MASTERTHESIS

Greening strategies, participatory planning and liveability

Anne Paap
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Master Thesis Spatial Planning

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Preface

In front of you lies the Master thesis 'Greening strategies, participatory planning and liveability'. This thesis consists of a qualitative research that is done to complete my master's Spatial Planning. The study was conducted between March and August 2022.

The subject mainly came forward from my interest in sustainability and greenery. As a spatial planner, I am of course always interested in how something influences people. Participation has also been added to this because this is something that the municipality of Amsterdam is already working on. Therefore, I was curious about how greening strategies and participatory planning can contribute to improving the liveability of a neighbourhood. The specific choice for the case study Geuzenveld emerged from a conversation with Omniplan and an insight into the projects in which they are involved in.

There are, of course, struggles that come with the writing of a Master's thesis. I expected reaching professionals to interview would be the most challenging and reaching the residents would be easier. This turned out to be the other way around, as finding residents willing to participate was a bigger challenge than expected. However, after several days 'on the field' I managed to interview nine residents. In this way doing this research taught me again that you should not let setbacks hold you back. Furthermore, it also taught me that in spatial planning it is really important to talk to people and not implement or organize things in a top-down way only.

During the process of this research I was supported and helped by several people. Firstly, I would like to thank my supervisor Niki Frantzeskaki for her feedback and suggestions during our weekly meetings. Her feedback always had a positive note which has kept me motivated. Secondly, I would like to thank all the people that participated in my research. Thirdly, I would like to thank Omniplan for, among other things, the network that helped me to get in touch with professionals in the neighbourhood. Furthermore, I would like to thank my colleagues of Omniplan that took the time to listen and think along. Lastly, I want to thank my boyfriend, friends and family for supporting me through proofreading or simply listening to my struggles regarding the thesis.

I hope you enjoy reading my masters' thesis.

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5th of August 2022

Abstract

Recent developments indicate that greenery, participation, and liveability require increasing attention. The pandemic showed that a green environment is important for both mental health and physical health (Uchiyama & Kohsaka, 2020). Participation on the other hand, plays an important role in the 'Nieuwe Omgevingswet' (Gieling & Haartsen, 2016). The liveability of cities becomes more and more important due to the increasing city population (Ritchie & Roser, 2019). To be able to improve the liveability by using greening strategies and participatory planning, it is needed to gain more knowledge of the relation between these three elements. Therefore, this research aims to answer the following research question: '*How and to what extend do greening strategies and participatory planning in the neighbourhood Geuzenveld in Amsterdam contribute to improving its liveability?*'

In this research, the neighbourhood Geuzenveld, located in Amsterdam, is used as a case study. The focus is on this neighbourhood because here participatory planning and greening strategies have already been used in practice to improve the liveability. During this research, different methods are used to gather the findings. First, document analysis was performed on seventeen documents varying from the global to local level to get insight into the planning context. Furthermore, fifteen people are interviewed, some of whom were residents and some who were involved as a professional in the neighbourhood. This was to gain on the one hand insight into the experience of the residents and on the other hand how the professionals contribute to the liveability in Geuzenveld. Lastly, observations have been done to see what the greenery actually looks like and how it is used.

The findings of this study generally correspond to what was expected from the literature. Unfortunately, there is not found a clear direct relationship between the three elements (participatory planning, greening strategies, and liveability). However, it has been found that greenery can indeed contribute to improving liveability. This is especially the case when a green environment is seen as important by the residents. Furthermore, the residents have the opportunity to participate in different ways and participation can at least indirectly contribute to liveability because it provides insights into the requirements of the residents. To get an even better insight into the effect of participatory planning and greening strategies on liveability, it is recommended to do more extensive research that both uses surveys and interviews as research methods.

Keywords: urban planning, participatory planning, greening strategies, liveability

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Glossary

Dutch	**English***	**Explanation/ definition †**
Nationale Omgevingswet	National Environmental Law	
Nationale Omgevingsvisie	National Environmental Vision	
Nederland Natuurpositief	The Netherlands Nature Positive	Policy document regarding nature
Bouwen aan een gezonde stad	Building for a healthy city	Policy document regarding towards healthy city
Groenvisie	Greening Vision	
Omgevingsvisie Amsterdam	Environmental Vision Amsterdam	
Beleidskader participatie	Policy framework participation	Policy document regarding participation
Nota duurzaam landschap	Nota Sustainable landscapes	Policy document regarding sustainable landscapes
Amsterdamse Gezondheidslogica	Amsterdam Health logic	Policy document regarding a healthy living environment
Actualisatie bestuursopdracht Ontwikkelbuurten	Actualisation policy 'Ontwikkelbuurten'	Policy document regarding the tasks for the 'Ontwikkelbuurten'
Gebiedsagenda Nieuw-West	Area agenda Nieuw-West	
Ontwikkelbuurten	Development areas/neighbourhoods	Specific neighbourhoods in Amsterdam that score lower than the rest of the city on multiple aspects
Buurtwerkkamer	*No direct translation possible*	This is some sort of resident centre that is managed by residents themselves
Rijksinstituut voor Volksgezondheid en Milieu (RIVM)	National Institute for Health and Environment	
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties (BZK)	Ministry of the Interior and Kingdom Relations	
Wijkpartners	Neighbourhood partners	Stakeholders besides residents that have an important role in the neighbourhood
Gebiedsmakelaar	*No direct translation possible*	Someone working for the municipality who is actively involved in the neighbourhood and has close contact with the residents
Gebiedscoördinator	Area coordinator	The 'gebiedscoördinator' coordinates 'gebiedsmakelaars' of a specific area
Moestuinbakken	Mini garden/ vegetable garden scales	
Toekomstcafé	Future cafe	A meeting where residents get the opportunity to think and talk about the future of a neighbourhood or city

