



# Social Farming Rotterdam

Case study about how urban farming can contribute optimally  
to the social cohesion in Rotterdam



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*2018, June 28*

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## I. Preface

Dear reader,

This bachelor thesis is about social cohesion with a focus on urban farming. This bachelor thesis is part of the completion of my bachelor program at the Radboud University. The content of this bachelor thesis is urban farming and how it can contribute optimally to the social cohesion in the city Rotterdam.

Even though it was quite hard sometimes, from the beginning till the end it was a very educational process. Not only in the field of doing research, but also in terms of organisation, writing and improving my communication skills. By using a literature study, observations and interviews it was possible to give an answer to research question.

I would like to thank a number of people who helped me and contributed to this report. First off, I would like to thank my supervisor Huib Ernste who helped me with useful guidance. He provided me with useful feedback so I could improve myself, but at the same time he was calming my worries by telling me to keep in mind it is a learning process. I also want to thank all the people who provided the necessary information for this research, namely: Jacqueline Stammeijer, Jorinde Kipp, Frenk Walkenbach, Dorine Rüter, Cees Bronsveld, Max de Corte and all the citizens or volunteers I spoke to. They helped me to get a better insight in urban farming initiatives by answering my questions, and giving me the opportunity to join.

I hope you will enjoy reading this bachelor thesis,

Lela Heerkens

## II. Summary

Because of the population growth, the world is rapidly changing. Urban areas expand and will have an impact on all human kind. This growth causes a higher demand than the earth services can carry. There will emerge challenges in the food and nutrition sector. Urban farming is a development of the increasing urbanization in the world. Urban farming means the production of crop and livestock goods that are produced in cities, according to Zezza and Tasciotti (2010). Urban farming can come in different sizes, from large-scale food production in the city to tiny vegetable gardens in a neighbourhood. Urban farming can have an impact on social, economic, spatial, environmental and cultural areas. This bachelor thesis focuses on the social impact of urban farming. The social cohesion in a community might increase through urban farming. It brings people, companies or other stakeholders together. Social cohesion consists of three main elements: 'participation', 'trust' and 'integration'. With a diverse population and considered being a social vulnerable city, is Rotterdam chosen as case. The research main objective is to get insights in the way urban farming projects can maximize their contribution to social cohesion. Therefore, the main research question is:

*'Which conditions in 'participation', 'trust' and 'integration', are required in urban farming projects, in order to contribute optimally to social cohesion in Rotterdam?'*

A qualitative research is executed, and included a literature study, interviews and observations. Interviews were held with the municipality of Rotterdam and the urban farming initiatives 'Uit je eigen stad', 'Groengoes', 'Wollefoppengroen & Co', 'Hotspot Hutspot' and 'Moestuinman'. In two community gardens data has been gathered through participation during a working moment from the urban farming initiative 'Groengoes'. The results show that there are eight different topics that are important findings from the interviews and observations which are 'participation', 'integration', 'trust', 'stakeholders', 'publicity', 'physical appearance', 'guidance' and 'other obstacles'.

Rotterdam is a diverse city with a lot of people with different backgrounds. According to the literature, the largest ethnical group is Caucasian. This was also seen during the observations and interviews when the respondents gave insights into the characteristics of the participants. But, some urban farming initiatives manage to have a diverse group of participants. This includes people with different ethnic backgrounds, different ages or people that are following an integration trajectory. The population characteristics of the participants can be different in urban farming initiative but can also differ between community gardens. From the interviews emerged that urban farming initiatives' low thresholds is one of their strengths. This is necessary for attracting all population groups in the city. The urban farming initiatives try to pass the message that everybody is welcome to join. This includes no waiting lists, no working obligations and no participation fees for people who want to join.

More publicity can help increase the public awareness of urban farming projects. It is important for urban farming initiatives that citizens are aware of the urban farming possibilities and their projects. This can be done through advertising and being clear in their concepts. Urban farming initiatives should work together more with other stakeholders. Besides the volunteers and supervisors, stakeholders of urban farming initiatives are the municipality of Rotterdam, companies, owners of land, schools and the care-sector. The municipality of Rotterdam and companies like CityLab provide subsidies, while the care-sector send participants. When they work together more often, urban farming projects can be put on the radar which will cause more

awareness of urban farming initiatives. Urban farming initiatives should unify. A union of urban farming initiatives can strengthen their position in society. It will be harder for the municipality to remove urban gardens because of construction plans. It will also lower the risk when urban farming initiatives have to show their x amount of people they help integrate. The municipality gives subsidy for urban farming initiatives that help people integrate, but it can sometimes be difficult to show the benefits that an urban farming project causes. The municipality of Rotterdam should therefore have more trust in their citizens, because it is not always visible what urban farming projects contribute to society. The municipality of Rotterdam should also improve their information towards citizens. A barrier that emerged from the interviews is that it is hard for urban farming initiatives to apply for permits or subsidies. It takes a long time from the municipality to arrange things and people are send back and forth between civil servants. This is because of the unclear information, which makes it hard to start an urban farming project.

In terms of integration trough urban farming, there is a contradiction. The care sector is a big stakeholder of urban farming initiatives. People with a work limitation or people from vulnerable groups can get a voluntary contract at an urban farming initiative. People that are involved in the urban farming organisations that have been researched in this thesis, are for example people with a mental or physical disability, status holders or ex-addicts. There are some urban farming projects where integration and re-integration plays a big role and a lot of participants include people from vulnerable groups. Other respondents in contrast, mentioned that integration should only be a small part of urban farming. It might change the atmosphere in a group, because some people need more guidance.

Guidance in urban farming is vital. In terms of a shortage in gardening knowledge, but also in terms of a shortage in supervisors that provide guidance. Because urban farming projects include a lot of different aspects and goals, a supervisor can be hard to find. There is too much work, too little time and not enough people who can guide the volunteers. This also has an influence on urban farming initiative networks, which can be hard to manage.

Urban farming can increase the social cohesion in a neighbourhood. This is due to the meeting place a community garden provides. People can meet other people, and the bond with the neighbourhood and their neighbours could increase. Most of the garden groups have a good relationship between participants. Some participants even see each other outside of working moments and became friends. But, it came forth that participants would not ask another participant for help when they are having a personal problem.

It can be concluded that all of the subjects from the results can be subdivided into three core elements of social cohesion. It shows that 'participation', 'integration' and 'trust' are the three elements from social cohesion. It is important for urban farming initiatives to keep the low threshold, so they are approachable for all kinds of people of the society. It can be helpful to use more advertising to increase the public awareness of an urban farming project. Besides improving the publicity, urban farming initiatives should work more together with other urban farming initiatives and other stakeholders. When working together, the urban farming project can be put on the radar and a collaboration of urban farming initiatives will strengthen their position. This can help to solve the problem that occurs with the current financing structure of the integration area. A minimum output of people who integrate will be less hard to prove when urban farming initiatives unify. The trust in citizens from the municipality of Rotterdam must be higher to understand the less visible benefits of urban farming. Integration through urban farming can be questioned. Urban farming initiatives should keep in mind that the atmosphere in a group will be different when people have to fulfil a guiding role. But it will certainly help people integrate or re-

integrate if an urban farming project is focused on helping people integrate. The improvements on informational field lies at the municipality of Rotterdam. The information towards citizens should be easier and more up to date. Otherwise, it is hard for urban farming initiatives to apply for subsidy or permits because they will be send in an unclear process that takes a lot of time. The research shows that 'participation', 'trust' and 'integration' are all connected, and an improvement in one of the elements can have in influence on the other elements too.

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# 1. Introduction

## 1.1 Project Framework

With an increasing population the world is changing rapidly and people speak of planetary urbanism (Millington, 2016). Urban areas expand, and this will have an impact on almost all human kind, whether you live in a city or not (Futurelearn, n.d.). The past fifty years, the most rapid increase of the number of people who live in cities took place (National Geographic, n.d.). The prediction is that two thirds of the people will be living in urban areas by 2030. In particular in Africa, Latin America and Asia the growth will be huge. Because an outcome of urbanization are the growing cities, more megacities will emerge (Brenner & Schmid, 2015). The increase of the population in cities will be over 95 percent (Grimm et al., 2008). Not only because of the natural population growth, but also because of the migration of people to urban areas. The growing number of people leads to a higher demand from the earth's services than it can carry, which creates an additional challenge (Purvis, 2015). Challenges that occur on different scales and in social, political, economic and environmental level (Brenner & Schmid, 2015). Some of the results of the urbanization besides the growing cities according to Brenner and Schmid (2015) are the compact inter metropolitan networks with the corresponding large scaled infrastructures, the restructuring of the hinterlands and the transformation in large-scale land-use systems, rural areas and the former untouched spaces (wilderness). Urbanization has an impact on a big area and causes different urban challenges. But even though the urbanization causes problems and challenges in sustainability, the cities are also presenting solutions for these challenges (Grimm et al., 2008).

Society will have to deal with economic or social challenges and new ways of mobility. But another sector that is full of challenges is the food and nutrition sector, on which I want to focus in this thesis. The way urbanization develops, will have an influence in the future of food and farming (Satterthwaite et al., 2010). If we understand urbanization we can adapt to the changing environment and respond to it. If we know how demands are changing, we can see which companies, farmers or economies will benefit and which will not. Besides unequal benefits, one of the problems is the unequal distribution of food which causes a part of the urban population to suffer from under-nutrition. Furthermore, the rapid increase in urban population and economic growth, will lead to a more energy-intensive food production (Satterthwaite et al., 2010). The demand for luxury foods, meat or dairy products rises, and more imports which also leads to more transportation. To produce food, greenhouse gas emissions will be emitted. Greenhouse gas emission are one of the most important influences on the climate (Kalnay & Cai, 2003). The higher the energy-intensive food production is, the higher the greenhouse gas emissions will be. The society needs to make changes in the food and nutrition dimension where we meet the food demands and where we also reduce greenhouse gas emissions. We need to look for sustainable solutions in the urban areas itself.

An aspect of global urbanization is the emerging phenomenon of 'urban farming'. According to Stolhandske (2011) '*Urban Agriculture is an industry located within (intra-urban) or on the fringe (peri-urban) of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and nonfood products, (re-)using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban are.*' This implies 'the production of crop and livestock goods that are composed in cities' (Zezza & Tasciotti, 2010). Urban farming plays a role in the problems of urban food insecurities (Zezza & Tasciotti, 2010). It is interacting with- and

embedded in the urban ecosystem (RUAF, n.d.). Urban agriculture comes in many different sizes and forms (Oskam et al., 2013). From professional urban food production, vertical farming, rooftop gardens, to smaller scale food productions in community gardens, parks or vegetable gardens. These different kinds of urban farming have different functions (Veen et al, 2012). The following ten functions are distinguished: food, energy, circulation, leisure, education, community, care, management, efficiency, biodiversity (Veen et al, 2012). An urban farming project usually comprises several of these functions and offers opportunities for the urban area. It affects food security and nutrition, the economy, the urban ecology and urban farming while it also has social impacts (RUAF, n.d.). Some examples of the benefits of urban farming are increasing awareness of people where the food is produced (WUR, n.d.). In addition, the heat-island effect will be lower (Oberndorfer et al., 2007). Additionally, urban farming gives employment opportunities, saves money or links different kinds of enterprises (RUAF, n.d.). So, in spatial, social, economic, cultural and environmental terms, urban farming can contribute to solving the problems that arise in a city. Problems such as air-pollution, physical appearance, or lack of social cohesion. Urban farming therefore can help to improve the balance in a city between the three P's: People, Planet and Profit (Knox & Marston, 2015).

### *Social Cohesion*

As was mentioned before, urban farming also impacts society on a social level. In the city different kind of small agricultural areas or gardens arise that are available for its inhabitants. For example, institutional gardens at a school, or community gardens or vegetable gardens. These organisations have a social impact as the RUAF (n.d.) is showing; community development, food security or social inclusion are examples where urban farming has an important effect.

Urban farming can strengthen the social cohesion in a neighbourhood (Veen, 2015). Social cohesion is defined as 'the willingness of members of a society to cooperate with each other in order to survive and prosper' (Stanley, 2003). According to the CBS (2015) social cohesion exist of three core elements: 'Participation', 'Trust' and 'Integration'. Participation and trust are divided in a social, a civic and a political dimension (CBS, 2015). Integration is about the bonding and bridging of people, to what extent people from different social groups, participate in the community.

Urban farming can play a role in the furthering of social cohesion by creating an opportunity for different stakeholders to work together (RUAF, n.d.) A public garden in a neighbourhood where citizens can work together, will improve the mutual contact and the sense of place. However, to improve this mutual contact it is necessary that citizens pick up these opportunities to participate in urban farming projects themselves (Veen, 2015). Hence, knowledge about growing food or farming is essential. Another important effect of urban farming is that it decreases poverty and alleviates social integration (RUAF, n.d.). Urban farming projects can involve minority- or disadvantage groups, like elderly, immigrants or disabled people. Urban farming can help to integrate these people into their local community and provide the opportunity to build a network. Therefore, a few obstacles that occur are the difference in knowledge about food and farming between real farmers and citizens (de Haan, 2015). In addition, social enterprises need help from other institutions and parties to actually realize the opportunities for agriculture in the city. The challenging part of social cohesion is the distribution of social capital among the population groups (CBS, 2015). Not everybody is integrated or has a mistrust, lower class people are more often excluded. The most important part is therefore the degree of- and balance between participation, trust and integration, what will improve the social capital.

## Rotterdam

The municipality of Rotterdam wants Rotterdam to become a more sustainable city. Urban farming is one of the ways that is highly supported to achieve this goal. The aim of the municipality with urban farming is to bind current residents to the city and attract new groups (Food & the City, 2012). Where social cohesion through vegetable gardens and bringing youth in contact with green are a few examples of municipalities goals. There is a wide variety of types of urban agriculture in Rotterdam (Food & the City, 2012). Farming projects are divided in neighbourhood vegetable gardens, social projects, commercial projects, school projects, edible green projects in urban areas, and more general urban farming or sustainable food chain projects. Because Rotterdam knows several urban farming initiatives, it can be interesting to talk to urban farming initiatives about their experiences. When starting an urban farming project, it is impossible to forecast the effect on social cohesion. These results can only be measured after it's realized.

Cities have a lower social cohesion than villages (Steenbekkers et al, 2017). People in a village look after each other more, and solidarity and helpfulness make them a close community. People from the city are living more alongside each other, so cities consist more of individuals. Since cities also have a more diverse population and neighbourhoods that exist out of people from different population groups, it can be hard to be a bounded community (Pouwelse, 2013). Most of the time certain groups are less involved and have smaller networks (Pouwelse, 2013). This will be further discussed in the theoretical framework with theories of Ferdinand Tönnies and Georg Simmel. Rotterdam is one of the biggest cities in the Netherlands and when looking at the social situation of Rotterdam, it is a city of big contrasts (Avrotros, 2017). There are big contradictions in income, education, and demographics. There are neighbourhoods with a 40 percent subsistence minimum which means there are a lot of citizens that are living under the poverty line. Rotterdam scores also lower in education than the other big cities in the Netherlands. In addition, the ratio between immigrants and natives is 50 per cent. To get a vision of the social cohesion in a city, there are different topics that are being looked at. These topics are the population structure, safety, liveability, housing stock and urban restructuring, and the unemployment and benefit dependency (Engbersen et al., 2013). Rotterdam can be considered social vulnerable because the scores on these topics are lower than other cities (Gemeente Rotterdam, 2012). Urban farming might help to increase the social capital and social cohesion in Rotterdam. An example of an urban farming initiative that wants to bring people from different population groups in contact with each other is 'Welkom in Rotterdam' (Welcome in Rotterdam). It is a meeting project to connect the old and the new inhabitants of Rotterdam to increase the social cohesion in the city (Muijers, 2011). Rotterdam can be an interesting case to study because it is a city with a big contrast in the population structure and because Rotterdam can be considered social vulnerable. Because Rotterdam is also a city where urban farming is growing, urban farming might help to bring different people together and to improve the cities social cohesion and social vulnerability.

## 1.2 Relevance

Because urbanization affects almost all people, research to get to know more about urban farming can be used in society. A lot of research is done about the environmental aspect of urban farming like the thesis from Yang (2016) who wrote about the impacts of urban agriculture on the local sustainability. In addition, a lot of researchs have an African or North-American place as a case. Examples are the thesis 'Urban farming in Vancouver' from Stolhandske (2001) and 'Urban Agriculture: hype or reality?' from de Haan (2015) who is doing research in the San Francisco

Metropolitan Area. But, those places have a different context than the Netherlands. For example, urban farming in African places might focus more on food security and fighting poverty, as in the research 'Increasing food security through urban farming in Nairobi' by Foeken and Mboganie-Mwangi (2000). This is different than the Netherlands who has a higher GDP and is a small country with a high population density. Rotterdam and Nairobi will need a different approach. Rotterdam is an interesting case to study because of the diverse population. But, people living as individuals and differentiation in for example ethnicity, status or education, make it a challenge for the government to make communities more bonding. It is therefore relevant to look for ways to improve social cohesion.

