both in civil society and in government, did not very well understand the political implications of supporting an UA that is predominantly tailored to the needs of specific groups, in this case middleclass consumers. The research helped to underscore that forces of environmental discrimination and unequal access to decision making processes are not only relevant to be addressed in Philadelphia (cfr. strong focus on food justice). These forces are also at work in the context of Ghent and Warsaw. It is argued that the reason why environmental justice issues are addressed in Philadelphia is because there is a shared language on justice in UA around which problems can be formulated and advocacy can be organized. There is also a focus on gathering the data necessary to support the problem definitions and advocacy. By contrast, the research demonstrated that in the case of Ghent, due to many unconscious processes, potential environmental injustices are not advocated because of a lack of understanding of environmental justice, a lack of a shared language, and a lack of data which can support a focus on environmental justice in UA governance.

Furthermore, research on environmental justice is not only relevant for ethical reasons, but it is also instrumental for tactical purposes (Allen 2008). The integration of social justice issues in environmental sustainability is a precondition for building a strong, inclusive movement that can drive significant social change. A focus on environmental justice encourages investigation into marginalized individuals, groups and organizations in governance processes, and subsequently encourages the development of governance strategies that are more inclusive of the different UA practices, stakeholders, and objectives. Opportunities and barriers to participation in UA governance were identified, and a list of recommendations (Table 9.2) have been put forward to stimulate inclusion in the decision making and collaboration processes of UA.

⁵² See for instance an article by the Dutch news site De Dagelijkse Standaard (2017) in which the issue of environmental racism, or the claim that environmental damages has a disproportionately high and adverse effect on marginalized people, is denied.

9.5 Conclusions

9.5.1 *Brief reflection on the main research question*

The research started with an identification of multiple sustainability issues in which UA is referred to as a potential strategy. UA is presumed to cope with compelling issues in the agricultural sector such as a shrinking number of agricultural holdings, loss of farmland, unstable farm income, and ecologically polluting agricultural systems. From a wider systems perspective, UA is also supposed to address urban development issues among which growing poverty, social inequality and migration, and lowering quality of urban life. In the thesis, this wide range of issues has been structured into urban or agricultural sustainability. By urban sustainability, it is meant all the contributions of UA to sustainable urban development. Agricultural sustainability refers to all the contributions of UA to a more sustainable agricultural sector.

From this follows the question of governance and how multi-stakeholder processes - comprised of government, civil society, and market actors - can take into account the different UA practices, stakeholders and objectives that characterize the diversity in sustainability claims. While public discourse and academic literature underscore the potential of UA in terms of providing more inclusive and just food systems, others warn about celebrating the inclusiveness as an inherent quality of UA and local food (Agyeman 2013, Born and Purcell 2006, DeLind 2010, Dupuis and Goodman 2005). These authors state that governance cannot be accepted as an unquestioned good (Agyeman 2004). A lack of clarity has been identified on the processes through which UA is given shape and content in cities, i.e. how the different UA practices, stakeholders, and objectives come to be supported. Indeed, there are many indications that inclusion in governance processes are tailored to individuals and groups that already have access to the benefits of UA. This occurs through conscious but often also unconscious processes. The research identified that in the governance processes oftentimes there is a lack of meaningful public discussion on how disadvantaged or vulnerable groups and individuals - including their practices and objectives - can have a say in how their living environments are being developed.

The main research question of the thesis was formulated as to what extent and how UA governance processes are inclusive of different stakeholders, practices and objectives; and how this inclusiveness interrelates to understandings of and developments in urban and agricultural sustainability.

An analysis of governance processes of UA in three cities has helped to understand the different ways in which UA is approached and subsequently how particular governance processes lead to divergent outcomes of UA in each city. Through an exploration of how governance processes deal with key elements of diversity, context, scale, and participation, the thesis uncovered various dynamics of inclusion and exclusion.

A first key finding is that a focus on particular UA practices, stakeholders, and objectives by and large simultaneously entails a disregard or exclusion of other UA practices, stakeholders, and objectives that are present within the same governance context. It thus appears that governance processes consciously and unconsciously struggle with ensuring inclusion of all the different claims that are made in UA within a governance context. This research thus substantiates the claim that critical approaches to the link between UA and sustainability are necessary.

Another key finding of the research is that between different claims for UA, an incompatibility materializes. Most often, the focus in UA gives prominence to either addressing urban sustainability issues or agricultural sustainability issues. The convergence of advocacy for a more sustainable agricultural sector and a more sustainable urban development appears to be insurmountable. While a specific focus in UA governance is not an issue in itself, it does become problematic when in the governance process other practices, stakeholders, and objectives become a priori excluded. The key question for future UA governance is then how to enable that both types of concerns can be meaningfully included in UA governance processes, in order to stimulate fair access to the decision making processes. This thesis argues that strategies are needed to form a broader UA movement in which the various UA stakeholders can meet and the UA practices, stakeholders and objectives can be discussed.

In order to attend to the many divergent expectations of UA in relation to sustainability, governance processes have to be carefully organized and coordinated. More specifically, inclusion in UA governance has to be explicitly advocated and managed, meaning that the political nature of UA and the contestation between different interests are recognized. UA is not a fixed, neutral concept; it is given shape through various political processes and newly formed power relations between stakeholders and within networks. What UA represents, depends on which practices, stakeholders and objectives are focused on in governance processes. In other words, how UA addresses sustainability ultimately depends on how it is defined and by whom in UA governance processes

A key aim of the thesis has been to reflect on strategies to overcome this exclusion and to stimulate inclusion in participatory processes for urban development and renewal. These are important questions in the light of growing social inequality, poverty, and urban populations, and a waning agricultural sector in and around cities. Increasingly, large groups in society become excluded from the processes of sustainable development that can increase quality of urban life. Sustainable energy, electric cars, local and healthy food, are all too often only accessible for middleclass citizens. The research concludes that governance processes which focus more strongly on inclusion will help prevent UA evolving into an elitist phenomenon (i.e. a phenomenon argued to have far less transformative potential). In relation to UA, the research argues that these strategies for more inclusive governance have to revolve around supporting diversity in the UA movement, taking contextual characteristics into account, generating a multi-scalar understanding of UA and local food systems, and stimulating diverse and inclusive participation in the governance process. Among the proposed strategies, there are: to explicitly adopt the key tenets of environmental justice in UA governance, to rethink and experiment with participatory and inclusionary techniques, to make research and universities more inclusive and accessible, and to work on strategies to forge broader UA movements.