* Most of the translations are a direct translation to give a bit of an idea what the names refer to.
† Here a definition or short explanation is given when needed

Buurtbudget	Neighbourhood budget	This is some sort of platform where people can submit an initiative/idea for their neighbourhood
Groen in de buurt	Greenery in the neighbourhood	'Groen in de buurt' is a platform/counter where people can submit a greening plan
Leefbaarometer	Liveability monitor	The 'leefbarometer' is a model that can monitor the liveability of different neighbours and streets in the Netherlands

1. Introduction

'*A lot of Dutch urban neighbourhoods do not have enough public green per house*' is the title of a recent news article of NU.nl (ANP, 2022). The article is about the study of the environmental organisation Natuur & Milieu (2022) which shows that Dutch urban neighbourhoods do not have enough public green and that cities are getting grey, meaning they have a lot of pavement and buildings. In their study, Natuur & Milieu looked at two aspects for measuring petrification. The first aspect is at least 75 square meter public green per home. The second aspect is related to the advice of the World Health Organisation [WHO] of having at least one hectare of continuous green per neighbourhood (World Health Organisation, 2016). The research concludes that half of the Dutch neighbourhoods do not meet these two requirements and thus do not have enough green space (Natuur & Milieu, 2022). The grey city is not a new problem, but due to the pandemic and climate change it became more evident (Rijksoverheid, 2021). During the pandemic, visiting green areas became more important, for among other things, mental and physical health (Uchiyama & Kohsaka, 2020). It also became clearer that the accessibility and proximity of green space are important for the use of green spaces (Berdejo-Espinola et al., 2022) Furthermore, climate change results in higher temperatures, especially in the cities, and green can have a cooling effect while pavement has a heating effect (Mauree et al., 2019; World Bank Group, 2011).

Nowadays more than half of the global population lives in cities (The World Bank, 2018). It is expected that this amount will grow to more than two thirds of the global population living in urban areas by 2050 (Ritchie & Roser, 2019). This rapid growth comes with different challenges. In addition, cities also face challenges that come with the climate crisis, such as rising temperatures. This has a serious impact on cities in particular due to the Urban Heat Island Effect [UHIE] (Maimaitiyiming et al., 2014; Yang, 2014; Oke, 1973). UHIE leads to heat stress which describes the situation where high temperatures have a negative effect on people's health (Tan et al., 2010). Another challenge is that people feel more unsafe in urban environments, mainly because of lower social cohesion and the built environment, which mainly consists of high-rise buildings (Ruijsbroek et al., 2015; Zani, Cicognani & Albanesi, 2001; Dempsey, 2008). The challenge is to adapt to these problems and keep the city a nice and healthy environment to live in, therefore it is important to improve the liveability of the cities.

Different studies show that a green environment can contribute to a more liveable city (WUR, n.d.; Nieuwenhuijsen, 2021; Roo et al., 2011). It can increase the liveability in different ways. A green environment has a positive effect on health by improving people's health by reducing stress and encouraging physical activity (Kaczynski & Henderson, 2007; Schipperijn et al., 2013; Stigsdotter et al., 2010). Furthermore, a green environment can, in different ways, be used for climate adaptation, as it can reduce the temperature and improve the water drainage (Mauree et al., 2019; Gill et al., 2007). For example, trees can provide shadow and greenery is water permeable (Pérez et al., 2017). Furthermore, the World Health Organization [WHO] published a brief for action regarding urban green spaces. In this they state that green spaces and other nature-based solutions are a good way to increase the quality of urban settings (WHO, 2017). The Dutch government is also convinced that urban areas need to have more greenery, because it reduces problems caused by climate change and improves the biodiversity (Rijksoverheid, n.d).

As mentioned above greenery has different positive effects that can improve the urban liveability. In this research, liveability is defined as the ability of the living environment to support the quality of life and meets citizens' needs (Southworth, 2003; Sarkar & Bardhan, 2020). Greenery has a positive effect on liveability because it cools down the environment, improves the water drainage, reduces stress, encourages physical activity and social contact. The cooling effect in summer and improvement of water drainages during the rainy season contributes to greenery, creating a pleasant living

environment (Gill et al., 2007). In addition, being in a green environment reduces stress and indirectly provides physical activity and social contacts (Cohen et al., 2007). Physical activity improves people's health which has an effect on the quality of life (Kaczynski & Henderson, 2007). Social interaction and social cohesion have been shown to improve the feeling of safety, and in this way influence the quality of life (Maas et al., 2009). Participation also has an effect on liveability, some scholars argue that participation contributes to improving liveability while others argue otherwise (Hassan et al., 2011; Gieling & Haartsen, 2016). Participation is a commonly used planning tool, especially in the Netherlands where it is supported by the new 'Omgevingswet' (National Environmental Law) officially starting in 2023 (Gieling & Haartsen, 2016). According to Fors et al. (2015) and Hassan et al. (2011) participation can be effective for improving city planning, social inclusion and empowering citizens. In this way participation can have a positive effect on liveability (Hassan et al., 2011). However, in contrast other scholars are sceptical about the added value of participation in general and to liveability. They argue that participation can also lead to a volunteer burn-out, no choice volunteering and volunteering being exclusive to specific groups (Jancovich, 2015; Joseph & Skinner, 2012).

