

Chapter 12

The Development and Institutionalization of Urban Agriculture Policy: Emerging Governance Models in Three Norwegian Cities



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12.1 Background

While urban agriculture has been very much based on citizens' activism, public policies for urban agriculture have also been developed. While much research has been focused on specific urban agriculture initiatives, we know less about the public policies that have emerged over time, particularly in Norway. The aim of this chapter is to fill this gap, through a case study investigation of Norway's three largest cities, Oslo, Bergen, and Trondheim (Fig. 12.1). Norway provides an interesting context for urban agriculture public policies, being an example of a strong welfare state, often referred to as the Nordic model (Knutsen, 2017).

In Chapter 11, the author described the rationales and motivations for developing an urban agriculture public policy in these three cities. This chapter describes and analyzes the establishment of policy measures for urban agriculture. This process will be described through the concepts of institutions and institutionalization (Olsen, 2007; Arts et al., 2006), which can help us understand both the formal and informal ways a policy develops.

The measures for support/plans for urban agriculture are developed within the existing municipal institutional setting, including the organization of the administration and its norms and values (Olsen, 2007). This existing institutional setting thus influences the choice of steering logics and planning instruments. The main focus of this text is the municipal level, as this level is closest to the citizens. But as we shall see, the regional level may also play an important role in urban agriculture policy development.

The chapter seeks to answer the following questions: "How have public policies for urban agriculture emerged and got institutionalized? And which models for

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Fig. 12.1 The location of the discussed cases. (Source: Wikimedia Commons. The picture is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license)

organization of the urban agriculture policy domain are emerging and to which extent are growers involved?

12.2 The Perspectives on Institutionalization of Urban Agriculture as a Policy Field

The development of public policies and planning for urban agriculture can be studied as any other public policy field. A specificity of this policy field is its start as a voluntary, bottom-up activity. But the interplay between public policies and voluntary activism is a specificity shared with many other activities/policy fields such as sports, cultural heritage, health etc.

An institution has been defined by Olsen (2007 p. 3) as “*an enduring collection of rules and organized practices, embedded in structures of meaning and resources that are relatively invariant in the face of turnover of individuals and changing external circumstances.*” The related institutionalization concept refers to the process whereby individual’s or group’s loose, fluid actions over time begin to show patterns (Arts et al., 2006). These patterns then turn into more solid and established structures, which in turn structure people’s behavior in later stages. In public policy, this means that relatively stable definitions of the phenomenon emerge and that gradually responses or solutions to the phenomenon are found. This leads to organization of tasks in particular ways, and interaction between actors is structured through more or less fixed rules and systems (ibid). Institutionalization is thus well suited to describe the development of public policy for urban agriculture. This

perspective also means that public policy can adjust in response to changes and stabilize for certain periods (Arts et al., 2006).

The focus of this chapter is on the analysis of the emergence of public policies of urban agriculture and its subsequent institutionalization. The chapter describes five phases of development, suited to urban agriculture.

- The first phase is the fluid phase, with the emerging phenomenon of citizens activism.
- The second phase is a definition of urban agriculture as a public policy field and emerging policy measures.
- The third is structuring and organizing of the policy field and policy measures.
- The fourth is refining the measures and expanding the field of urban agriculture.
- The fifth is the formalization of urban agriculture in the planning system.

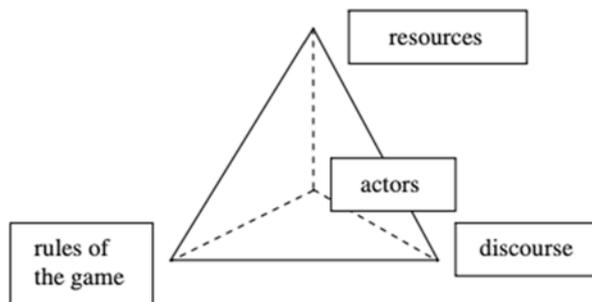
These phases follow a timeline, yet they also overlap, coexist, and interweave in the process as definitions, structures, organizations, and measures may change and different formal and informal practices may occur.

The institutionalization of urban agriculture leads to particular forms of organization of the policy domain, which may show local variations of models since they are developed in particular institutional contexts. The development of urban agriculture policy takes place between particular actors, such as politicians, administration, and voluntary sector.

Arts et al. (2006) introduced a framework for policy domains that can be useful for urban agriculture analyses. This framework, called the Policy Arrangement Approach, includes four dimensions (see Fig. 12.2). The first refers to *actors and their coalitions*. This means that certain actors are important in developing a policy and that they also may form coalitions and thus influence over policy.

The second is the division of *power and influence* between these actors where “power refers to the mobilization, division and deployment of resources, and influence as to who determines policy outcomes and how” (Arts et al., 2006 p. 7). The third is *the rules of the game* currently in operation, both in terms of formal procedures for pursuit of policy and decision-making and, importantly, also informal and more or less structured patterns for political and other forms of interaction. The fourth is the current *policy programs and discourses* where discourses refer to the views and narratives of the actors.

Fig. 12.2 Visual representation of the four dimensions in a policy domain (Source: Arts et al., 2006: 90)



These four dimensions are linked together so that changes in one dimension will influence the others. Differences in “rules of the game” may change the flows of power and influence which actors might get involved. Discourses are important because they also define who the relevant actors may be and thus also their possibilities for power, influence, and outcome in the form of policy programs and measures. A way of applying this analytical tool to the policy domain of urban agriculture in this chapter will be to systematically look for the role of a particular actor, the growers, because of the important role of citizens’ initiatives. A particular focus will be to investigate whether they are, or to which degree they are, among the actors and how this influences the other dimensions.

The outcome, the actual policies pursued by each municipality, may also show differences across the cases investigated. As shown in the preceding chapter, urban agriculture is pursued by a number of reasons, so it may be expected that also the actual policies emphasize different aspects. These concerns are as follows:

- First, *the municipal support mechanisms for urban agriculture*
- Second, *urban agriculture as a means to reach welfare goals*
- Third, *the relation of urban agriculture to professional urban agriculture in its new and traditional form*
- Fourth, *the connection of urban agriculture to food and food systems*
- Fifth, *the relationship of urban agriculture to public space, civic participation and co-creating the city*

12.3 Methods

In our study, we selected the three largest cities in Norway, which have also been among the most advanced in developing urban agriculture policies. They represent different local contexts for urban agriculture in size, climate, topography, and availability of farmland (Table 12.1).