9.5.2 Suggestions for further research

By way of conclusion, this thesis formulates six suggestions for further research. The first three suggestions present some avenues for further research into inclusion in UA governance in order to further insights into UA governance. The last three suggestions are related to methodological approaches.

First, in a study on inclusionary and exclusionary dynamics in UA governance, this research has focused strongly on the role and responsibility of local government (chapter 7 and 8). Hence, mainly insights are provided into how the local government is steering UA development, and formulated recommendations to create an enabling and inclusive environment in UA governance are mostly directed toward government and formal institutions. Consequently, our research would greatly benefit from additional insights into lacking public participation or quality of participation in governance processes such as FPCs. A first suggestion for further research is therefore to focus on the role and responsibility of civil society in such governance processes (Fung and Fagotto 2006). The lack of public participation and the debatable quality of participation has been recognized in academic literature and in practice. For instance, in the local food strategy of Ghent, the weak dynamic in civil society to participate in formal governance processes has been questioned. While some authors praise increased participation (Ganuza et al 2016, Fung and Wright 2001), critics of increased

participation claim that the impact on public policies is limited (Lee et al. 2015). Critics argue that issues with power imbalances and domination inevitably return, expectations from participants are unrealistic, and participation is difficult to sustain (Fung and Wright 2001). In order to provide a critical review on the role of civil society in UA governance, we need to analyze to what extent there is a political awareness among UA stakeholders on the multiple impacts of UA and to what extent they are willing to be engaged in politics beyond the practice of food production. It is necessary to understand why certain UA stakeholders choose to participate, why some refrain from participation, and why others have little or no awareness on the opportunities of public participation in formal governance processes. Moreover, Bruckmeier (2016) argues that participation in the political process can also be effective outside official policy making spheres. Civil society stakeholders may not always perceive that the political impact of their UAP is taking place in the local government, or is effectuated in formal governance processes. Hence, a comparison between formal and informal governance processes would be interesting to assess the differential processes, organization and impact. Such comparisons would allow us to reflect more thoroughly on the most effective governance processes to achieve broad support for UA. Finally, when discussing the role of UA practitioners and stakeholders in civil society, it would also be interesting to study inclusionary governance processes within individual UAPs. It is argued that inclusion in UAPs is an important step to enable participation in formal governance processes. Therefore, we need get an overview of the different methods within UAPs to arrange participation, inclusion and membership. It would also allow to assemble a list of best practices.

A second suggestion proposes to complement and thus enhance the research findings of this thesis by exploring also distributional injustices in UA. Walker (2012) and Agyeman (2013) elaborate in detail on the complexity of demonstrating distributional injustices in for instance UA (e.g. is distance a relevant factor to access to UA, or should it be the quality of UA spaces that has to be analyzed, and so on). It would be useful to gain insight into whether and how the exclusionary dynamics in governance processes translate into distributional injustices.

A third suggestion is to conduct additional case studies with the same research approach, although future case studies could also focus specifically on exclusion in policies and policy making (see Minkoff Zern and Sloat 2017). Each of the three cities had a unique dynamic in relation to UA. It was very insightful to compare FPCs in Philadelphia and Ghent, and to compare the development of UA in Ghent and in Warsaw. On the one hand, additional case studies would help to substantiate, refine or perhaps contradict the findings in this research. It would be an opportunity to enrich or broaden the suggestions to support inclusion in UA governance. On the other hand, additional comparative research may lead to new insights that

broaden the general findings of this thesis. Furthermore, it would be worthwhile to compare UA governance between different cities that are fairly similar across a range of characteristics, for instance two cities in Flanders. It could be enriching to learn how similar constraining factors such as a lack of land and of political support are addressed or circumvented in each city. Although the comparative aspect of the research has been invaluable, it is also argued that at the same time longitudinal research is equally important. A thorough analysis of the case of Ghent over four years has shown that UA governance processes change quickly. That is partly because phenomena like UA and FPCs are relatively new to many cities. UA governance processes are often in a stage of exploration or experimentation, which leads to many changes in a short span of time. Therefore, it would be constructive to continue observations of how UA and FPCs unfold within one context over time.

This thesis has identified the important role of research institutions and universities in UA governance. However, research can also contribute to inclusionary and exclusionary dynamics in UA. Concerning inclusionary dynamics, research into UA can provide new or missing knowledge, it can assist in demonstrating the relevance of UA to funders or governments, it can help raise public awareness on specific barriers for UA development or on issues that UA helps to address, and it can produce influential reports with relevant policy suggestions. Research contributes to exclusionary dynamics, when it appropriates ideas on best practices or increases competition between UAPs, when it uncritically adopts dominant discourses such as positive generic discourses on UA or stereotypical discourses on marginalized social groups, or by extracting information and time from research participants without offering anything in return (Reynolds and Cohen 2016). Additionally, research reports and policy recommendations can be formulated in such a way that they extend or solidify existing exclusions in UA. Because of the influential role of research, the fourth suggestion is that research processes become more inclusive unto themselves, by considering the different practices, stakeholders, and objectives in UA. As noted in chapter 4.4.4, the importance of finding strategies to be inclusive in the data gathering process is a key issue that needs explicit focus from the start of the research process. A lack of focus on inclusion risks that relevant interviewees will be omitted in the analysis. Reynolds and Cohen (2016) provide an important reflection on the role of scholarship in promoting social justice in New York City UA, which shows overlap with the suggestions resulting from this research. One way to promote inclusive research is to focus on new research approaches and new forms of collaboration (Departement Leefmilieu, Natuur, en Energie 2015). Among others, sustainability science involves research that starts from bottom-up problem definitions, that is solution-oriented, and that recognizes the normative character of research (Departement Leefmilieu, Natuur, en Energie 2015, Müller 2003). UA practitioners and advocates have relevant knowledge, and therefore research

should be driven by what happens on the ground, the local struggles and the questions that UA advocates in civil society are dealing with. These UA stakeholders should then be included in the problem definition, data gathering and analysis, and dissemination of research results. This is also called collaborative research or participatory action research. In such methods, co-creation of knowledge through dialogue is a key aspect (Reynolds and Cohen 2016). A prerequisite for more inclusive research processes is to go beyond the common dichotomy of researcher as expert versus the UA practitioner as research object. In fact, UA practitioners and researchers share the role of experts, especially with a topic such as UA where UA practitioners hold invaluable knowledge and expertise. It is only through the co-creation of knowledge by researchers and UA practitioners, that there can be a broader reflection on how to advance justice and inclusion in UA. At the same time, however, it is strategic to recognize the privileged position of the researcher as this position can be used in different ways to advance structural changes. On the one hand, they can use their agency and recognition as expert not only to document injustices, but also to translate concerns in reports and policy recommendations. On the other hand, they could help UA advocates and the broader public or communities to see the linkages between UA struggles and the broader structural forces of exclusion in the food system (Cohen and Reynolds 2016).