This leads to the following main research question:

How and to what extend do greening strategies and participatory planning in the neighbourhood Geuzenveld contribute to improving its liveability?

To answer this question the following sub questions are formulated:

1. How can greening strategies improve liveability?
2. How does participation in planning for greening contribute to the liveability?
3. To what extent does the greenery in Geuzenveld have an impact on the liveability of the neighbourhood?
4. How is the participation regarding green interventions organized?

1.1. Scientific relevance

This research is scientific relevant for multiple reasons. Firstly, because it studies the relation between the three variables (greenery, participation and liveability) together in one research. Secondly, this research examines the concept of liveability from a broader perspective than the current literature which mainly focus on a specific part of liveability. In addition, this research combines the different definitions of liveability to one main definition. Furthermore, during this research it is investigated further how greenery can contribute to improving liveability. At last, this research studies the contradiction of participation reducing or increasing liveability.

The scientific relevance of this research lies, among other things, on examining the relations between urban greening, urban liveability and participation. The relation between these three variables has not yet been studied collectively, but they have been studied together, separately. There have been studies on the relationship between liveability and greenery, participation and greenery and also about participation and liveability. This study will broaden the knowledge of the relationship between the three variables, greenery, liveability and participation.

The concept of urban liveability is well studied, but most studies focus on the definition and the effect of the economic circumstances (Kennedy & Buys, n.d.; Ley, 1990; Paul & Sen, 2020; Pacione, 1990). Likewise, most studies on the relation between liveability and greenery look at the impact of greenery on one specific aspect of liveability, for instance health or safety (de Vries et al., 2013; Groenewegen et al., 2006). Furthermore, there are some studies about the effect of greenery on climate adaptation, which is also important for liveability (Mauree et al., 2019; Gill et al., 2007). This is also related to

liveability because climate adaptation reduces the effects of climate change, such as heat stress and flooded streets (X. Li et al., 2021; Maimaitiyiming et al., 2014). This study broadens the knowledge on this topic by studying the effect of greenery on the concept of liveability as a whole. Therefore, the research will combine the different definitions of liveability to one applicable definition. The World Health Organisation [WHO] and Wageningen University and Research [WUR] argue that using green interventions can improve the liveability in the report Urban Green Space Interventions and Health (2017). This is relevant to further investigate as it may show how greenery can increase liveability, which is an important issue in many different places.

Furthermore, this research takes participation into account as a variable related to liveability and urban greenery. Studies show that people who participated in different ways view the neighbourhood as more liveable. While on the other hand there are also studies that show that people who participated view the neighbourhood as less liveable (Jancovich, 2015; Joseph & Skinner, 2012). In this research those two contradictions will be further researched, as well as how they relate to the situation in Geuzenveld. This is especially interesting because Geuzenveld is a neighbourhood with a low socio-economic status compared to the rest of Amsterdam (Research, Information and Statistics Amsterdam, n.d.). Furthermore, participation can also affect the quality of the greenery in the neighbourhood.

1.2. Social relevance

Urban liveability, greener cities and participation are all social relevant and related subjects. First of all, because more than 50 percent of the global population lives in cities. Secondly, the pandemic showed once again that a green environment is important for peoples' health. Finally, participation is an important topic in the new 'Omgevingswet'.

With more than 50 percent of the global population living in cities urban liveability needs to be improved to make cities a healthy living environment (World Bank, 2020). Peoples' health is negatively impacted by climate change and the Urban Heath Island Effect and due to the COVID pandemic the amount of people with mental health problems increased (Hossain et al., 2020; Tan et al., 2010). Research shows that these are all things that can be improved by creating a greener city (Navarrette-Hernandez & Laffan, 2019; Mauree et al., 2019; Gill et al., 2007).

Dutch cities do not have enough greenery per house, this while a green environment is important for people's health (Natuur & Milieu, 2022; Uchiyama & Kohsaka, 2020). The pandemic showed that available and close by greenery and nature is really important (Vogelbescherming Nederland, 2020). However, as mentioned the study of Natuur & Milieu (2022) showed that Dutch cities do not have enough greenery per house, so the amount of greenery in the cities should be increased.

Furthermore because of the 'Omgevingswet' participation became a relevant topic recently. It would have been introduced in early 2022, but is now suspended until 2023. Participation is an important pillar and government organisations have to show how their participation policies are structured. In addition, the municipality of Amsterdam also gives great importance to participation. Therefore, it is relevant to study if and how participation can contribute to improving the liveability in Geuzenveld.

Research into the effects of greenery on liveability and the role of participation gives insight into the effect of greenery on the whole concept of urban liveability. This is relevant because most recent studies are mainly focused on greenery and the effect on specific aspects of liveability. It will also help to understand in what ways green interventions affect the liveability and if it matters how the citizens are involved in the planning process. In this way this research will help to get insight in how green interventions can be best implemented to improve the urban liveability. It will also give the urban planners insight in how participation could be designed to improve the urban liveability. Furthermore,

by giving insight in the effect of the green interventions on the urban liveability it shows if interventions have the desired effects expected beforehand.

1.3. Structure

The paper consists of a total of seven chapters, of which the introduction is the first one. The second chapter is the theoretical framework, which gives an overview of the relevant academic literature and forms the basis for the rest of the research. Chapter 3 discusses the different methods that are used to obtain and analyse the data. After this the next chapter describes the planning context of the case study obtained through policy document analysis. Chapter 5 goes into the findings of the research. Continued with chapter 6 that discusses the findings in relation to the theory. Lastly, in the conclusion the research question will be answered followed by a reflection and some suggestions for implications and further research.