Table 12.1 Overview of some characteristics of the three municipalities

	Oslo	Bergen	Trondheim
Inhabitants approx.	Approx. 710,000	Approx. 290,000	Approx. 210,000
Landscape	Within its borders, there are large woodlands but very limited agricultural land. The areas around the Oslo Fjord are well suited to agriculture climatically and also with areas with arable soil. But these areas are not within the borders of Oslo municipality	Mountainous landscape situated at the west coast of Norway. Limited farmland within its border 100–120 active farms	Situated in one of the primary agricultural regions in Norway, with good farmland also within the municipal borders and 218 active farms
Farmland	2.1%	6.5%	17%

The methods used in this study included interviews and analysis of planning documents. In total, we interviewed 21 people including municipal urban agriculture coordinators, administration at the county governor, voluntary movement, farmers' associations, social entrepreneurs, and a major developer (see Appendix 1). Since urban agriculture policies have been continuously developed over the last years, follow-up interviews have been made with the urban agriculture coordinators in the municipalities. The interviewees have been selected through snowballing method, where the interviewees have suggested further persons to contact. Two third of the interviews have been conducted online due to Covid-19, most recorded and transcribed. The planning documents have also provided information about how they have been produced and who the main actors have been in the formulation of the planning documents. Also, the municipalities' websites have provided important information about the policy instruments used, such as funding mechanisms, recipients of funding, courses available, contact points, etc. Observation and participation in an internal workshop in Oslo municipality provided information of efforts to expand urban agriculture as a means to obtain goals in their respective field of responsibility. Official political statements are other important sources of information.

12.4 Empirical Studies

12.4.1 *The Emergence of Public support for Urban Agriculture*

Like in many cities around the world, there has been an increasing interest in food growing in Norwegian urban areas. In private gardens and in allotments, there has been an unbroken history of growing but with varying intensity over years. Growing is thus not new, but the locations where this recent wave of growing started were unusual. These locations included inner-city sites such as public spaces, parks, rooftops, or gray areas such as urban squares, with the intent to produce locally grown and often ecological food. These initiatives were often connected to ideas of transition to a more ecologically friendly and sustainable development, like the example of "Bærekraftige liv" (Sustainable lives) in Bergen, but also to more socially concerned initiatives to improve living conditions and employment opportunities for youth in inner city locations (Interview 1). Motivations also included social meeting places and community building in addition to production of food, as described in the cases studied in Chapters 6, 7 and 8.

As described in Chapter 11 on motivations for public policy on urban agriculture, the county governors were early initiators for development of such policies. In 2009, they formed a network among county governors nationally, but they were also closely involved in networks with cities in their respective regions. Some of the early financial mechanisms were initiated at a county level. While the county level actors early observed these trends, the national agricultural authorities later also

established urban agriculture as a policy domain. In 2019, they initiated the work on a National Strategy for Urban Agriculture, recently published (Norwegian Ministries, 2021).

Oslo: Political Initiatives and Administrative Implementation

Oslo is characterized by early initiatives for urban agriculture within inner-city locations, also in highly visible urban spaces, see also Chapters 6 and 7. An example is Losæter an urban garden that was initiated in 2011 as an art project in a former harbor area undergoing transformation. More than 2000 inhabitants competed for space to grow when the opportunity arose (Interview 2). Agriculture in this location was in a stark contrast to the new high-rise and high-end development. This initiative got a massive press coverage, becoming close to an icon for urban agriculture, and by far the most well-known initiative in Oslo. Several social entrepreneurs were also established, working with urban agriculture. Some city districts, particularly inner-city districts, supported these early initiatives.

In the county of Oslo and Akershus,¹ the county governor started early to give financial support to urban agriculture projects under a budget post for ecological agriculture (Interview 1). They started to use the term “urban agriculture” since they wanted to emphasize the particularity of agriculture in the city and to make visible the importance of agriculture for the urban population in the capital (Forsberg et al., 2014 p. 8). A “think tank” for urban agriculture was established in 2013 to give input and share experiences of urban agriculture (Forsberg et al., 2014 p. 8). This group included experienced growers and initiators of urban agriculture. With financial support under the budget post “rural development,” the county governor initiated a project resulting in a report with the aim to clarify the content of the concept “urban agriculture,” what this could mean for the population of Oslo and which themes and measures should be taken in the future (Forsberg et al., 2014 p. 8) (Fig. 12.3). The county governor organized a group of stakeholders to feed into the report with representatives from Oslo municipality (from urban green space management, agriculture, and planning departments), growers, and initiators. This report increased the understanding for urban agriculture within the agricultural sector and represented an important step in making urban agriculture a policy domain for the county governor with dedicated budget post. Thus, the county governor was able to support early initiatives for urban agriculture in the region.

The politicians in Oslo have also been important actors in developing urban agriculture policies in the municipality. The city council commissioned the administration to work on a program for urban agriculture in 2013, reworked by a new elected city council and adopted in 2015 (Press release: The city council presents an urban agriculture program for Oslo. 8.9.2015.).

¹ Akershus merged together with Buskerud and Østfold to Viken county 1.1.2020.



Landbruksavdelingen

Urbant landbruk – Bærekraftig, synlig og verdsatt



Rapport nr. 1/2014



Fig. 12.3 The county governor’s report “Urban agriculture-sustainable, visible and valued” (Source: https://www.statsforvalteren.no/siteassets/fm-oslo-og-viken/landbruk-og-mat/naringsutvikling/dokumenter/rapport%2D%2Durbant-landbruk-barekraftig-synlig-og-verdsatt-nr.1_2014.pdf)

“The city council wants Oslo to be ahead as an internationally leading environmentally friendly city, also within urban agriculture and sees the program for agriculture as an important part of a comprehensive policy to create a green and modern city” says city councilor Guri Melby (Liberal Party) (Oslo municipality, 2015a).

The politicians also initiated a center for urban ecology. Yet, the policy field was so new that it needed to mature. The municipality needed to ask themselves what urban agriculture is and what their role could be in its facilitation (Interview 15). The central city administration established contacts with researchers partaking in a European research project in 2015 “Sustainable Food in Urban Communities.” As a part of this project, the “Network for sustainable food” was established by the municipality. The aim was to connect actors engaged in sustainable food and urban agriculture. Urban agriculture had in many ways been a long tradition in the Oslo region including growing in school gardens, private gardens, and allotment. Nevertheless, the recent initiatives situated largely in public spaces, represented something new, and the administration did not quite know how they should connect to this new wave of activities. These were pursued by many different actors, without involvement from the municipality, at least not in an organized way (Interview 2).

