Cultivating connections in the urban agriculture movement: An exploratory analysis of diversity and engagement in Philadelphia

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Abstract

This paper presents the results of case study research on urban agriculture (UA) in Philadelphia. From a city region’s perspective, the gamut of initiatives—including community engagement, policy advocacy, formal UA governance, enterprises and supporting organizations or institutions—are studied as an UA movement. By problematizing and scrutinizing this movement, the paper explores underlying dynamics, the multitude of objectives, commonalities as well as tensions in the UA movement and exclusionary mechanisms. In this way, we can start to reflect on the impact of UA in a city and how a limited set of resources should be allocated, taking the diversity and complexity of the UA movement into account. Finally, questions are formulated to further and substantiate the discussion on governance of UA in Philadelphia.

1. Introduction

In recent years, the concept of urban agriculture (UA) has caught the attention of city authorities, citizens, academics and the media across the globe (Mansfield and Mendes, 2012; Morgan, 2014). Even though food production initiatives in and around urban areas are nothing new, the recent interest in UA reflects a reinvention of the concept in which new purposes are assigned to UA (Wortman & Lovell, 2013). The attractiveness of UA lies in its potential response to a range of timely urban needs that are often linked to the overarching goal of creating sustainable cities (Lovell, 2010; Mendes et al., 2008). These goals include, for example, providing green, open spaces, mediating the urban heat island effect, managing stormwater, enhancing food literacy, improving health through physical activity and the consumption of fruit and vegetables, integrating traditionally excluded social and cultural groups, community building, reconnecting agricultural sectors with urban populations, and

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facilitating a more local, democratic, inclusive and transparent agri-food system (see Armar-Klemesu 1999; Draper and Freedman 2010; Feenstra et al. 1999; Hodgson et al. 2011; Howe et al. 2005; Nugent 2000; Smit and Bailkey 2006; van Veenhuizen 2006). A wide variety of stakeholders is included in the UA movement, ranging from actors in non-profit and for-profit sectors, supporting organizations and institutions, governments at all levels, research/academic institutes and a diversity of individuals engaged as volunteers or pioneers at the local level. However, the significance of all these efforts remains unclear. This, together with the issue of limited and contested resources (e.g. land, water, energy, labor, funding) needed for UA development, raises questions on how governance processes can address the complexity of the UA movement.

Over the last few years, there has been a growing consensus that a shift from top-down managerial government to more inclusive, adaptive and multi-level governance is essential for the sustainable management of socio-ecological systems, especially in times of climate and global change (Folke et al. 2005, Mayntz 2006, Pahl-Wostl 2009). In many cases, the complexity of the UA movement makes novel demands on policies, urban planning, organizations and other institutions. Governance of UA then, requires the identification of tools that can orchestrate the new creative multi-actor, multi-level, multi-purpose and multi-sector trajectories for managing the urban region (Healey 2004). However, as of yet, little is known about the adaptive governance processes, approaches and tools that would guarantee a diverse and multipurpose UA movement from a city perspective. Moreover, the question of how a limited set of resources such as land, water, energy, funding, and other material support should best be allocated in the UA movement has so far received scant attention. This question implies that it is not merely about efficiently and effectively organizing resources that spur the growth of UA in Philadelphia. Governance processes should explicitly focus on who they are targeting. The theoretical notion of environmental justice is instructive to see that historically, environmental damages (e.g. pollution) and goods (e.g. green space) have been unevenly distributed among populations (Beretta, 2012; Bickerstaff and Agyeman, 2009; Connelly and Richardson, 2005; Rhodes, 2003; Sze, 2007; Towers, 2000; Walker, 2012; White, 2004). Environmental justice research, with a strong focus on demonstrating environmental injustices, challenges the dominant ecological paradigm traditionally utilized by environmental movements, policy makers and researchers. This paradigm understands environmentalism most often as the protection of natural recourses and pays little attention to the fact that environmental problems are contextual and experienced unevenly across diverse groups in society. Moreover, these inequalities are structural and can be perpetuated systemically (Reynolds, 2014). Environmental justice research challenges the lack of equal access to the benefits of nature and environmental experiences on the part of poor communities and those of color. Aligned with Whitehead (2003), we argue that an allocation of support for UA that disregards issues of inclusion, fairness, access, democracy and participation is likely to leave intended and unintended issues of environmental injustices unaddressed, and fails to contribute to just sustainable development.
While UA is not the first topic that comes to mind as an environmental justice theme, it is valuable to complement sustainable governance research with an environmental justice perspective. According to Agyeman and Evans (2004) environmental justice is “increasingly associated with the sustainability agenda, as a way of challenging the perceived dominance of economic efficiency requirements and of highlighting relationships and tensions between nature and society, illustrating the inequitable distribution of and access to environmental goods in sustainability projects”. The employment of environmental justice as a primary explanatory context for the UA movement in this paper has a twofold purpose. It allows to identify tensions between existing support for UA and UA practices as potential environmental justice issues, and subsequently (dis)confirm global structural inequalities (i.e. exclusion in the distribution and governance of environmental resources) as described by environmental justice theory. That is because food has not been a topic of much environmental justice scholarship (for notable examples see the work of N. McClintock, C. Reynolds, A. Alkon). At the same time, a focus on environmental justice enables us to learn how the UA movement addresses existing inequalities or produces new inequalities. Based on the results, this paper will formulate suggestions for a fair and just governance of UA in which the clearly formulated, and context-specific inequalities and exclusionary mechanisms in the Philadelphia UA movement are taken into account.

This paper aims to provide an exploratory analysis (including all actual and potential stakeholders in the UA movement, from a city region perspective) that depicts the agriculture sector in the Philadelphia region (Section 3), the richness and scope of the UA movement in the city of Philadelphia (Section 4), reflect on the impact of UA in Philadelphia (Section 5) and subsequently formulate suggestions for governance of UA in a setting marked by complexity, tensions and limited resources (Section 6). Broadly, the following questions serve as the guiding tool in analyzing and structuring the data: Who are the actors involved in UA in Philadelphia and what is their role? How do these actors position UA? What are the current opportunities and constraints of UA in Philadelphia? Which efforts are done to promote UA in Philadelphia? Through the lens of environmental justice, which inequalities are (not) addressed in UA initiatives? Which questions are important to address in the future?

The paper hopes to reach anyone involved or interested in UA activities and the wider food system of Philadelphia. It also intends to serve as a road map for universities and other supporting institutions for providing technical assistance and support to current and future urban agriculture operations in the US. Suggestions are made, guiding them through difficult decisions regarding how best to allocate their limited resources. The next section clarifies the methodological choices.

2. Constructivist case study research to explore the urban agriculture movement

This paper forms part of a doctoral research project “Governance of Urban Agriculture” (2013-2017) at the Institute of Agriculture and Fisheries Research (ILVO) and Ghent University (Belgium). The purpose of the doctoral research project is to develop a broader understanding of the governance dynamics underlying UA development and based on that insight, formulate how governance processes
can address complexities, tensions and inequalities in the UA movement and support a multipurpose and diverse UA. From a sociological perspective, a comparative case study approach of different cities aims to provide insight into how cities respond (differently) to the increasing attention for UA.

Following a consultation of existing literature and key stakeholders, Philadelphia was identified as an interesting case to learn about both the impact, barriers and opportunities of UA within the broader urban food system and justice issues related to it. The main challenge of this research project was to get an overview of the current network of stakeholders, identifying the key initiatives, projects and organizations and grasp the dynamics that forge the work done for UA.