2. Theoretical framework

This theoretical framework gives an overview of the existing academic literature related to this research. It sets the basis for the rest of the research by providing relevant concepts and topics that can guide the empirical research. The chapter discusses the concepts liveability, urban green and participation and how these are related. Finally, the chapter closes with a conceptual model that shows a visual overview on how the concepts are related.

2.1. Liveability

Liveability is a commonly used term in policies, but also a fuzzy concept that does not have a universal definition. (Balsas, 2004; Paul & Sen, 2020). The concept of liveability does not have a universal definition, but the concept has already existed for ages (Mansour, 2016). In ancient times liveability was defined by Aristotle as living or doing well (Sofeska, 2017). The first time the concept appeared in Europe in the way it is used nowadays was in the 1960s in the field of rural studies. At that time, it was used as a reaction to the trend of urbanization and the challenges the rural areas faced to provide services like infrastructure compared to the cities (Tonkens, 1960). In the United States the term liveability was also used as a reaction, in that case, to the growth focused approach and it was used to promote planning for people and not for economy (Ley, 1980). Asian countries became well researched on liveability politics in the early 2000s, this started with the accessibility of physical facilities and amenities, and with the globalization the socio-economic aspects were added (Li & Yao, 2018; Paul & Sen, 2020; Wyatt, 2009). In the 1960s the interest in liveability in small and rural communities declined and it shifted to urban liveability (Tonkens, 1960; Mansour, 2016). This was the moment that (urban) liveability got a central role in urban studies, but it was not restricted to urban planners (Mansour, 2016; Hovey, 2008). According to Paul & Sen (2020) in 2009, liveability gained noteworthy attention as it was used by the new Partnership for Sustainable Communities [PSC]. However, nowadays it is still a frequently used term by urban planners, policy makers and other various institutions (Mansour, 2016).

2.1.1. Definition of liveability

As previously mentioned, liveability is a fuzzy concept, which means that it is difficult to define and does not have a universal definition (Balsas, 2004; Paul & Sen, 2020). There is no unanimity on the exact definition as different organisations have released their own indices to rank the liveability of cities around the world (Tan et al., 2019). Standards and characteristics of liveability are context and location related and differ from country to country and from city to city (Ruth & Franklin, 2014; Saitlunga, 2013). According to Khorrami et al. (2021) liveability is a hierarchical and multi-dimensional concept that consists of different criteria and can be evaluated in different ways.

Ley (1990) writes that there is an inherent conflict between two definitions of liveability. He discusses two sides of urban liveability: the middle class and the inner city (Ley, 1990). For the middle class a liveable city consists of a healthier environment and more attention to arts and culture. The inner city has a more elemental sense of the definition with the focus on social justice in the case of housing, public services, and jobs (Ley, 1990).

The concept of liveability is differently defined by various authors (Southworth, 2003; Kennedy & Buys, n.d.; Sarkar & Bardhan, 2020). These definitions have been compared and it seems that in general, liveability refers to the relationship between humans and the environment. Table 1 gives an overview of the different definitions, in the table the corresponding factors between these definitions are highlighted, giving rise to a comprehensive definition of liveability. Therefore, this research uses the following definition of liveability: the ability of the neighbourhood to support the quality of life and match the requirements of the citizens

Table 1. Definitions of Liveability from literature.

Authors	Definitions
Southworth, 2003	the concept of liveability is complex and encompasses many aspects of urban life: how well the city works for us, as well as how comfortable and enjoyable our neighbourhood and city are.
Sarkar & Bardhan, 2020	Liveability, the concept which connotes the ability of living space to support well-being or quality of life is an integrally crucial factor in urban areas. Studies on the concept of 'liveability', being devoid of any precise and universally accepted definition, embraces cognate notions such as sustainability, quality of life, the 'character' of place, well-being and health of communities.
Kennedy & Buys, n.d.	well-being of a community and representation of characteristics that make a place where people want to live now and in the future
Leidelmeijer & van Kamp, 2002	Translated: Liveability is the extent to which the environment relates to the requirements en wishes lined up by the people 'Leefbaarheid is de mate waarin de omgeving aansluit bij de eisen en wensen die er door de mens aan worden gesteld.'

Source: made by author

2.1.2. Components of liveability

The concept of liveability is essential for the programming, planning and managing of urban centres, and for evaluating spatial justice (Balsas, 2004). As mentioned, liveability can be defined and measured in various ways. It can be measured by using key performance indicators [KPIs], that can be both subjective and objective (Balsas, 2004; Saitluanga, 2014). In addition, different indices are used to measure liveability, which consist of different indicators (Balsas, 2004; Paul & Sen, 2020;Tan et al., 2014).The most commonly used indices are the Global Liveability Index (GLI) of the Economist Intelligence Unit (EIU), Mercer Quality of Life (QoL), Better Life Index (BLI) of the Organization for Economic Cooperation (OECD) and Urban Liveability Index (ULI) (Kashef, 2016; Higgs et al., 2019). These indices use multiple indicators to measure liveability. Every index uses slightly different indicators, but those indicators can be divided under the same four themes: urban infrastructure, facilities, social and economic (see Table 2). Those themes emerged when comparing the indicators of the different indices found. Table 2 gives an overview of the indicators of the indices and the themes they belong to. The themes are elaborated in more detail later in this chapter.