Because this research is focusing on the improvement of social cohesion through urban farming it has a social relevance. Most of the research on the social aspect of urban farming, is about the way the social impact of an urban farming project works out in reality. For example, the research 'Community gardens in urban areas: A critical reflection on the extent to which they strengthen social cohesion and provide alternative food' from Veen (2015) is focused on the degree and value of relationships that are stimulated from community gardens and to what extent the community gardens can be seen as an alternative food system. This research however, is focused more on the maximization of the social contribution. This research is aimed to give insights in the barriers that occur in an urban farming project. But also, the strengths, what should an urban farming initiative keep doing or strengthen it even more. Because this research is mainly focused on the three pillars of social cohesion 'participation', 'integration' and 'trust', it will have a more global view on the social field of urban farming. It will look further than just the relationship between participants or stakeholders. Even though Amirtahmasebi (2008) in 'Food urbanism: urban agriculture as a strategy to facilitate social mobility in informal settlements' includes the participants and other stakeholders, this research will also have a focus on other aspects like integration. Because this research will give an insight in the improvements in terms of 'participation', 'trust' and 'integration', it might improve future urban farming projects. It is possible to adapt to the obstacles that urban farming initiatives run into. This research can have an educational function for other urban farming initiatives or start-ups.

The social relevance lies in the important contribution social cohesion has for a good quality of life (Pouwels, 2013). Livability will express itself in the connection between citizens and will have a positive influence on the physical appearance and safety. The main scientific relevance is thus to supplement knowledge where there is a shortage in knowledge, and to get more insights in urban farming projects so they can higher their social contribution.

### 1.3 Main Objective

This research is focused on the link between urban farming and social cohesion. To get more informed about urban farming and its social impact. There is a focus on the city Rotterdam in the Netherlands. This research will explain what urban farming is, but because the case is Rotterdam there will be a focus on the urban farming projects in Rotterdam. In what way is urban farming integrated in Rotterdam? The research will clarify how citizens, organisations, the municipality or other stakeholders think that urban farming can improve social cohesion, and what is according to them the best way to achieve this. How they look at problems that limit the improvement of social cohesion by urban farming projects in Rotterdam or the points on which they deviate and can do better. There will be a focus on improvements in participation, trust and integration. These three dimensions are the main elements of social cohesion. So, if urban farming projects will pay

more attention to improvement of participation, trust and integration, the contribution will be more optimal.

This research wants to understand the thoughts of people how they think urban farming contributes to social cohesion. In addition, what do people think should change in urban farming projects and how should this be done. It might bring possible improvements in urban farming projects. Making clear what kinds of elements in urban farming projects need to change to optimize the social impact.

The main objective of this research is:

*The aim is to develop and exchange knowledge about urban farming, mainly with its social impacts. And to get an insight in the way urban farming projects can maximize their contribution to the social cohesion in Rotterdam.*

### 1.4 Research Framework

The research model includes the different elements and steps of the research and are put in a model. Social cohesion through urban farming is chosen as the subject. Literature about Rotterdam, social cohesion and urban farming has been taken into account. Concepts like participation, trust, integration or social capital will be further explained in the theoretical framework. Interview guides will be drawn up for different stakeholders like urban farming project leaders and citizens. Furthermore, data is collected through field research to gather empirical data. This will include the in-depth interviews and observations. When this is done, the data that is collected from the empirical data research has to be analysed. In AtlasTi, codes are connected to words and sentences of the transcripts. All of the previous steps and especially the analysis of the interviews can result in the reflection, conclusion and recommendations. In short, this can be divided in five steps:

1. Research problem and topic analysis
2. Methodological research
3. Empirical data research
4. Data-analysis
5. Conclusion

These steps can be put in a research model, which is as follows:

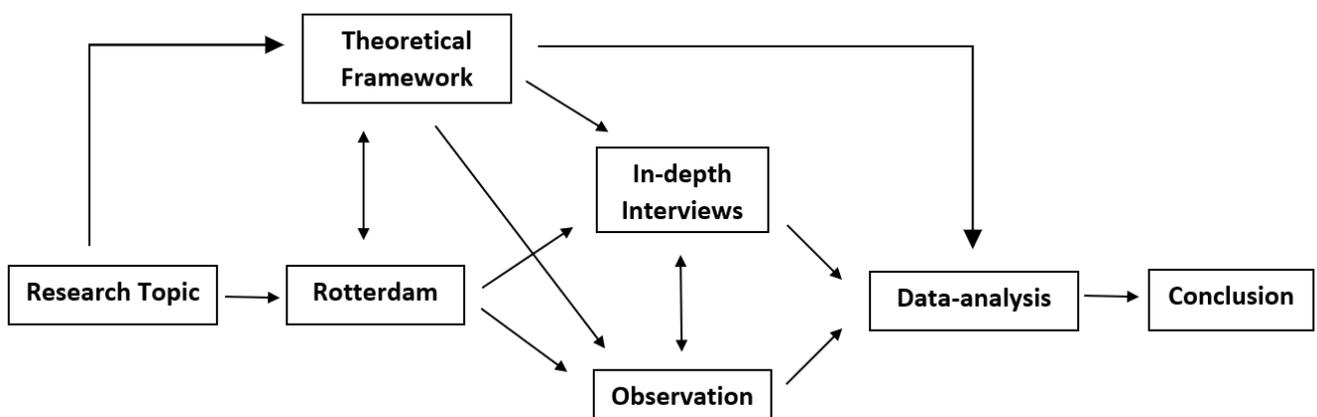


Figure 1: Research model.

## 1.5 Research Question

To understand the possible developments of urban farming, the main research question can be put as followed:

*Which conditions in 'participation', 'trust' and 'integration', are required in urban farming projects, in order to contribute optimally to social cohesion in Rotterdam?*

To get an answer to this main research question, sub-questions have been drawn up:

- What is the current condition of 'participation' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- What is the current condition of 'trust' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- What is the current condition of 'integration' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- Are there any other unknown aspects that have an influence on the social cohesion?
- How do urban farming participants experience the contribution urban farming projects have on the social cohesion in their neighbourhood?

## 2. Theory

### 2.1 Theoretical Framework

In this chapter will be critically looked at the scientific literature about urban farming and its link to social cohesion. There is look at theories about social cohesion and the way people connect with each other (Yang, 2016). Social cohesion is the binding power of a social system. As is mentioned in the project framework, social cohesion exists of three core elements: 'Participation', 'trust' and 'integration' (CBS, 2015). These three elements are further explained as well as social capital. In addition, other factors that have an impact on social cohesion and citizen participation will be discussed. The impact of urban farming on the physical space or the impact of a diverse population on social cohesion for example.

#### 2.1.1 Participation

Participation is divided in a social, civic and political extend (CBS, 2015). This means on a social extend the linkages between people to support or help each other, on civic level the extend in participation in social organisations and the political participation regarding the way people are involved in political activities. In this research participation in social and civic extend plays a bigger role than the political participation. Civic participation is important because it is about the reasons people participate in urban farming projects, and social participation because the research wants to find out wheter the social participation will increase trough urban farming projects.

If someone wants to participate depends on their sociological or personal factors (Odé & Walraven, 2013). There are three elements that influence the participation process, these elements are the ethnical background, personal characteristics and the competences of the person (Odé & Walraven, 2013). Personal factors are included, because normally it is the same small group who actively participates in social, civic or political extends. Therefore, it is also the same large group who do not participate in any social, civic or political extends. So the competences of a person are in interest in this case. The sociological factors are the external influences on the participation process like social capital (Odé & Walraven, 2013).

#### *Social Participation*

Social contacts are necessary for a good social cohesion in a community (CBS, 2015). Social participation is about the social networks. The informal relations between people and how contact between for example family, friends or neighbours is maintained. Trough participating in the community or organisations, people get in touch with each other. Social networks will occur, that are important for the social cohesion. People can be socially involved in different ways like paid or volunteer work, education or participating in associations. An important indicator from social involvement and participation for example is volunteer work (CBS, 2015). Volunteer work is the voluntary engagement, doing something for others or the society, for no reward. It is different than work, education or bonds between family, because this is not or usually not voluntary (Newton, 2001). Volunteers can create relations between people who are like-minded and volunteer work can build a bridge for different groups who have an overlap in any way. A close network of civic organisations and voluntary associations help to maintain the relationships, corporation, participation and trust between citizens (Newton, 2001). They create conditions like public awareness and social integration.

### Citizen participation

Citizen participation is the inclusion of citizens in the process of urban farming, taking initiatives and thinking along with developments, changes or making decisions (Huijgens, 2014). It is the involvement of citizens in urban farming projects. There is a suggestion when individuals are encouraged and get the chance to play an active role, participation will get into a stimulating interaction where participation will lead to more participation (van der Wilk, 2015). Participation can be in passive or active form (Huijgens, 2014). Passive participation without physical social interaction, to activities in a broader context with a social contribution. In Figure 2 you can see the six forms of participation (Levasseur et al., 2010).

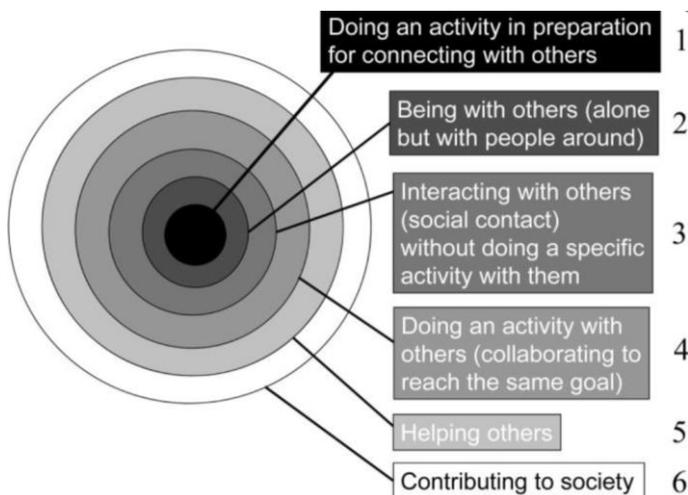


Figure 2: The six social participation levels (Levasseur et al., 2010).

A lot of urban farming initiatives are bottom-up initiatives, this reflects the swift in planning regime from government to governance (Pouwels, 2013). A mix of governmental institutions, private partners and citizens who work together, is the linking capital. Knowledge and experience are important factors for people in the ability of self-organisation (Pouwels, 2013). Most of the time, the same types of people participate in projects, according to Pouwels (2013) these are the people with a higher education or who are male instead of female, and more natives than immigrants. There are four aspects that can make citizen participation fail (Lowndes, 2001).

- A negative view of the authority (Linking capital)
- A lack of awareness about opportunities to participate
- A lack of council response
- Issues of social exclusion

#### 2.1.2 Trust

Trust in people, organisations and in politics is necessary to enhance participation and a higher quality of life. The higher the number of participation and the more trust, the more social capital (CBS, 2015). Woolcock and Narayan (2000) define social capital as 'the norms and networks that enable people to act collectively'. Social capital is an important indicator of democratic stability, economic efficiency and integration, and probably the main element of social capital is trust (Newton, 2001). We need trust when the familiar atmosphere is gone and we get into a world where risk, complexity and contingency are present (Siisiainen, 2003). Trust is connected with risk (Luhmann, 2000). It is a person's own decision to trust another person or situation. For example trusting another person as a babysitter is a decision. When a person, organisation or situation is

trustworthy multiple times, the trust in each other will increase and it becomes a routine. The only time trust is possible, is when the possible damage is bigger than the benefit (Luhmann, 2000). Only when you regret an action after a bad decision, trust is required. When trust changes, it also changes the way people make their decisions.

#### *Social trust*

Trust in others and in civic and political institutions is necessary for a functioning society (Newton, 2001). Social trust, trust in people, is an important indicator for the social cohesion (CBS, 2015). Do people feel that they are surrounded with trustworthy people. It is interesting to see if the degree of trust between participants in an urban farming projects could increase the trust between neighbours. Do people come to each other with practical or personal problems? How trust or distrust develops depends on the personal experience or local environment (Luhmann, 2000). Social trust and trust in organisations is also important when switching to integration (Meurs, 2008). For the improvement of integration, organisations and the government can play an important role. Trust is therefore crucial, because it is necessary for the mutual trust, group formation and bonding that helps the advancement in integration. But mutual trust in a group can also have an opposing power for the social cohesion in a community (Meurs, 2008). People can feel excluded, and there will occur a situation of insiders and outsiders. This line between insiders and outsiders can increase when the group feels threatened. Social trust is thus an important condition for participating in any form of social, civic or political extend (CBS, 2015).

#### *Political trust*

People gain political trust as they feel that their politicians and political system perform well in general (Newton, 2001). This also includes the efficiency and ability of politicians, and if their decisions are fair and correct (Hetherington, 1998). Societies with a lot of trust between citizens and the political system have most of the time a governance with a high degree of wealth, safety, equality and no corruption (Uslaner, 2018). Trust is important for support (Hetherington, 1998). When there is distrust against the government, it will be harder for the government to solve problems. The fewer problems they solve, the lower the trust in political institutions will be what causes it a vicious circle. When there is no trust, systems may become smaller and activities will decrease (Luhmann, 2000). But also, the trust of political institutions in citizens is important in this research. The municipality of Rotterdam is the political institution that has an influence and a supporting role in urban farming. It is important to involve different stakeholders and involve the different views to get institutional trust (Meurs, 2008). The research will look at the relation between citizens or urban farming initiatives and the municipality.

#### *2.1.3 Integration*

As is said before, the higher the trust and participation the bigger the social capital. But a big social capital is not enough to establish social cohesion, because the difference in population groups and the extend in which they participate, or the degree of trust does also have an influence (CBS, 2015). This is why integration is the third element of social cohesion, see Figure 3. Integration refers to the extent to which people participate in the community and trust one another. As is mentioned before, trust is an important element for promoting integration (Meurs, 2008). But it can also cause the feeling of exclusions to others. Participating in the society and trust in the society should not be restricted to certain population groups (CBS, 2015). Integration can be for people from different groups, for example elderly and young people or people with different cultural, national or religious backgrounds. If these population groups work together, they will understand each other's opinions, norms and values more. The stronger the differences

in trust and participation in communities, the less we can speak of an integrated society (CBS, 2015). A low integration will lead to a low social cohesion.

Integration means the bonding within populations, but also the bonding between groups of people what is called bridging (CBS, 2015). Bonding refers to the trust and association among other neighbours. People with a strong bonding are more likely to take civic action because they have a high social status and strong ties with other people (Larsen et al., 2004). Bridging is when people of a certain group connect with other people from a different group (Larsen et al., 2004). A reason for bridging is gaining information or support or getting access to the other group. The product of bridging is the collective action.

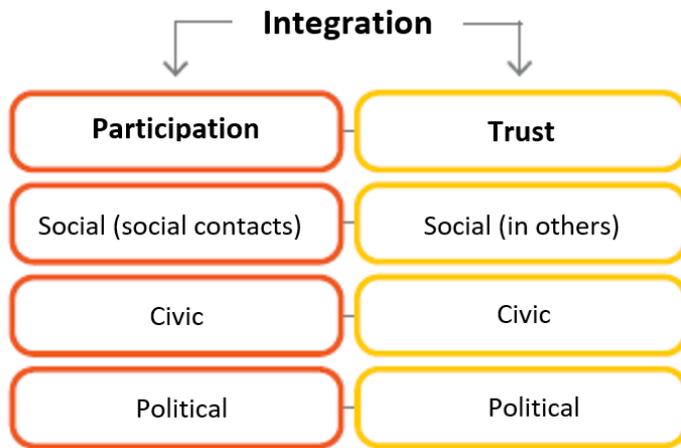


Figure 3: Framework social cohesion: Participation, trust and Integration (CBS, 2015, p. 15)

#### 2.1.4 Social Capital

Another relevant concept is Social capital. As mentioned before it is about the norms and networks between people. In 1970 Pierre Bourdieu developed the concept social capital (Siisiainen, 2003). Bourdieu's social capital consists of different dimensions that have their own linkage to class (Siisiainen, 2003). The three fundamental dimensions are economic capital, cultural capital and social capital (Bourdieu, 1986). What can be converted directly into money or property rights is economic capital. Cultural capital can be converted in economic capital under particular conditions or is institutionalized in educational qualifications. Social capital is about the connections the social obligations between people. Social capital is about the potential or actual resources that are related to a network of more or less institutionalized relations of mutual recognition, where each of the members are provided support of the collective capital (Bourdieu, 1986). Social capital has two elements (Siisiainen, 2003). The first one is that it is a resource which is linked to the social network and group membership. A quality that is composed by the total relationships among actors. Being a member of a group or being involved in social networks can raise the social position of a person in several fields. In addition, groups that create social capital can multiply the other forms of capital. In this way, it is also a collective phenomenon according to Bourdieu (Siisiainen, 2003). The second element is the mutual recognition and cognition, whereby it gets a symbolic character. Symbolic capital only exists in the eyes of others, because it defines in what forms capital is recognized in a social status in a certain society.