First, it should be clarified what is here understood as UA. A broad definition is preferred, with the aim to include a wide array of perspectives. One that allows for a diverse inclusion of stakeholders and perspectives is the definition of Mougeot (2005): “Urban agriculture 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”. While a distinction can be made between UA, peri-UA, urban gardening, urban farming and many other terms, we prefer to not exclude any initiatives based on geographical distance, quantity of food produced, growing method or organization structure. To avoid confusion, we opt to define the aggregate collection of all the different food growing methods, projects and supporting organizations as “UA activities”. This paper also makes use of the concept “local food system”. We do not define local as a preset distance, but explore what each stakeholder understands as local, so as to grasp the different understandings within the context of Philadelphia. Taking such perspectives allows us to analyze the role of UA in the broader, regional context of the city. By aggregating a diversity of efforts and visions, subsequently tensions and opportunities within the UA movement can be identified.

The data used in this report were gathered in February-March 2015 in Philadelphia and employs different qualitative methods, including in-depth interviews, and observations during field visits, meetings and events. Insights were also gathered through informal conversations held at visited sites and with staff of Penn State Extension. Secondary resources such as academic literature and research reports, agricultural censuses, and formal and informal information sources, such as policy documents, research reports, websites and media articles were particularly useful in early stages of the research.

A literature study was performed to gain an overall understanding of the current situation of agriculture in Philadelphia and the larger Philadelphia region. It soon became clear that UA is a fairly well-explored topic in Philadelphia. Analyses are and have been covered by a number of institutes and research centers. Studies have focused on food justice, sustainability and geographical issues related to UA (through GIS-analyses). Nevertheless, this research was not sufficient to provide an answer to the research questions formulated above, because they either did not take the diversity (and complexity)
within the UA movement in Philadelphia into account or did not question governance responses in relation to the future of UA.

Following a web search for key informants on UA in Philadelphia, the snowball procedure was used until new references became scarce. The types of selected informants were: farmers (for-profit and non-profit), founders of projects and organizations, employees within projects, funders, public officers, supporting organizations, lawyers, educators and academic researchers. The majority of the interviewees were enthusiastic and motivated to participate. The questionnaires inquired into the overall experience of stakeholders and included topics such as: the mission, motivation and vision of the project and interviewee, network and collaboration development, the opportunities and barriers, and evaluation of the policy framework. In total, 23 key informants were consulted. All the conversations have been recorded and transcribed. Twelve field visits, such as visits to farms or farmers markets, and the attendance of five meetings or events (such as a PHS meeting with gardeners or attending a presentation of USDA on Programs for Small Scale Producers) have provided additional insights. In appendix, a table shows the data gathering sources in more detail.

Combining the data from various sources has generated a good overview of the current developments in the food and agriculture system and UA in Philadelphia. The data are analyzed and discussed in the light of the abovementioned research questions. Our analysis was validated by presenting a first draft of this paper to the key informants. Their feedback allowed a triangulation of the data analysis. In the next section, we situate the agriculture sector in the broader, regional context of Philadelphia.

3. Agriculture in the region of Philadelphia

In 2010, the Delaware River Valley Planning Commission\(^2\) (DVRPC) has conducted a comprehensive study on the Greater Philadelphia food system. The Greater Philadelphia region, one of the largest metropolitan areas of the country, covers an area of a 100 mile radius from a point in Center City Philadelphia (29 910 mi\(^2\)). It includes well-known traditional farming areas in the region, such as Lancaster County, PA; Sussex, DE and Chester, PA. In 2003, this area had a population of about 31 million, representing more than 10% of the US population. It is a very densely populated region, including Philadelphia, New York and Baltimore. Population growth and suburbanization—mainly due to an influx into the city region—are continuing trends.

The Greater Philadelphia region is known for its highly productive soils and qualitative agricultural products. Within the Greater Philadelphia region, about 27% of the land is farmland in the US Census of 2003. The number of agricultural holdings within 100 miles of Philadelphia is about 45 673 (2003) (DVRPC, 2010). The Censuses of Agriculture have shown an increase in farm holdings and a decrease

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\(^2\) The DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region. It includes nine counties: Bucks, Chester, Delaware, Montgomery and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester and Mercer in New Jersey.
in farm acreage in the Greater Philadelphia region over the last decades, indicating that farms are becoming smaller. About 86% of the farms are under family ownership, while there are only a few large farm corporations. The majority of these holdings farm according to conventional farming methods. About 1.5% reported organic production. Due to increasing urbanization, a major focus in the future will be the question how to safeguard farmland from (sub)urban development. Land trusts—such as Lancaster Farmland Trust—and other initiatives can play a significant role in this.

A growing interest in local, small scale and urban food systems has been perceived in studies, reports and by most of the respondents in this analysis. Already a large share of the food production is consumed or processed within the region (DVRPC, 2010). However, this does not necessarily mean that farms or processors in the Philadelphia region are tied to the local food system. For instance, farms or processors are often players in the global market. Nor does it mean that they are very visible. Respondents repeatedly stated that: “there are no urban farms in Philadelphia. The first farm is located 60-70 miles from center city”. It becomes clear that, even though there is a lot of potential for the agricultural sector in the Greater Philadelphia Region to participate in the local food system, the sector remains poorly connected to and at a large distance from the city of Philadelphia and its citizens. There is an increasing number of programs, grants and initiatives aiming at linking producers and consumers. This demonstrates a recognition of the current problems of the agriculture sector, and that solutions are (partially) sought at the local level (see also Vitiello et a., 2015). These are partly initiated by organizations operating from within the city of Philadelphia (e.g. Fair Food Philly, Common Market, Farm to City, The Food Trust) and partly by programs and policies of the US Department of Agriculture (USDA) (e.g. Farm To School, Know Your Farmer, Know Your Food, Healthy Food Financing Initiative, Local Food Promotion Program (LFPP), The Community Food Projects Competitive Grant Program (CFPCGP)) and the Pennsylvania Department of Agriculture (PDA) (e.g. Healthy Farms and Healthy Schools Grant Program, PA Preferred® Specialty Crops Block Grant, Direct Farm Sales Grant Program, Farmers Market Nutrition Program (FMNP) and Senior Farmers Market Nutrition Program (SFMNP)).

As localized food systems grow and mature, regulatory issues arise. In 2011, president Obama signed the Food Safety Modernization Act³ (FSMA) into law, which increases food safety controls in order to prevent food hazards rather than responding to it. Even though it is not clear to what extent this will affect small-scale urban producers, some will have to comply with the Produce Rule and/or the Preventive Controls Rule. The former sets new standards for farmers that grow, harvest, pack and hold produce for human consumption. The latter sets forth requirements for facilities that manufacture, process, pack, or stock food for human consumption. This will inevitably lead to increased administrative and operation costs and become an additional barrier to some UA activities. During the

³ For more information see http://www.fda.gov/Food/GuidanceRegulation/FSMA/
In addition to the programs to stimulate agricultural production in the region, there are others that focus on fairness and inclusion. Access to fruits and vegetables is facilitated through programs such as the Supplemental Nutrition Assistance Program (SNAP), or commonly called food stamps (see below). While not directly affecting the production of local food, these assistance programs have a role in access to healthy food.

Even though food production in the Greater Philadelphia region is far from sufficient to feed the area—and will most likely never be—the combination of all these programs should nevertheless lead to an increase in the viability of the farming sector in the Philadelphia region, knowledge and awareness of local, healthy food, participation in the food system, and food safety and transparency.

4. Urban agriculture in Philadelphia

4.1. Agriculture in the urban context of Philadelphia: vacant lots and poverty

The city of Philadelphia has a population of about 1,553,165 (2013 estimate) and its administrative boundaries cover an area of 134.10 mi². The population density is 11 379.5/mi². For many years the city has known a population decrease, where respondents referred to post-industrialization and “white flight”, which resulted in a high number of vacant and (see below).

Philadelphia is one of the poorest cities of the USA (Philly.com, 2014). 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.com, 2015). The majority of the poor are African-American, which indicates that there are racial discriminatory dynamics at play. Consequently, the city of Philadelphia is dealing with severe hunger and diet-related diseases.