Table 2. Overview of different indices

	Indices **Component**	QoL (Paul & Sen, 2020)	GLI of EIU (Paul & Sen, 2020)	ULI (Higgs et al., 2019)	BLI of OECD (Kashef, 2016)
Theme	**Urban infrastructure**	Natural environment Recreation Public services & transport	Infrastructure	Green infrastructure Ambient environment Transport Walkability	Environment
	Social	Political & social environment Socio-cultural environment	Culture & environment	Social infrastructure	Social support systems Safety Governance Work-life balance
	Facilities	Housing Medical & health considerations Schools & education	Healthcare Education	Housing	Housing Education
	Economic	Economic environment Consumer goods	Stability	Employment	Employment Income

Source: made by author

Urban infrastructure

The first component is 'urban infrastructure'. Table 2 shows that every liveability index discussed, contains indicators related to the urban infrastructure of the city. According to Pandit et al. (2015) urban infrastructure is a network that can be subdivided into four major infrastructure components. These components are water infrastructure, energy infrastructure, transportation infrastructure, and the land use pattern of the urban environment. Figure 1 gives an overview of those components. Thus, indicators that are related to one of those four components can be considered under 'urban infrastructure'.

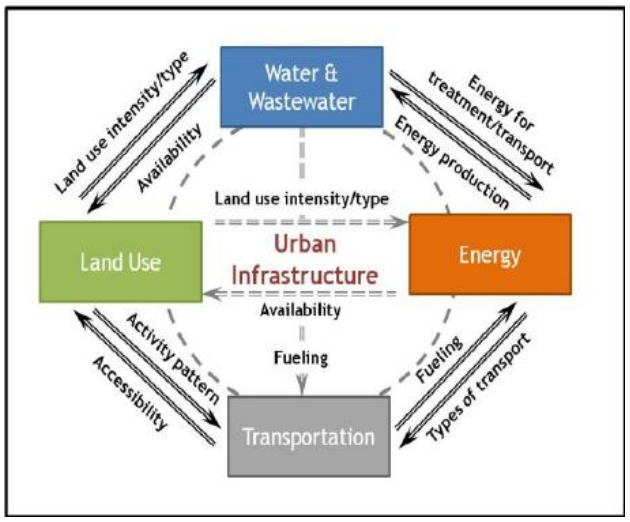

Figure 1. Components of urban infrastructure (Pandit et al., 2015, p.2)

Social Interaction

The second component is the social side of liveability, which relates to the social interaction between people. The corresponding indicators are mainly about the social, cultural and political environment. The indicators differ per index, but they are all in some way related. The QoL contains the indicators socio-political- and socio-cultural environment to the social side of liveability (Kashef, 2016). Other indices discuss safety and feelings of safety as an important aspect of liveability, this can be scaled under socio-political environment (Kashef, 2016: Badland et al., 2014; Higgs et al., 2019). Similarly, the indicators governance and local democracy can also be divided under the socio-political environment (Lowe et al., 2015; Badland et al., 2014). The BLI discusses besides governance and safety also social support systems, life satisfaction and work-life balance as social aspects (Kashef, 2016). Furthermore, the ULI specifically discusses social infrastructure which mainly consists of facilities that lead to social interaction, for example education and health care (Higgs et al., 2019). In this paper services like education and health care are divided under the theme *facilities*. However, facilities like community centres and social services are divided under this (*social interaction*) component of liveability because these correspond to the social indicators of other scholars and indices (Benita et al., 2021; Badland et al., 2014). So social refers to aspects related to the actual social interaction between people.

Facilities

The third component of liveability are the existing facilities in the neighbourhood. The theme 'facilities' is about the available facilities, for instance healthcare and education. As discussed above facilities are interwoven with the social component of liveability, because some contribute to the social environment as for examples leisure and education facilities. The important indicators of 'facilities' are education, healthcare, leisure, culture, housing and the availability of local food (Badland et al., 2014; Higgs et al., 2019; Kashef, 2016; Lowe et al., 2015; Paul & Sen, 2020; Tan et al., 2014).

Economic

The last component of liveability is 'economic', this is the most objective part of liveability. The indicators related to the economic side, mainly discuss employment and income (Badland et al., 2014; Higgs et al., 2019; Kashef, 2016; Lowe et al., 2015; Paul & Sen, 2020; Tan et al., 2014). Therefore, everything related to income or employment can be scaled under this component.

2.2. Urban green

In the scientific literature the terms 'urban green spaces', '(urban) greenery', 'green infrastructure', and 'green corridors' are used interchangeably, which means that they are often used to describe the same physical infrastructure in cities (Hunter et al., 2019; Li et al., 2016). These terms are used to describe urban spaces that are covered by any kind of vegetation, natural or semi natural ecosystems, which give the environment a green appearance (Hunter et al., 2019; Bilgili & Gökyer, 2012; de Vries et al., 2013). This can include large green spaces like parks or green buffers, but it can also include small green spaces such as trees and lawns (Li et al., 2016; Hunter et al., 2019). In this chapter the definition of green interventions will first be described followed by how greenery and green interventions can influence liveability. From the literature it became clear that proximity and accessibility also influence how green space affects people (Allam et al., 2021). This will be shortly discussed at the end of this chapter.