The higher the social capital in a community the higher the participation of groups and people in society, and the higher the capacity to solve problems in the neighbourhood. It shows how a community makes optimal use of its available resources and skills (Yang, 2016). Because a high

social capital indicates a higher connection of people, it is important for the degree of social cohesion in a community (Schnabel et al., 2008). Furthermore, social capital has two levels and three categories (Yang, 2016). First, the levels of social capital that can be understood, give insights in the connection between the individuals and the community (Yang, 2016). The individual level will look from an individual perspective how and what an individual can contribute to a group, and what their own potential benefit will be. The communal level is focused on the community as a whole. What is the relationship between communities and others, how the participating community could generate their benefits to the non-participants in the neighbourhood. The two levels there are also categories to help understand the social networks in communities (Yang, 2016). When looking at the categories, bonding and bridging also occur here, but linking social capital is also attached.

- Bonding social capital: Networks that are created by strong trust between individuals. Most of the time this includes people that share the similarities in social identities, like neighbours, friends or family.
- Bridging social capital: The bridging social capital are the distant ties that are made by people with similarities in social backgrounds. This should narrow the gap between individuals.
- Linking social capital: The linking social capital is about the connectivity, the link, between people that don't have similarities. The connection of people with different financial backgrounds for example.

These three social capital should be in balance, this will show a virtuous social network than could enhance the social coherence (Yang, 2016).

#### 2.1.5 Social cohesion through adjustments in the physical space

Social cohesion contributes to the quality of life, but physical space is also an important element for the liveability in a city (Pouwels, 2013). Physical-spatial interventions are decisive for social cohesion, social ties change physical interventions. Public green space or urban farming can provide a pleasant experiential value what can contribute to the quality of life for the city and its citizens. (Croonen et al., 1995). This way, social cohesion is partly structured by spatial factors (Pouwels, 2013).

#### 2.1.6 Social cohesion in diverse population areas

Another dimension that has an influence on social cohesion is the diversity of the population in a city (Geukens, 2017). Rotterdam is an example of a city with people that have clashing life-styles. People with different backgrounds in financial, ethnic, educational and cultural field. Often, people with the same background, especially in ethnic level, group together. The feeling of a community occurs faster in a homogenous district rather than a diverse district (Schnabel, 2008). The assumption that people prefer to go with people with similar background characteristics is called the homogeneity theory (Huijgens, 2014). Hereby networks won't become wider, because contacts will only be placed within their own culture circle and not outside this circle. Socio-cultural characteristics will have an influence in the participation of citizens (Pouwels, 2013). Ethnic diversity is a main dimension that causes a barrier to improve social cohesion in a neighbourhood (Huijgens, 2014). The limited mutual social contacts, difference in norms and values and not being able to identify with a neighbourhood and community, are different kinds of obstacles. This means a lower level of social cohesion in cities with a high diversity in population (Geukens, 2017). Therefore, the composition of the neighbourhood is also an indicator for the social cohesion level. But, because this can also be a change for a community to meet other

population groups (Huijgens, 2014). It should be seen as an opportunity to bring people with different backgrounds together easily because they are already living in the same area.

The city exists of a more diverse population than rural areas or villages (Schnabel, 2008). As is mentioned before, urban areas have mostly a lower social cohesion than rural areas, a topic that has been discussed before. Ferdinand Tönnies (1905) explained that a modern society exist of individual households. People are only interested in their own life, and they do not interfere with other people if it is not necessary. He developed a theory about 'Gemeinschaft' and 'Gesellschaft' (Tönnies, 1905). This means the duality of the communistic society and the capitalistic or commercial society. Tönnies describes the developments of a society with a 'gemeinschafts' character that changes into a 'gesellschaft' society (Tromp, 1985). 'Gemeinschaft' are the relationships that people have which do not have an instrumental character. It is the relationship people want to have and what they also want to maintain. 'Gesellschaft' refers in contradiction to the relationships that are happening by rational considerations. These are the relationships that are 'necessary'. People need to have a relationship with the other person they need. The relation is more of an instrument to get to their goal. The influence of Tönnies' theory has been big but is sometimes too black and white. The theory received a more ideological approach which became bigger than the cognitive value (Tromp, 2015). George Simmel has a more explicit theory about the contradiction of the urban and rural life (Tromp, 1985). According to Simmel (2012), the metropolis is a complex system with the multiplicity of social, economic and occupational life. It is a big contrast with the rural life where everything is much slower and less complex. The explanatory factor is the environment of the metropolis itself (Tromp, 1985). The effects that occur from the concentration of the big amount of people who are intertwined in a complex division of labor in a small and densely populated area. Every individual is trying to develop himself, but people have to deal with the other people in a society (Simmel, 2012). They are trying to not get swallowed up in the society that is a social technological mechanism according to Simmel (2012). They are more dependent on others who are doing a complementary activity. So, it is as Tönnies explained not only clear contrast of 'Gemeinschaft' and 'Gesellschaft', but the complex environment of a city is a big influencer on the sense of community.

## 2.2 Conceptual Model

The concepts from the theoretical framework can be put in a model. The conceptual model shows the relationships of key-aspects in the degree of social cohesion (Figure 4). Urban farming is in this conceptual model the overarching factor. The physical space and population diversity are external factors that have an influence on social cohesion.

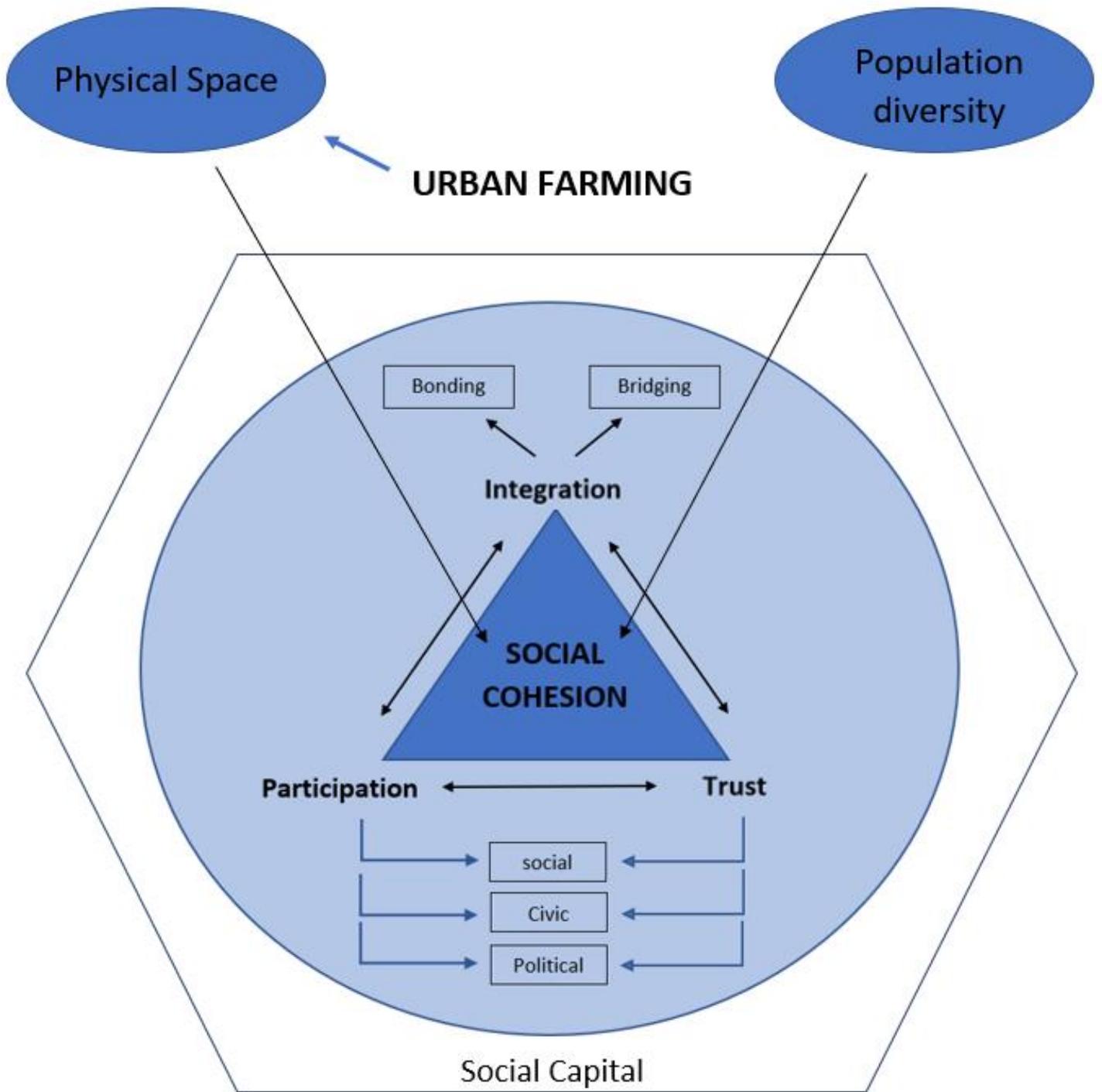


Figure 4: Conceptual model

## 3. Methodology

The methodology describes the research process. It explains the steps that will be taken and why these steps are taken, which methods will be used to collect data and how will this data be analysed. First, we will look at the research strategy, and second the research material.

### 3.1 Research Strategy

For this research a qualitative approach has been adapted. A qualitative research will look at the reasons why and how things happen that way. So, in this case we want to know how urban farming in Rotterdam is going and in what way the social impact can be improved by urban farming. Given that the questions goes deeper into someone's opinion or ideas, in-depth interviews are a better research strategy than a survey, for example. Rotterdam is chosen as the case where this research will be done to narrow the subject. It is therefore more of a depth investigation than a width research. This research will thus be a case study by developing an analysis and in-depth description to understand how it is possible to improve urban farming on social level (Cresswell, 1998). The case study will have an embedded single case design. Despite it being a single case, there will be multiple units of analysis seeing as there will be analysis on the participation, trust and integration.

The research strategy will use multiple sources (Cresswell, 1998). A triangulation approach through literature research, in-depth interviews and observation. Therefore, both empirical and non-empirical research will be done. First of all, non-empirical research is important to find relevant literature about the subject to get the required background knowledge. Knowledge about urban farming and social cohesion itself is necessary to be aware of your research. Literature is important to get to know more about the subject. However, to get to know more about people's thoughts and opinions in-depth interviews are a good way to get to know more about the way respondents think urban farming can be optimized focusing on the social aspect.

Through the in-depth interviews we will get to know more about the most important thoughts about the social cohesion of Rotterdam today and what needs to change by using urban farming projects. This is necessary to get an answer on the research question. Additionally, also empirical research will be done by going into the field itself. Observing how urban farming occurs in Rotterdam by visiting urban farming projects like community gardens, green-roofs or other urban farming appearances and join them in their activities. Various and multiple observations will give an overall vision.

### 3.2 Research Material

The research material will look at the different kind of research objects to get information. This research wants to find out more about ways to improve the social cohesion by urban farming. This means that different research objects can be helpful to collect data. To get to know the subjective side to improve the objective side of an urban farming projects. The municipality of Rotterdam shows different kinds of projects with a description on their website (Gemeente Rotterdam, n.d.). For example, 'De Dakakker', 'De Pluktuin', 'Rotterdamse Oogst', 'Uit je eigen stad', all different kinds of initiatives of urban agriculture that are based in Rotterdam. The most important research material that will be very helpful to get deeper knowledge are interviews with different stakeholders from several initiatives. These initiatives might also help further with finding other respondents like citizens that are involved in an urban farming project. This is called

snowball effect. Several projects leaders, citizens and the municipality of Rotterdam will be useful respondents.

### 3.2.1 Interviews with experts

To get an insight in the points of improvement for urban farming projects of organisations, interviews with these urban farming organisations will be necessary. Another important stakeholder is the municipality of Rotterdam, so there will also be an interview with the municipality to get an insight in their role in social cohesion and urban farming. These interviews will be in-depth interviews to discuss all the aspects of social cohesion and urban farming. To get a broader view and a higher validity, different urban farming initiatives will be investigated. There has been research carried out for possible respondents through reading reports and searching online. Because there are quite a lot of urban farming initiatives in Rotterdam, it was easy to find different urban farming projects. Some reports such as the report from Food & the City (2012) has a list of organisations that are involved with urban agriculture. Most of the urban farming projects have their own website with contact information. Several urban farming initiatives or people are mailed to ask if they were available for an interview. When there was no response, to some organisations a reminder has been send. 24 Mails are send to organisations or persons. It was not possible for example, to arrange an interview with 'de Dakakker', 'Rotterdamse Oogst', 'Rotterdamse munt' or 'Buurtlab'. There were a lot of rejections, because a lot of urban farming initiatives do not have time to arrange an interview or they simply were not interested. Some initiatives no longer give interviews due to the high demand from students. There were six organisations that were willing to have an interview. These urban farming projects differ from each other. There are two organisations with an urban garden and an associated restaurant, and the other organisations include several community gardens or one garden in Rotterdam. This way, the main problems that occur the most in urban farming initiatives will be shown. So that there can be focused on these obstacles to improve urban farming projects. The initiatives are 'Uit je eigen stad', 'Groengood', 'Wollefoppengroen & Co', 'Hotspot Hutspot' and 'Moestuinman'. These initiatives are introduced as follows:

- Uit je eigen stad  
Uit je eigen stad consists of a restaurant and a city farm (Uit je eigen stad, n.d.). There is also a restaurant at Rotterdam Central station. It started in 2012, it used to be a production company but made a new start and now they also focus more on education. The city farm has more diversity on urban farming aspects like animals, herb garden and a picking garden. They also organise workshops and events. The harvest from the city farm goes to the restaurant and to the restaurant at Rotterdam Central station. Their goal is to connect city dwellers with their food. Jacqueline Stammeijer is the professional gardener from Uit je eigen stad.
- Groengood  
Groengood is an initiative that is committed to more green in the city and a more lively neighbourhood (Groengood, n.d.). Daniël Opbroek, Rutger Henneman and Jorinde Kipp started 'Groengood' mid 2017. Jorinde Kipp spoke to me during the interview. They try to bring the people in the neighbourhood together and they want people to be more aware of where their food comes from. In addition, the initiative tries to fight poverty by distributing the harvest to the participants and donate harvest to different foundations like the Pauluskerk. The initiative has several community gardens in Rotterdam: 'Tuin op Hofbogen', 'Het Wilgenplantsoen', 'Bergwegplantsoen', 'Park Pompenburg', 'Vredestuin', 'De Bloklandtuin', 'Vredestuin' and 'Vredestuin Noord' (Groengood, n.d.). Groengood has about 100 people that are involved. This can be volunteers that come every week, but also those who may come once in a while.

- Wollefooppengroen & Co  
Wollefooppengroen & Co is a resident' initiative from the neighbourhood Zevenkamp (Wollefooppengroen & Co, n.d.). It started with the plan to build at the place where the Wollefooppark is located now. Resident's where against the building plan and collected signatures to stop it. The zoning plan changed and the initiative made plans for a park with urban farming aspects. Wollefooppengroen & Co stands for fixing up the Wollefooppark and surroundings while maintaining the existing green values (Wollefooppengroen & Co, n.d.). The objectives of the initiative are: retaining the park as a quiet/dark area; maintaining the connectedness ecological niches; maintaining the separation of extensive and intensive recreation; preservation of natural banks; refurbish the Wollefooppark (Wollefooppengroen & Co, n.d.). About a few 100 people are involved, but this also includes people who come only once a year or to the festival 'Zevenblad'. There is an interview arranged by phone with Frenk Walkenback, one of the active citizens of the neighbourhood Zevenkamp.
- Hotspot Hutspot  
The initiative Hotspot Hutspot started in 2012. It consists of a few restaurants with their own vegetable garden. It used to be a project from housing corporation Havensteder. But, the project is eventually transferred to Bob Richters, who made Hotspot Hutspot the way it is now. Dorine Rüter, the current business leader from Hotspot Hutspot, participated in the interview. The concept is to work with people from vulnerable groups and to re-integrate these people and strengthen their economic and societal participation in society (Hotspot Hutspot, n.d.). In addition, children from the neighbourhood may also help in the kitchen or the garden. Hotspot Hutspot has 80 volunteers, including trainees but excluding the children. Hotspot Hutspot wants to connect the local residents, children and the youth by using healthy food, while at the same time it is a social and educational place where volunteers can develop their skills (Hotspot Hutspot, n.d.).
- Moestuinman  
Max de Corte is creator and founder of 'Moestuinman'. He is committed to sustainable, small-scale, local food supply, awareness and construction and education (Moestuinman, n.d.). He realizes urban agriculture, permaculture, vegetable gardens and food forests. He is a pioneer and tries to be innovative on food production systems, knowledge development and a different way of working together. He is experimenting while at the same time professionalising. About 800 volunteers are in the mailing list, that are relatively young high educated people.
- The Municipality of Rotterdam  
The municipality of Rotterdam is an important stakeholder for urban farming because they provide subsidies and permits. It is an access point for the citizens for applications or information. The municipality's important challenge is to produce high quality, sustainable food for all citizens (Gemeente Rotterdam, n.d.). There has been an interview arranged with Cees Bronsveld. He is a researcher of the municipality of Rotterdam.