Sustainability science does not only involve transdisciplinary approaches; it also implies interdisciplinary research to complement mono-disciplinary and technocratic research into sustainability. Apart from referencing the potential benefits, risks and barriers of UA that are mostly identified by technical, engineering and natural scientific approaches (see chapter 1 and 2), this research has largely been a political sociological study of UA. Most technical or natural research into UA is strictly confined to its own respective discipline. This research has amply demonstrated that governance of UA needs to be taken into account in assessments on the role of UA in sustainability. Future research should grasp opportunities to conduct analysis of all aspects of systemic analysis. As a fifth suggestion, the research argues that for a comprehensive assessment on the transformative potential of UA, most valuable insights are likely to be generated by interdisciplinary research. This implies first and foremost to overcome prejudices and disparities between different disciplines and institutions, and to avoid aiming for the “middle ground”, which is often done when expertise from different disciplines are brought together (Callard and Fitzgerald 2015).

The methodological approach has another potentially important asset. This thesis adopted UA as a case and studied UA from three theoretical propositions, i.e. the analysis of UA from a local food systems perspective, UA as a governance issue, and the study of UA through the lens of environmental justice. It generated many insights into inclusionary and exclusionary

dynamics, the difficulty of taking into account different claims in governance processes, the value of adopting systemic and multi-scalar approaches, and more. As a sixth and final research suggestion, it is argued that these insights can be useful in analyses on governance processes of other urban sustainability practices (e.g. community energy projects, co-housing projects) and agricultural sustainability practices (e.g. food hubs, agro-ecology). Combining theoretical insights into UA governance processes and other sustainability practices can assist in forging broader theoretical insight into how urban sustainability transformations in social and political structures could be forged.

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The interest in urban agriculture (UA) has been spreading at a fast pace across Western cities. Urban food production, as it reemerged since the 1990s under the label of UA, is to be understood today as a global social movement that is largely advocated in urban centers. For several decades, the idea has been growing that cities have to start to take up a larger responsibility in providing sustainable food systems. UA today comprises many different practices, stakeholders, and objectives that are strongly associated with sustainability.

Concerning the practices, UA embraces community gardens, educational gardens, healing gardens, peri-urban farms, composting, chicken or animal husbandry (e.g. pigs), beekeeping, forestry, as well as more technological projects such as container farming, rooftop farming, indoor farming, using the techniques of aquaponics, led-farming, and hydroponics in the city. Concerning the stakeholders, UA is besides all the UA practitioners increasingly supported by among others governments, research institutions, social organizations, urban communities, architects and urban planners, schools and universities, and civil society at large. Concerning the objectives, it has become clear that UA is no longer only about food production. UA is presumed to cope with compelling issues in the agricultural sector such as a shrinking number of agricultural holdings, loss of farmland, unstable farmer income, and ecologically polluting agricultural systems. From a broader perspective, UA is also supported to address urban development issues among which growing poverty, social inequality and migration, and lowering quality of urban life. In the thesis, the wide range of issues have been grouped into urban or agricultural sustainability. By urban sustainability, it is meant all the contributions of UA to sustainable urban development. Agricultural sustainability refers to all the contributions of UA to a more sustainable agriculture sector.

The potential of UA is that it functions as an all-encompassing and recruiting concept. It can deal with many different sustainability issues and attracts different stakeholders in civil society, market and government simultaneously. The thesis has observed that a generically positive and uncritical discourse on UA through which all UAPs are promoted is central in the support for UA. However, this thesis has raised concerns about the overly positive approach to UA. It questions whether such a discourse invokes enough political advocacy and debate to realize the multifunctional and transformative potential of UA. Precisely because UA has a potentially important role in various domains and for civil society, this thesis argues that critical analysis of UA's contribution to sustainability is necessary. The environmental, social and economic contributions of UA have been studied thoroughly in academic literature. However, a lack of

clarity has been identified with regard to the processes through which UA is given shape and content in cities, i.e. how the different UA practices, stakeholders, and objectives come to be supported. Indeed, there are many indications that inclusion in governance processes are tailored to individuals and groups that already have access to the benefits of UA. This occurs through conscious but often also unconscious processes. The research has identified that in the governance processes oftentimes there is a lack of meaningful public discussion on how disadvantaged or vulnerable groups and individuals - including their practices and objectives - can have a say in how their living environments are being developed.

The main research objective of the thesis is to explore to what extent and how formal governance processes are inclusive of different UA practices, stakeholders, and objectives; and how this inclusiveness interrelates to understandings of and developments in urban and agricultural sustainability.

The main argument of the thesis is that UA can only contribute to urban and agricultural sustainability if UA governance processes also explicitly focus on the inclusion of the different practices, stakeholders, and objectives. To analyze inclusion and exclusion in UA governance, the thesis adopts three theoretical propositions. The first is that a local food systems approach to study UA allows best to assess its transformative potential. Based on a series of critical academic approaches to local food systems, the second and third theoretical propositions are derived. The second proposition is that UA is best considered as a governance issue. It helps to see UA as a complex issue that cannot be addressed by government or any other stakeholder group alone. To understand what UA becomes in a given city, we have to look at the processes of interaction and decision making between the different groups or stakeholders. This thesis focuses on participatory governance processes formally initiated by local governments. This focus enables the study of actions, processes, and dynamics that may hamper or promote participation in UA governance processes. The third proposition elaborates on justice as a useful lens to study UA and its governance processes. Given that justice theories and movements play a different role in different contexts, the aim of this thesis is to explore whether the integration of a justice perspective can offer valuable insights into UA governance in terms of inclusion and exclusion. This thesis focuses on the concept of environmental justice. Environmental justice helps to study UA as a political issue, which concerns contesting interests, practices and objectives. It clarifies how environmental goods are distributed unevenly, partly as the result of exclusion in governance and decision making processes.

In a first analytical focus, the goal is to understand the operation and organization of the wide range of practices that fall under the label of UA. For this purpose, 32 UAPs in different European countries are analyzed. The thesis formulates several arguments that support the use of the term UA in research and in practice. By studying the different UAPs together, we learn to understand UAPs in relation to one another, we can find similarities and differences between UAPs, and we can reflect on how and which UAPs respond best to contextual opportunities, barriers and needs. It is also argued that in practice, the term UA can be strategic to forge a broad movement of UAPs.