In 2017, another political initiative was taken by the new city government. The city administration got another commission from the city councilor to work further with urban agriculture, and a funding scheme was established. They were also asked to further develop urban agriculture as a policy field and to develop a strategy for urban agriculture. As described in the preceding chapter, the strategy discusses why urban agriculture is important for the city and what the city wants to achieve by supporting it. The city strategy was adopted in 2019, and the administration is now working on a follow-up action plan (Interview 2).

The political support for urban agriculture has been strong in Oslo. The new city council after the 2019 election was formed by three parties, and they negotiated a political platform for their work. In this platform, a section is dedicated to urban agriculture, where they declare that their policy is to continue the support of urban agriculture as shown in the quotations below.

“Urban agriculture contributes to more green meeting places that makes Oslo more pleasant for both people and animals. It increases the understanding of where the food comes from and is good both for public health and integration. The city council will take care of the city’s colony gardens, allotment gardens and school gardens, transform grey areas to green urban spaces for urban cultivation and strengthen the policies for urban agriculture.” Oslos by råds erklæring 2019–2023 (2019).

(continued)

“The city council wants

- Continue the financial support for urban agriculture and facilitate more allotment gardens
- Ensure better access to school gardens when building new schools and facilitate urban cultivation in more school yards and kindergartens
- Facilitate arenas for locally produced food, for example green neighborhood kitchens and markets in connection to cultivating projects in the city”

Oslos by rådserklæring 2019–2023 (2019).

Developing knowledge about urban agriculture has been important for the municipality. In addition to supporting initiatives for urban agriculture, the municipality also supports research and development projects. They have also initiated an evaluation of their schemes. In addition, they have been frequently approached by research organizations to partake in research and are now connected to several projects (Interview 1). In 2017, the politicians decided to establish a funding scheme for urban agriculture, where everybody could apply, but because of a large number of applications, housing cooperatives and housing co-ownerships were prioritized. The rules of this programme were formalized as a Provision of the Local Government Act (a legal act relating to municipalities and county authorities) (<https://lovdata.no/dokument/LF/forskrift/2017-03-29-463>). The administration saw that the rules did not address the diversity of initiatives and suggested changes (Interview 15). In 2018, the administration received many good proposals including small start-up businesses such as growing fungi on used coffee grains, and these were funded too. For the administration, food production and professional urban agriculture are important. So is knowledge about food production and the origin of food as well as the social aspects of urban gardening (Interview 15). As one interviewee points out,

We try to find the balance where food production is important, while at the same time include the other side effects (interview 2)

The early initiatives for urban agriculture were much centered around inner-city locations. The administration wanted to encourage urban agriculture also in less central locations (Fig. 12.4) as it had an ambition to increase the volume of the production, not just the number of single pallet boxes. Thus, one of the focus areas were the long abandoned farms in the fringes that now serve as farms to visit, social meeting places, or museums (Interview 2). One of them is now the location of an incubator scheme for people wanting to develop market gardens as a way of living. Such initiatives are run by county governors and department for agriculture in several counties (Satser på markedshager! Statsforvalteren i Oslo og Viken). Market gardens are highly intensive cultivation projects in small plots, producing vegetables for sale to the urban population.

In addition, the city also established a pioneer funding scheme directed particularly toward other sectors in the municipality including schools, kindergartens,



Fig. 12.4 Cooperative farming (*Kirkeby andelslandbruk*) on Kirkeby farm in the urban periphery just outside Oslo's building zone (Photo: author)

health institutions, and cultural institutions (Interview 1). Eight projects received funding, and an external evaluation team followed these activities. The findings were that *social meeting places* were the main driver for the municipal sectors that took part in the scheme, being important for solving their public mandate. The public role varied greatly, from just offering financial support to actually running the initiative (Skorupka & Pålrsrud, 2019). In the latter case, the task of the public sector also included the recruitment of growers, what turned out to be difficult to fulfil in a few places. This was particularly the case when the initiative owner did not have potential growers, for example, a museum. The attractiveness of the place itself and additional attractive elements seemed to be important for the interest in growing. An important lesson learnt was that to succeed in the long term, the organizers of the growing initiative need to secure maintenance through the season, including summer holiday weeks. In addition, agricultural knowledge needs to be coupled to the initiatives. As establishing a social meeting place was an important motivation, additional capacity to run the area as a meeting place is important to fulfil this function. Not all initiatives succeeded in fulfilling their objectives, for example, establishing connections with NAV (the Norwegian Labour and Welfare Administration) to initiate work schemes for youth. Other noticed that the cultivation itself did not succeed very well (Skorupka & Pålrsrud, 2019). The general experience was that a particularly dedicated individual in an organization was necessary to make the initiative work. These experiences also showed the inherent problems in public

intentions depending on voluntary work. The municipalities' administrative unit for implementing urban agricultural policy has further worked internally in the municipality, for example, by organizing a workshop to get input to the action plan they are currently working with.

The administration is currently working with different aspects of urban agriculture facilitation. This includes the following:

- (i) Launching a survey *to map the urban agriculture initiatives* (Interview 15). There was also a need *to categorize the initiatives*, not the least because the formal "path" to receive approval will be very different as the initiatives vary greatly from commercial enterprises located indoors to local volunteer driven projects using public space. The initiators of urban agriculture projects may be sent from one municipal department to another when dealing with formalities – including issues related to formal zoning of the land, water quality, health, safety, and environment. The municipality hopes to simplify the procedures to obtain the necessary permits (Interview 15).
- (ii) *Securing access to land* to grow including *mapping potential areas for cultivation* (Interview 15) to help the public to identify the locations where they can establish a new urban agriculture projects or join an existing one. This mapping also includes an evaluation whether a certain plot should be taken as a land for growing, or whether it has other important biological functions. The municipal actors are aware that they need to develop a more participatory approach when plots are taken for cultivation. This may include involving city districts and local community organizations (Interview 15). In addition, they also are working to *establish a system to identify the owner/manager of a plot*. Initiators for urban agriculture on a particular location need to show an agreement from the owner/manager to use that land for agriculture if they are to receive financial support. The municipality may own the land, but it may be managed by a number of different municipal sectors, including central park management, city districts, department of schools and kindergartens, health care department, burial ground, etc. (Interview 2).
- (iii) *Connecting resources* between, for example, institutions that own land and organizations that want to grow, or between organizations seeking opportunities for summer jobs for youth and urban agricultural schemes; establishing connections between central level of green space management and the city districts (Interviews 21.1.19 and 16.2.21).
- (iv) *Facilitating professional urban agriculture such as projects integrated in buildings or market gardens*. The integration of agriculture in buildings can stumble on bureaucratic hindrances in the planning and building act, regarding zoning and building regulations. It is not possible for the municipality to change the law, but they intend to work with the relevant ministries on this (Interview 15).