There is also an interview conducted with the Rotterdam Food Cluster. Rotterdam Food Cluster is more focused on the economic benefits of urban farming instead of the social impact of urban farming projects. Therefore, is chosen not to take this interview into account in the results. It will not add any more value to this research that is focused on the social aspect of urban farming. The interview with Rotterdam Food Cluster was held by phone, just as the interview with Frenk Walkenbach from the initiative 'Wollefooppengroen & Co'. The other interviews were held in Rotterdam itself, most of the interviews were done at the location of a certain urban garden.

### 3.2.2 Interview with residents

Another important group of stakeholders are the local residents and the people who participate in urban farming projects. This is important because citizen participation has an influence on the social cohesion as is mentioned in the theoretical frame. Talking with participants of urban farming projects will give an insight in the reasons for people to join. There will also be asked how they experience the contribution of urban farming to the social cohesion. But also the residents who do not participate, what is their reason and is there something stopping. There will be asked if citizens are familiar with urban farming projects in Rotterdam, how their relation is with the other participants and how they think about integration through urban farming. To get in touch with active citizens, those are the citizens who participate in urban farming projects, will be asked to the urban farming organisations if they know someone. In addition, street-interviews can be useful to get more respondents.

Eventually street interviews were held with participants and non-participants. At the beginning is tried to arrange an in-depth interview with participants, but they did not respond anymore. Because an interview or observation was mostly during the same time as a working moment, so it was more accessible to talk to participants during a working moment instead of arranging a new interview. The participants were working, so a short questionnaire was more suitable. There is a relaxed sphere, so people were not in a rush to tell their story and were willing to talk about their experiences. The short questions were held in several urban gardens, 'Tuin op de Hofbogen', 'de Vredestuin', 'de Voedseltuin', 'de Bloklandtuin' and the garden from 'Uit je eigen stad'. In every garden or working moment, between one and five participants are asked about their experiences and perspective. I have been to some gardens more than once. The answers of the street-interviews are noted in a notebook. The non-participants were people who walked by, or were sitting in the park. Also, short questionnaires were held with the non-participants. Besides the interview guides, a scheme with examples of the notes from the street-interviews is included in the appendices. The answers from the respondents were quite similar. An example of a street-interview note is as followed:

*'A participant who lives near the garden, walked by and wanted to join the urban farming project. Her reasons to participate are meeting new people, relaxation and working outside. She thinks other people do not join because they are not interested or do not have time. The group of the participants have a good relationship and see each other outside working moments. They come to one another with practical problems faster than personal problems. She does not know what should change (Personal communication, 2018).'*

### 3.2.3 Observations

The observations were made with an observation scheme that is included in the appendices. The observation scheme focused on the subjects from the Theoretical Framework. Attention was paid to the participants, including participants who are integrating and the relation between the participants. In addition, there is looked at the physical appearance, what the impact of an urban garden is in the area. Another factor is the diversity of the people in the neighbourhood or garden. This paper focusses on these aspects, but was still being open for other possible important findings. The observations were held at 'de Vredestuin', 'Tuin op de Hofbogen', 'Park Pompenburg', 'Bloklandtuin', 'de Voedseltuin', and at the location of the city farm from 'Uit je eigen stad'. Notes are written of the findings during the observations.

Besides naturalistic observations, I participated in a working moment. I joined the initiative 'Groengoesd' on Tuesday May 29. There were two gardens I participated in, which are 'de Bloklandtuin' and 'Tuin op de Hofbogen'. I worked together with other participants in the garden. The activities consisted of picking strawberries, weeding, seeding and watering the plants. It was interesting to see that the two gardens were quite different from each other.

### 3.2.4 Methodology of Analysis

After conducting the interviews and observations, the data had to be analysed. All of the interviews have a transcript, and all of the observations and street-interviews are noted. The transcripts of the interviews are put in the coding-program AtlasTi. I started with open coding, where 'participation', 'trust' and 'integration' were the main codes. Axial coding is focused on the associated codes and links between codes. Some words or phrases include for example both 'trust' and 'integration'. After the axial coding, selective coding is used to give the more specific subject a code. After coding, the subject was quite similar to the subjects of the theoretical framework, but also similar obstacles from urban farming initiative became visible. Families are made which are named 'Guidance', 'Integration', 'Network', 'Municipality', 'Participation', 'Stakeholders', 'Trust' and 'Urban farming project'. 'Participation' also includes the population characteristics, and 'Urban farming project' includes the main goals of urban farming projects or the different facilities an urban garden has. The codes are put in Figure 5.

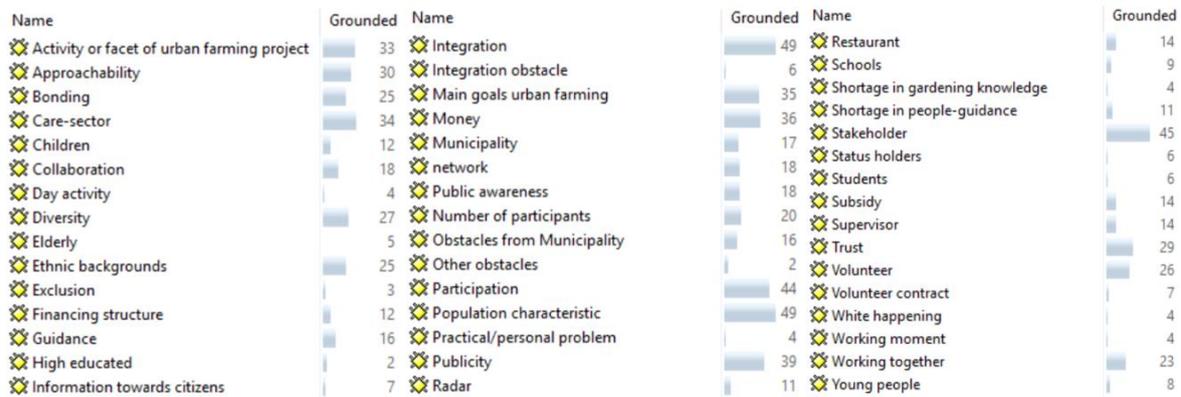


Figure 5: Code list

After the codes are added, a network is made to see the links between codes (Figure 6). The network shows that all of the families are connected with each other in a certain way. This might help with the results, and seeing the connections between important findings.



## 4. Research Results

The research results are the most important results from the interviews. What has emerged from the observations and the interviews with several respondents? What are the strengths of urban farming initiatives and what are the obstacles? The research results exist of eight subjects, which are participation, integration, trust, stakeholders, publicity, physical appearance, guidance and other obstacles.

### 4.1 Participation

#### *Participation*

There is mainly looked at the social and civic participation because these were the most relevant components of 'participation' in this research. Social participation is reflected in the social relations and networks (CBS, 2015). But also, the civic participation which involves the participation in an urban farming project and the inclusion of residents. Social participation is important to achieve a good social cohesion in a neighbourhood (CBS, 2015). The respondents were asked how they experienced the contribution of urban farming to the social cohesion. According to the respondents urban farming contributes to the social cohesion because people meet new people and they work together on the same thing which provides bonding. Frenk Walkenbach also said people meet in the park. Neighbours who otherwise would never run into each other. Max de Corte said it contributes to social cohesion because it brings like-minded people together. They feel strengthened because they are working and learning from the same project. According to Jorinde Kipp, there is more safety in the neighbourhood because people share responsibility for the same place. People keep an eye on the neighbourhood and their neighbours. There is also more bonding with the neighbourhood. Another participant also mentioned she felt more bonding with her neighbourhood, and her network increased because she joined an urban farming initiative. Other reasons for participants to join were to meet other people and because they like to work outside in the nature. But, social cohesion differs per neighbourhood according to Cees Bronsveld. In some areas the cohesion is potentially present, but some people do not feel the need to bond. He gave the example of a well-to-do neighbourhood, named 'Blijdorp', where the social cohesion is not particularly high. There was a plan to build a metro station through the neighbourhood. The citizens were against it and came together quickly when their neighbourhood was threatened to change. Highly educated people with knowledge and good contacts within the municipality, were able to stop this plan. The higher their social capital, the easier it is to solve a problem in their community. This is in line with Yang (2016), but this example is in contrast with Schnabel, Bijl and de Hart (2008). According to Schnabel, Bijl and de Hart a high social capital indicates a higher connection between people. This is not the case in 'Blijdorp', where normally the citizens do not feel the need to get to know their neighbours. This example shows that a threat of the common good can increase the bond between people as Meurs (2008) was saying. Cees Bronsveld introduces the concepts horizontal and vertical cohesion. Horizontal is the cohesion between groups and vertical cohesion is people who identify themselves with the neighbourhood (Bronsveld, 2014). For example, a neighbour who does not participate in an urban garden but still is proud that it exists in her neighbourhood refers to vertical cohesion.

The goals of urban farming initiatives are to be an open- and green place where people can meet. What urban farming initiatives consider a strength of themselves, is their approachability. The low threshold that everybody is welcome, and all people will get a chance. Jorinde Kipp said it is important that people get to know the projects. At Groengoed they are focusing on awareness,

but they know that there are a lot of people who do not even know it exists. This is one of the reasons that there is still a small amount of citizen involvement. Just by being so open and let people know this is possible they try to inform people and be clear that it is a place for all people from different population groups. In addition, being clear that people are free to join whenever they want and that they are not tied up to mandatory working hours. There is no obligation, waiting list or registration fee at 'Groengood', so it is easy for people to join them. Jorinde Kipp mentioned this as something they are really committed to. It is a green meeting place in the city. Because a lot of places where urban farming is located were originally empty pieces of land, so these areas have improved and there is more biodiversity told Jorinde Kipp. Also, the diversity of activities is a plus. Some gardens are used for different purposes. Besides working places, it can also be a place for events, workshops, restaurant, festivals, yoga lessons, picknick, playground or an outdoor cinema. However, as Jacqueline Stammeijer is saying it is important to have diversity, but sometimes specializing is good. You have to make choices in activities that have an added value. Other important aspects the respondents told is fighting poverty and increasing awareness where food comes from.



*Figure 7: The community garden functions as a place where people can meet. (Author, 2018)*

### *Participant Characteristics*

Opinions about the population that attract urban farming projects are different. This also differs per project or organisation. While joining a working moment, I went to two gardens from the same organisation. The gardens were quite different in participants. The participants from 'de Bloklandtuin' included a lot of children who helped watering the plants after they were finished from school. 'Tuin op de Hofbogen' consisted more of adults and older people. During the observations it also came forward that every garden has a different population group. One garden included more internationals, while other gardens include more young people who were doing an internship. At 'Wollefoppengroen & Co', 'Groengood' and 'Hotspot Hutspot' the population characteristics were pretty diverse. It is mixed, old and young people, different ethnic backgrounds, and also people who come from care institutions. An example from 'Groengood' is the 'Blokland' garden in Rotterdam where a lot of Turkish women participated. They became good friends with a dominee who was also participating, and they come to each other's homes or birthdays. Also, people who do not participate differs per location and garden. At 'Wollefoppengroen & Co' there is for example a big Surinamese community, but they do not participate in the garden. 'Hotspot Hutspot' noticed that they do not have that much people from Turkey, China or Eritrea. Some cultures are more isolated, but the reason there are fewer people from Eritreans is probably because of the language barrier. Unlike 'Wollefoppengroen & Co', at

'Hotspot Hutspot' there are a lot of young Surinamese. Most of the participants are between the 15 and 35 years old at Hotspot Hutspot'. At 'Groengoe'd', 'Park Pompenburg' and 'de Vredestuin' the participants are quite young, while 'Uit je eigen stad' includes elder people and some students who were doing an internship. Dorine Rüter says the population characteristics is a reflection of the neighbourhood. 'Heijplaat' is quite a white neighbourhood, so the children who come to 'Uit je eigen stad' are whiter. But 'Krooswijk', in contrast, is a very mixed neighbourhood and this is reflected in the children who come to join. The children who live in the district have a mixed background. What Max de Corte said, is that the people who join are people who are more open-minded. People who specifically looked for an urban farming project. According to him, at 'Moestuinman' there are more high-educated people like students, experts or internationals. Also, people who have more free time or people who are interested in environment or sustainability participate. The participants are all volunteers, but there are always one or more people paid. These paid employees are most of the time the supervisors or professional gardeners. The volunteers create a relation between the participants, the like-minded people. You can see that there is a stronger bond between these people from the neighbourhood, but this will be discussed later in the chapter 'Trust'.

When asked for the reasons not to participate, most of the time it was because of personal interest. Not everybody likes to work in a garden, or has enough time for that. What was also mentioned is that the working hours are sometimes an obstacle. Working hours are most of the time during the day and when people have to go to their job. Most people work during those days or times. In the weekend it is often busier than during the week. Odé and Walraven (2013) point out that sociological and personal factors play a role. In most cases people participate in urban farming projects because of personal interest. Ethnical background differs per urban farming initiative, but markable is that above average is white. For example, during the observations, most of the respondents that were spoken to are white. This also applies to the supervisors or the entrepreneurs of the urban farming initiatives. Jacqueline Stammeijer and Cees Bronsveld also pointed out urban farming is quite a 'white' happening, and above average is white. Cees Bronsveld said that those gardens are sometimes called 'prosecco gardens'. But he mentioned that there are important exceptions like the 'Rotterdamse Munt' or 'de Bloklandtuin' that include a diverse population group. The restaurant from 'Uit je eigen stad' has quite a high price, what has an influence in which population groups come to the restaurant. They are located close to Schiebroek which is a poorer district in Rotterdam, but those residents might not be able to afford dinner there. Sometimes children from the neighbourhood come and bring their parents. This is one way to attract more diverse people. Some people will also feel excluded. They can think it is not meant for them. Cees Bronsveld said if you see for example only Turkish people, some people can think it is for the Turkish community. This is the example that ethnic diversity cause barriers for the social coherence as Huijgens (2014) is saying. The homogeneity theory appears. But it might also be a possibility for urban farming initiatives to attract other people with a different background. This can be the people who do not identify themselves with their neighbourhood. Participants from certain population groups can convince other people from the same population group to join. For example, by asking a Turkish butcher to advertise in his shop, might attract more Turkish people. To attract other people, publicity can help. Putting a message of the urban farming initiative in the local newspaper is another way of advertising. Passing the message, ask people to join and talk about the urban farming project will help broaden your public awareness because people will talk to other people. Also, people who do not participate will be influenced, mentioned Frenk Walkenbach. For example, volunteers can build a bridge between participants and non-participants. Even though you are not a participant of urban farming, an park or

community garden has an indirect effect on a person. Even if it is only when citizens are wondering what is happening in that garden. The relations of social solidarity is created by these voluntary organisations (Newton, 2001).



*Figure 8: Volunteers during a working moment. They work together on the garden greenhouse. (Author, 2018)*

#### 4.2 Integration

Urban farming is a way to help people integrate or re-integrate. The urban farming initiatives that were spoken to, work together with care institutions. Institution like Pameijer foundation, Orion foundation, GGZ, Middin or the Dutch Council for Refugees. Often people with a work disability or vulnerable groups, work at urban farming initiatives. This can be ex-addicts, status holders, people with a physical or mental disability or people with psychosocial or psychiatric problems. It is not that much of a place for people with a physical disability, because it is not always suitable for wheelchairs. Some volunteers get a volunteer contract, for example when people with a welfare payment are obligated to do something in return for the government. During the observations of a working moment, there was most of the time one person who had a volunteer contract to compensate for the municipality. Urban farming initiatives contribute to integration, by integrating different populations groups. Some urban farming initiatives want to give these people a daytime activity, while others specifically say they do not want to be a day-care. 'Uit je eigen stad' is an example who do not want to be a day-care. They see it more as a flow-through process. The idea is that people can recover, but when they feel better they can continue. People can for example work here for three years and then rejoin the labor market again as Jacqueline Stammeijers is saying. 'Wollefoppengroen & Co' and 'Groengood' want to give these people a day

activity. Jorinde Kipp made a plan for people with a physical disability from the organization 'Middin'. 'Groengoed' introduces the people to the garden, simply show them what they do, and also let these people participate.

'Hotspot Hutspot' is an organisation that is focused on integration and re-integration. The volunteers are mainly people who have to do something in return. Besides status holders, ex-addicts, or homeless people, there are also a lot of young people, including 'Wajong teens'. People who have a working disability at a young age already. Children from the neighbourhood also work sometimes in the restaurant and garden. Volunteers are semi-mandatory to come to work, it is part of their mandatory day-activity. Many are sent from the municipality of Rotterdam or care institutions. In order to receive a subsidy from the municipality, the municipality would like to see figures of what 'Hotspot Hutspot' contributes to the society. Showing this can be hard sometimes, because some people take really small steps. They are still making progress but this can take a few years. For example, a boy with no starting qualifications, who has been a drug trafficker, who has been in prison and is Moroccan, is harder to help him get a job than some guy with rich parents and a family who supports him. Success stories are therefore a good way to show the importance of these projects to the municipality.