In the second analytical focus, which represents the largest part of the thesis, the aim is to explore governance processes of UA in three different cities: Ghent, Belgium; Warsaw, Poland; and Philadelphia, PA, USA. The research uses various data sources: semi-structured interviews, formal and informal document analysis, surveys, and participant observation in the field, focus groups, and in several UA research projects. An analysis of governance processes of UA in three cities is instructive to understand the different ways in which UA is approached and subsequently how particular governance processes lead to divergent outcomes of UA in each city. In order to gain thorough knowledge on the processes of inclusion and exclusion in UA governance, it is necessary to identify elements around which the dynamic of UA governance processes revolves. The thesis identifies four key elements. They are diversity, context, scale and participation. For each of these elements, the thesis explores their role in inclusionary and exclusionary dynamics in UA governance processes. The thesis uncovers various inclusionary and exclusionary dynamics and reflects on how to deal with these key elements in order to promote inclusion in UA governance processes.

Analyzing diversity in UA governance

The research has identified that to govern the diverse set of practices in UA, more complex and nuanced understandings of UA are necessary. UA stakeholders often make use of general and simplistic definitions of UA or distinctions in UA. The research has developed a conceptual framework based on 13 governance characteristics that helps to describe a broad variety of UAPs on the same set of characteristics. It thus becomes possible to consider different UAPs simultaneously and understand the UAPs in relation to each other. The conceptual framework helps to systematize UAPs. It uncovers that there are important similarities between for instance community gardens and professional farms, or differences between two community gardens. Furthermore, the research reflects on how this framework helps to take into account the diversity in UA practices, stakeholders, and objectives in UA governance processes. It is argued that these frameworks are useful tools to avoid that UA becomes a “single issue politics”, or that one type of UA becomes associated with one type of objective.

Analyzing context in UA governance

The comparison of UA governance between Ghent and Warsaw shed light on the role of the context in UA development. Often, UA is supported in any form or for any reason, because of the fairly dominant discourses that uncritically celebrate UA's contribution to sustainability. The analysis shows that there are context-specific needs, opportunities and barriers that UA can address. The research demonstrates that when these contextual factors are taken into account, it becomes possible to imagine more roles and functions of UA within a city, thereby shedding light on other UA practices, stakeholders, and objectives.

Analyzing scale in UA governance

The research demonstrates that the development of UA and local food systems does not occur at a pre-existing scale of "local" or "urban". These scales are not fixed, they are constructions. Efforts to localize food systems are a political process. The analysis shows that through different politics of scale in Ghent and Philadelphia, UA and local food systems come to be framed at different scales, resulting in the support of different UA practices, stakeholders, and objectives. Studying the politics of scale has been insightful to identify the processes of inclusion and exclusion in UA governance. It led to the conclusion that a multi-scalar understanding of UA and local food systems, and the integration of a justice perspective are useful to become conscious of who is supported in UA governance and who is missing at the table.

Analyzing participation in UA governance

Participation is the fourth key element of UA governance processes that is analyzed. The research demonstrates that the organization and coordination of participation can strongly define the inclusionary and exclusionary dynamics in UA governance. This is underscored by academic literature. However, more insights into how participation is enabled or constrained are needed. The research uncovers the various ways through which exclusion occurs and formulates a range of suggestions to become more conscious of the participatory dynamic and inclusion in the decision making process.

From the analysis of the issues of diversity, context, scale, and participation, two key findings can be deduced that respond to the main research question. First, a focus on particular UA practices, stakeholders, and objectives by and large simultaneously entails a disregard or exclusion of other UA practices, stakeholders, and objectives that are present within the same governance context. It thus appears that governance processes consciously and unconsciously struggle with ensuring inclusion of all the different claims that are made in UA.

This research therefore substantiates the claim that critical approaches to the link between UA and sustainability are necessary.

Second, between different claims for UA, an incompatibility materializes. Most often, the focus in UA gives prominence to either addressing urban sustainability issues or agricultural sustainability issues. The convergence of advocacy for a more sustainable agricultural sector and a more sustainable urban development appears to be insurmountable. While a specific focus in UA governance is not an issue in itself, it nevertheless becomes problematic when in the governance process other practices, stakeholders, and objectives are a priori excluded. The key question for future UA governance is then how to enable that both types of concerns can be meaningfully included in UA governance processes in order to stimulate fair access to the decision making processes. This thesis argues that strategies are needed to form a broader UA movement in which the various UA stakeholders can meet and the UA practices and objectives can be discussed.

Overall, it can be concluded that advocating UA in a generic way and adopting uncritically positive discourses on UA are inadequate to deal with the many exclusionary dynamics in UA governance. In order to attend to the many divergent expectations of UA in relation to sustainability, governance processes have to be carefully organized and coordinated. More specifically, inclusion in UA governance has to be explicitly advocated and managed, meaning that the political nature of UA and the contestation between different interests are recognized. UA is not a fixed, neutral concept; it is given shape through various political processes and newly formed power relations between stakeholders and within networks. What UA represents, depends on which practices, which stakeholders and which objectives are focused on in governance processes. In other words, how UA addresses sustainability ultimately depends on how it is defined and by whom in UA governance processes.

A key aim of the thesis is to reflect on strategies to overcome exclusion and to stimulate inclusion in participatory processes for urban development and renewal. These are important questions in the light of growing social inequality, poverty, and urban population, and a waning agricultural sector in and around cities. Various groups of citizens in society become excluded from the processes of sustainable development that can increase quality of urban life. Sustainable energy, electric cars, local and healthy food, are all too often only accessible for middleclass citizens. The research concludes that governance processes which focus more strongly on inclusion will help prevent UA evolving into an elitist phenomenon (i.e. a phenomenon argued to have far less transformative potential). The research argues that strategies for more inclusive governance can revolve around either: supporting diversity in the

UA movement, taking contextual characteristics into account, generating a multi-scalar understanding of UA and local food systems, or stimulating diverse and inclusive participation in the governance process. Among the proposed strategies, the main ones are to adopt key principles of environmental justice in UA governance, to rethink and experiment with participatory and inclusionary techniques, to make research and universities more inclusive and accessible, and to work on strategies to forge broader and substantiated UA movements embracing different stakeholders from civil society, market, and government.

Samenvatting

De aandacht voor stadslandbouw is de afgelopen decennia in sneltempo toegenomen. Stadslandbouw, een term die sinds de jaren '90 gebruikt wordt voor het produceren van voedsel in de stad, is een sociale beweging die wereldwijd in opkomst is. Deze ontwikkeling is zij aan zij gegaan met de gedachte dat steden meer verantwoordelijkheid moeten nemen in het voorzien van gezonde en duurzame voeding. Stadslandbouw omvat veel verschillende praktijken, belanghebbenden en doelstellingen, die sterk gelinkt worden aan duurzaamheid.