Development of market gardens is an initiative from the county governors, and all three case cities are involved in this initiative.

12.4.2 *Inclusion of Urban Agriculture in Plans*

Since urban agriculture was a clear part of the city council's political ambitions, this policy domain was also included in central formal planning documents. The planning law requires the municipalities to prepare a "societal plan" for the development of the municipality, setting out long-term goals and strategies as a point of departure for other plans (pbl § 11–2). This should be done every fourth year by the newly elected council to set out their priorities. In the 2018 plan, urban agriculture became a part of this strategy, even if not detailed to any extent, as reflected in the following quotation:

We want a sustainable city with green cultivation and climate friendly buildings- and the inhabitants need to get more knowledge about environmentally friendly living in the city. Urban agriculture, green roofs and roof gardens make the city greener and more friendly for people, animals and plants (Oslo municipality, 2019 p. 21)

In addition, also in land-use plans, visions of urban agriculture began to appear. Thus, not only the urban agriculture unit but also the land-use and planning departments became increasingly involved. The idea of "greening" Oslo has also resulted in a "guidance" report on use of roofs, developed by the planning and building department. The idea is that roofs need to be used for "green purposes" including water retention, recreation, and urban agriculture. These guidelines serve as an informal steering tool directed toward private developers when they plan and construct new buildings.

The cooperation between the urban agriculture unit in the Agency for Urban Environment and the Agency for Planning and Building Services has evolved over time. Lately, urban agriculture unit has been invited into the development of the green space in Hovinbyen, the largest transformation area in Oslo. There is a wish to include urban agriculture in the strategic plan that is developed for the green structure in this area (Fig. 12.5), but the plan is still vague about how urban agriculture should be developed (Interview 15).

Bergen: Networking, Grassroot Initiatives, and Idealists in the Municipal Administration

There has been a long-standing interest in urban growing in Bergen, and a number of initiatives have been taken. A grassroot transition movement, "Sustainable lives," has played an important role. Their idea was to implement actions in the local community in order to reach a more sustainable development.

Like in other regions, these bottom up processes were observed by the county governor as well as the municipality. Networks between public departments and voluntary associations were formed and have been important in developing urban agriculture as a policy field in Bergen. In 2015, a project for agriculture was initiated by dedicated individuals in the city administration and the county governor (Bergen municipality, 2019). This joint project arranged two well-attended workshop open to everyone that showed the magnitude of the general interest for urban agriculture. The project was financially sponsored by county governor and by in-kind contribution from the city. The steering group consisted of the farmers'



Fig. 12.5 Urban agriculture as an element in visions for the “green ring,” a major urban planning idea on the development of Hovinbyen. Hovinbyen is the major new transformation area in Oslo (Source: <https://magasin.oslo.kommune.no/byplan/den-gronne-ringen-blir-tydeligere#gref>)

association, the small-scale farmers’ association, the county governor, and Slow Food Bergen. The working group consisted of representatives from the county governor’s department for agriculture, Bergen municipality’s department for agriculture, and “Bærekraftige liv Bergen” (Sustainable Life Bergen). The latter is a movement focusing on the actions that a local neighborhood can take to reduce the ecological footprint without compromising life quality, including reduced consumption, circular economy, and ecological thinking. In Bergen, there are several such local initiatives. (Interview 17).

As a part of the project, a survey of potential of municipal land for urban agriculture was conducted, resulting in a map showing potential sites for cultivation, providing information on their suitability for growing such as sun and soil conditions. Courses in growing were given, and a handbook for growing is published online. The politicians in Bergen have been very positive, and a financial scheme for urban agriculture has been in place since 2017. This was due to lobbying to politicians by citizen organizations when the budget was adopted politically. This scheme is limited to joint growing and gives priority to initiatives that benefit children and young people. They support expenditure for buying equipment and also for courses in cultivation (Bergen municipality, 2019). The scheme has so far not been amended (Interview 15).

This scheme of financial support is coordinated by an employee in the department of agriculture, but the coordination of urban agriculture activities is only a small part of the position. Yet, the civil servant has good contact with the growers and acts in practice as a contact point for initiatives. A common question is about land ownership, and she has been able to help people with this. When handling the financial scheme, the administration saw the need for strategic thinking about the

use of the financial resources, its place in wider urban development, and the internal organization around urban agriculture in the municipality. The development of a strategy was suggested by the administration and approved by the politicians. The strategy was developed in cooperation with the voluntary sector, Sustainable Lives (Bærekraftige Liv), and the county governor, integrating also inputs from well-attended, open workshops. The strategy was adopted in 2019.

Lately, other initiatives have emerged. A “city-farmer” has been appointed through a joint initiative in the network, where the municipality, the county council, the county governor, and the farmers’ association pay the salary. The farmer’s association is the employer. This is a conscious choice, enabling the city-farmer to be free-standing. This also creates a link between urban agriculture and the ordinary agriculture (Interview 15). This has affected the standing of urban agriculture among farmers and also facilitated food distribution schemes (Interview 15). The city-farmer is located in a former so called “lystgård,” the Norwegian term that can be translated as leisure farm. This location was a summer residences for well-to-do Bergen citizens, popular in the period 1750–1859. “Lystgården” is now a center for the “sustainable life” movement and its diverse activities including growing. As we can read on the centre’s website,

“Lystgården is a kind of hotspot for sustainability, quality of life and fellowship” (Fig. 12.6) (<https://www.lystgarden.no/>).

Another project is the incubator program, “market gardens,” which is also placed in Lystgården. A leader for this program has also a task of finding land for other prospective market gardens. Which involves networking with farmers. This initiative is a part of the wider network that Oslo and Trondheim also are involved in. This network stretches internationally, connected to market gardens in Malmö, Sweden. The partners involved in Bergen are the municipality, the city-farmer in Bergen, Vestland county council, and Vestland county governor, as well as partners working with the ordinary professional agriculture such as Norsk landbruksrådgivning, a company being a link between research and practice in farming.