The Supplemental Nutrition Assistance Program (SNAP or food stamps) provides assistance to about 478 000 people (April, 2014) in Philadelphia. Even more people would qualify, but have not applied. In addition, numerous non-profits in the Philadelphia region are fighting hunger through food distribution (Vitiello et al., 2015), assistance in support programs, research or policy advocacy. The most prominent are Community Action Agency of Delaware County, Food Bank of South Jersey, Greater Philadelphia Coalition Against Hunger, MANNA, Philabundance, and SHARE Food Program.

Philadelphia also has about 700 food cupboards and soup kitchens. In addition, numerous initiatives within food related programs target the low-income population (e.g. the Double Dollar Program, Philly Food Bucks, etc.).

The many decades of de-industrialization and population decrease have resulted in a large number of vacant lots all over the city (Hess, 2005). While it is only an educated guess, most of the

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5 See http://www.hungercoalition.org/
respondents repeatedly referred to a number of 40,000. Many of these lots are used for waste dumping
or other illegal activities. Vacant land reduces property values in the neighborhood and cost local
governments millions in uncollected property taxes and maintenance costs. Ongoing research has
already demonstrated the positive effects of green space on reducing crime, poverty and negative
health impacts (Joyce and Schweig, 2014).

Despite the grim presentation of Philadelphia’s current condition, a reverse trend of re-investment,
redevelopment, population growth and gentrification was mentioned multiple times during interviews,
but was also a visible aspect throughout field trips in the city. Philadelphia seems to have regained a
vibrant dynamic with a positive outlook on the future. Housing, industry, manufacturing, and green
spaces are all fields in which developers are currently very active. In the following section, we
elaborate on the formal governance framework (including policies, planning and administration)
relevant for the support and stimulation of UA in Philadelphia.

4.2. The formal governance framework for urban agriculture in Philadelphia

During the past years, a number of formal governance initiatives has been taken that in one way or
another support (or constrain) UA within the local government of Philadelphia. As we will see, the
government also takes a pro-active stance in linking sustainability, key urban development issues and
UA. This way, UA activities can become grounded in the strategic urban objectives of poverty
reduction and vacant land redevelopment. The official programs, initiatives and institutions that
(could) stimulate UA activities or their integration in the urban fabric are discussed separately below:

Table 1. The Philadelphia governance framework for urban agriculture

<table>
<thead>
<tr>
<th>Philadelphia governance framework for urban agriculture</th>
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<tr>
<td><strong>Philadelphia’s Greenworks Plan</strong></td>
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<td>Mayor Michael Nutter has established the Mayor’s Office of Sustainability in 2008 with the overarching goal to make Philadelphia the greenest city in the USA (Dews et al., 2014). A plan was drafted, setting out 15 targets in the areas of energy, environment, equity, economy and engagement (with target 10: local food production). The plan provides a city wide focus on sustainability and holds the potential to link many different stakeholders. The Mayor’s Office of Sustainability provides a food charter and houses the Philadelphia Food Advisory Council (which was set up, to focus more specifically on the topic of food within the Greenworks Plan).</td>
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<tr>
<td><strong>Philadelphia Food Charter</strong></td>
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<td>The Philadelphia Food Charter presents a vision for a food system that benefits Philadelphia’s community, economy and environment and pushes Philadelphia toward becoming the Greenest City in America. It establishes the City of Philadelphia’s commitment to the development of a coordinated municipal food and UA policy, and articulates the intention of establishing a Food Policy Council populated by key city and regional stakeholders who can inform and advise the city’s efforts while helping to provide coordination, momentum and support for the significant activities already underway throughout the city and region.</td>
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<tr>
<td><strong>Philadelphia Food Policy Advisory Council (FPAC)</strong></td>
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<td>The FPAC was set up in 2011 to focus more specifically on the development of policies that “improve access for all Philadelphia residents to culturally appropriate, nutritionally sound, and affordable food that is grown locally through environmentally sustainable practices”. The council meets monthly and is made up of mayoral appointed members, citizens and two staff members. They are structured in subcommittees: anti-hunger, local food procurement, vacant land and zero waste.</td>
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Farm Philly Program (Department of Parks and Recreation)

Department of Parks and Recreation is a land management organization, owning and maintaining a significant amount of public land. As no entity so far had taken up the mantle of UA targets formulated in the Greenworks Plan, this department set up the Farm Philly Program that would meet these targets. In addition, it was expressed that the role and responsibilities of the different public agencies should become easier to approach: “It is a very confusing system for the outsider. And part of the mission is to make this open and transparent, user-friendly…the goal of the program is to become the front door of UA in the city”. In practice, the program creates and maintains UA projects on its own land and partner with other organizations to ensure long-term protection of gardens and farms. Some respondents expressed excitement that the city now employs an “UA ambassador”.

UA as land use category in the Zoning Code

In 2012, the City Council passed a new Zoning Code⁶ that recognizes UA as a new land use category in the zoning code. It includes gardens, farms, and orchards that involve raising and harvesting of food and non-food crops and the raising of farm animals⁷. It defines four subcategories: animal husbandry, community gardens, market or community-supported farm and horticulture nurseries or greenhouses. As a result, community gardens and market farms in most areas are now allowed, with slightly more restrictions on market farms. While this does not change much for (legally) existing gardens and farms, the result of this is that zoning restrictions should become less difficult in the future to deal with. Moreover, UA as a recognized category helps to strengthen support for this activity.

Neighborhood Transformation Initiative (NTI)

NTI, initiated in 2001, is a strategy to rebuild Philadelphia’s neighborhoods as thriving communities with clean and secure streets, recreational and cultural outlets and quality housing. NTI takes a multifaceted, comprehensive approach that stresses interagency cooperation and coordination in addressing every aspect of neighborhood development. The initiative also creates opportunities for government and citizens to work together, restoring civic pride and building community spirit. NTI strives to build the capacity of community-based organizations to identify needs and develop new housing and employment strategies within their communities while garnering the support of the private sector through innovative partnerships and by leveraging resources.

Philadelphia Land Bank

Topic of much current debate is the formation of the Land Bank, which went into business as of early 2015. For years there had been few—if any—disagreements within the discussion on the vacant land management system. A more transparent, straightforward and quicker acquisition process was (and is) needed to drive forward vacant land redevelopment. Dealing with this vacant land is urgent, for reasons already discussed above. The Land Bank is a public authority that streamlines procedures “to clear title, transfer properties to responsible owners, and acquire tax delinquent properties without risking their sale to speculators”. Different kinds of stakeholders such as The Food Trust, Public Interest Law Center of Philadelphia, Pennsylvania Horticultural Society, Philadelphia Association of Community Development Corporations, and Campaign to Take Back Vacant Land, are cooperating to build an effective Land Bank. Traditionally, land can be owned by a number of public agencies (such as OPP, PHCD, OHCD, PRA, PHA⁸). The Land Bank has started by transferring available public land into the Land Bank (from several of these agencies) and will work on transferring private land in the future as well. A major goal is to forge one acquisition process, instead of each public agency having its own procedure, by having the land for these public agencies transferred into the Land Bank. This transparency will also make it harder for speculators to buy land. However, ultimately the amount of lots in the Land Bank will depend on the district Council members: each has to approve the transferring of deeds to the Land Bank and again when a property is sold. The future of the Land Bank is unsure and success will depend on the cooperation and contribution of many different stakeholders. Also here, respondents were divided on the expected impact the Land Bank will have in the future. Some claimed it to be the necessary simplification and transparency needed, others mentioned yet

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⁶ The modified Zoning Code to be consulted at: http://www.phila.gov/Map#id=757bbd2d07704a9b684a1e88ca681e9
⁸ City’s Office of Public Property, Philadelphia Housing Development Corporation, Office of Housing and Community Development, Philadelphia Redevelopment Authority, Philadelphia Housing Authority
another land governance mechanism that it not necessarily serving the communities who are in most need.