Wat betreft de praktijken wordt het volgende als stadslandbouw beschouwd: volkstuinen, schooltuinen, zorgboerderijen, boerderijen in de stadsperiferie, composteerprojecten, het houden van dieren zoals kippen, varkens of bijen in de stad, *agroforestry*, maar ook praktijken met een meer technologische insteek, zoals containerboerderijen, dakboerderijen, indoorboerderijen, het doen aan *aquaponics* of *hydroponics*, en LED-landbouw. Degenen die aan stadslandbouw doen worden in toenemende mate ondersteund en aangemoedigd door stadsbesturen, onderzoeksinstituten, non-profit organisaties, stadsbuurten, scholen, universiteiten, en het maatschappelijk middenveld als geheel. Wat betreft de doelstellingen wordt door veel stadslandbouwers meer beoogd dan alleen het produceren van voedsel. Er wordt verondersteld dat stadslandbouw kan bijdragen aan de oplossing van hedendaagse problemen in de landbouwsector, zoals de vermindering van het aantal boerenbedrijven, vermindering van de hoeveelheid landbouwgrond, het onzekere boereninkomen, en het vervuilende karakter van landbouwsystemen. Vanuit breder perspectief wordt stadslandbouw gezien als middel voor de aanpak van stedelijke problemen, zoals armoede, sociale ongelijkheid, migratieproblematiek, en een verslechterende levenskwaliteit in de stad. In het doctoraat wordt wat betreft deze kwesties een onderscheid gemaakt tussen duurzaamheid in de stad en duurzaamheid in de landbouwsector. Met duurzaamheid in de stad worden activiteiten bedoeld die iets toevoegen aan een duurzame stedelijke ontwikkeling. Met duurzaamheid in de landbouwsector worden activiteiten bedoeld die iets bijdragen aan verduurzaming van de sector als geheel.

Stadslandbouw heeft potentie om te functioneren als fenomeen dat veel verschillende duurzaamheidskwesties kan aanpakken en aantrekkelijk is voor zowel de markt, de overheid als de samenleving. Uit het doctoraat komt naar voren dat de steun die er is voor stadslandbouw voortkomt uit een over het algemeen positief en niet-kritisch beeld van het fenomeen, waarbij elke praktijk wordt aangemoedigd. In dit onderzoek worden echter kanttekeningen gezet bij een dergelijke benadering. Het stelt in vraag of deze zienswijze voldoende politiek en maatschappelijk debat oplevert om de potentie die stadslandbouw heeft

te benutten. Juist vanwege de belangrijke rol die stadslandbouw kan spelen op verschillende plekken in het maatschappelijk middenveld, wordt in dit onderzoek gesteld dat een kritische analyse van de bijdrage van stadslandbouw aan duurzaamheidskwesties noodzakelijk is. De ecologische, sociale, en economische bijdragen van stadslandbouw werden reeds uitvoerig bestudeerd in de academische literatuur. Er is echter nog onduidelijkheid over via welke processen stadslandbouw de vorm en inhoud aanneemt, en hoe verschillende stadslandbouwpraktijken, belanghebbenden en doelstellingen kunnen worden ondersteund. Er zijn veel aanwijzingen dat de governanceprocessen rond stadslandbouw vooral ten gunste zijn van al bevooroordeelde groepen. Dit gebeurt bewust, maar vaak ook onbewust. Het onderzoek stelde vast dat er in veel gevallen een gebrek aan publiek debat is over hoe achtergestelde of kwetsbare groepen en individuen - inclusief hun praktijken en doelstellingen - zeggenschap kunnen hebben over de inrichting van hun leefomgeving.

De belangrijkste doelstelling van het doctoraat is om na te gaan hoe, en in welke mate, formele governanceprocessen van stadslandbouw de verscheidenheid aan praktijken, belanghebbenden en doelstellingen includeren; en hoe deze inclusie in verband staat met het begrip van - en ontwikkelingen in - duurzaamheid in de stad en in de landbouwsector.

De belangrijkste stelling in dit onderzoek is dat stadslandbouw alleen kan bijdragen aan duurzaamheid op stads- en landbouwniveau als de governanceprocessen van stadslandbouw zich expliciet focussen op inclusie van de verschillende vormen, belanghebbenden, en doelstellingen die in een bepaalde governancecontext aanwezig zijn. Om inclusie en exclusie te onderzoeken, zijn drie theoretische proposities aangenomen. De eerste is dat, om het transformatieve potentieel van stadslandbouw te onderzoeken, het fenomeen best benaderd wordt vanuit het perspectief van lokale voedselsystemen. Op basis van verschillende kritische academische benaderingen van lokale voedselsystemen zijn de tweede en derde propositie gevormd. De tweede propositie is dat stadslandbouw het best beschouwd kan worden als een governancekwestie. Dit helpt om de complexiteit van het fenomeen te begrijpen en te zien dat het niet kan worden ondersteund door uitsluitend de overheid of uitsluitend een andere groep belanghebbenden. Om te begrijpen hoe stadslandbouw uitgroeit in een bepaalde stad, moeten we kijken naar de interactie- en besluitvormingsprocessen tussen de verschillende groepen belanghebbenden. Het doctoraat richt zich op participatieve governanceprocessen die formeel zijn geïnitieerd door lokale overheden. Deze focus maakt het mogelijk om acties en processen te onderzoeken, en zicht te krijgen op dynamieken die participatie bevorderen of verhinderen. De derde propositie richt zich op rechtvaardigheid als een invalshoek om governanceprocessen van stadslandbouw te bestuderen. Gezien theorieën en bewegingen rond rechtvaardigheid een verschillende rol hebben in verschillende contexten, is het doel van

dit onderzoek om na te gaan of het innemen van dit perspectief waardevolle inzichten kan geven wat betreft inclusie en exclusie bij governance van stadslandbouw. Het doctoraat richt zich op het concept environmental justice. Dit concept helpt om stadslandbouw te bestuderen als een politieke kwestie, waarbij tegenstrijdige belangen, praktijken en doelstellingen een rol spelen. Het verduidelijkt hoe milieuvoordelen ongelijk zijn verdeeld, deels als gevolg van exclusie in governance- en besluitvormingsprocessen.