Fig. 12.6 Screenshot from the website of Lystgården: “A hotspot for sustainability, quality of life and fellowship” (Source: <https://www.lystgarden.no/> Accessed 3.11.2022)

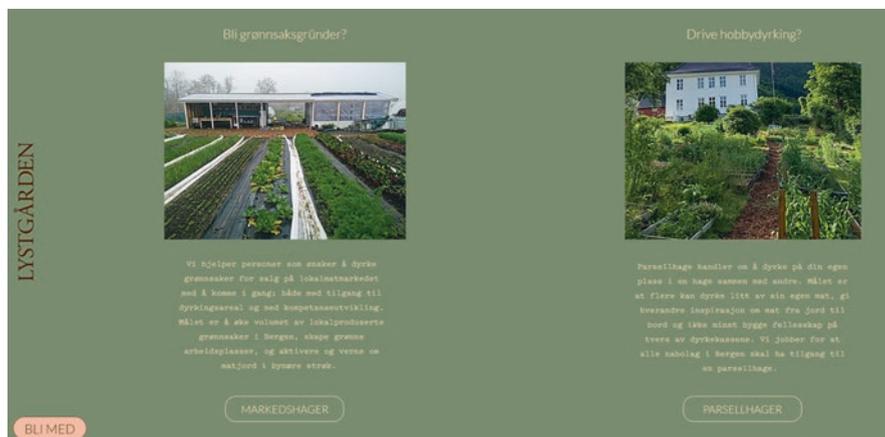


Fig. 12.7 Screenshot from the homepages of Lystgården explaining the difference between market garden and allotment garden (Source: <https://www.lystgarden.no/dyrkbarebergen> Accessed 3.11.2022)

The text in Fig. 12.7 explains the difference between a market garden (left) and an allotment garden (right) and what Lystgården can offer in terms of support. Market gardens: “We help individuals that want to grow vegetables for sale on the local produce market to get started, both in terms of accessibility to areas for growing and developing necessary competences. The aim is to increase the volume of locally produced vegetables in Bergen, create green workplaces and activate and protect arable land near urban areas.” Allotment gardens: “Allotment Garden is about cultivating your own area in a garden together with others. The aim is that more people can grow their own food, give each other inspiration about food from soil to table, and not the least build fellowship across the pallets. We work to secure that all neighborhoods in Bergen have access to an allotment garden.”

Trondheim: Co-creation of Policies

In Trondheim, urban agriculture or the local name “cultivating in the city” (dyrking i by), emerged as a policy domain in spring 2015. An initiative was taken for a strategic work connected to urban agriculture in Trøndelag region where Trondheim is situated. The background was a number of grassroot initiatives from urban farmers, community gardens, and cooperative agriculture projects, strategies taken by the municipality and interest from several cross disciplinary research organizations. The county governor coordinated the work together with the municipality.

A seed for Trondheim municipality’s financing of urban agriculture was planted through the contribution from university students. The municipality has a long-standing relationship with the Norwegian University of Science and Technology. In 2015, a course called “experts in teams” asked students to design ideas for three sites in the city. Their proposals illustrated how urban agriculture could be

integrated into the design of urban places. The city's department of environment prepared a brief advising local politicians to finance the establishment of urban agriculture in these sites. The politicians liked the idea very much, and the cultivation projects were put into practice, and in addition, a general financing scheme was established. The financial scheme was continued in 2016.

Also in 2015, agroecology students from the Norwegian University of Life Sciences held workshops with growers to learn how the municipality could facilitate urban agriculture as a voluntary activity (Finnegan et al., 2015). The growers expressed the need to be physically and digitally connected and learn from each other. They also asked for easy access to knowledge about growing and for help in the transport of pallets, soil, and compost. A common message was that they wanted to spend more time on growing activities, rather than organizing the initiative. An important result was a Facebook group, visits between the gardens, and yearly physical meetings for exchange of experiences and interaction with the municipality. For the municipality, these meetings have been important for further policy development, for example by deciding on how to allocate the financial resources available, or how to provide urban farmers with practical help. Another result was the decision to work closely together with the professional agriculture, not outside it. This includes, for example, making use of the professionals' knowledge of growing in courses and use the farm owned by the farmers' association as the center for urban agriculture activities, Voll farm. The concept "*the green food city*" later became what was termed "the Trondheim model" (Interview 10). The basic idea is that the citizens themselves know where they prefer to grow, how they want to grow, and can best advise the municipality to tailor their help toward their needs.

There is an internal working group in the municipality including city planning, infrastructure, public space management, land ownership, and agriculture. Urban agriculture is also beginning to find its way into formal plans according to the Planning and Building Act. The municipality intends to propose a thematic municipal master plan for agriculture and urban agriculture (Interview 16). This shows the close connection that the municipality wants to establish between urban agriculture and peri-urban traditional agriculture. The farmers' organization has from the beginning seen urban agriculture as a positive development, making the urban population more aware of knowledge about food production, appreciative of local food, and develop direct food channels between producers and the urban population. They cooperate closely with the municipality through visits to urban farms and use of knowledge centers for professional agriculture also for knowledge sharing to non-professional urban agriculture growers. In the outskirts of Trondheim, Voll farm has become a center for urban agriculture with high competence in growing (Fig. 12.4). In addition, the farmers' organization has financed the hiring of a city farmer, thus showing their interest in strengthening the ties to urban agriculture.

Voll farm (Fig. 12.8) is both a visiting farm and a center for urban agriculture, the latter presenting itself as follows on its website: "The competence center for urban agriculture is a source for knowledge and inspiration for growing of own food in and



Fig. 12.8 Voll farm. The text says: “We are Voll farm- the whole city’s farm”. Screenshot from its website (Source: <http://vollgard.no/om-garden/vi-er-voll-gard-hele-byens-bondegard/> Accessed 3.11.2022)

around Trondheim city. The competence center is a part of Trondheim municipality’s program for encourage urban agriculture in the city. Growing your own food is a contribution towards a more sustainable future and enhances stronger ties between people and our life foundation.”

All three cities have established a scheme for financial support. The table below (Table 12.2) shows the main aims with the schemes, who can apply and for what purposes. The reasons for the mechanisms are quite similar: to support initiatives involving urban agriculture, increase knowledge about food production, and contribute to community building. But there are differences. Bergen only supports joint growing, while individuals can receive funding in Oslo. Oslo supports commercial activities, and Trondheim supports initiatives in traditional peri-urban agriculture intending to develop ties to the urban population.