**Philadelphia City Council**

Philadelphia city Council is the legislative body. It consists of ten members elected by district and seven members elected at-large. A term is four years, with no limit on the number of terms to serve. The City Council is taken up in the analysis because numerous times, stakeholders reported the district councils often having the last and most powerful voice in what eventually will happen in their district. In other words, whether a property will be used for food growing, or whether a community garden is at stake, all efforts to start a project or safeguard one can become undone if the council person is opposing. During interviews, it became clear that some stakeholders find themselves in a favorable position because the council person shares the vision of the UA stakeholders, while others have more difficulty in establishing a good understanding with their council person. Despite all the efforts, the quality, success and location of a project has a more voluntary basis than all the other governance initiatives discussed above let assume.

Even though the majority of the respondents say that access to land and land tenure remains a major barrier, the recent adjustments or initiatives in the formal governance framework have at least made farming in the city more formal or legitimized, appreciated and in some cases even viable. At first sight, it seems promising that some individuals, departments, offices and agencies have an increasing awareness of the role of the City in UA development. However, care should be taken with uncritically positive conclusions.

The major budget constraints of the city impede significant financial support for UA activities. Priorities are the public school system and public infrastructure (re)development. One of the city’s main goals is to transform the vacant lots and abandoned houses into developed areas. As income revenue is high upon the agenda, the city would favor development projects that generate the highest tax revenues. It can therefore be expected that development for housing or commercial development will be selected over other uses. Some respondents also mentioned New York, San Francisco, Cleveland, and Boston as examples of cities that are very progressive and ahead of the curve. Philadelphia, by contrast is “always a bit behind, looking at other cities and copying or borrowing from their best practices”. The lack of financial support might also play a role in this finding. In addition, another risk of a thriving formal governance framework is that initiatives such as FPAC or the Farm Philly Program depend on electoral outcomes and the priorities of new administrations.

To conclude, despite the pressing budget constraints, the Nutter administration and the Kenney administration from Jan. 2016 onward have taken remarkable steps to respond to a growing UA movement. It seems that, from a policy level, food growing activities have gained wide acceptance and gained steady ground in the Philadelphia urban landscape. However, upon discussing these governance mechanisms, it became very clear that effectiveness and outcomes of these initiatives will ultimately depend on available resources and collaboration between the different stakeholders.

**4.3. Urban agriculture activities**

4.3.1. Who are the stakeholders in civil society and what is their role?
Many respondents reported that there are no farms in the city of Philadelphia, but the USDA 2012 Census Publications reports 22 farms (i.e. in the administrative area of Philadelphia) that produce on a surface of 285 acres. Most of these farms tend to be only a few acres. Likely the cost of land and availability of land play a role in their small size. The estimated market value of the farm holdings is 45338$ per acre, compared to the average in Pennsylvania state of 5425$ (USDA 2012 Census Publications). Another explanation (that would have to be investigated further) is that these farms may be rather educational or experimental in their core objectives, and therefore do not require as many resources as conventional farms that maximize food production.

A couple of initiatives were identified whose aim is to prove that an urban farm can be a viable business. Even the city of Philadelphia has formulated the following goal in its Greenworks plan: “Greenworks Philadelphia recommends that twelve commercial agriculture projects be established in the city over the next 8 years. In order to do this, the Mayor’s Office of Sustainability, in partnership with other City departments and external organizations, will help develop the infrastructure necessary to support urban farming. This infrastructure includes distribution facilities, agricultural supply centers, reliable water sources and processing facilities.” (City of Philadelphia, 2009). However, these initiatives currently get little resonance, and if they do, most often not for their business-related or economic attributes. The majority of the respondents stated not to believe in the pure for-profit urban farming model in Philadelphia. This for several reasons. First, it is practically impossible to obtain a large enough plot of land to grow or raise a sufficient amount of food. As a consequence, farmers’ income would be too low to allow farming as a viable profession. Second, in order to generate income, produce would have to be sold at very high prices. This would exclude the majority of the population in Philadelphia and such a system was unacceptable to many respondents.

By all means, UA is a well-understood and developed notion in Philadelphia. It certainly is not about farming or food production alone. In addition to stakeholders in food production, many others are involved. When we include for example educational farms, rehabilitation gardens and supporting organizations, the number of UA initiatives exceeds well above the 22 farms. Evidently, the list of stakeholders and the role they play becomes much broader. They include gardeners, educators, distributors, cooperatives, farmers markets, vendors, supporting organizations, research institutes and participants/beneficiaries (See table 2). Finally, two types of stakeholders caught our attention in the context of Philadelphia. Those are lawyers (defending the legal case of UA projects) and funders. In the case of Philadelphia, lawyers have been successful in supporting and protecting the UA movement. It is stated by many stakeholders that legal issues are complex and most often, UA practitioners do not have the knowledge, know-how or voice to stand up and protect their projects. In addition, the proliferation of UA activities is rarely matched with sufficient (financial and material) resources for their development and sustenance. Resource funding is complex and a major barrier next to land issues. There are still many questions regarding funding. Therefore, funders who are open to support UA activities are exemplary at this early stage.
Table 2. Stakeholders and their role in Philadelphia

<table>
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<th>Categories of stakeholders and their role in Philadelphia</th>
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<tr>
<td><strong>Farmers</strong></td>
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<td>Most people involved in the on the ground management of projects have professional farming knowledge to a certain extent, either through experience or education. In other words, there is quite some farming expertise available within the context of Philadelphia. According to the following quote, this does not seem to be very extraordinary: “I know people [farmers] that are moving to Philadelphia to get a job in UA. That is kind of cool that it is happening here.” This points to an understanding of UA wherein farming is taken seriously.</td>
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<tr>
<td><strong>Gardeners</strong></td>
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<tr>
<td>Philadelphia is characterized by a historical commitment to open space and community gardening. Hess (2005) describes the community gardening as a well-organized movement with clearly defined goals. There is a large number of community gardens in Philadelphia that are also very visible in the urban landscape. They vary in size from a large acreage to one plot of vacant land, from historical and well-known to spontaneous and more indeterminate, and from permanent to temporary. In other words, community gardens are characterized by a variety of performances. The estimated number of community gardens varies widely, but a comprehensive study found 300 gardens in the year 2012. Vitiello and Nairn (2008) documented a sharp decline in community and squatter vegetable gardens between 1994 and 2008 from 501 to 226. After World War 2, gardens lost popularity, but experienced resurgence from the 1970s onwards as a coping strategy for the de-industrialization process (Levy, 2008; Vitiello and Nairn, 2008). Even though many gardens have disappeared due to redevelopment and gentrification processes, they remain rooted in the cultural practices of the city. Previous studies have done research to the location and beneficiaries of community gardens. These studies have shown that community gardens and farmers markets play an important role in food access in low income neighborhoods (Kremer and DeLiberty, 2011; Dunham, 2007; Young et al., 2011). In addition, the community gardens seem to be located most often where distance to other open public spaces are largest in comparison and thus where the need for these spaces are highest (Dunham, 2007, Meenar and Hoover, 2011). While this suggests a fair distribution of open green spaces and local food access, we also agree with Kremer and DeLiberty (2011) that the local food movement is more complex and is currently often targeting middle and high income populations. This discrepancy suggests that there are more complex dynamics at play.</td>
</tr>
<tr>
<td><strong>Educators</strong></td>
</tr>
<tr>
<td>A large share of the UA initiatives focus on or have programs running on food and nutrition education wherein a target group—such as students, children, neighborhood members, or specific social or cultural groups—are encouraged to learn how to grow, cook and eat the nutritious food. In some cases, the farmer in the project would also run the education programs within the project. In other cases, an educator or social worker is employed to focus explicitly on these extension activities.</td>
</tr>
<tr>
<td><strong>Distributors</strong></td>
</tr>
<tr>
<td>Locally sourced or produced food has several ways to be distributed throughout the city. Own consumption and distribution, and farm stands already distribute a large portion of the locally produced food. Additionally, other initiatives are set up to operate on a wider scale. Examples are: Common Market, a distributor of locally grown sustainable food to communities and institutions that serve communities; the numerous vegetable box schemes as part of many CSA farms or other projects; and the fresh-food truck of Greensgrow Farms that distribute urban produce in underserved neighborhoods. Then there are the food banks. There are multiple examples, but two renowned programs are Philabundance and SHARE food program that specifically target underserved people by distributing (partly) local and fresh produce.</td>
</tr>
<tr>
<td><strong>Cooperatives</strong></td>
</tr>
<tr>
<td>The growing number of food cooperatives in Philadelphia points at an increasing involvement of citizens to get access to products that are (but not always) of high quality, local and fairly priced for the farmer. Co-ops can be an important stakeholder as members are a good customer base for locally produced food. Examples are the Mariposa food co-op who sells produce from several UA projects in the neighborhood and Weaver’s Way Co-op who started their own food production programs.</td>
</tr>
<tr>
<td><strong>Farmers markets</strong></td>
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<tr>
<td>The number of farmers markets in Philadelphia is remarkable. Some respondents are concerned about the small size and seasonality of many of these markets. They expressed the need for larger, more significant</td>
</tr>
</tbody>
</table>
farmers that serve the citizens all year round (most of them only operate during the summer). In any case, these markets have a role in addressing community food security (Young, 2011). The reasons are that farmers markets bring more fresh produce into the neighborhood, decrease the distance between farmer and consumer and expose vulnerable people to these foods. Especially the markets where visitors can pay with food stamps or other types of coupons that encourage economically disadvantaged people to purchase food at these markets.