*“Success stories are great, they show what great results urban farming can accomplish. This does not mean urban farming is only beneficial for them. Even for the participants that are not thriving as much as we would like them to, it still has a positive influence.”* (Rüter, 2018, personal communication)

An example of a success story is a status holder from Syria. He used to be a driver, but his driver's licence was not valid in the Netherlands. 'Hotspot Hutspot' therefore paid his driving lessons and let him work in logistics. His language also improved while working in logistics. After four weeks he got a job at PostNL. 'Hotspot Hutspot' tries to look at personal qualifications and what the volunteers want to improve. Based on what a volunteer wants to do in the future, he or she will get a task in the restaurant or garden. An ex-drug trafficker who did a welfare study, knows the city well and likes to drive, was put into logistics. He was also the first to notice when someone has been using drugs, while the supervisors would not notice it that fast. He is also Moroccan and can explain something to status holders in Arabic or English. Another example is a man who has a background in education and can communicate very clear, practical and with a lot of patience. They all have their own capacities and their skills all contribute to the restaurant in their own way.

Integration of these groups can increase the social cohesion (CBS, 2015). Participants are bonding more, because they are more involved in each other. They have stronger ties and people have a higher trust in the other participant. You see this in the way participants help each other. From supervisors who help with re-integration or the participants who help other participants. The bridging between people, which is the different groups that connect, is smaller than the bonding of people in groups. Groups of people get in touch with each other if they participate in urban farming projects. But in this particular case the bonding of participants is the priority

An obstacle that can slow integration is the language barrier for status holders. Participants and supervisors should take into account that it is a place where people require more attention. It takes more time to educate these people. It can also be a way to learn or improve the Dutch language. One participant said that the chance to improve his language was an important reason to join in an urban farming project. Another issue is that the volunteers themselves can be motivated but their environment does not help. Their network is still full of wrong friends or drugs for example. In addition, a lot of people do not want to come to work because they have a lot of

problems like paying their rent. 'Hotspot Hutspot' tries to help these people by helping them with their paperwork and they have a budget coach. Another obstacle is that in some place status holders or refugees are not welcome in a neighbourhood or community.

Cees Bronsveld says urban farming does help with integration, but only to a certain extent. If an organisation or mentor of an urban farming initiative thinks it is important and wants integration to play a part in their initiative, then it is fine and will it help with the integration of some people. But on the other hand, it can also scare other people away. When people have to do something in return or have an integration process, there must also be reported how their trajectory is going. This means people will have to control their own neighbour, and that is not what anyone would want. Max de Corte also said he did not want to work with the care-sector. According to him, Rotterdam focuses too much on the care sector. It might be unpleasant for other participants, because becoming an integration project might change the atmosphere in a garden or group.

### 4.3 Trust

The last pillar of the three social cohesion elements is trust. There was asked if participants see each other outside working moments and if they come to other participants with problems. The degree of trust between citizens/participants, with the organisations and trust on political field has been investigated. Trust increases the participation and quality of life (CBS, 2015). Trust is necessary when people are outside their familiar environment (Siisiainen, 2003). This is also the case with urban farming initiatives. Joining an urban farming initiative is new for some people and being contacted to join could be intimidating.

The trust in other people, social trust, is a good indicator of social cohesion (CBS, 2015). The trust between participants is different per project or organisation. There has been looked at whether participants see each other outside working hours and if participants trust the other with a personal problem for example. At the community gardens of 'Groengoesd' the neighbourhood are visibly getting closer. Participants see each other outside working groups, come to each other's houses and go to birthdays or weddings. A participant from 'Groengoesd' told that the group from the community garden where she participated was a pretty close community. They have dinner together sometimes and they also talk about personal problems. A good example where people trust each other with something personal, is at 'Wollefoppengroen & Co'. Frenk Walkenbach came with the example of a woman who came to the garden group and just started crying. Her best friend passed away, and she did not want to be at home while she could be here in the garden too. She came to the garden group, so she could tell her story and feel comfortable with the others. At 'Hotspot Hutspot' they have a group chat where volunteers send each other photos of what they are doing at the moment during the weekend. Or when someone is sick, they all send messages with 'get well soon'. So, there is mutual contact between the volunteers. Dorine Rüter gave an example of a Dutch man who was sick and told her he got a phone call from another volunteer. This was special because it was from a Somalian woman who has a big language deficiency. Normally she does not start a conversation quickly, but she had the courage to call him and told him to get well soon.

This is different in the group of 'Uit je eigen stad' and participants who were working with 'Moestuinman'. The participants think it is a nice and close group, but they do not see each other outside of working moments. They talk about stuff, but the other participants would not be the first person where one would go to with a practical or personal problem. The need of being real close to other participants or the need to talk about personal things is different per person. One

person could love to do so whereas other would not. For example, at 'Hotspot Hutspot', they talk more to the supervisors when it comes to problems or personal stuff than to the other volunteers. But the volunteers need to feel comfortable with the supervisor. For example, there was a girl, who told another volunteer that there was a boy who approached her in an inappropriate way. She did not tell the new supervisor, because there was not enough trust yet. She did tell another volunteer, and he reported this to the supervisor. Here is noticeable that the participants do keep an eye on each other and that trust with the organisation is also important. 'Hotspot Hutspot' tries to encourage the volunteers to contact each other. And to boost the team spirit, they organized a team excursion. Dorine Rüter says you can see it helps the bonding in a group. People get closer while working together, they encourage each other, and mutual ties arise. Personal experiences by observing or joining a working moment, have shown that all of the groups are very open. They are willing to talk about their experiences and are open in their answers. Personally, the feeling that everybody is welcome, and that people will get a stronger connection certainly came forward. The feeling of being part of the group, can be seen in the way other participants invite you to the garden. The volunteers talk about the garden, about themselves or help other participants if needed. The participants sometimes talked about personal things, but most of the time it was just small talk.

What also stands out is that in urban farming initiatives with an associated restaurant is that there is very little interaction between the restaurant group and the garden group. You see this at 'Uit je eigen stad' as well as 'Hotspot Hutspot'. 'Hotspot Hutspots' main reason to have a separate garden group and restaurant group is because of the supervisor. If the supervisor has to maintain the kitchen, the restaurant as well as the garden, it would be too much for the supervisor to keep sight of everything. At 'Uit je eigen stad', Jacqueline Stammeijer says she would like it to see more interaction between de garden group and the restaurant group. Because the restaurant cannot do without the garden, and the garden cannot do without the restaurant. The groups know each other because the garden group takes a break inside the restaurant, but there is almost no contact. This is because they are both busy. But, it would be nice if the kitchen and service staff would work in the garden someday, because the food from the garden is used in the kitchen. In addition, the garden group could support the restaurant, for example by taking care of heavier work. The relation between these groups has potential to improve.

Alongside trust in other people and organisations, trust in politics is the third level. The mutual trust of citizens and the municipality. Trust is necessary for support according to Hetherington (1998), and support is exactly what urban farming initiatives need from the municipality. When the municipality puts money in an initiative or project, they want something in return. For example, if there is a request for integration money, the municipality want to have an outflow guarantee. 'Hotspot Hutspot' also addressed this problem. For small initiatives it is hard to keep track on the numbers, but when you want to be funded, you have to show your impact. There are several success stories from people who have improved themselves very quickly, but there are also people who have been working there for years and only take very small steps. These people are also making progress, but it is more difficult to prove. The larger welfare-organisations have more tools or an administration to keep track with all the numbers. There should be more trust in citizens with an urban farming initiative from the municipality, because it is not always as easy for smaller initiatives to show their effect. According to Cees Bronsveld, it can help when a few of these kinds of initiatives work together, so they can give a certain number of outflow guarantee to the municipality. With a bigger group, urban farming initiatives can guarantee this outflow without too many risks. More informal contact can increase the trust between citizens and the municipality. Besides trust from the municipality in the citizens, is trust from citizens in the

municipality also important. Citizens will trust the municipality if the municipality acts or makes decisions correctly (Newton, 2001). If citizens lose their trust in the municipality, people will get displeased. Urban farming needs the municipality for support, but in reality the support of the municipality of Rotterdam is frequently difficult or complex. This is further explained under the head 'Municipality and subsidies' because this is an obstacle that has often been mentioned.

#### 4.4 Stakeholders

##### *Stakeholders*

Urban farming initiatives mainly have the same kind of stakeholders. They have the same parties with whom they work together. In short, these parties are the volunteers, the municipality of Rotterdam, sponsors, land owners, housing corporations, schools and healthcare institutions. The volunteers are the ones who are working in the urban farming initiatives and they are guided by the supervisors. The municipality of Rotterdam and shareholders are in general responsible for the finance. The contribution from the municipality will be discussed later. They provide subsidies so that urban farming initiatives can make their work possible. CityLab is a sponsor for a lot of urban farming initiatives. CityLab is a platform for ideas, where you can apply for a subsidy (CityLab, n.d.). 'Wollefoppengroen & Co' also received money from the province South-Holland. At the municipality or housing corporations they also have to apply for permits. Because if the land belongs to a housing corporation, the municipality does not have power over that part of land. For 'Moestuinman' the owners of the land were his most important stakeholders. Urban farming initiatives also work a lot with healthcare and welfare institutions. Institutions like GGZ, Orion foundation or 'Pameijer' foundation. Pameijer foundation is a big organisation in Rotterdam that supports vulnerable people with psychosocial or psychiatric problems or a (slight) intellectual disability (Pameijer, n.d.). 'Uit je eigen stad' and 'Wollefoppengroen & Co' work together with these foundations. Most of the volunteers from 'Hotspot Hutspot' are also assigned from schools or health care institutions. These stakeholders play a big role, because different initiatives like 'Uit je eigen stad', 'Groengood', 'Hotspot Hutspot' and 'Wollefoppengroen & Co' indicated that they want a better connection with the care branch or education. Or they already work together with these institutions and want to increase this connection. For example, 'Jacqueline Stammeijer' would like to connect more with the care branch, but says it is hard to connect with the care sector because of the budgets. 'Hotspot Hutspot' wants to improve the links with education. They have a lot of interns from practical education of MBO1-educations, and a lot of those young people do not finish their internship or education. They think it is an important target group that they can do a lot for. Another stakeholder that 'Hotspot Hutspot' want is a district networker what is mentioned before. 'Groengood' hopes to connect more with the business community. To find a sponsor from the business community or to work with them. Some urban farming initiatives work together with the Foodbank or churches by giving their harvest to combat poverty.

##### *The municipality and subsidies*

The municipality of Rotterdam is an important stakeholder for urban farming initiatives. They provide subsidies and permissions. Since a few years, a change has been taken place within the municipality of Rotterdam. All the researchers are located in the same department which is called 'Onderzoek en Business Intelligence' (Research and Business Intelligence). The advantage is that all the researchers from the municipality are placed together, but the disadvantage is that the researchers are separated from their social service colleagues. When they used to run into each other, the social service could tell their problems. Nowadays it takes like half a year before a problem comes to the researchers' desk. This causes the network to crumble. Cees Bronsveld

mentioned they are improving this by re-establishing a working group from all the clusters to maintain the network.

The municipality is not against social cohesion, but it is less of a main goal. The municipality is more interested in urban farming initiatives that focus on economic targets. Blue City is one of the projects where the municipality is really interested in. One of the requirements for subsidy is that the municipality wants you to be innovative, but this is an unclear line. The definition of being innovative is vague. Another important thing Cees Bronsveld says is that the consideration between building houses or keeping greenery, is an unfair one. There should be more opposition from the urban farming initiatives. Some initiatives are under pressure because they might disappear because of building plans. Urban farming initiatives should unite and make the decision between greenery or building less easy for the municipality. They should work together, so they stand stronger.

The problem is that it is for new initiatives hard to start. When you want to apply for a permit or subsidy, you will be sent back and forth. Before an urban farming initiative reaches the person they need, they will be a few weeks or months further. This is also one of the bigger problems urban farming initiative mention. As Jorinde Kipp is saying, it is unclear what the conditions and requirements are. Requirements like the rules of applying for permission, how much money is available or what is possible. A lot of initiatives get stuck because of the lack of clarity. Also, at 'Wollefoppengroen & Co', 'Hotspot Hutspot' and 'Uit je eigen stad' is mentioned that working with the municipality goes very slowly and difficult. The collaboration between residents' initiatives and the municipality could be better. It might be helpful to set up a list or give a classes about the way such subsidies are organized, maybe it could reduce work for the municipality too says Dorine Rüter. Cees Bronsveld says initiatives should not wait for the municipality but they should just start.

*"There is a paradox to the way the municipality approaches their citizens. They want them to be more involved with the city and stimulate them to start up initiatives, but the moment they do so they get lost in a jumble of rules and procedures. There is definitely room for improvement."  
(Bronsveld, 2018, personal communication)*

The information towards citizens should be better, it must be easier for initiatives to start or to find what they are looking for. The digital information can also be improved. This way, the trust of citizens in the municipality of Rotterdam will increase. Because, if a political institute handles applications well and solves problems, the relation between citizens and the political institute will improve. So, the main findings that came forth from the interview with the municipality of Rotterdam is that the municipality should improve their information towards residents, and initiatives should unite.

#### 4.5 Publicity

Cees Bronsveld started with saying urban farming is no longer how it used to be. The involvement is considerably less, and more waste ground is filled with buildings again. During the economic crisis there was a lot of fallow land which were filled with residents' initiatives, like urban farming projects. Now construction plans continue.

Participants mainly knew about these urban farming projects they join, through walking by the location, online or because they are assigned to these organisations to participate. Participants from 'Moestuinman' mainly found the initiative through the internet and the website of 'Moestuinman'. Someone from Australia moved to the Netherlands and was looking for volunteer work. He had a background in environmental sciences so he found this organisation through looking specifically for this kind of work. At 'Groengoes' most of the volunteers stumble across by accident and are interested what in what is happening there. For example, a woman who was going to live near the park, asked if she could join. The observations have shown that it is helpful to put up welcome signs or description signs. This way, it is easier for people to get to know the project and to participate. Figure 9 is an example of a description sign for 'de Vredestuin'.

Moestuinman does not advertise, but the other urban farming initiatives do. Most of the initiatives use the internet and social media to increase their public awareness. They all have a website, and for example Facebook, where they post pictures or messages to attract and invite people. The initiatives like 'Groengoes' or 'Uit je eigen stad' try to be present at markets, events or organize events or workshops themselves. Festivals also appear as advertisements to attract new people. 'Uit je eigen stad' has organized a beerfestival and a Easter festival. 'Wollefoppengroen & Co' has its own 'Zevenblad festival'. Sometimes they have paid advertisements. 'Wollefoppengroen & Co' is going to have a broadcast from BNN VARA. 'Hotspot Hutspot' also pays attention to the place they want to settle. They settle in neighbourhoods or places where they think it is needed the most. These urban farming initiatives are all trying to improve their publicity and marketing in some way.



Figure 9: 'Vredestuin' description sign at the entrance of the vegetable garden (Author, 2018)



Figure 10:  
Greenery in the  
middle of the  
city, 'de  
Vredestuin' is  
located next to  
the railway.  
(Author, 2018)

Another point where the awareness of urban farming initiatives in a neighbourhood can be improved is through putting them on the radar. The municipality has a kind of district network and Dorine Rüter mentioned that it would be helpful if there was a district networker. An initiative needs to create a network with other initiatives or projects that could lift up each other, but because these companies are relatively small it is hard for them to maintain their network.. A district networker could help with this. Smaller initiatives are not on the radar, only the big organisations. Even though it is for those bigger organisations also hard to get people to join them. Some people do not even go out of their district or walk through all the streets. Also, resident initiatives have a budget to help local start-ups. A lot of people do not even know about this, or they think it is not meant for them. While especially these people could benefit a lot from it.

*"We would like to see more small-time events spread throughout the neighbourhood. This will put the neighbourhood on the map and improve the network of inhabitants as well." (Rüter, 2018, personal communication)*

The public awareness of these smaller initiatives must be bigger. They have to be put on the radar and a district networker could help with this. In the network of the larger initiatives, can be seen that they communicate what happens in a neighbourhood and they clearly show what they have to offer. Another thing Dorine Rüter mentioned she would like to see a change in vision. Organisations work very individualistic, and are only focusing on their own project. They should think more like an exchange trade, for example when one initiative organises something at another initiative and the other does something in return.

*"Through these events we will be in each other's network, what will create a strong bond." (Rüter, 2018, personal communication)*

So when organisations work closer together it's easier for them to maintain their network and additionally they get more visibility. Trust between organisations must improve. The more trust they have in each other, the better their network and public awareness will be. The structure

should change. Human action is possible of changing the structure (Giddens, 1984). This means that citizens and organisations should make a new structure where it is normal for organisations to work together and support each other.

It is also important to have the same vision internally, so you can put a clear concept externally, says Jacqueline Stammeijer. Diversity has its benefits, but sometimes it is good to specialize and just focus on the goals a company has envisioned. Balance is important. When you have a lot of main goals, it is also harder to find all your important stakeholders and organisations says Dorine Rüter. Jorinde Kipp also mentioned that you have to be clear in your communication and your concept, so you can attract people and encourage them to join.