12.5 Analyzing the Institutionalization of Urban Agriculture as a Policy Domain in Oslo, Bergen, and Trondheim

The development and institutionalization of urban agriculture as a policy domain in the cities we studied can be synthesized into several phases from an initial fluid state of activities to gradually more established informal and formal patterns of interaction across actors to highly formalized “rules of the game.” The development in the three cities can be divided into (1) fluid state of grassroots activism; (2) the initiating phase definition and emerging policy measures; (3) structure, organization, and policy measures in municipalities; (4) expanding and refining policy measures; and (5) urban agriculture in the planning system. The phases we describe below build on

Table 12.2 Overview over financial support schemes in Oslo, Bergen, and Trondheim

	Oslo ^a	Bergen ^b	Trondheim ^c
Aim	The financial support shall contribute to increased knowledge development and more urban agriculture activities in Oslo, through support for initiatives such as developing joint gardens, pallet boxes, beehives, and hen houses	The aim is to increase the inhabitants' knowledge about food production and to facilitate a greener city, good neighborhoods, and attractive meeting places that facilitates activities across age, gender, and origin	Trondheim municipality wants to arrange for growing food in the city. Food production is not only positive for climate and environment, but may also increase life quality for the individuals and also increase unity in the local community
What can be financed	It is desirable that the initiative do not last longer than two years We emphasize that the initiative: Supports one or several of the following points: environment, climate, public health, participation, integration, or entrepreneurship Supports ecological production or/either contributes to increased knowledge about ecological agriculture Is open for broad participation We do not support initiatives supported from other financial mechanisms in Oslo municipality with similar aims We do not support maintenance (ongoing costs for wages in the organization, rent and electricity, maintenance, etc.)	Equipment like planting boxes, soil, seed, plants berry-bearing shrubs, fruit-trees, beekeeping Courses in growing and use of food plants and useful plants, beekeeping Establishment of allotment gardens Growing in roof top gardens Growing in shared city gardens <i>Priority:</i> Joint growing such as allotment gardens and initiatives for children and youths	Priority: Start-up costs shared equipment infrastructure (not hothouse) arranging open courses free of charge for participants from Trondheim other activities may be considered Not prioritized: ordinary running costs personal equipment courses/seminar participation deficit guarantee commercial enterprises closed membership organizations activities in private gardens build-up capital (balanced budgets)
Who can apply	Everybody as long as it is carried out in Oslo; for example: housing cooperatives, public entities, commercial enterprises, voluntary organizations, green and social entrepreneurs, persons with private address in Oslo	Associations, organizations, institutions, housing cooperatives and co-ownerships wanting to use land for edibles or beekeeping	Associations and organizations and municipal entities in Trondheim

^a<https://www.oslo.kommune.no/tilskudd-legater-og-stipend/tilskudd-til-urbant-landbruk/> accessed 29/3-2022

^b<https://www.bergen.kommune.no/innbyggerhjelpen/kultur-idrett-og-fritid/fritid/lag-og-foreninger/tilskot-til-urbant-landbruk-i-bergen> accessed 29/3- 2022

^c<https://www.trondheim.kommune.no/tilskudd/dyrking/> accessed 29/3-2022

each other, but they may also exist in parallel to one another, depending on contextual factors and motivations distinguishing each locale.

12.5.1 Phase One: The Fluid State of Grassroot Activism

Citizen activists were the early initiators, and some of the activities became highly visible as many appeared in public spaces in inner-city locations, as discussed in the Chapter 6 where projects in Oslo are presented. In Bergen grassroot transition movements have been important initiators of urban agriculture (Bærekraftige liv²). In Trondheim, early initiatives combined growing with systemic transformation intent, such as in the urban ecology pilot area of Svartlamoen.³ There was also a pronounced interest among the public for growing in allotment gardens. *Developers* have also been important actors, particularly in Oslo, where they have been instrumental in establishing the “Losæter,” an iconic urban agriculture site nestled in the high profile waterfront redevelopment area of the former Oslo harbor.

12.5.2 Phase Two: The Initiating Phase-Definition and Emerging Policy Measures

In the initiating phase urban agriculture is defined and policy instruments are emerging. County governor’s employees in the agricultural departments clearly influenced the definition of urban agriculture and the establishing of urban agriculture as a policy domain. They were also important for local initiatives in their regions. In Oslo, the county governors’ contact with well-known growers running flagship food growing initiatives also led to a dialogue between municipal actors and farmers’ associations representatives. It was at this stage of the process that *definitions, motivations, and financial schemes* for urban agriculture were established. These were important first steps in the institutionalization of urban agriculture policies. In Oslo, city district administrations spearheaded their own urban agriculture initiatives, with funding from the county governor.

In Bergen, a *network* formed between the county governor, municipality, and the voluntary sector was instrumental in establishing urban agriculture as a domain for policy and planning. They initiated a common project in order to identify measures to support urban agriculture. This network-based developing policy approach has continued to characterize policy for urban agriculture in the city. The voluntary sector played an active political role, through the lobbying of local politicians, which resulted in establishing the financial mechanism in Bergen.

²<https://www.barekraftigeliv.no/>

³<https://en.wikipedia.org/wiki/Svartlamoen>

Also in Trondheim, networking between local actors was important. In the spring of 2015, the county governor and the municipality coordinated the strategic development work connected to urban agriculture in Trøndelag. Early involvement of municipality administrations as partners in national research projects led by universities and research organization has been particularly important in the policy developments for Oslo and Trondheim, linking the development to knowledge and international discourses on urban agriculture.

12.5.3 Phase Three: Emerging Structures, Organization, and Policy Measures in Municipalities

While the early phases were very much the same in the three cities, the next phases showed clear differences (Table 12.3). In Oslo, the administration became involved quite early in the networks organized by the county governor; *political initiatives* were also important in this phase. The city's vice mayor for environment and transport was one of the key actors, especially when instructing the Agency for Urban Environment to develop urban agriculture further. The agency created a unit dedicated to the support of urban agriculture and initiated the development of a strategy. The vice mayor's initiative resulted in a financing scheme. It is in this phase that "rules of the game" (Arts et al., 2006) were established.

Clear rules for applications for financial support were developed, including who could apply for funding for which activities. There were also formal requirements such as the need to register every urban agriculture initiative as an organization in the national register and to confirm the right to use the land for agricultural purposes. Also, in Bergen and Trondheim, these formal requirements apply.

In *Bergen*, the municipality's unit for agriculture played an important role in policy development, within a financial scheme established through lobbying by activists and associations. Like in other cities, rules for who could or could not apply were developed. The scheme favored communal gardening, which also meant that no individual applicant would be able to access the funds.