2.2.1. Green interventions

In this research it is studied to what extent green interventions improve liveability. Urban green space interventions can according to Hunter, Cleary and Braubach (2019) be defined as changes in urban green that modify the availability and features of the green space. This can be done by changing or improving the existing green space, creating new green space, or even replacing or removing green space. The majority of urban green space interventions can be divided into the following four main categories: park-based, greenways/trails, greening, and green infrastructure (Hunter, Cleary & Braubach, 2019). The park-based intervention involves a change in the physical environment only. Secondly greenways or trails involve the development of greenways such as walking or cycling trails. Thirdly, greening refers to interventions that are mainly aesthetic based. Furthermore, the green infrastructure interventions mainly have an environmental purpose, for example cooling urban areas or water management. In addition, Navarrete-Hernandez and Laffan (2019) categorized green interventions based on three scales: small, medium and large. Their study shows that the scale of the intervention can affect the impact the intervention has.

2.2.2. Relation with liveability

Different studies show that there is a relationship between green space and quality of life and liveability (Navarrete-Hernandez & Laffan, 2019; Roo et al., 2011). Urban green can provide benefits on many different levels (Chen et al., 2006; Bilgili & Gökyer, 2012). In this chapter the benefits of greenery are discussed along the lines of the themes of liveability as mentioned above (urban infrastructure, social, facilities and economic). The effects are discussed separately but they are all interwoven (Fan et al., 2011). Furthermore, there can also appear negative effects of urban green when it is not implemented in the right way, this is also discussed in this chapter (Bockarjova et al., 2020).

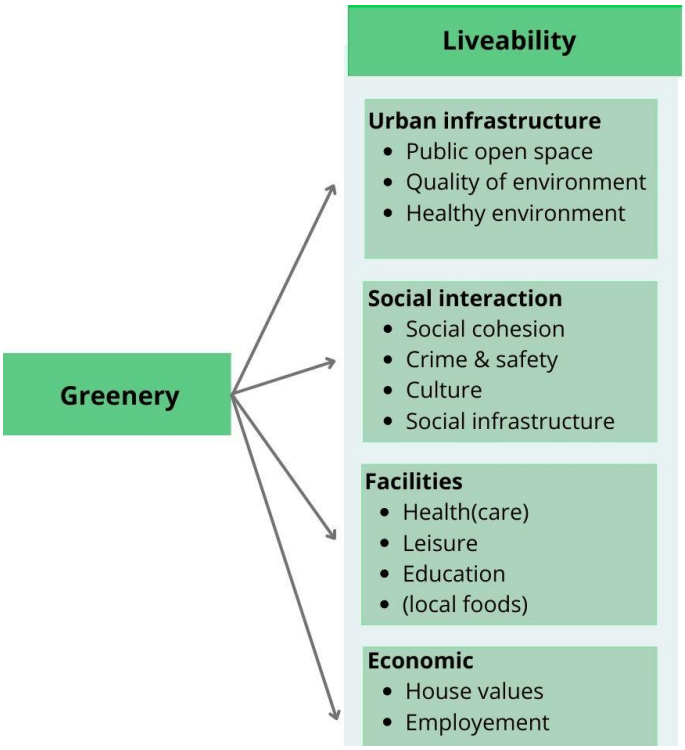

Figure 2. Effect of greenery on liveability (Source: made by author based on literature)

Urban infrastructure

As mentioned in 2.1.2 urban infrastructure consists of four components: water infrastructure, energy infrastructure, transportation infrastructure, and the land use pattern of the urban environment (Pandit et al., 2011). Green can have an influence on different components of urban infrastructure.

First, the most obvious impact of green interventions is that on the land use pattern, because of the changes in the physical environment (Hunter, Cleary & Braubach, 2019). For example, when a petrified environment (e.g., sealed surfaces) changes to a green environment or when a park or urban forest is created, the land use also changes. According to Jaszczak and Kristianova (2019) parks are an inherent aspect of the urban infrastructure which means that adding a new one or changing an old can have a considerable effect.

Secondly, green interventions have an impact on the water management and can cool down urban areas (Gill et al., 2007; Alm, 2007). This can be related to both water- and energy infrastructure, which are both part of the urban infrastructure (Pandit et al., 2011). In contrast to stones, greenery allows rainwater to not go directly into the sewer, but to be absorbed by the ground (Kim & Park, 2007; Žák, 2020). In this way greenery can improve flood storage and surface runoff that are effects of heavy rainfall (Gill et al., 2007). In addition, parks can provide specially designed water storage areas that store rainwater in case of excessive rainfall. Furthermore, urban green and especially trees with a high carbon sequestration rate, can reduce the UHIE (Schröpfer & Menz, 2019; Kim & Park, 2016). Urban green also has a colling effect by creating shadow (Pérez et al., 2017). This can indirectly impact the energy infrastructure because when the city is cooler people need less energy to cool the buildings.

Lastly, transportation infrastructure can be influenced by urban green. Improving the green environment supports active transport modes such as walking and cycling (Tsai et al., 2019). A reason for this is that bicycle and walking lanes are often located in, crossing through or close by urban green spaces. Besides this, urban green can also create a more aesthetic environment which makes active transport more attractive (De Kruijf et al., 2019).