#### 4.6 Physical appearance

The physical appearance can increase the quality of life in an area (Croonen et al., 1995). From the observations emerged that an urban garden improves the physical appearance. Especially when the weather is warm, and the greenery is actually green. A green public place has a positive impact on the appearance of the street or area. A garden is in contrast with the rest of the appearance of the area. From personal experience the place that includes a garden looks more friendly, attractive and has an inviting appearance. This gives the neighbourhood a physical boost. A resident who participates in 'Groengood' said her neighbourhood used to have a bad image. The community garden contributed to the physical appearance and the participant also feels safer now. 'Tuin op de Hofbogen', 'Park Pompenburg' and 'de vredestuin' are gardens that are located close to the Rotterdam Central Station. The greenery is in contrast with the high buildings, railway and grey surroundings. If the gardens would not exist at their current location, the area would be more lifeless. 'Tuin op de Hofbogen' is a rooftop garden and is open as a park. In the field next to the vegetable garden, artworks could be seen on the rooftop. During the observations at 'Tuin op de Hofbogen', a group that existed about 25 people were visiting the park and were taking pictures as shown in Figure 11 and Figure 12. The rooftop garden is not that high, it is surrounded with higher buildings. For people living in those apartments, the rooftop garden might be a more pleasant view. Because the apartments do not include a garden, the park can also serve as a garden for those residents.



*Figure 11: Surrounding buildings have a view on the roof where 'Tuin op de Hofbogen' is located (Author, 2018).*



Figure 12: Pieces of art at 'Tuin op de Hofbogen' as an attraction for visitors (Author, 2018)

#### 4.7 Guidance

As is mentioned in the project framework, an obstacle that may occur is the difference in knowledge about food and farming between real farmers and citizens (de Haan, 2015). But in practice, this was not a big problem, because at many urban farming initiatives there is someone who supervises the group. Max de Corte also said it is specifically one of the reasons for people to participate. People visit to learn more about urban farming. The interviews with the urban farming initiatives were with respondents who are supervisors at their organisation themselves. They all indicated that guidance of the group is very important. The supervisor can be a gardener, but also someone who guides the volunteers with their integration, or they can be someone who arranges everything within the organization. While joining a working moment, it became clear that guidance is necessary. Especially if a participant does not have knowledge about gardening, it can be quite hard to distinguish the plants. If there was no guidance during the working moment, I would have no idea what to do. So, it was nice to have a person who could explain or help visitors of the garden. In many cases, when looking at the interviews, it is a combination or even more of these functions that supervisors fulfil. It can be hard to find the right person who is suitable to guide the group as Dorine Rüter is saying.

*“They need to be able to cook, to be fun around kids, to be able to guide volunteers and even to know when to have a clean fridge in case the food inspection decides to drop by. So, they must have a broad skillset.” (Rüter, 2018, personal communication)*

These tutors are often paid employees. One of the things 'Wollefoppengroen & Co' would like to have is a green manager as they call it. Someone like a professional who is paid to work for four days a week for example, which would allow the initiative to do more for a neighbourhood as Frenk Walkenbach is saying. Lack of farming or gardening knowledge is not a problem, as long as

there is someone who can guide the volunteers. The supervisor should be able to do a lot of different tasks. There are not many of them and they often earn little. This brings us to an obstacle that has emerged in all the interviews with urban farming initiatives. There is a lot of work for little payment and little available guidance. Jorinde Kipp explained that the executives are all very enthusiastic, but that they have to be realistic. There is a lot of work, but you have to draw your limits. Another gardener at 'Groengood' said she finds it sometimes difficult to be a supervisor. There is a lot of work to do, but there are not enough participants. Because participants should not get the feeling that they are obligated to achieve a minimum task or feel pressure, it can be hard to keep up with everything that has to be done in the garden. Jacqueline Stammeijer also said she would like to have more people who work in the garden, but you need good supervisors. Sometimes she is guiding the group the whole time, which means she has to ignore her other work. When it comes to maintaining the network, there is too much to keep up with when there are only one or two persons managing those relationships.

#### 4.8 Other obstacles

Another obstacle which emerged at 'Groengood' is the lack of facilities. For example, there is no toilet or drinking water. This is disturbing for the volunteers and supervisors. This became clear again during the observation. During a very warm day, it would be nice if there was drinking water available. If one does not live nearby and if there is no toilet nearby, it is bothersome to not be able to take a short break to go to the toilet. Another problem occurs because the gardens are located in the city. The people from 'Groengood' mentioned that there is a lot of loiterers, vandalism, trash or dog poo. So, before work in the garden can start, everything has to be cleaned up. This is unfortunate and can be annoying, but the volunteers also indicate it is part of being located in the city.

## 5. Conclusion & Discussion

In the conclusion and discussion all the findings and most important results will be processed. A qualitative research has been carried out to answer the main and sub questions. The sub questions are formulated as following:

- What is the current condition of 'participation' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- What is the current condition of 'trust' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- What is the current condition of 'integration' in urban farming projects, and what must change in this dimension to improve its contribution to social cohesion?
- Are there any other unknown aspects that have an influence on the social cohesion?
- How do urban farming participants experience the contribution urban farming projects have on the social cohesion in their neighbourhood?

Urban farming projects pop up in the set-aside land throughout the city Rotterdam, to give the unused plots a useful function. These urban farming initiatives are set up by a certain group of motivated citizens. Urban farming contributes to the social cohesion in a neighbourhood because it brings people together. Different urban farming initiatives, citizens and the municipality of Rotterdam were interviewed, and questions were asked about the experiences and opinions of the respondents. Semi-structured interviews were held, where the questions were divided in the topics from the theoretical framework. Because it was a semi-structured interview, the answers were about the topics that are important to gain insights about. The impact of urban farming initiatives on the society is measured in three elements; participation, trust and integration. Other essential factors that are taken in account are the role of the municipality and corporation between initiatives.

### *Participation*

The interviews have shown that it is important for urban farming initiatives to have a low threshold. The observations show that the groups are all very open and inviting, because participants give new people the feeling they are part of a group and show interest in each individual. An urban farming project attracts people by being an open place where everybody is welcome to join and where there are no obligations or waiting lists. Personal interest is one of the reasons to participate in an urban farming project, but public awareness is another important influencer. It is important that citizens know what kind of urban farming projects exist. Urban farming initiatives try to improve brand recognition. This is achieved through advertisements, but a more social option is organizing several activities. Activities like events, workshops or festivals attracts new participants.

The interviews were held with different urban farming initiatives, so it became clear that urban farming initiatives can differ a lot from each other. Their goals are mostly alike, but they have quite a different approach. Also, urban gardens can differ a lot. The observations took place in different urban farming gardens and showed that the atmosphere was slightly different in each garden. For example, it varies per urban farming initiative or community garden what the population characteristics are of a group. Mostly it represents the people who live in the district. Some gardens or projects include a very mixed population, including people with different cultural backgrounds and difference in age. Another audience for these gardens is a group of highly educated people with interests in the environment and sustainability. But, what came forward in

the literature is the ethnical group that participates in these garden the most are Caucasian. This was pretty much in line with the results from the interview and observations where most of the members were white. From the literature could be concluded that people with the same background group together. This can cause the feeling of exclusion for other people, but it can also be used the opposite way. It can be an opportunity for bridging, people can try to convince other people from their own group to participate. In addition, children can also help to introduce urban farming projects to their parents to attract a more diverse public.

Urban farming participants have the feeling the social cohesion increases because of the community garden. People get to meet other people from their neighbourhood and their relationship with them improves. They meet neighbours who they otherwise would not have run into. But this is mainly between the people who actually participate. Participation is necessary for social cohesion and for urban farming initiatives to continue to exist. Participation encourages the social network, and this increases the trust between citizens. Which in turn affects the social cohesion in a community.

### *Trust*

Trust is an important indicator for social cohesion. Urban farming ensures that trust increases between participants. It also attracts more people in the neighbourhood to participate which will have additional positive effect on integration. So, trust has a positive effect on all the dimensions. The results were quite in line with the expectations, where trust between participants differ per urban farming project and community garden just like the population characteristics. Some urban farming groups function as a close group where people come to each other with personal problems or stories, while another community garden have a nice group but where there is only small talk. Some respondents indicated they would share their problems to another participant and they see other participants outside working hours. So, social trust in urban farming groups is not that big as in personal relations, but it does improve the social cohesion. People come to each other with problems, but not with highly personal problems. Normally it takes time for people to build up trust. As literature shows, people base their degree of trust on the quantity of good outcomes after they have taken a risky decision. It will take some time to build this trust, but the trust will increase when members of an urban farming initiative have spent more time with each other.

The degree of trust will have an influence on the support of the citizens. Therefore, the political trust should be improved. A big problem that occurs according to the interviews is the difficult cooperation with the municipality. Applications for subsidies or permission often take a long time because people are send to different persons or departments. The network between people from the municipality, citizens and companies has fallen apart and in addition, the information is not up-to-date or understandable. Because the communication between the municipality of Rotterdam and the citizens fails the expectations, trust decreases. This should change, the information towards citizens or urban farming initiatives should be clearer. The municipality of Rotterdam is already developing a working group to manage the network and making easier to find the right person that is needed.

Trust between initiatives should also improve. Not only between urban farming initiatives, but with all the stakeholders. When urban farming initiatives unite they can support each other, enlarge their network and maintain it. They should work together more, so they can lower the risks and higher their public awareness. This way, more people will be aware of smaller urban farming projects. When urban farming initiatives unite, they can also provide more resistance to the municipality of Rotterdam. The choice between building houses or conserving a green spot is

too easily made. With building houses the municipality earns money, but when there is more resistance to the removal of a garden, the municipality can become more aware of the positive functions of urban farming.

### *Integration*

One of the functions urban farming can provide is integration. In this research is looked at how urban farming projects can play a role in the integration of vulnerable groups. The results of the interviews were generally in line with the expectations. Integration of people from vulnerable groups can improve social cohesion because people from different population groups are bonding. Integration strengthens the relationship between people from different groups. A lot of urban farming initiatives work together with care institutions or people with a work limitation. This can be people with physical disabilities, ex-addicts, status holders or young people with a work limitation. Some participants can get a volunteer contract. For participants that want to receive social assistance benefits this is crucial since they need to show good will.

There are different opinions about whether integration through urban farming is a good idea. Some interviews indicated that urban farming should not focus solely on integration. It could also deter other people to participate, because the atmosphere will change in a group. People who need to integrate require more attention and time. Sometimes explanation must be explained more often because of language barrier or they need more accompaniment. Some participants are obliged to follow a certain integration-trajectory, what eliminates the idea of no obligations and voluntary participation. Urban farming projects should not become just a day care. People participate for recreation, being outside or get to know other people. So, it should not only be associated with people from vulnerable groups who need to integrate or re-integrate.

When it is not a problem for a particular urban farming initiative to involve these vulnerable groups or if integration is one of the goals of the urban farming initiative, it can certainly help these people with their integration process. Hotspot Hutspot is an example of an urban farming initiative that mainly focuses on integration. At Hotspot Hutspot they show that it can be really helpful for people or youth to develop themselves and re-integrate in society. This ensures a better flow to the labor market.

The problem that arises here is that it is sometimes hard to prove what urban farming initiatives contribute to society. The municipality wants to see numbers or a certain minimum outflow back to society, when they invest or give subsidy to an initiative. This can be difficult because some people take small steps but still make progress, but this is hard to show. A solution can be the union of initiatives, so they can guarantee a certain outflow number to the municipality. Also here, the trust of the municipality of Rotterdam in its citizens should be bigger.

### *Research question*

The results shows that all of the three dimensions are connected and they all have an influence on each other. The more people participate and the better the integration of people, the higher the trust will be. In addition, the higher the trust between people, institutions and in politics, the better the participation and integration will be. All of the problems that emerged from the interviews can be subdivided into one or more of the three dimensions 'participation', 'trust' and 'integration'. Because it is all closely linked, an improvement in one of the aspects can already contribute to the social cohesion in Rotterdam. So the research question *"Which conditions in 'participation', 'trust' and 'integration', are required in urban farming projects, in order to contribute optimally to social cohesion in Rotterdam"* can be answered as followed:

First of all, one improvement can help the other. Improvement in one dimension will stimulate the degree of improvement of other dimension. For the dimension 'participation' it is important to keep a low threshold. What urban farming initiatives can help is to increase their publicity and make people more aware of the urban farming projects or its possibilities. It would be helpful to unite and increase cooperation among urban farming institutions, as well as other stakeholders that are involved in urban farming. When urban farming initiatives unite they will have a stronger position in society. They will also stand stronger towards the municipality of Rotterdam when applying for subsidy. The municipality would benefit if they improve their information towards citizens, and they must ensure that the process for urban farming projects to apply or get information runs smoothly. The municipality should organise and try to maintain their network as well. A lower involvement of the policy makers from the municipality has an influence on the position which urban farming is considered important. To do this, policy makers must feel responsible to arrange this and manage to keep this network. Also, the financing structure must change in a way that further examines what an urban farming initiative could mean for a community. This also relates back to the dimension 'integration'. It is thus important for an urban farming initiative to be approachable, to unite and to collaborate. Besides contributing to the social cohesion in a community, it includes more aspects of social interaction in a society. This is what makes urban farming social farming.

## 6. Recommendations

To improve the contribution of urban farming to social cohesion, a few things must change. Recommendations are given to the municipality of Rotterdam and the urban farming initiatives in Rotterdam.

First off, the municipality of Rotterdam, must change its information and application process for urban farming initiatives so they are able to start up their project. The application process can be made easier by making a clear guideline for urban farming initiatives with a step by step explanation to get funded. It must state what is needed for the application and who they have to approach. Maintaining their network is therefore important. The working group that is drawn up by the municipality could be a proper start.. The information should be accurate so the municipality has to update their website when a contact person or information has changed. A guideline and better information towards citizens will also help the municipality avoiding unnecessary work. Applying will be much more efficient. The political trust will probably increase because citizens will have a positive attitude towards the municipality.

The municipality occasionally has the decision to remove an urban garden and replace it for a construction destination. Nowadays this happens too easily. The municipality should reconsider the advantages of an urban garden or try to find another place in the city that can be used for urban farming practices. Green roofs could be a solution to the lack space in the city. Instead of disappearing, urban farming projects would be given a new location.

Secondly, the recommendations for urban farming initiatives. These recommendations are not only for already existing urban farming initiatives, but it can also be helpful for new urban farming projects. For urban farming initiatives it can be useful to look at the composition of the neighbourhood. Urban farming initiatives should look at the population characteristics of the neighbourhood, this way they can see what is needed to attract these population groups. For example, if there are a lot of children in the area, if the garden is attractive for them they will include their parents. People with different backgrounds can get in touch with each other. Or, if an urban farming initiative is located in a poorer area of the city, do not put an expensive restaurant there. This will not attract the larger group of inhabitants in the neighbourhood. In terms of publicity, events can attract new people. Events like a festival, open days, workshops or markets. The interviews show that these events attract a lot of people. This does not only provide more participants, it also introduces more people to urban farming and increases the public awareness. Another way to improve publicity is to have a clear concept. If an initiative has their own identity and a target group, the advertisements can be specified on the particular group they want to attract.

Urban farming must unite. A union of urban farming initiatives will strengthen the initiatives but also urban farming in general. The initiatives can defend themselves better from the municipality. This can be useful when the municipality wants to remove the garden because of building plans. But also, in terms of integration, when the initiatives have to ensure a minimum outflow of participants back into society. The network can also be maintained better if urban farming initiatives have united. It will also be easier to get in contact with other stakeholders or other urban farming initiatives. More corporation can have a lot of benefits, especially for urban farming initiatives that are focused on the social contributions of urban farming. If urban farming initiatives with a focus on social value would work together more, they will help each other to achieve this. While for example, multiple urban farming initiatives with a focus on creating an

economic value, will clash in relationship. Working together can provide more people to participate and enhance social benefits. More cooperation's will put smaller urban farming projects on the radar and will increase the public awareness. Urban farming initiatives should try to make a platform. Several representatives of urban farming initiatives should meet once in a while to keep each other informed.

## 7. Reflection

While reflecting on this bachelor thesis, it became clear what went well in the research process and what could have been improved. There will be critically reflected on the research process. Because I was not sure about my thesis topic and research question it was hard to start and search for the right literature. During the process it became clearer, but next time I have to make sure that the focus and research question are clear. A specific focus of the research will also help with the literature study because it will be easier to find useful literature. A good start and a clear idea of what the research is about is necessary for a smooth research process and will reduce other problems in the further stage of our research.

The theoretical framework was very helpful to compose the interview guides. Because the literature showed that those subjects have an influence on social cohesion, it was useful to put these subjects in the interview guides. Because the interview guides should not be too long or too structured, the main part of the questions were about the important topics like 'participation', 'integration' and 'trust'. The interview guides changed slightly during the research process. While doing interviews, some other important aspects of urban farming came forward.

The selected organisations gave valuable information and were helpful to formulate an answer to the research question. It was nice to see that the respondents from the urban farming initiatives were enthusiastic to tell about their project. The urban farming initiatives were quite different from each other, which can be an advantage but also a disadvantageous. The urban farming initiatives included for example an organisation with several gardens trough Rotterdam, while another urban farming initiative only existed out of a restaurant and associated garden. Because the urban farming initiatives are quite different the results will give an global overview. It will give insights in the kind of urban farming projects that have an influence on obstacles. It will show if the barriers and strengths are similar or different to other kinds of urban farming projects. In this case, the outcomes were quite similar. Different urban farming initiatives can also be disadvantageous, because the view can be too broad. In addition, not all of the urban farming initiatives are observed. For example, with one of urban farming initiatives only an interview was held by phone.