The administration needed political signals for use and prioritization of the financial support scheme and suggested the development of a strategy for urban agriculture to intersect these political signals. The initiative from the administration was received very well by the politicians. The strategy was developed very much as a bottom-up process, where the network already in place played an important role as well as inputs from the open, well-attended workshops (Interview 9). The strategy suggested further development of cross-sectorial cooperation also within Bergen municipality. There is a cooperation forum within the municipality, but the cooperation could be better, and the situation has been described as "silos" within the administration (Interview 9). The Bergen strategy suggested the creation of a coordinating council with the goal to enhance cross-sectorial cooperation in the municipality. Due to the Covid-19 pandemic, cooperation efforts have been delayed (Interview 15).

Table 12.3 An overview over the phases in institutionalization

Phase 1 <i>Fluid</i>	Growing initiatives – citizen and social entrepreneur driven		
Phase 2 <i>Definition</i> <i>Emerging solutions</i>	Regional networks: county governors, municipalities, growers, farmers association Oslo: report/funding at county governor, research projects Bergen: project/handbook how to grow (initiatives) map Trondheim: Research and students' project		
Phase 3 Structures Organization Solutions	Oslo	Bergen	Trondheim
	Political initiative Dedicated administrative unit	Administration “nudging” politicians Lobbying from organized voluntary sector	Administration “nudging” politicians Informal cooperation within municipality
	Administration commissioned to develop strategy Financial scheme	Strategy with action plan developed through networks continued from phase 2 Financial scheme established through lobbyism	Continued network from phase 2. Conscious choice not to develop strategy Incremental development in cooperation with growers in yearly reports to city council Financial scheme
Phase 4 Solutions: expanding and refining measures	Pilot scheme for expansion of growing in other municipal sectors. Action plan for urban agriculture under development “Roadmaps” for handling a variety of initiatives	Formalized municipal cross-sectoral coordination not yet developed. Continued external networking Project “outsourced” to voluntary sector and farmers' organization (center for agriculture, city farmer)	Continued informal internal cooperation and external networking. Deepening contact with peri-urban agriculture
Phase 5 Planning according to planning law	Incorporation of urban agriculture within Municipal plan – Societal plan with land use strategy Green roof strategy		Urban agriculture a part of “planning program” for municipal plan for agriculture

In *Trondheim*, the green sectors of the administration were important actors in policy development. They advised politicians to actually realize students' projects in three public spaces where urban agriculture would be showcased, and politicians reacted positively with the implementation of a financial scheme to support urban agriculture.

The city has a strategic approach to base the development of urban agriculture on citizens bottom-up initiatives, since the citizens themselves know best where they would like to grow, favoring locations close to home. To ease access, the property division was mandated to assist initiatives to check ownership to land.

The Trondheim model that emerged from this phase is based on a bottom-up approach grounded in extensive networking and incremental policy adjustments. Trondheim did deliberately choose *not* to develop a strategy. The policy is directly built on the growers' needs, through yearly meetings with the growers' network to gather their experiences and feedback. On average, 30–40 people meet with a few representatives from the largest urban gardening projects, housing cooperatives, volunteers' organizations, beekeepers, schools, and professional farmers interested in cooperative agriculture. Their input feed directly into the administration's yearly report to the politicians on results and use of financial support. This report further suggests policy changes, leaving it to the politicians to set priorities.

When the growers' pointed out that their greatest bottleneck was not financial but related to their lack of knowledge about how to grow, the policy response resulted in prioritization of courses, made available at low cost. On the other hand, top-down policy changes also occurred, like the decision not to prioritize their own municipal schools and kindergartens in their policies originated purely by a political discussion.

12.5.4 Phase Four-Solutions: Expanding and Refining Measures

In *Oslo*, the urban agriculture unit also worked to expand growing activities as a means to achieve goals in other municipal sectors, and a pilot financial scheme was put in place targeted to stimulate other municipal sectors to engage in such activities. Oslo's city council also commissioned an action plan to follow up the strategy, where, for example, land availability was raised as a main point. The latter is important in Oslo, due to the fragmented system of land management between levels of government, sectors, and maintenance systems making it difficult for local initiatives to access land for growing. The priorities in the financing scheme changed and included also small start-up business initiatives.

In *Bergen*, the networking efforts across urban agriculture stakeholders have also been instrumental in establishing new initiatives, including the appointment of the city farmer. Similarly, the engagement of the voluntary sector played an important role in the establishment of *Lystgården*, a center for urban agriculture and the location for the city farmer.

In *Trondheim*, cooperation and networking with the county governor and the farmers' association has led to municipal support for the ordinary commercial agriculture. The aim is to strengthen ties between producers of food and consumers in the city, facilitating the production of "short-traveled" local food.

In all three cities, the county governors have initiated incubator for market gardens.

12.5.5 Phase Five-Urban Agriculture in the Planning System According to the Planning and Building Act

In *Oslo*, urban agriculture was early given attention in the most important planning documents in the municipality, showing the important role of politicians.

In *Bergen*, urban agriculture has to a limited extent been integrated in plans according to the planning and building act.

In *Trondheim*, a “planning program” for municipal plan for agriculture has been developed, where urban agriculture is a part.

Table 12.3 shows an overview over the different phases.

12.6 Analysis: Which Models for Organization of the Urban Agriculture Policy Domain Are Emerging and to Which Extent Are Growers Involved?

The three cities show clear differences in policy arrangements and a few consistent aspects. Our analysis shows that while similarities are common in the initial phase, the organization and further development of policy within the local contexts lead to variations. In *Oslo*, the public policy evolved initially from political initiatives followed by implementation by the administration. In *Bergen* and *Trondheim*, policy development is characterized by a bottom-up and networking approach, which politicians embraced at a later stage. An overview over the characteristics is shown in Table 12.4.

12.6.1 The Effect of Rules of the Game: Inclusion of Growers

A clear difference between our case study cities concerns the way growers are included in the design of public policy. In *Trondheim*, their inclusion is strong, and the policies and bottom-up approach ensure that the measures are tailored to grower’s needs. The inclusion can be described as participatory or indeed co-creational, as growers are invited to contribute directly to policymaking. *Trondheim*’s approach seems particularly well suited to initiatives where urban agriculture is grounded in volunteerism, and public policy needs to nurture such citizen initiatives. Similarly, professional farmers are also able to make contribution, as illustrated by the ongoing work to ensure the funding for a city farmer. In *Bergen*, the voluntary sector has also been strongly involved, not only in terms of participation but also in lobbying toward politicians in and carrying out initiatives as joint projects. In *Oslo*, growers are less directly involved in policymaking, but there are channels for information such as Facebook groups. Participatory methods such as workshops and public inspection were used when preparing the strategy for urban agriculture.