In een eerste analytische focus wordt beoogd om de werking en de organisatie van het brede scala aan stadslandbouwpraktijken te begrijpen. Om dit te doen werden 32 stadslandbouwpraktijken uit verschillende Europese landen geanalyseerd. Door verschillende praktijken naast elkaar te bestuderen, leren we ze in relatie tot elkaar te begrijpen. Hierdoor zien we gelijkenissen en verschillen, en kunnen we reflecteren op de vraag hoe, en welke praktijken het best beantwoorden aan de contextuele noden, kansen, en barrières. Er wordt daarnaast gesteld dat de term stadslandbouw van strategische waarde kan zijn om een brede beweging van stadslandbouwpraktijken tot stand te brengen.

In een tweede analytische focus, die het voornaamste deel van het doctoraat vormt, is het doel om governanceprocessen van stadslandbouw in drie steden te onderzoeken, namelijk Gent (België), Warschau (Polen) en Philadelphia (Verenigde Staten). Hierbij wordt gebruik gemaakt van verschillende databronnen: diepte-interviews, analyse van zowel formele als informele documenten, vragenlijsten, participatieve observatie, deelname aan focusgroepen en deelname aan verschillende onderzoeksprojecten. De analyse van governanceprocessen in drie verschillende steden geeft inzicht in hoe stadslandbouw op verschillende manieren benaderd wordt en hoe dit bijgevolg in iedere stad tot uiteenlopende uitkomsten leidt. Om zicht te krijgen op hoe inclusie en exclusie tot uiting komt in governanceprocessen van stadslandbouw, moeten we de verschillende aspecten herkennen waarrond de dynamiek in deze processen zich afspeelt. In het doctoraat worden vier kernaspecten in kaart gebracht, namelijk diversiteit, context, schaal, en participatie. Voor elk van deze aspecten wordt hun rol onderzocht in inclusie- en exclusiedynamieken in governanceprocessen van stadslandbouw. Er worden verscheidene van deze dynamieken blootgelegd en er wordt gereflecteerd op hoe met deze elementen kan worden omgegaan, met als doel om inclusie in governanceprocessen van stadslandbouw te bevorderen.

Omgaan met diversiteit in de governance van stadslandbouw.

Het onderzoek laat zien dat, om de diversiteit aan stadslandbouwpraktijken te ondersteunen, er een complexer en meer genuanceerd begrip van stadslandbouw nodig is.

Belanghebbenden maken vaak gebruik van algemene en simplistische definities van stadslandbouw. In dit onderzoek wordt een conceptueel kader ontwikkeld gebaseerd op 13 governance-eigenschappen. Dit kader helpt om de grote verscheidenheid aan stadslandbouwpraktijken te beschrijven aan de hand van dezelfde criteria. Zo wordt het mogelijk om verschillende stadslandbouwpraktijken te begrijpen in relatie tot elkaar. Het conceptueel kader helpt hiermee de praktijken te systematiseren. Het laat zien dat er belangrijke overeenkomsten zijn tussen bijvoorbeeld volkstuinen en professionele boerderijen, of verschillen tussen twee volkstuinen. Vervolgens wordt besproken hoe dit kader helpt om de diversiteit aan praktijken, belanghebbenden en doelstellingen in governanceprocessen van stadslandbouw in beschouwing te nemen. Er wordt gesteld dat dit soort kaders nuttig zijn om te voorkomen dat stadslandbouw als een enkelvoudig politieke kwestie benaderd wordt, of dat een bepaalde vorm van stadslandbouw gelinkt wordt aan slechts één bepaalde doelstelling.

Omgaan met context in de governance van stadslandbouw

De vergelijking van governanceprocessen van stadslandbouw in Gent en Warschau geeft zicht op de rol van de context in de ontwikkeling van stadslandbouw. Vaak wordt iedere vorm van stadslandbouw om elke willekeurige reden ondersteund, mede omwille van het dominante, niet-kritische discours. De analyse laat zien dat er context-specifieke noden, kansen, en barrières zijn waarin stadslandbouw een rol kan spelen. Het onderzoek laat zien dat als deze worden meegenomen in de governanceprocessen, het mogelijk wordt om voor stadslandbouw meer rollen en functies te bedenken. Hiermee worden andere praktijken, belanghebbenden, en doelstellingen in beeld gebracht.

Omgaan met schaal in de governance van stadslandbouw

Het doctoraat laat zien dat stadslandbouw en lokale voedselsystemen zich niet ontwikkelen op reeds bestaande lokale of stedelijke schalen. Deze schalen zijn geen vaststaand gegeven, maar sociale constructies. Inspanningen om voedselsystemen meer lokaal te maken vormen een politiek proces. Een analyse laat zien dat via verschillen in processen van *politics of scale* tussen Gent en Philadelphia, stadslandbouw en lokale voedselsystemen op een andere schaalgrootte worden uitgewerkt. Dit resulteert in andere keuzes voor ondersteuning van bepaalde praktijken, belanghebbenden, en doelstellingen. Het bestuderen van *politics of scale* biedt inzicht in de dynamiek van inclusie en exclusie. Er wordt geconcludeerd dat het begrijpen van stadslandbouw als fenomeen dat op meerdere niveaus impact uitoefent, vanuit het perspectief van rechtvaardigheid, een zinvolle manier is om zicht te krijgen op wie wordt ondersteund en wie ontbreekt in de processen waarin beslissingen worden genomen.

Omgaan met participatie in de governance van stadslandbouw

De laatste kwestie die wordt geanalyseerd is die van participatie. Het onderzoek laat zien dat de organisatie en coördinatie van participatie van grote invloed is op de dynamiek van in- en exclusie in de governance van stadslandbouw. Dit wordt reeds ondersteund in academische literatuur. Er is echter meer zicht nodig op hoe governanceprocessen participatie mogelijk maken of verhinderen. Het onderzoek geeft inzicht in verschillende manieren waarop processen van in- en exclusie zich voordoen, en formuleerde een reeks suggesties om bewuster om te gaan met participatie en inclusie bij besluitvormingsprocessen.

Uit de analyse van diversiteit, context, schaal en participatie in de governance van stadslandbouw kunnen twee kernbevindingen worden afgeleid die beantwoorden aan de hoofdvraag van het onderzoek. Ten eerste laat het zien dat een focus op bepaalde praktijken, belanghebbenden en doelstellingen vrijwel altijd met zich meebrengt dat er andere, die zich in dezelfde governancecontext bevinden, worden uitgesloten of buiten beschouwing worden gelaten. Het blijkt dat er in governanceprocessen zowel bewust als onbewust wordt geworsteld met het waarborgen van inclusie van de verschillende claims die worden gemaakt bij stadslandbouw. Dit onderzoek beargumenteert dat kritische benaderingen van de link tussen stadslandbouw en duurzaamheid nodig zijn.