When looking back at the interviews, it was sometimes quite hard to arrange them. There was not a lot of response and a lot of urban farming initiatives replied that they were very busy and did not have time or did not want to have an interview. I was lucky that there are a lot of urban farming initiatives in Rotterdam. In the future it might help to call right away, instead of mailing first. Because my casus was in Rotterdam, which is quite far to travel, I tried to plan two interviews a day or I tried to combine an interview and observation. During the observation where I wanted to take some pictures, the weather was not that good which had an impact on the number of participants. There were only four participants that day, so the pictures unfortunately did not include a lot of people.. During the first interview, I noticed that I was quite nervous. When I am nervous I started talking, but I had to let the respondent talk. Also, quiet moments are not bad, and I should have waited a little longer for an answer in those moments.

During the observations, I participated one time in two urban gardens. It was a good way to taste the atmosphere. If a researcher has to opportunity to join a working moment, it is probably a helpful tool to get more insights in peoples' experiences. It increases the understanding of the position of the respondent or the urban farming participant. But because most of the participants only saw me once, the role of me being a researcher was still active. Even though participants

were quite open for answering the short questionnaires, it is possible that their answers are slightly influenced because of the awareness of the researcher.

The reflection showed that the research has its limitations. These limitations can therefore be educational for further research

### 7.1 Recommendations for further research

This research is a broad study that includes different kinds of urban farming initiatives and throughout Rotterdam. It is not focused on a certain neighbourhood or initiative, so it gives a general overview. Despite the different kinds of urban farming initiatives, quite the same strengths and challenges emerged. This study is unable to encompass the entire population of Rotterdam. A limitation is the small group of participants or non-participants that is interviewed. The participants that are spoken to, are approached during a working moment or observation. The non-participants that are questioned, are the people who were nearby or walked past. Not a big number of non-participants is questioned. In further research it would be useful to have more in-depth interviews with participants and non-participants, because this research was not able to do these in-depth interviews. This will give more room for the participants or non-participants to explain their perspective. Another qualitative study can be done with the stakeholders. It was unexpected that the care-sector is already a major stakeholder. Further research could explore the stakeholders from the care-institutions. The care-sector plays a bigger role than expected and can help improve the integration. Certainly, also because there is a difference in opinion whether integration should be part of urban farming projects or not. Further research could interview care-institutions about their opinion regarding the disagreements, but also in what kind of way they might cooperate with urban farming initiatives to improve the integration of vulnerable groups. Besides the care-sector, schools might also be an interesting stakeholder to include in the study.

Because the urban farming initiatives were quite different, it is also an idea to focus on one kind of urban farming initiative. To get more insight in a specific sort of urban farming, the improvements can be more specific. For example, doing research that includes only urban farming initiatives that exist out of restaurant and associated gardens.

Besides further qualitative research, it might also be helpful to do a quantitative study. By doing a survey, it can be more generalized to the entire population of Rotterdam. A survey might be useful to get to know the overall view of the reasons to join and the population characteristics of the (non)participants. When a greater population is questioned for the reasons why they do or do not participate, a more general and specific outcome will come forth. This allows better response to the reasons not to participate to make it more attractive for non-participants to join. The population characteristics can make a clear understanding in how diverse urban farming in Rotterdam is. The perception of the observations is limited. Several working moments are observed, but these are snapshots of a certain working days and hours. It is possible that the atmosphere in a garden is totally different during another day, or another time. There can be other participants who join, or the weather might play a role. Quantitative study can lower the limitation, because it is a larger scale. Because the population characteristics and degree of trust between participants differs per urban farming projects and urban gardens it might also be interesting to do a quantitative study here. Further research can look if there is a reason for the degree of trust or population diversity in a certain urban garden or initiative. In what kinds of urban farming initiatives or urban gardens is the social cohesion the highest? Do demographics of

an urban farming initiative or garden constitute the degree of social cohesion? This might be an interesting subject for further research.

## 8. References

- Amirtahmasebi, R. (2008). *Food urbanism: urban agriculture as a strategy to facilitate social mobility in informal settlements*. Doctoral dissertation, Massachusetts Institute of Technology. Retrieved from: <https://dspace.mit.edu/handle/1721.1/44745>
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Berkeley & Los Angeles, United States. University of California Press.
- Avrotros (2017, August 26) Rotterdam in cijfers. EenVandaag. Avrotros. Retrieved from: <https://eenvandaag.avrotros.nl/item/rotterdam-in-cijfers/>
- Bourdieu, P. (1986), 'The Forms of Capital', in J.G. Richardson (ed.), *Handbook of Theory and Research for the Sociology of Education*. New York, Greenwood Press, pp. 241-258.
- Brenner, N., & Schmid, C. (2015). Towards a new epistemology of the urban?. *City*, 19 (2-3), 151-182. Retrieved from: <http://dx.doi.org/10.1080/13604813.2015.1014712>
- Bronsveld, C. (2014). *Onze oogst. Sociale effecten van Rotterdamse stadslandbouwprojecten*. Rotterdam, Netherlands. Trichis: Rotterdam.
- CBS (2015) *Sociale samenhang: wat ons bindt en verdeelt*. Centraal bureau voor de statistiek. Retrieved from: <https://www.cbs.nl/nl-nl/publicatie/2015/45/sociale-samenhang-2015-wat-ons-bindt-en-verdeelt>
- CityLab. (n.d.) CityLab010. Dit is CityLab010. Retrieved from: <https://www.citylab010.nl/over-citylab>
- Cresswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions* (3<sup>rd</sup> ed.). University of Nebraska, Lincoln. SAGE Publications Inc.
- Croonen, R.J., Hazendonk, N., Horsten-van Santen, Y., Pols, L., Van der Wiel, K. & Perik, A. (1995). *Visie stadslandschappen, Themarapport 5: Stadslandbouw*. The Hague, The Netherlands. Ministerie LNV
- Engbersen, G., Snel, E., & Weltevrede, A. (2013). *Sociale herovering in Amsterdam en Rotterdam: één verhaal over twee wijken-8* (p. 142). Amsterdam, The Netherlands. WRR, Amsterdam University Press.
- Foeken, D. W. J., & Mboganie-Mwangi, A. (2000). *Increasing food security through urban farming in Nairobi*. Germany, Feldafing. DSE.
- Food & the City (2012, February) *Stimuleren van stadslandbouw in en om Rotterdam*. Rotterdam, The Netherlands. Gemeente Rotterdam. Retrieved from: <https://www.rotterdam.nl/wonen-leven/stadslandbouw/FoodTheCity22022012Laag.pdf>
- Futurelearn (n.d.) *Planetary Urbanisation: Global Challenges in a Changing World*. Future Learn. UCD Dublin. Retrieved from: <https://www.futurelearn.com/courses/planetary-urbanisation#section-dates>
- Gemeente Rotterdam (2012, April) *Rotterdam sociaal gemeten: 4e meting Sociale Index*. Rotterdam, The Netherlands. Gemeente Rotterdam. Retrieved from: <http://docplayer.nl/58345691-Rotterdam-sociaal-gemetten-4e-meting-sociale-index.html>

- Gemeente Rotterdam (n.d.). *Inspirerende voorbeelden stadslandbouw*. Rotterdam, The Netherlands. Gemeente Rotterdam Retrieved from: <https://www.rotterdam.nl/wonen-leven/voorbeelden-stadslandbouw/>
- Gemeente Rotterdam (n.d.). *Stadslandbouw*. Rotterdam, The Netherlands. Gemeente Rotterdam. Retrieved from: <https://www.rotterdam.nl/wonen-leven/stadslandbouw/>
- Geukens, F. (2017). *Hangt sociale cohesie af van de ethnische diversiteit in een wijk?* (Masterthesis, University of Gent). Gent, Belgium. Retrieved from: [https://lib.ugent.be/fulltxt/RUG01/002/351/942/RUG01-002351942\\_2017\\_0001\\_AC.pdf](https://lib.ugent.be/fulltxt/RUG01/002/351/942/RUG01-002351942_2017_0001_AC.pdf)
- Grimm, N. B., Faeth, S. H., Golubiewski, N. E., Redman, C. L., Wu, J., Bai, X., & Briggs, J. M. (2008). Global change and the ecology of cities. *Science*, 319 (5864), 756-760. DOI: 10.1126/science.1150195
- Groengloed. (n.d.). *Groengloed Rotterdam*. Retrieved from: <https://groengloedrotterdam.com/over/>
- de Haan, M. K. (2015). *Urban agriculture 'hype or reality'? Scaling urban agriculture initiatives: evidence from the San Francisco Metropolitan Area*. (Master's thesis, University of Utrecht).
- Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Association*, 92 (4), 791-808. Retrieved from: <https://doi.org/10.2307/2586304>
- Hotspot Hutspot (n.d.) *Hotspot Hutspot*. Retrieved from: <http://www.hotspothutspot.nl/wat-wedoen/>
- Huijgens, M. (2014). *De invloed van sociale cohesie op participatie* (Master thesis, University of Utrecht). Utrecht, The Netherlands.
- Kalnay, E., & Cai, M. (2003). Impact of urbanization and land-use change on climate. *Nature*, 423 (6939), 528. Retrieved from: <https://doi.org/10.1038/nature01675>
- Knox, P., & Marston, S. (2014). *Human Geography Places and Regions in Global Context* (6 ed.). Harlow, England. Essex: Pearson Education Limited.
- Larsen, L., Harlan, S. L., Bolin, B., Hackett, E. J., Hope, D., Kirby, A., ... & Wolf, S. (2004). Bonding and bridging: Understanding the relationship between social capital and civic action. *Journal of Planning Education and Research*, 24(1), 64-77. Retrieved from: <https://doi.org/10.1177/0739456X04267181>
- Levasseur, M., Richard, L., Gauvin, L., & Raymond, É. (2010). Inventory and analysis of definitions of social participation found in the aging literature: Proposed taxonomy of social activities. *Social science & medicine*, 71(12), 2141-2149. Retrieved from: <https://doi.org/10.1016/j.socscimed.2010.09.041>
- Lowndes, V., Pratchett, L., & Stoker, G. (2001). Trends in public participation: part 2—citizens' perspectives. *Public administration*, 79(2), 445-455. Retrieved from: <https://doi.org/10.1111/1467-9299.00264>
- Luhmann, N (2000) 'Familiarity, Confidence, Trust: Problems and Alternatives', in Gambetta, Diego (ed.) *Trust: Making and Breaking Cooperative Relations*, electronic edition, Department of Sociology, University of Oxford, chapter 6, pp. 94-107, Retrieved from: <<http://www.sociology.ox.ac.uk/papers/luhmann94-107.pdf>>.

- Meurs, P. (2008). *Sociaal vertrouwen: een kwestie van durf*. SER/Verwey Jonker. Retrieved from: [https://www.verwey-jonker.nl/doc/actueel/overig/overig\\_nieuws\\_2008/brochure\\_verwey\\_jonker\\_pauline.pdf](https://www.verwey-jonker.nl/doc/actueel/overig/overig_nieuws_2008/brochure_verwey_jonker_pauline.pdf)
- Millington, G. (2016). The cosmopolitan contradictions of planetary urbanization. *The British journal of sociology*, 67(3), 476-496. Retrieved from: <https://doi.org/10.1111/1468-4446.12200>
- Moestuinman. (n.d.). *Over Moestuinman*. Retrieved from: <http://www.moestuinman.nl/over-moestuinman/wie-is-moestuinman/>
- Muijres, M. E. A., & Aarts, M. N. C. (2011). *Welkom in Rotterdam!: een studie naar interculturele ontmoetingen tussen 'oude' en 'nieuwe' Rotterdammers* (No. 273). Wetenschapswinkel Wageningen UR. Wageningen.
- National Geographic (n.d.) *Urban*. National Geographic. Retrieved from: <https://www.nationalgeographic.com/environment/habitats/urban/>
- Newton, K. (2001). Trust, social capital, civil society, and democracy. *International Political Science Review*, 22(2), 201-214. Retrieved from: <https://doi.org/10.1177/0192512101222004>
- Oberndorfer, E., Lundholm, J., Bass, B., Coffman, R. R., Doshi, H., Dunnett, N., Gaffin, S., Köhler, M., Liu, Karen K.Y. & Rowe, B. (2007). Green roofs as urban ecosystems: ecological structures, functions, and services. *BioScience*, 57(10), 823-833. Retrieved from: <https://doi.org/10.1641/B571005>
- Odé, A. & Walraven, G. (2013) *Binding en Burgerschap: Buurtbetrokkenheid in Rotterdam en Den Haag*. Apeldoorn. Garant. Retrieved from: [https://books.google.nl/books?hl=nl&lr=&id=RU4o1XkH4q4C&oi=fnd&pg=PA190&dq=participatietheorie&ots=KUxhf63AG5&sig=zRbfHmfTPnuWTwn8y94JeErIG\\_4#v=onepage&q&f=false](https://books.google.nl/books?hl=nl&lr=&id=RU4o1XkH4q4C&oi=fnd&pg=PA190&dq=participatietheorie&ots=KUxhf63AG5&sig=zRbfHmfTPnuWTwn8y94JeErIG_4#v=onepage&q&f=false)
- Oskam, I., Lange, K., & Thissen, P. (2013). *Vertical farming: technologie en innovatierichtingen voor de toekomst*. Amsterdam, The Netherlands. Publicatiereeks HvA Kenniscentrum Techniek, (1).
- Pameijer (n.d.). *Pameijer, Over Pameijer*. Retrieved from: <https://pameijer.nl/over-pameijer>
- Pouwelse, S. (2013). *Komend tot de (dorps) kern: sociale cohesie door een ruimtelijke bril* (Master thesis, University of Utrecht). Retrieved from: <https://dspace.library.uu.nl/handle/1874/287222>
- Purvis, K. (2015, March 26) *2015 challenges: urbanisation*. The Guardian. Retrieved from: <https://www.theguardian.com/global-development-professionals-network/2015/mar/26/2015-challenges-urbanisation>
- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European journal of social theory*, 5(2), 243-263. Retrieved from: <https://doi.org/10.1177/13684310222225432>
- RUAF (n.d.) *Urban agriculture: what and why?* RUAF Foundation. Retrieved from: <http://www.ruaf.org/urban-agriculture-what-and-why>
- Satterthwaite, D., McGranahan, G., & Tacoli, C. (2010). Urbanization and its implications for food and farming. *Philosophical Transactions of the Royal Society B. Biological Sciences*, 365(1554), 2809-2820. DOI: 10.1098/rstb.2010.0136

- Schnabel, P., Bijl, R., & de Hart, J. (2008). *Betrekkelijke betrokkenheid. Sociaal en Cultureel Rapport*. The Hague, The Netherlands. SCP.
- Siisiainen, M. (2003). Two concepts of social capital: Bourdieu vs. Putnam. *International Journal of Contemporary Sociology*, 40(2), 183-204. Retrieved from: [https://s3.amazonaws.com/academia.edu.documents/32972649/Siisiainen-\\_Bourdieu\\_vs\\_Putnam.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1530119225&Signature=ES95JzfOfEVQpJT5ZwHfOu9v45Q%3D&response-content-disposition=inline%3B%20filename%3DTwo\\_Concepts\\_of\\_Social\\_Capital\\_Bourdieu.pdf](https://s3.amazonaws.com/academia.edu.documents/32972649/Siisiainen-_Bourdieu_vs_Putnam.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1530119225&Signature=ES95JzfOfEVQpJT5ZwHfOu9v45Q%3D&response-content-disposition=inline%3B%20filename%3DTwo_Concepts_of_Social_Capital_Bourdieu.pdf)
- Simmel, G. (2012). *The metropolis and mental life*. In *The urban sociology reader* (pp. 37-45). London, England. Routledge.
- Stanley, D. (2003). What do we know about social cohesion: The research perspective of the federal government's social cohesion research network. *Canadian Journal of Sociology/Cahiers canadiens de sociologie*, 28 (1), 5-17. DOI: 10.2307/3341872
- Steenbekkers, A., Vermeij, L., & van Houwelingen, P. (2017). *Dorpsleven tussen stad en land*. The Hague, The Netherlands. SCP.
- Stolhandske, S. (2011) *Urban Farming in Vancouver*. (Master thesis, Simon Fraser University) Burnaby, Canada. SFU. Retrieved from: <http://www.cityfarmer.org/UrbanFarmingVancouver.pdf>
- Tonnies, F. (1905). The present problems of social structure. *American Journal of Sociology*, 10(5), 569-588. Retrieved from: <https://www.jstor.org/stable/2761955>
- Tromp, B. (1985). Sociologie en de stad. *Sociologische gids*, 32(2), 90-104. Retrieved from: <https://jdbsc.rug.nl/index.php/sogi/article/viewFile/20319/17791>
- Uit je eigen stad (n.d.) *Uit je eigen stad*. Retrieved from: <http://www.uitjeeigenstad.nl/onze-visie>
- Uslaner, E. M. (Ed.). (2018). *The Oxford Handbook of Social and Political Trust*. New York, United States. Oxford University Press.
- Veen, E. & Breman, B. & Jansma, J.E. (2012, November 20) *Stadslandbouw. Een verkenning van groen en boer zijn in en om de stad*. Wageningen University. Wageningen. Retrieved from: <http://library.wur.nl/WebQuery/wurpubs/fulltext/257743>
- Veen, E. J. (2015). *Community gardens in urban areas: a critical reflection on the extent to which they strengthen social cohesion and provide alternative food*. Wageningen University. Wageningen. Retrieved from: <http://library.wur.nl/WebQuery/wurpubs/fulltext/345279>
- van der Wilk, B. A. J. (2015). *Tuinieren als bron voor gemeenschap: een onderzoek naar sense of community volgens deelnemers en niet-deelnemers van stadslandbouw op voormalig braakliggend terrein* (Master's thesis, University of Utrecht). Utrecht, The Netherlands. Retrieved from: <https://dspace.library.uu.nl/handle/1874/325490>
- Wollefoppengroen & Co (n.d.). *Wollefoppengroen & Co*. Retrieved from: <http://www.wollefoppengroen.nl/index.php/3/over-ons>
- Woolcock, M., & Narayan, D. (2000). Social capital: Implications for development theory, research, and policy. *The world bank research observer*, 15(2), 225-249. Retrieved from: <https://doi.org/10.1093/wbro/15.2.225>