**Vendors**

Some neighborhoods have poor access to supermarkets or other food stores (such as the Strawberry Mansion neighborhood). In many parts of the city, people are relying on corner stores for their access to food. But these stores rarely have fresh produce for sale. This was also experienced during visits to corner stores in North Philadelphia. Healthy Corner Store Initiative (piloted by the Food Trust9) is an example of an initiative that focuses on supermarkets, corner stores and other convenience stores to stimulate fresh produce supply through education and direct marketing.

**Supporting organizations**

It is hard to overstate the number and efforts of supporting organizations that either promote the productive aspect of the urban food system (e.g. Philadelphia Horticultural Society’s City Harvest Program, Farm To City) or address the legal aspects of farms and gardens (such as Neighborhood Gardens Trust, Healthy Food Green Spaces). It will be elaborated on more in detail below, but they have an important role in linking different stakeholders, consolidating the mission of UA, promoting UA as a movement and bridging gaps within that movement.

**Research institutes**

We made two observation upon examination of the research profile of Drexel University Temple University, University of Pennsylvania and PennState University. The first is that each institute has been doing research on the topic of UA, mostly from a strong food justice or geographic perspective. The second is that each has community outreach mechanisms (centers, projects or programs) aiming to co-operate with and serve communities in Philadelphia. For example, Penn State Extension—located in Center City—is a community outreach center whose mission is to “facilitate community-focused learning, engaged scholarship, and solution-oriented research to help enrich the lives of urban citizens, improve the quality of communities, and enhance the success of local entrepreneurs”. It translates research findings into community practices, provide gardening education and internships, and support urban farming projects with technical and material assistance. For instance, it has been providing projects with high-tunnels throughout the city for several years. Some of the outcomes of outreach centers is that students are encouraged to engage in community work, research centers formulate research questions in alignment with community needs, research is conducted in partnership with communities, and projects and programs are embedded in an institutional setting (potentially relieving these from land tenure or funding issues). When a professor engaged in UA research was asked what role universities can play for UA in Philadelphia, the answer was: “They can play a huge role, but it also depends on the community. I don’t believe universities can go to a community and apply their findings on the community and say: this is what you should or should not do. I think it has to come from a really good understanding of what they need and what would be good for them. It should be done through lots of dialogues”. This points at the commitment of research institutes in Philadelphia in serving the needs of the local communities, and most importantly identifies a sense of cooperation between different stakeholders to serve a greater interest.

**Participants/beneficiaries**

While every UA activity has a rough idea of the number of people they succeed in involving in their programs or projects (varying from less than a hundred to several thousands), it is hard to estimate how many citizens are affected in one way or another by the UA movement in Philadelphia. Founders of projects all stated that participants are generally motivated, eager to learn and be part of the projects. Some mentioned waiting lists. In other words, we can state that UA activities are broadly supported by the wider public and driven by a

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9 The food trust is a large nonprofit organization working on a national scale, but located in Philadelphia that has been working for more than 20 years on a comprehensive approach towards affordable, nutritious food and nutrition education. More information: http://thefoodtrust.org/
strong demand in the city.

**The Public Interest Law Center of Philadelphia (PILCOP)**

Together with partner organizations, they have convened a constituent-led coalition to advocate for healthy foods and green spaces in Philadelphia. In almost every in-depth interview, a reference was made to the lawyer Ms. Amy Laura Cahn, stating that “she has done a tremendous amount of work by defending the legal status of UA gardens and being part of several organizations (such as Healthy Food Green Spaces and Garden Justice Legal Initiative –GJLI) that bring together relevant stakeholders”. The goal of the GJLI is to provide pro bono legal support, policy research and advocacy, and community education and organizing to community gardeners and market farmers in the Philadelphia region. Amy Laura Cahn herself stated: “I came into the Philadelphia context intentionally, to work on environmental justice. Upon identifying the land access and land tenure issues many UA activities face, I engaged to address these issues”. She is continuing with this work until today, which indicates at a persistent relevance of defending legal issues in Philadelphia UA.

**Funders**
The majority of the UA projects are partly or entirely dependent on grants or funds. Remarkable are foundations like The Merchants Fund and FELS fund who have laid their eye on UA and provide funding for projects or organizations that match their requirements. They can play a significant role in for example start-up costs that could otherwise not be overcome.

Table 2 shows that a great diversity stakeholders simultaneously defend the case of UA in Philadelphia. Their combined effort paves the way for the development and growth of a local food system, with attention for exclusionary mechanisms and poverty issues. Notably, many UA activities have also started to generate data that proves their social, economic or environmental impact (Travaline and Hunold, 2010). UA stakeholders who provide useful data of their initiative will further contribute to the legitimation of UA in Philadelphia. During our research period, it became clear that most UA initiatives are in preliminary stages of data gathering. However, it is important to point out that these are the first steps in playing the role of the legitimate expert, and in defining which issues need to be tackled. As Di Chiro (1997) points out: “knowledge production is a critical stage of self-empowerment”. As such, it can be expected that the level of knowledge production and what is afterwards done with that knowledge, will play an important role in for example whose voice will be heard or how resources will be distributed.

4.3.2. How is urban agriculture perceived?

The majority of the UA initiatives are connected to the issues of poverty and/or vacant land redevelopment (Meenar and Hoover 2011). Motivations of UA stakeholders are also often rooted in these urban issues. The similar positioning of UA by all stakeholders regardless of their background has been productive for several reasons. First, land access and tenure, despite the availability of land, has become a shared issue, and due to this, stakeholders—even council members—can cooperate to find win-win opportunities. For instance, while UA serves to benefit community members directly, the growth of UA initiatives with a focus on poverty reduction and vacant land redevelopment also addresses sustainability objectives of formal policies (e.g. UA intersects with a number of objectives of the Kenney administration (Wachter et al., 2010). Second, the city has seen a large growth in youth-oriented educational projects which focus on nutrition education, job skills training, youth
empowerment and advocacy, altogether addressing the issue of poverty and food insecurity. Third, community gardens are now considered as a strategic way “to manage the vacant lots within the city and thus reduce the burden of the city to clean and maintain these lots” (Levy, 2008).