Ten tweede lijken de verschillende claims voor stadslandbouw onverenigbaar. Meestal wordt de focus ofwel gelegd op problemen die gerelateerd zijn aan duurzaamheid in de stad, ofwel op problemen die te maken hebben met duurzaamheid in de landbouwsector. Het stimuleren van samenwerkingen waarbij zowel het doel van duurzame landbouw als het doel van duurzame steden worden verwezenlijkt, lijkt onoverkomelijk. Terwijl een bepaalde focus in de governance van stadslandbouw op zichzelf geen probleem is, wordt het problematisch als in het governanceproces andere praktijken, belanghebbenden en doelstellingen bij voorbaat al worden uitgesloten. De belangrijkste vraag voor toekomstige governance van stadslandbouw is hoe het te faciliteren zodat de verschillende belangen worden opgenomen in het proces. Dit onderzoek stelt dat er strategieën nodig zijn om een bredere stadslandbouwbeweging te vormen, waarin de diverse belanghebbenden elkaar kunnen treffen en waarin stadslandbouwpraktijken en doelstellingen kunnen worden bediscussieerd.

In het onderzoek wordt geconcludeerd dat pleiten voor stadslandbouw in het algemeen en het innemen van een onkritisch, positief standpunt, onvoldoende is om de vele uitsluitingsdynamieken in de governance van stadslandbouw het hoofd te kunnen bieden. Om aan de diverse verwachtingen van stadslandbouw in relatie tot duurzaamheid te kunnen

voldoen, moeten governanceprocessen met uiterste precisie en aandacht worden georganiseerd en gecoördineerd. Met andere woorden, inclusie in de governance van stadslandbouw moet uitdrukkelijk worden nagestreefd en gewaarborgd. Dit betekent dat moet worden erkend dat stadslandbouw een politieke kwestie is waarbij tegenstrijdige belangen spelen. Stadslandbouw is geen vastomlijnd begrip, noch een neutraal concept. Het wordt vormgegeven via verschillende politieke processen en nieuwe machtsrelaties tussen belanghebbenden en in netwerken. Wat en wie stadslandbouw vertegenwoordigt hangt af van op welke praktijken, welke belanghebbenden en welke doelstellingen gefocust wordt in governanceprocessen. Met andere woorden, hoe stadslandbouw beantwoordt aan duurzaamheidsvragen is afhankelijk van hoe het in governanceprocessen wordt gedefinieerd, en door wie.

Een hoofddoel van het doctoraat is om te reflecteren op mogelijke strategieën en manieren om exclusie te voorkomen en inclusie te stimuleren in participatieve processen voor stedelijke ontwikkeling en vernieuwing. Dit is een belangrijke kwestie, gezien de groeiende sociale ongelijkheid, armoede, en stedelijke bevolking, en een verdwijnende landbouwsector in en rond steden. Verschillende groepen burgers worden in de samenleving uitgesloten van processen van duurzame ontwikkeling die de levenskwaliteit in de stad kan verhogen. Duurzame energie, elektrische auto's, en lokale en gezonde voeding zijn te vaak enkel een optie voor de middenklasse. Het doctoraat concludeert dat governanceprocessen die sterker focussen op inclusie kunnen vermijden dat stadslandbouw evolueert naar een elitair fenomeen dat de mogelijkheid ontbreekt om transformatie te bewerkstelligen. Het onderzoek beargumenteert dat strategieën voor een inclusieve governance van stadslandbouw kunnen bestaan uit ofwel: het ondersteunen van diversiteit in stadslandbouw, het in beschouwing nemen van de contextuele kansen en barrières, het begrip stimuleren dat het ondersteunen van stadslandbouw zich afspeelt op meerdere schalen, ofwel het organiseren van een diverse en inclusieve participatie in governanceprocessen. Onder de verschillende voorgestelde strategieën, zijn de voornaamste: het opnemen van environmental justice - of de kernprincipes ervan - als governanceprincipe, het experimenteren met technieken om inclusie en participatie te stimuleren, het onderzoek en universiteiten inclusiever en toegankelijker maken, en het streven naar een brede en substantiële stadslandbouwbeweging die belanghebbenden uit de samenleving, de markt, en de overheid omarmt.

About the author

Charlotte Prové was born in Ninove, Belgium on June 25, 1988. In 2006, she obtained her secondary school degree with a major in economics and mathematics at Sint-Aloysiuscollege in Ninove. During a year of studying and volunteering abroad, she realized that sociology was one of her major interests. Four years later, in 2011, she obtained the degree of Master of Science in Sociology at Ghent University. In 2013, she obtained the degree of Master in Science in Nutrition in Rural Development, also at Ghent University. Her dissertation was on the development of urban agriculture in the city of Ghent. In October 2013, she had the opportunity to continue this research in a four-year PhD project at the Social Sciences Unit of ILVO - Institute of Agriculture, Fisheries and Food Research. In those four years, she collaborated with colleagues in several urban agriculture research projects. She attended several international conferences and co-organized a conference on urban agriculture in Brussels in 2016.

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Conference papers

Prové C., Chappell J., Dessein J., de Krom M., 2017. What supports effective participation and voice? Preconditions for social justice in urban agriculture. Paper presented at European Society for Rural Sociology Conference, Jagiellonian University, Krakow, Poland, 24-27 July, pp. 265-266. Available online: <http://www.esrs2017.confer.uj.edu.pl/documents/116230145/0/Proceedings+ESRS+Krakow.pdf/9f24a360-0c31-4aa2-810a-4518c38dd4ff>

Kerselaers E., Crivits M., Dessein J., Koopmans M., Rogge E., Prové C., Vanderplanken K., 2017. Food hubs. Gedeelde ruimte, gedeelde verantwoordelijkheden: Over de korte keten en Food Hubs als kans voor landbouw én maatschappij. Paper presented at Plandag 2017 - Gedeelde ruimte, Gent, België. Available online: http://plandag.net/wp-content/uploads/PlanDag2017_Gebundeldebijdragen_totaal.pdf

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Research reports

Prové C., 2015. The role of urban agriculture in Philadelphia: A sociological analysis from a city perspective. Merelbeke, Belgium: ILVO.

Lierman S., Vandekerckhove B., Huyghebaert B., Wellens C., De Pau J., de Graaf P., Rogge E., Dessein J., Kerselaers E., Prové C., 2015. Visie op landbouw in de stedelijke omgeving van Gent 2030 en de ruimtelijke vertaling ervan. Ghent: Sum Research.

Prové C., 2014. COST Action Urban agriculture Europe: Urban agriculture in Warsaw, Poland. Merelbeke, Belgium: ILVO.