Social interaction

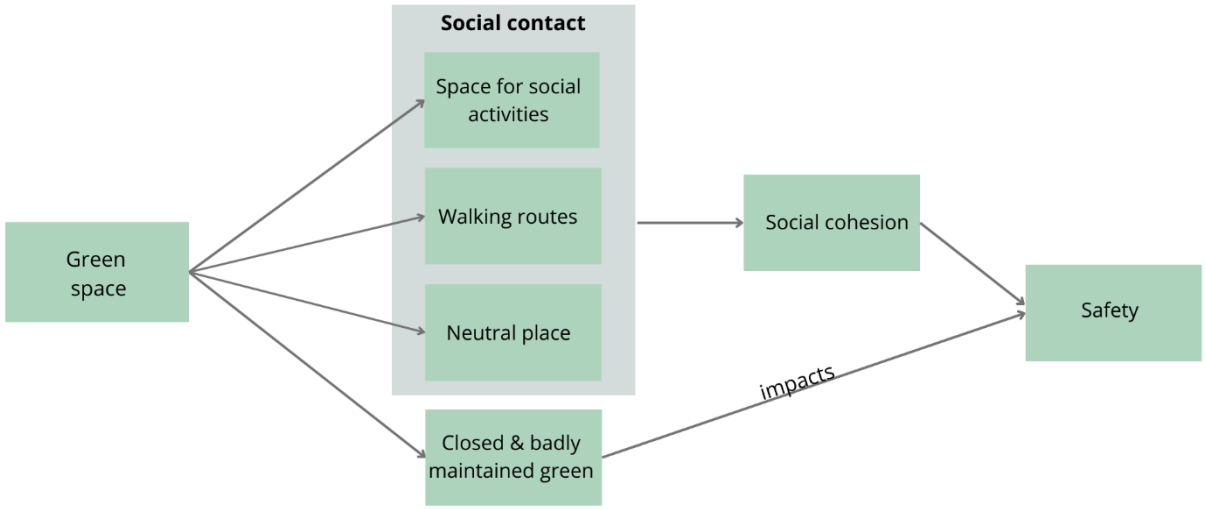

Figure 3. Overview effect of green on the social aspect (Source: made by author based on literature)

Various studies show that urban green spaces have a social function (Rasidi, Jamirsah & Said, 2012; de Vries et al., 2013; Godbey et al., 2005). Green areas, especially parks, provide an environment for different activities such as social gatherings, cultural activities, and physical activities (Bedimo-Rung et al., 2005; Godbey et al., 2005; Jaszczak & Kristianova, 2019). Examples of green areas with dominating social functions are walking routes where people meet every day, playgrounds, or places for barbecuing (Jaszczak & Kristianova, 2019). In small towns, green spaces are often used as a common living space, which creates strong local communities (Jaszczak & Kristianova, 2019). In the city parks are also used as a social meeting place (Faye & Le Fur, 2012). In this way green can increase the social cohesion.

Furthermore, greenery can in different ways have an impact on peoples' feelings of safety (Groenewegen et al., 2006). When there is a high social cohesion in a neighbourhood people often feel safer (Ross & Jang, 2000). In this way parks have an indirect positive effect on safety feeling. Furthermore, according to Kuo & Sullivan (2001) a green environment can reduce the crime rate. On the other hand, closed and badly maintained greenery can reduce the feeling of safety (Maas et al., 2009; Van den Berg & Ter Heijne, 2004). Moreover, it depends on the kind of greenery how it impacts safety (feelings).

According to Dunnet, Swanwick & Woolley (2002) green areas prevent exclusion, because they are neutral places and accessible for everyone. Furthermore, the opportunity of making new contacts and joined use of the green space also prevent social exclusion (Jaszczak & Kristianova, 2019). In contradiction, greenery can also increase social inequality by causing gentrification due to the raise of house prices (Haase et al., 2017; Tsurumi et al., 2018) more about the raise of house prices are discussed in below under 'economic'.

Facilities

Green areas can in various ways have an influence on the facilities in the neighbourhood this can be both direct and indirect. Adding greenery can improve the existing facilities (Jaszczak & Kristianova, 2019; Cohen et al., 2007). The improvements are described per facility below.

Health (care)

A green environment can have a positive impact on health, this can be both direct and indirect (Asano, 2006; de Vries et al., 2013). Direct impact of a green environment on healthcare is the influence it has on the healing process (Asano, 2006). The study of Ulrich (1984) shows that the patients with a tree-view had shorter hospital stays and less complications than the patients with the view on a brick wall. According to Marcus & Barnes (1995) hospital gardens also have a positive effect. The patients feel better and have more tolerance for their medical procedure after visiting the gardens. It also has an effect on the healthcare, because the green environment can reduce the stress of nurses and doctors (Ulrich, 1999). This shows that a green environment near a hospital can improve both the health and the healthcare.

Furthermore, a green environment can also indirectly influence healthcare by improving peoples' health, through stress reduction and physical activity (Cohen et al., 2007; de Vries et al., 2013). Research also shows that people that have a forest or urban green nearby have less mental health complaints (Akpinar et al., 2016). According to Akpinar et al. (2016) it is important to distinguish different forms of green, because the size of green in urban areas influences the relationship between mental health and green space.

Education

Education can be positively influenced by a green environment and especially by public parks (Jaszczak & Kristianova, 2019; Browning & Rigolon, 2019). Green (urban) space provides diversity in the

education process by being an option as an 'outer cognitive laboratory' (Jaszczak & Kristianova, 2019). Nature gives people, and especially children, the opportunity to experience what they learned about for example seasons or animals in real life. Moreover, by reducing stress and giving the opportunity to relax, a green environment also has an indirect impact on academic performance (Browning & Rigolon, 2019).