Even though the majority of stakeholders position UA along the same lines, UA can be approached from a wide variety of more specific objectives. UA stands at the intersection of many important areas of the urban system. The resulting interconnection between top-down and bottom-up objectives and the motivations to address poverty and urban blight can be illustrated in the figure 1.

![Figure 1](image)

Table 2 describes the diversity of objectives found and illustrates the multiple (and sometimes incompatible) ways UA activities are expected to address issues related to poverty and urban blight. They also point at a gamut of approaches that inform us about the different stances of UA’s role in a city.

**Table 3. Top-down and bottom-up objectives of UA as formulated by key UA stakeholders**

<table>
<thead>
<tr>
<th>Core objective</th>
<th>Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>“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!”</td>
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<tr>
<td>Nutrition</td>
<td>“One of the projects that we do is research everything that is grown. We now have signs on, 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.”</td>
</tr>
<tr>
<td>Education</td>
<td>„The mission of the organization is... definitely education. And obviously a commitment to organic growing. And...introducing kids to where food comes from. Getting them used to soil and familiar with the growing process.”</td>
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<tr>
<td>Cultural valuation</td>
<td>“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.”</td>
</tr>
<tr>
<td>Cultural integration</td>
<td>“It is a tool for community development, sure. To bring people together. The neighborhood also has a rich agricultural history. A lot of people here come from the Southern States. Or have family from there. And so there was already a lot of gardening work going on in this neighborhood. For me then, I need to step back as a white person. I need to learn to accept leadership from these folks that already have been growing food for years.”</td>
</tr>
<tr>
<td>Poverty</td>
<td>“…And it is also a very poor neighborhood. There is no grocery store in the neighborhood...so it is literally a way to get food in people’s mouth as well as...”</td>
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<tr>
<td><strong>Community development</strong></td>
<td>“It is our mission to operate a grocery-based consumer organization that is owned and governed by its members, and to build community, both within its membership and our larger area.”</td>
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<td>--------------------------</td>
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<tr>
<td><strong>Neighborhood greening</strong></td>
<td>“The intention is to involve community organizations in the maintenance of blighted land in their own neighborhood”</td>
</tr>
<tr>
<td><strong>Job skills training</strong></td>
<td>“We work across different high schools. And our teenagers all get paid. There is a lot of job training infused in our programs... It is also a fundamental aspect that participants become deliverers of services and not receivers of services”</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td>„Well it kind of fits into our overall mission. We see gardening as a recreational activity. And it kind of makes sense. Our office is like the natural home for this type of work...”</td>
</tr>
<tr>
<td><strong>Crime reduction</strong></td>
<td>“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.”</td>
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<tr>
<td><strong>Food production</strong></td>
<td>“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.”</td>
</tr>
<tr>
<td><strong>Sustainable/profitable agriculture</strong></td>
<td>“And what I have determined is that UA is an emerging market. It is something that is coming out of locally driven economy. Urban farming is a for-profit pursuit that you do for a living. What I have figured out is that very few people can make an actual living of the farming because the land parcels are so small. And it is very hard to consolidate because of our land use policies in the city.” “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.”</td>
</tr>
<tr>
<td><strong>Local economy</strong></td>
<td>“Our mission is to strengthen regional farms while making the local bounty accessible to communities and the institutions that serve them.”</td>
</tr>
<tr>
<td><strong>Environmental remediation</strong></td>
<td>“I was interested in the economic aspects of urban farming, but I got someone at the Water Department interested in urban farming as a way to storage water—a huge problem in Philadelphia. I proved my project was successful.”</td>
</tr>
<tr>
<td><strong>Food access</strong></td>
<td>The Greenworks plan of the city of Philadelphia calls for: “Bringing local food within 10 minutes of 75 percent of residents and creating an additional 86 fresh food outlets by 2015”</td>
</tr>
</tbody>
</table>

By aggregating all the different objectives presented above, it becomes clear that UA activities all operate in their own unique way and with their own specific objectives. To speak of an UA movement is thus problematic in the sense that some are not compatible (e.g. focus on food production vs. focus on education). Even though we argue they can co-exist, we argue that compromises are to be made if a project or organization wishes to focus simultaneously on different (incompatible) objectives. A research institute that for instance prioritizes the maximization of food production within the UA movement, will most likely not be able to also prioritize objectives of education or job skills training. To forge an UA movement requires that, in addition to look for commonalities, we recognize these different objectives, i.e. plurality, and to work out strategies in which cooperation can be promoted while each activity can work autonomously toward their own goals.

4.3.3. **Forging an urban agriculture network in Philadelphia**
Generally, respondents agreed that there is an identifiable network of UA activities. Respondents identified the network as well-connected, small, open, inclusive (which does not mean all groups are represented), growing and dynamic. When asked how the network was constituted, several key figures and organizations were mentioned that are capable of bringing a lot of people together (though not everyone referred to the same ones): Philadelphia Horticultural Society, Healthy Food Green Spaces, Philadelphia Urban Food Network (PUFN) and Amy Laura Cahn.

Helpful in the network are the multiple formal and informal collaborations between stakeholders and UA activities (Meenar and Hoover, 2012). Many have connections, and exchange or collaborate with a multitude of different UA activities (Vitiello et al., 2015) They also support each other through sharing land or growing space (e.g. green houses, high tunnels), providing resources (e.g. manual labor, material resources such as seedlings, orchards and land), offering additional distribution channels and participating in more than one UA activity at the same time (e.g. staff in Mill Creek Farm are part of the Board Members of Philadelphia Orchard Project).

In addition, the topic of UA is very well covered through all types of media. Magazines like GRID and Grow (PHS) are freely distributed throughout the city. One respondent stated that "If you pick up a GRID magazine while you’re in town...the sustainability magazine...It is probably one of the most exciting publications in Philadelphia... And it is totally dedicated to urban sustainability and a lot on food stuff". Besides the magazines, also events, debates, workshops and meetings are continuously organized and these usually succeed in gathering many people. As such, UA has a very public face in Philadelphia.

Some respondents did raise some critical points. First, as the network is maturing but new players keep entering the field, non-transparent and overlapping roles are one of the consequences:

“The city has so many resources and all these organizations have been doing this work for more than a decade. But in the last two years, the city has decided to start this FarmPhilly Program. And instead of working with these organizations that have foot holes all over the city... They created this new program. I think they are not able to run all these gardens without resources...I would rather encourage to strengthen the existing organizations and provide support for them.”

Second, respondents repeatedly referred to different UA “scenes” in Philadelphia which are 1) the new young urbanites who form part of the trend, 2) the many different cultural and ethnic groups that traditionally have been gardening for many reasons in their neighborhoods and 3) the older generations. It has been pointed out that these different groups are not well-connected to each other. These different scenes are laid out by the following fragment of an interview:

CP: If you look at everything that is going on in Philly, do you experience it as a network? How connected is that network?

Interviewee: 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 don’t call it
urban farming, they would call it gardening.

CP: They are not necessarily connected?

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

CP: What do you mean with the scene?

Interviewee: Yeah you know the Philly Urban Farming Network? They 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.

It would also be the new, younger group of urban farmers that constitute the face of UA in the
media. As a consequence this is the scene that is most visible throughout the city. An often heard
critique was that the people doing the actual work on the ground (referring to the many socially
disadvantaged or ethnic groups) are often not the ones taking part in the public discussions on UA. In
addition, they are often not part of the decision-making process and are excluded from available
resources. This is illustrated by the following quote:

“There are lot of resources going into urban farming right now...but they are all going to one
population. And I think they are kind of overlooking the people who have been doing it for a long
time. These things become cool and popular and get a lot of attention, but the people who started it
don’t get attention. And don’t get the resources...In order to be fully equitable...and socially just I
would argue that we really have to include everyone. Especially the people who have been doing it
for a really long time”.