WUR (n.d.) *Stadslandbouw*. Wageningen University. Wageningen. Retrieved from:  
[https://www.wur.nl/upload\\_mm/3/c/0/93799b7e-ec71-4021-bd1b-50d4d0ceb762\\_Stadslandbouw9LR1.pdf](https://www.wur.nl/upload_mm/3/c/0/93799b7e-ec71-4021-bd1b-50d4d0ceb762_Stadslandbouw9LR1.pdf)

Yang, T. (2016, September) *Impacts of Urban Agriculture on Local Sustainability*. (Master thesis, Wageningen University) Wageningen. DOI: 10.3390/su2082499

Zeza, A., & Tasciotti, L. (2010). Urban agriculture, poverty, and food security: Empirical evidence from a sample of developing countries. *Food policy*, 35(4), 265-273. Retrieved from:  
<https://doi.org/10.1016/j.foodpol.2010.04.007>

*All other figures are own work. Quotes are own translation.*

## 9. Appendices

### 9.1 Respondent Overview

<b>Name</b>	<b>Function</b>	<b>Time &amp; Place</b>	<b>Organisation</b>
Jacqueline Stammeijer	Head Gardener	8-05-2018 Tuesday, 9:30 Marconistraat 39, 3029 AG Rotterdam	Uit je eigen stad
Jorinde Kipp	Chairman Groengood	8-05-2018 Tuesday, 12:00 uur Tuin op Hofbogen: Raampoortstraat, 3032 AH, Rotterdam	Groengood
Frenk Walkenbach	Co-founder Wollefoppengroen & Co	11-05-2018 Friday, 14:00 Interview by phone	Wollefoppengroen & Co
Dorine Rüter	Business Leader	14-05-2018 Monday, 10:30 Rotterdam Central Station. → Interview with other student from the UVA.	Hotspot Hutspot
Cees Bronsveld	Researcher	24-05-2018 Thursday, 10:00 The Municipality of Rotterdam	Gemeente Rotterdam
Max de Corte	Entrepreneur and founder 'moestuinman'	29-05-2018 Tuesday, 9:30	Moestuinman

## 9.2 Observation Scheme

Subject	Indicator	Findings/descriptions
<b>Social cohesion</b>		
	<b>Participation</b> <ul style="list-style-type: none"> <li>- Number of people joining</li> <li>- Young/old/student/etc.</li> <li>- Different cultural/ethnic backgrounds</li> </ul>	<ul style="list-style-type: none"> <li>- About 3 – 10 participants during a working moment.</li> <li>- Older people</li> <li>- Children</li> <li>- Young people</li> <li>- Internationals</li> </ul>
	<b>Integration</b> <ul style="list-style-type: none"> <li>- Does the initiative work on 'integration'</li> <li>- Are there people with a vulnerable background?</li> <li>- Cooperation with care/schools... etc.</li> </ul>	<ul style="list-style-type: none"> <li>- People with a voluntary contract.(two people that I met with a voluntary contract)</li> <li>- Someone wanted to improve the Dutch language</li> <li>- Included people from a care-institution</li> </ul>
	<b>Trust</b> <ul style="list-style-type: none"> <li>- Do participants talk about personal subjects/problems</li> <li>- Do participants see each other outside of working moments?</li> </ul>	<ul style="list-style-type: none"> <li>- Dinner together</li> <li>- People invite others to their home, wedding, birthday, etc.</li> <li>- Small talk, mostly not personal problems.</li> <li>- They start most of the time with some coffee or water to talk about what they are going to do that working moment and how everybody is doing.</li> </ul>
<b>Physical space</b>		
	<b>Physical space</b> <ul style="list-style-type: none"> <li>- Physical appearance/green</li> </ul>	<ul style="list-style-type: none"> <li>- Greenery</li> <li>- In contrast with the surrounded environment (high buildings, grey)</li> <li>- Nice appearance → Attracts other people who do not participate but do want to sit down in the park to relax.</li> </ul>
<b>Diversity population</b>		
	<b>Diversity population in the city</b>	<ul style="list-style-type: none"> <li>- Rotterdam, very diverse → a lot of people with different backgrounds.</li> <li>- Adults</li> <li>- Youth</li> </ul>

	Diversity population in urban farming projects/gardens	<ul style="list-style-type: none"> <li>- Most of the time white (all supervisors)</li> <li>- Some gardens include people with different characteristics, others do not.</li> <li>- Some include only adults, others include also children.</li> <li>- People from Switzerland, France, Italy, Australia,</li> </ul>
<b>Extra</b>		
	Other important/remarkable findings	<ul style="list-style-type: none"> <li>- Relaxing sphere</li> <li>- Approachable</li> <li>- Advertisements (advertisement in the bathroom from Central Station, flyer, welcome signs, description sign in the garden)</li> <li>- Participants are open to have a word</li> <li>- Working moments are not always suitable, a lot of people are working during those hours</li> <li>- Weather has an impact on the number of people who participate during a working moment.</li> <li>- Guidance is necessary for instructions and explanations</li> <li>- A lot of work</li> </ul>

## 9.3 Interview Guides

The interview guides from the municipality of Rotterdam, an urban farming initiative and the street-interviews are put in the appendices. Because the interview guides for the urban farming initiatives are more or less similar, one of the general interview guides is put as an example.

### 9.3.1 Interview Guide 'Urban Farming Initiative'

Organisation: ...

Name: ...

Function: ...

Date: ...

Location: ...

#### **Introduction**

First off, I would like to thank you for your time and effort to answer my questions. I will briefly introduce myself. My name is Lela Heerkens, I am a third year 'Social Geography, Spatial Planning and Environment' student at the Radboud University in Nijmegen. Currently, I am writing my bachelor thesis about social cohesion in Rotterdam through urban farming. The goal of my research is getting an insight in the way urban farming projects can optimally contribute to the social cohesion. I am therefore curious about the way urban farming contributes to social cohesion, what is needed to contribute to social cohesion and what are the obstacles.

Because '*urban farming initiative*' tries to have a social contribution to the neighbourhood, I would like to have an interview with you. I think your experiences can help me give a better understanding in the role of urban farming in social cohesion. Before we start, I would like to ask for your permission to record the interview for further elaboration? Your data will be handled strictly confidential.

#### *Start recording*

The interview is mainly about your experiences what urban farming does for the social cohesion in the neighbourhood. Social cohesion is in my opinion the willingness of people in a society to work together to improve the quality of life.

#### **Introduction**

- Where does '*urban farming initiative*' stand for?
- What is according to you the goal of '*urban farming initiative*'?
- What is your function at '*urban farming initiative*'? (Volunteer?)

#### **Social cohesion**

- In what way contributes urban farming to the social cohesion in general?
- In what way does '*urban farming initiative*' contribute to the social cohesion?

#### **Participation**

- What does '*urban farming initiative*' do, to motivate people to join? (advertisements?)
- How many participants are there in a garden?
- What are the population characteristics of the participants? Why?
  - Male/Female
  - Age (young/old/student/elderly)
  - Cultural background
  - Education (high/low)
  - Employed/unemployed/people with a lot of free time
  - Religion
- Are there certain population groups that do not participate in urban farming projects? Why?
  - Is it possible that they feel excluded?
- How can these people be more involved?

### **Integration**

- Does the '*urban farming initiative*' also work with people from vulnerable groups?
- In what way can '*urban farming initiative*' help with the integration of people who would benefit from it, through urban farming?
- Are there any barriers that hinders the integration of these people?

### **Trust**

- Do participants see each other outside working moments? (strong relations?)
- Do participants come to each other with practical problems?
- Do participants come to each other with personal problems?

### **Obstacles**

- What are the most important stakeholders for '*urban farming initiative*'?
  - Is there a unusual suspect? (missing stakeholder)
- Is a shortage in knowledge (about gardening) a problem?
- Are there any other obstacles that hinder the improvement of social cohesion?
- What are the strengths of '*urban farming initiative*'?
  - Can this be strengthened?

### **Scenario**

- What is your future perspective on urban farming? (Mainly on social field)
- What needs to be fundamentally changed or implemented so the contribution to social cohesion will be optimal?

### **Interviews**

- For my research, I am looking for participants to ask them some questions. Are you familiar with an active citizen I could interview?

### **End of interview**

This is the end of the interview. Do you have any questions or comments?

I would like to thank you for your time and information. This will definitely help me further with my research. If you are interested, I can send you my bachelor thesis?

*Stop recording*

### 9.3.2 Interview Guide ‘Municipality of Rotterdam’

Organisation: ...

Name: ...

Function: ...

Date: ...

Location: ...

#### **Introduction**

First off, I would like to thank you for your time and effort to answer my questions. I will briefly introduce myself. My name is Lela Heerkens, I am a third year ‘Social Geography, Spatial Planning and Environment’ student at the Radboud University in Nijmegen. Currently, I am writing my bachelor thesis about social cohesion in Rotterdam through urban farming. The goal of my research is getting an insight in the way urban farming projects can optimally contribute to the social cohesion. I am therefore curious about the way urban farming contributes to social cohesion, what is needed to contribute to social cohesion and what the obstacles are.

Because the municipality of Rotterdam plays an important role, I would like to have an interview with you. I think your experiences get help me give a better understanding in the role of urban farming in social cohesion. Before we start, I would like to ask for your permission to record the interview for further elaboration? Your data will be handled strictly confidential.

#### *Start recording*

The interview is mainly about your experiences what urban farming does for the social cohesion in the neighbourhood. Social cohesion is in my opinion the willingness of people in a society to work together to improve the quality of life.

#### **Introduction**

- Can you tell me what is your function at the municipality of Rotterdam?

#### **Social cohesion**

- How is the social cohesion in Rotterdam according to you?
- In what way does the municipality of Rotterdam contribute to the social cohesion in Rotterdam in general?
- Is it visible for the municipality of Rotterdam to see improvement in social cohesion in a neighbourhood?
  - o What kind of influence has an urban farming project on the neighbourhood?
- In what way contributes urban farming to social cohesion in general according to you?
- How does the municipality of Rotterdam contribute to the social cohesion through urban farming?

#### **Participation**

- Does the municipality encourage urban farming projects or people to participate in an urban farming project?
  - o How?
- Do you know what the population characteristics are from the people who are interested in urban farming?

- Why do you think certain population groups do not participate in an urban farming projects?
  - o Is it possible that they feel excluded?
- How can these people be more involved?

**Integration**

- Do you think urban farming can help with the integration of people from vulnerable groups?
  - o Why/why not?
- How can the municipality of Rotterdam improve integration through urban farming?
- Are there any obstacles that hinder the integration of these people?

**Subsidy**

- Supports the municipality of Rotterdam every urban farming initiative?
- What is a reason for the municipality of Rotterdam to invest in an urban farming initiative?
- What does the municipality of Rotterdam want to see in an urban farming initiative?

**Obstacles**

- I spoke to several urban farming initiatives, and they mentioned it was sometimes quite hard to start a project. (They thought the information was not clear, and the process for an application or permit takes a long time.
- According to some urban farming initiatives it takes a long time before something has been done? How do you look at this?
  - o Is it possible to improve this?
- Are there any other obstacles that hinder the improvement of social cohesion?
- What are the strengths of the municipality of Rotterdam on social field?
  - o How can this be strengthened?

**Scenario**

- What is your future perspective on urban farming? (Mainly on social field)
- What needs to be fundamentally changed or implemented so the contribution to social cohesion will be optimal?

**End of interview**

This is the end of the interview. Do you have any questions or comments?  
 I would like to thank you for your time and information. This will definitely help me further with my research. If you are interested, I can send you my bachelor thesis?

*Stop recording*

### 9.3.3 Street-Interview Guides + Notes

#### *Street-Interview Guide Participant*

- What is the reason to join in urban farming?
- How did you find this urban farming initiative? (Was it easy to find?)
- What do you think keeps back other people to join in urban farming?
- In what way can we attract these people more?
- Do you work sometimes with people from a vulnerable group?
- Do you see the other participants also outside of working moments?
- Would you come to another participant with practical/personal problems?
- Do you have the feeling urban farming contributes to the social cohesion in a neighbourhood or community?
- Do you have the feeling that your relation with the neighbourhood or community is stronger because of urban farming?
- What would you like to see different in an urban farming project? (obstacles?)

#### *Street-Interview Guide Non-Participant*

- Are you familiar with urban farming (projects)?
- What is the reason for you, not to participate in an urban farming activity?
- What needs to change to make it more attractive for you or others to join in an urban farming project?
- Do you have the feeling that urban farming contributes to the social cohesion in the neighbourhood?

#### *Street-Interview Examples: Notes*

During the street-interviews, the answers are noted. Some of the answers are described as an example in this scheme.

<b>Street-interviews</b>
Participant who lives nearby and walked past the garden. After a while she had the courage to ask what the people in the garden were doing and asked if she could join. The reasons to participate is because it is close to where she lives and she wants to meet new people through urban farming. She participates in the gardens about four times a week. She mentioned there is a lot of trash in the gardens, because the gardens are located in the city. Participants must clean the place first before they can start working, this is quite annoying.
Participant who knew one of the supervisors of the urban farming initiative. He was invited by someone to join in the gardens. He likes it because of the greenery in the middle of the city, and he can meet other people. He works in the garden almost every day, and has a voluntary contract. Mentioned there is a lot of trash in the gardens, because the gardens are located in the city. Examples of this are trash, wine bottles, dog poop and plastic. It would be nice if signs would be placed, what says it is forbidden to let your dog poop here.
Participant felt more bonding with her neighbourhood and with the people living in the neighbourhood. When she came to work as a volunteer at the urban farming organisation, her network increased too.

International participant who has a background in environmental sciences. He is interested in getting to know other people, volunteer work and he likes to work in a garden. Fighting poverty is also one of his reasons to join. He works in a garden two times a week. He found the urban farming initiative on the internet, he was specifically searching for something like this and found the website.

A participant was looking for volunteer work and found the urban farming initiative on the internet. She likes to be outside and is working again after being sick. She said it is a good way to slowly start with working again and she comes once a week. She told that the group is close, but she would not come to other participants with personal problems. It contributes to social cohesion because people can meet other people. It is a meeting place. The garden is close to some flats, and this could function as a garden for those people living in the flats.

Participant who lives in an apartment that is close to the community garden. He does not own a garden, and this way he can still have a garden.

A participant was going to live nearby, she already heard of the community garden in her neighbourhood. When she moved, she walked by and was immediately enthusiastic. She wanted to join because she thought it looked nice. Other reasons are working outside, meet new people and for fun and relaxation. She expected that people who need the harvest the most, would participate more. But the people who participate are mostly people who come for their social network. People who need to recover from a burn-out for example. Sustainability and social benefits are most of the time the reasons for people to join. There is little participation from people who need financial assistance. Obstacle for people to participate can be the working hours. She explained the working moments are during the day, and a lot of people work during those moments. She thinks it is personal interest that attracts people to join an urban farming project. If people are interested in gardening people would join, but if they do not like it, they do not come to work in the garden. She thinks it helps to be as open as possible (low threshold) and try to spread the message or urban farming project (publicity). She said the group has a good relationship. She also sees other people outside the working moments and they have dinner together. She also mentioned that everybody was invited for another participants wedding. She would come to other participants with small problems, and sometimes they discuss personal things. She says the community gardens improves the neighbourhood. It used to be a neighbourhood that was quite scary and unsafe. The community garden contributes to the physical appearance. Her relationship with the neighbourhood is higher. She does not know what should change in the urban farming initiative.

The participant was looking for a volunteer work, and found the website of the urban farming initiative. He comes once a week and likes to work outside, meet new people and he likes the idea of sending the extra food to the 'Voedselbank'. Participating in an urban farming project also improves his Dutch language. He says it is a close group, but he does not see the other participants outside working hours. He thinks urban farming is important in Rotterdam because there is not a lot of space for people to meet other people. Urban farming brings people and companies together. He thinks it can help if the municipality of Rotterdam would make more money available for urban farming, so more of these urban farming projects can pop up in the city.

A non-participant does not feel the need to work in a garden. Because he is just not interested, there is not something specific that needs to change so he would participate. He does think the garden is an improvement for the area.