Publications in professional journals

Prové C., Riebbels G., 2016. De vele kanten en kansen van stadslandbouw. *Stiel*, 3 (8), 14-17.

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Presentations at international conferences

Prové C., Chappell J., de Krom M.P.M.M., Dessein J., 2017. What supports effective participation and voice? Preconditions for social justice in alternative food initiatives. Abstract for the European Society for Rural Sociology conference, July 24-27, Krakow, Poland.

Prové C., Dessein J., de Krom M., 2016. Localizing urban food practices: The politics of scale. Abstract for Royal Geographic Society: Annual International Conference, August 31-September 2, London, UK.

Dessein J., Soini, K., Prové C., de Krom M., 2015. Investigating cultural sustainability in urban agriculture: The case of Ghent, Belgium. Abstract for European Society for Rural Sociology Conference, August 18-25, Aberdeen, Scotland.

Prové C., Dessein J., de Krom M., 2015. Published abstract for Culture(s) in Sustainability Conference, Helsinki, Finland, May 6-8.

Prové C., Dessein J., de Krom M., 2014. Behind the local scene of urban agriculture: How stakeholders collaborate. Abstract for ICLEI conference, May 29-31, Bonn, Germany.

Other presentations

Prové C., 2017. De sociale dimensie van stadslandbouw en andere voedingsgerelateerde buurtinitiatieven. Presentatie voor VELT studiedag: De eetbare buurt, 18 november, Tour & Taxis, Brussel.

Prové C., 2017. Agro- en biotechnologie in de 21e eeuw: Stadslandbouw. Seminarie voor vak "Agro- en biotechnologie in de 21e eeuw" door E. Mettepenningen, 23 oktober, Sint-Niklaas.

Prové C., 2017. Onderzoek in de korte keten landbouw: Brainstorm met landbouwers in korte keten. Presentatie onderzoek bij Gemeente Opwijk, 27 april, Opwijk.

Prové C., 2015. Imagining our future cities: At the interface of urban agriculture, governance and environmental justice. Presentation of PhD research at Rural Sociology Group, Wageningen University, 16 November, Wageningen: the Netherlands.

Dehaene M., Dumont M., Prové C., 2016. Urban agriculture in Brussels: Fieldtrip February 2016. Available online: <http://www.urbanagricultureeurope.la.rwth-aachen.de/action/events/final-event-brussels.html>

Prové C., 2015. Twee jaar lokale voedselstrategie: Is Gent al en garde? Paper gepresenteerd op Forum stadslandbouw Gent, 27 oktober, De Vooruit, Gent.

Prové C., 2015. Onderzoekers en de klimaatkwestie: Stadslandbouw in duurzame steden? Bijdrage aan seminarie “media en politieke, sociale actualiteiten” door Prof. B. Zitouni, 13 oktober; Université Saint-Louis, Brussel.

Crivits M., Prové C., Block T., Dessein J., 2015. Local food strategies as a stepping-stone in global sustainability: Applying Hajer’s sustainability perspectives to Ghent. Abstract for International Symposium: Local Urban Food Policies in the Global Food Sovereignty Debate, 11-12 June, Ghent, Belgium.

Prové C., 2014. Stadslandbouw: wat kan, kan beter of moet anders? Ervaringen uit Gent (België). Presentation at: Dag van de Stadslandbouw Nijmegen, 17 mei, Nijmegen, The Netherlands.

Prové C., 2014. STSM report ‘Urban Agriculture In Warsaw’. Research report presented at COST Action TD 1106 Urban Agriculture Europe, April 2, Warsaw, Poland.

Rogge E., Dessein J., Prové C., 2014. Van tuintjes tot technologie, stadslandbouw vanuit een sociologisch perspectief. Presentation at Seminar IE-NET vzw: Stadslandbouw: Hype of realiteit?, 8 mei, Merelbeke.

Prové C., 2014. How the cookie crumbles in the city region of Ghent, Belgium. A social network approach to policy arrangements for urban agriculture. Paper presented at ILVO winter school Place-based approaches in regional development, 10-14 February, Drongen, Belgium.

Doctoral Training Programme

Courses and other learning activities	Department/Institute	Year	ECTS
Specialist courses			0
De Winterschool Place-based approaches in regional development (uitwisselingsvak): Drongen, Belgium	ILVO (Flanders Research Institute for Agriculture, Fisheries and Food)	2014	0
Urban Agriculture inside the city: alternatives for vacant lots and public space (uitwisselingsvak): Training School COST Action TD 1106: Vitoria-Gasteiz, Spanje	E.T.S. Arquitectura (Universidad Politécnica de Madrid),	2014	0
K001013 Politieke vraagstukken van duurzaamheid (EMRUST8.2.2-)	Center for Sustainable Development, Fac. of Political and Social Sciences, Ghent University	2016	6
X000574 Discourse analysis in an interdisciplinary context. Theory and methods (XHDOCO5.1.2-20)	Department of Translation, Interpreting and Communication, Ghent University	2016	0
Transferable skills			
X000372 Introduction Day 2014 for new PhD's (XHDOCO3.2.1.2-12)	Ghent University	2014	0
A002774 Advanced Academic English: Writing Skills (Bioscience Engineering) (ALENGL4.1-12)	Ghent University	2014	3
X000182 Creative thinking (XHDOCO4.2.1.3-1)	Ghent University	2014	2
X000189 Communication Skills basics + Negotiation Skills (XHDOCO5.2.1.4-3)	Ghent University	2015	2
Schrijven voor niet-vakgenoten en pers (XHDOCO5.2.1.1-3)	Ghent University	2015	0
Summerschool "Zeg 't eens", 2 workshops: - Scientific Storytelling - TEDx, PechaKucha & Co	Ghent University	2017	0

Conferences and seminars			
Behind the local scene of urban agriculture: How stakeholders collaborate	ICLEI conference, Bonn, Germany	2014	0
Local urban agriculture movements through the lens of environmental justice	International Conference on investigating cultural sustainability, COST Action IS1007 "Investigating Cultural Sustainability", Helsinki, Finland	2015	0
Localizing urban food practices: the politics of scale	RGS-IBG: Royal Geographic Society - Institute of British Geographers, Annual International Conference, London, UK	2016	0
What supports effective participation and voice? Preconditions for social justice in urban agriculture	ESRS conference, Krakow, Poland	2017	0
Learning activities outside doctoral training programme	Department/Institute	Year	ECTS
Erasmus traineeship programme	Rural Sociology Group, Wageningen University	Nov. 2015-Jan. 2016	0
Introductie tot verbindende communicatie	ILVO (Flanders research institute for Agriculture, Fisheries and Food)	2017	0