In the next section, we will discuss the overall dynamic that both underlies and influences current
efforts of UA, and identify three tensions within the UA movement.

5. Discussion on the impact and dynamic of urban agriculture in Philadelphia

5.1. The context-specific nature of urban agriculture in Philadelphia

The results in Section 4 have illustrated the richness and complexity of the Philadelphia UA
movement. From loose informal gardening activities to commercial farms, a series of different food
growing strategies are gaining ground in Philadelphia (Wachter et al., 2010). In order to have
significance and ultimately be integrated into the urban fabric, the UA movement requires networking
activities, collaborations and all kinds of supporting mechanisms. When looking at local food systems
as a puzzle, it seems that, in Philadelphia, all necessary pieces of that puzzle are (modestly) being put
together. They are the provision of funding, the organization of distribution systems, logistic support,
payment assistance programs, educational and awareness raising programs, legal assistance (such as
the Neighborhood Gardens Trust), and material assistance (e.g. the City Harvest Program offers
growers seedlings or infrastructural and operational tools). In other words, the analysis has shown that
the necessary elements to forge a local food system are being developed or supported. We succeeded in grasping much of the underlying dynamic influencing the development process of UA in Philadelphia as described above. The impact of UA is very much influenced by context-specific factors that can be further specified in the following points.

First, the problems of vacant land, poverty and food insecurity are strongly identified. These issues are so visible and widely experienced that there is little disagreement on the potential role of the UA movement to address them.

Second, the network in Philadelphia is described as broad, open and consisting of many interacting stakeholders. Remarkable is that goals and objectives of the public agencies seem to be aligned (if not the same) with the ones from UA activities. As such, stakeholders are linked by a shared vision and shared concerns (cf. “Equity” as one of the five goals in the Philadelphia Greenworks Plan). Mutual, beneficial relationships can then be expected between bottom-up and top-down.

Third, and likely as a consequence of the former two, many of the UA activities that succeed in being part of the network, collaborate or share resources. Through these co-operations, (part of) the produce is distributed among underserved groups in the city. This way, access to food and resources is an actively promoted strategy among many activities and does not remain merely a written project objective.

Fourth, the use of and attitude toward space remains ambiguous. The amount of available land and deteriorated houses in Philadelphia is extraordinary, but land access and tenure remain the most identified barriers among all (types of) respondents. Reasons are that each of the public agencies dealing with public or private land has its own land acquiring process, inadequate lease contracts, bureaucratic issues, gentrification processes, etc. This leads to the question whether availability of land for UA has more to do with the legitimation of UA as a land use—and its (economic) value compared to other land uses—rather than the physical availability of land.

Finally, the current economic status and the consequences of post-industrialization (Meenar et al., 2012) of Philadelphia put a strain on progressive redevelopment initiatives. Several respondents have expressed that Philadelphia is located between other major US cities that have a larger budget available for UA experimentation. Philadelphia has no such budget, and as a consequence, is often obliged to hold off until best practices can be borrowed or copied. A careful attitude is adopted that leaves little room for trial and error. In this situation, the responsibility is shifted even more toward civil society and market stakeholders for taking action, acquiring funding, tackling legal issues and supporting community work.

Finally, it should not be concluded here that the UA movement in Philadelphia is uniform and consolidated. We have to take into account the small-scale and temporary nature of many of these initiatives. In some instances, projects are rather isolated from the larger network. Additionally, our results suggest that UA is as much a trend as it is in many other cities across the globe. Mainly younger, educated people show a renewed interest in farming and the food system. Respondents raised
concerns about the duration of this trend, how to grasp the perceived momentum for UA and how to sustainably integrate the UA movement into the urban fabric of Philadelphia. In the following paragraph we describe tensions in the UA movement in more detail.

5.2. Tensions in the urban agriculture movement

This section further elaborates on the complexity of picturing UA as a consolidated movement. We illustrate that the role of UA in Philadelphia cannot be easily defined when taking into account tensions or dilemmas governing the UA movement.

5.2.1. Incompatible interpretations of justice

Justice issues are remarkably well-integrated (implicitly or explicitly) into the objectives of UA activities. A clear and explicit focus on justice and community food security was often identified. This can be explained by the well-recognized and context-specific issues of poverty, food access and urban blight in Philadelphia, but also with the overall history of the environmental justice movement in the United States (Walker, 2012), which over the past years branched into a broadly supported food justice movement (Alkon & Agyeman, 2011). Food justice activists in the US strongly oppose the racial and social discrimination in the production, distribution and consumption of food. However, UA activities accommodate multiple layers of meaning that are in some cases incompatible.

The majority of the UA activities take on justice issues related to the current food system as a founding principle, from the perspective of farmers. As such, there are concerns about farming as a viable, worthy profession. Several initiatives in the city take on the challenge to prove that farming can be a profitable business, or develop a business in a way that the farmer’s income and well-being is secured. Organizations like Farm to City, Somerton Tanks Farm and Weaver’s Way Co-op are examples. But there are equal concerns of food access and providing lower income populations with healthy, nutritious food. On the one hand, urban farming is about a fair income for the farmer.

On the other hand, urban farming is also about a fair access to affordable food. The numerous non-profits throughout the city are primarily concerned with the social aspects related to the current food system. Their food production activities first and foremost benefit the underserved groups. This automatically has consequences for pricing of the produce, the amount of food produced and also the income of the farmers. Whereas the first group of activities most likely have to search for best value prices, the latter group makes locally produced food affordable through a series of mechanisms (double dollar value, food stamps, food cupboards, farm stands etc.). Currently it seems to be an either/or situation where the core objectives of the project depend on which aspect of justice in the food system receives the focus.

5.2.2. Different social groups at work
The hundreds of gardens in the city are represented by a wide diversity of cultural groups (e.g. Asian, African-American, Latino, and European). These groups often hold a wealth of farming and gardening knowledge, either brought in through migration or passed on from generation to generation. Most of these groups are growing food because “they always have done this” or “it is one of the only means for them to access produce”. Mostly disconnected from these groups is a vast group of young urban farmers, usually highly educated, that show a renewed and intentional interest in food production. The motivation of these people often starts from a discomfort with the current food system. This is in line with Di Chiro (1997) who states that a global sense of place is a privilege of the educated people. While this representation might be somewhat simplistic, it does point out that often, a discrepancy can be found between where the lay knowledge of farming and the (more scientific and technical) knowledge about the food system is located. Many respondents stated that it is this latter group that receives the most attention in the media, understands better how to obtain support and resources and has most influence on the development of UA. It should be questioned how more isolated people can become part of the UA movement, by which we mean the public scene of UA and the decision-making or governance processes. Another important issue is how the different UA activities could reinforce or enrich each other, rather than in isolation.

5.2.3. Competition versus collaboration

UA activities are largely grant-funded. On the positive side, they receive a lot of attention currently. However, available funding is limited and therefore “everybody is competing for the same piece of the pie”. On the one hand, there is a great dependency on external funding that constrains UA initiatives and creates competition. On the other hand, most respondents are welcoming the increasing resources allocated to UA development. Many UA organizations do similar work. To ensure funding, each one has to make efforts into being innovative or distinguishing themselves. This grant system will always put UA activities to a certain level of competition. In addition tensions also occur through collaborations. The network is vast and well-developed which spurs co-operation between different activities. But unavoidably, a larger network also entails frictions and to some extent competition. Some respondents have reported interpersonal issues over time related to collaborations. For some there was not nearly enough collaboration within the UA movement. While on the one hand, intense collaboration and thus a more horizontal alignment across the city would benefit the consolidation of the UA movement, respondents have identified a list of barriers which made collaborations very complex (due to lack of resources, resource competition, divergent objectives or approaches, interpersonal issues, or other conflicts).