Table 12.4 An overview over rules of the game, actors, influence, and discourses in the urban agriculture policy domain in Oslo, Bergen, and Trondheim

Oslo	<p><i>Rules of the game:</i> Strong political leadership and implementation by the administration</p> <p><i>Actors:</i> Politicians, municipal administration in public space management</p> <p>Strong <i>discourse</i> on the green city and on social and environmental concerns, increasing emphasis on food production</p> <p><i>Influence:</i> Politicians, administration in public green space management</p>
Bergen	<p>The Bergen model of governance is characterized by:</p> <p><i>Rules of the game:</i> Strong emphasis on <i>networking</i> between municipality, voluntary sector, and county governor. <i>Political lobbying</i> from voluntary sector, limited internal coordination within municipality, “outsourcing” of projects to voluntary sector and farmers’ organizations</p> <p><i>Actors:</i> Strong early role of the <i>administrations</i> both at municipal and county level, early strong role of <i>voluntary sector</i> involved in transition movement, farmers’ organization increasingly involved, politicians increasingly involved</p> <p><i>Discourse:</i> strong discourse of “green city” central in political platform – but also transformative practices to reach sustainable goals in local communities and in agriculture and food delivery systems</p> <p><i>Influence:</i> Administration in agriculture at municipal and regional level, voluntary organization, and politicians</p>
Trondheim	<p><i>Rules of the game:</i> <i>networking and co-creation</i> as mode of governance and close collaborations with growers to adjust policies, conscious choice of no strategy but incremental yearly adjustment of policy, close internal municipal cooperation, and close ties with professional agriculture</p> <p><i>Actors:</i> municipal administration in green space management and agriculture, growers, and farmers’ unions; close ties with the professional agriculture, shown in urban agriculture’s support to professional agriculture and urban agriculture’s inclusion in municipal plan for agriculture</p> <p><i>Influence:</i> municipal administration, politicians, strong influence of growers particularly on financial mechanism and farmers</p> <p><i>Discourse:</i> strong emphasis on co-creation and that the growers themselves know best, emphasis on food production “green food city”</p>

12.7 Conclusion

How have public policies for urban agriculture emerged and been institutionalized?

In Norway’s largest cities, institutionalization of urban agriculture policies has followed the same pattern including the important role of county governors as early initiators. Yet there are clear differences, which relate to: (1) the role of voluntarism groups and bottom-up and top-down processes, (2) the degree of networking, (3) the relationship to ordinary peri-urban agriculture and new forms of urban agriculture, and (4) the implementation of urban agriculture in plans according to the planning and building act.

Oslo policy development was politically driven and implemented through traditional participatory methods with limited engagement of traditional agriculture but guided by a vision for urban agriculture as a social activity in green/urban spaces and as new ways of professional production of food in dense urban areas.

In Bergen, the role of voluntary sector has been strong, and public policy has developed through networking. Voluntary sector has also played a direct political role through its lobbying of politicians for support and received positive response from them. The connection to transformative ideas and new food production and food distribution networks is strong in the voluntary sector.

In Trondheim, the inclusion of growers is also strong, indeed they were co-producing policy together with the administration. Connections to ordinary peri-urban agriculture including the farmers' association are particularly strong in this city. While Oslo and Bergen have created plans for developing urban agriculture, Trondheim has consciously chosen not to do so. Their incremental policy is co-produced with the growers each year based on their experiences.

Which models for organization of the urban agriculture policy domain are emerging and to which extent are growers involved? The Trondheim "bottom-up" model has consciously chosen not to make a strategy for urban agriculture, but to develop their policy incrementally in a dialogue between growers and administration, and finally get it approved by politicians. An important contextual factor is the fact that Trondheim is located in some of the best areas for agriculture in Norway with farms in operation both within the municipal borders and in the neighboring municipalities. Integral to the Trondheim model is the close cooperation with the peri-urban agriculture and the goal is to improve the image and recognition of both urban agriculture and the professional agriculture. This is also a part of branding Trondheim's food city image that also required strengthening alternative food distribution channels. The networking between the municipality, the agricultural division at county governor, the farmers' associations, growers, and research institutions has been important.

Bergen is also an example of strong influence of a self-organized movement of a large number of growers playing an active role as co-creators of policy through political activism and participation in strategy development. Like Trondheim, *networks* between the voluntary movement, the agricultural division at county governor, and farmers' association have been important. The administration early nudged the politicians to support agriculture, but this has gradually been institutionalized, so that the center for urban agriculture, a result from the work of the voluntary movement, has become a fixed item on the municipal budget. Another goal was to establish cross-sectoral ties within the municipality through a cooperation forum.

The Oslo model is an example of political top-down efforts to support urban agriculture and strengthen the initiatives already in place. For the administration, the task was to establish ties to these initiatives and develop a strategy for political decision-making. The Oslo model is politically driven using statutory planning and usual channels for participation through workshops and public hearings, in addition to a Facebook channel for information sharing. This political top-down model in urban agriculture policy meant incorporating urban agriculture into broader strategies for the development of Oslo. The strategic document and the societal part of the municipal master plan linked urban agriculture to urban development, emphasizing attractive, multifunctional green urban spaces, and the vision of the "green city."

Appendix 1 List of Interviewees

Interviewee	Time	Number of interviewees	Interview number
Employee county governor	November 2018	1	1
Urban agriculture municipal coordinators	November 2018	3	2
Social entrepreneur	November 2018	1	3
Social entrepreneur	November 2018	1	4
Developer	December 2018	1	5
City district	December 2018	1	6
Chief of planning department	November 2019	1	7
Case handler planning department	March 2020	1	8
Urban agriculture municipal coordinator	April 2020	1	9
Urban agriculture, municipal coordinator	April 2020	1	10
Urban agriculture city district coordinator	November 2020	1	11
Follow-up interview urban agriculture coordinator municipality	November 2020	1	12
Member of board, local neighborhood association	November 2020	1	13
Follow-up interview municipal coordinator	March 2021	1	14
Follow-up interview municipal coordinator	February 2021	2	15
Follow-up interview municipal coordinator	March 2021	1	16
Volunteer organization	March 2021	1	17
Farmers' association	March 2021	1	18
Total		21	18 4 follow-up interviews, 2 group interviews

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