6. Governance of urban agriculture in a complex and constrained setting

We can now return to the question as formulated in the introduction: How should UA resources such as land, water, energy, funding, and other material support be allocated in an environmentally just
way, given the setting of scarcity, complexity and tensions confronting the UA movement? An interviewee claimed that an UA initiative “will always fit in the urban system. The question is how these different projects connect to each other”. In other words, UA activities are of a cross-cutting and multidimensional nature and will always fulfill one or another important urban development need. This insight, however, proves of little help in guiding governments, institutions, organizations and universities through difficult decisions regarding how to best allocate their limited resources. The more valuable questions to address might then indeed be how the UA movement as a whole can impact on urban development and how stimulating governance processes of UA can contribute to a just sustainable urban development. In the remainder of this section, we propose a series of governance strategies that take into account the tensions identified concerning participation, exclusion and inequality.

- **Get to know the context.** As described in Section 5.1, the dynamic underlying UA is context-specific. Before allocating resources or developing UA projects, time should be invested in mapping the existing UA initiatives, stakeholders and supporting institutes (i.e. find out about local regulations, policy priorities and initiatives regarding UA) as well as the core issues that dominate the context. In this way, competition (to a degree in which certain UA practices or organizations are constrained), duplication of efforts, and potential adversary effects of UA can be better avoided. Best practices in other cities should then not be merely copied, but first be evaluated in relation to the context in which they are introduced.

- **Find common ground.** In the case of Philadelphia, the shared positioning on pressing issues of poverty alleviation and vacant land redevelopment serve as a stimulating basis for cooperation among UA stakeholders. Most of the UA objectives are linked to these urban issues. It appears advantageous that these issues are more tangible (and stimulate more concrete action) than the broad sustainability plans of the City, yet also offer UA stakeholders a vision that extends beyond personal or project objectives. The promotion of a shared, overarching, yet concrete vision that connects to the everyday experiences of citizens can help to consolidate an UA identity and further legitimize UA in Philadelphia.

- **Prioritize participation in UA governance processes.** Community groups in sustainable development tend to become more homogenous over time (Newman and Dale, 2007), reducing the bridging capacity between different social groups and types of stakeholders these projects have (cf. the strongly represented younger and highly educated UA practitioners in media). The prioritizing of participation by UA stakeholders in the governance process should ensure that the necessary diversity of UA stakeholders are represented and their objectives negotiated. This focus is needed at all levels in the UA movement and is thus equally important for UA project leaders and supporting organizations, universities or policy makers. 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). 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 have the least capacity to “influence those who govern” should be empowered to do so. 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 task that requires adequate means. In this case, the promotion of participation will be considered as a “resource to be allocated”. It can then for example become an explicit governance task to be assigned for instance to an independent, external institution.

- **Stimulate synergies.** Even though we recognize that competition between UA practices can stimulate innovation, this research has identified that competition for resources and support is detrimental for an UA movement struggling for recognition. Greater cooperation between UA practitioners and between UA practitioners and government/institutional actors should be pursued and encouraged to forge what Evans (1996) calls synergistic relations. Civil society is often referenced in policy objectives as a symbolic gesture, without actually calling civil society upon its responsibility to take action. At the same time, civil society should not be seen as the only accountable for the development of UA and find real partnerships in formal institutions. UA practitioners are then no longer passive beneficiaries of institutional support, but take part in developing governance strategies. Synergistic relationships will then stimulate more and lasting public action.

- **Encourage existing efforts.** UA development is not only about stimulating food production activities. Safeguarding the movement also requires for example funding mechanisms, food distribution channels, logistic support, policy advocacy, legal support, awareness-raising campaigns. In short, all elements needed to substantiate the UA movement. In the case of Philadelphia, we found most of these elements. They are all operating in their own way, but over the years have built up significant knowhow. Rather than developing parallel supporting mechanisms, existing support should be acknowledged and their reinforcement should be considered.

- **Balance between different objectives.** The best strategy to take account of the diversity of objectives in the UA movement is not simply to collect them, but to negotiate potential targets and find engagement across discourses and explore integrative solutions (Damay & Delmotte, 2009). We have learned that UA projects, regulatory offices and other organizations have their own objectives for UA and they are not always compatible. This is by some UA stakeholders mistakenly regarded as a serious barrier for the development of an UA movement. For instance, debates often revolve around whether support for UA practices should be allocated to either social or economic businesses, or to a particular social group. Instead, decision strategies for support allocation could be based on for instance the extent to which UA practitioners
prioritize synergy, inclusion and equity—objectives that contribute to an overall enforcement of the UA movement rather than the enforcement of a single UA project.

- **Develop strategies based on priorities.** Effective allocation of resources is only possible through the definition of clear strategies that help to justify who receives which resources and when. This paper has argued for an explicit focus on inequalities and exclusionary dynamics addressed (or created) by UA practices. Local government and other supporting institutions can act as an arbitrator between the UA stakeholders, to safeguard that the most informed, powerful stakeholders do not dominate the UA governance process. They can help establish a “fair” playing field through an equitable distribution of resources, and through the stimulation of deliberative involvement and co-creation in the governance process of UA (that requires customization). This focus assists in identifying tensions in the UA movement and subsequently ensures that the limited set of resources will not aggravate existing inequalities. Instead it should install a greater access to the benefits of UA by the most vulnerable groups in society.

- **Communication and transparency are key.** A functioning network and effective diffusion of information are indispensable to correctly inform the largest possible number of people. Particular attention should be paid to inclusion of different social groups and different types of UA stakeholders in the decision-making processes. As this research has shown, the UA network as experienced by the different UA stakeholders may in fact only reflect a part of the people involved in UA. In the case of Philadelphia, it became clear that UA practitioners are easily confused about who is who and how specific problems related to UA can be dealt with. The UA movement relies heavily on networking and interpersonal communication. Paying attention to the network configuration can help to avoid that the most resources are allocated to the most visible or heard UA practitioners or projects.

### 7. Conclusion

Upon a closer look, and through the lens of environmental justice, the UA movement in Philadelphia has become more complex than what it seemed to be at first glance. Different “scenes” have been identified, exclusionary and inclusionary mechanisms have been exposed, and taken together it should be acknowledged that UA currently remains in the margins of the urban (food) system of Philadelphia. Depicting this complexity and addressing tensions and inequalities in the UA movement is a worthy—and also necessary—pursuit in developing governance strategies to support UA. In order to continue the debate on the future of UA in Philadelphia, several important questions to be discussed by UA stakeholders are proposed: How to create synergies between current initiatives (and government)? How to improve communication between different stakeholders? How to manage the ever-expanding network? How to balance between economic and social goals of UA activities? How to prove the impact of activities on communities and targeted social groups? How to grasp the
current momentum for healthy food and turn the trend into basic societal values? How to reach out to isolated people? How to give them a voice and let them participate in the conversation and decision-making processes? By raising these last issues, we hope to have provided some food for thought.

Some final remarks. The duration of the research project was short, especially considering the number of key informants relevant for this research project. The list of stakeholders keeps expanding and hopefully there will be future opportunities to include them in the database. Philadelphia has seen one of the worst weather in February and March ever recorded. Snow, ice, wind and cold were challenging to get around the city easily. Given the time and weather constraints, we were led to conclude that there was much more to see and hear than was possible. It is also assumed that we have spoken mainly with that “most accessible scene of UA”. We became aware that we have mainly spoken to the largest organizations, the most prominent pioneers or the most successful UA initiatives. Nevertheless, entry points into those “other, less connected scenes” of UA have been explored. Lastly, trust and safeguarding privacy proved of utter importance. Although it is important to include critical aspects that came to the surface, this report by no means intends to infringe on any person’s wish to not expose internal issues to the wider public.

Acknowledgements

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References


Media articles:


## Appendix

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