Recreation

Furthermore, green spaces have an impact on leisure and recreation by providing space for activities (Ellaway et al., 2005; Cohen et al., 2007; Fan et al., 2011). An attractive green environment motivates people to go outside and being physical activity (Pikora et al., 2003). Research of Sugiyama & Thompson (2008) shows that the quality of the green space affects the walking time. The proximity and accessibility of the park is also an aspect that influences the frequency people use it (Cohen et al., 2007; Coombes et al., 2010). Parks play a role in facilitating space to do physical activities and according to various studies this is especially the case for low income and minority groups (Camargo et al., 2018; Douglas et al., 2018). Green space and parks do not only provide space to exercise, but also provide a destination to walk towards (Cohen et al., 2007). Besides the space for physical activities, green spaces, especially parks also provide space for cultural activities like exhibitions, festivals or theatre (Jaszczak & Kristianova, 2019). As mentioned above by *social* green spaces provides a social meeting spot, there can be held small gatherings or barbecues (Jaszczak & Kristianova, 2019; de Vries et al., 2013)

Economic

Another aspect of liveability is on the economic side, which mainly consists of income and employment. Greenery does not directly have an impact on income, but it can in some ways influence employment. It can influence employment by providing leisure activities, maintenance and work at organized cultural activities. Furthermore, a green environment can impact other economic related aspects like for example the value of the houses in a neighbourhood (Bockarjova et al., 2020; Cadena & Thomson, 2021). This can both be positive and negative, because higher housing prices can lead to gentrification and social exclusion (Bockarjova et al., 2020).

2.2.3. Proximity and accessibility of urban green

According to Allam et al. (2021) the proximity and accessibility of urban green, especially by foot and bike, is important for improving the positive effects of green space. Naverrete- Hernandez and Laffan (2019) also discuss positive effects of green spaces nearby on peoples' well-being. Distance is a paramount aspect of the accessibility of green spaces. Research shows that with the increase of distance the frequency of the use of green space reduces (Coombes, Jones, & Hillsdon, 2010). With distance of more than 300 meters the use of the green space sharply decreases (Ekkel & de Vries, 2017). Ekkel and de Vries (2017) discuss two types of accessibility: residential proximity and cumulative opportunity. Residential proximity is about the proximity of greenery overall. Cumulative opportunity refers to that not only the closest big green space matters but that it is all about the total amount of greenery because the addition of small green spaces or greenery also leads to more contact with greenery.

2.3. Participation

Participation is a commonly used planning tool, it can be efficient for improving social inclusion, improving city planning and empowering citizens (Hassan et al., 2011). Furthermore, participation can improve green spaces and can thus both support liveability as a green environment (Fors et al., 2015). According to Gieling and Haartsen (2017) Dutch policymakers often assume that active citizenship contributes to liveability (Gieling & Haartsen, 2017; Leidelmeijer, 2012). However, many scholars are sceptical about the added value of participation (Jancovich,2015; Joseph & Skinner, 2012 beide uit Gieling & Haarten). Participation can also lead to no choice volunteering, a volunteer burn-out and volunteering being exclusive to specific groups (Timbrell, 2007).

In this chapter different forms of participation will be discussed followed by participation in urban planning and why and how this should or should not be used as a planning tool. Finally, the chapter ends with why and how participation has an impact on liveability.

2.3.1. Forms of participation

Before explaining different forms of participation, the definition of participation will be discussed. According to the Cambridge Dictionary (n.d.) participation is the fact that someone takes part or becomes involved in something. In addition, participation can be understood through different terms, for example, public participation and public involvement are interchangeable terms (Väntänen& Marttunen, 2005). Furthermore, a form of participation is user participation which refers to the participation of the people that will regularly use the specific space (Fors et al., 2015).

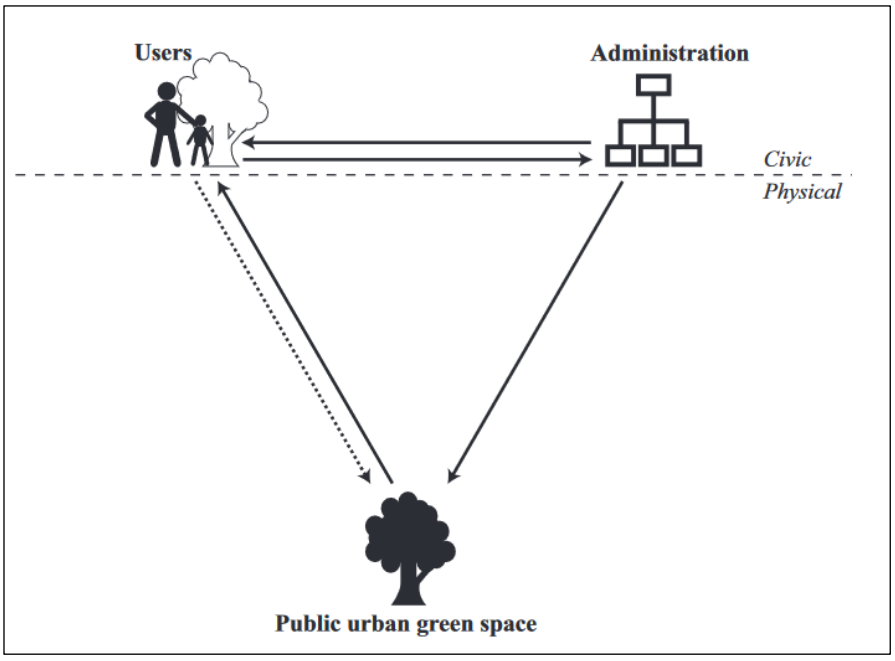

Figure 4. Relation between dimensions (Fors et al., 2015, p. 724)

In their paper, Fors et al. (2015) made an analytical framework to understand the participation in green space development (see Figure 4). The framework represents how the dimensions 'users' and 'administration' have an impact on the urban green. Administration refers to actors that receive the input of the participation process and are responsible for the green space development (Fors et al., 2015). Fors et al. (2015) divides participation in civic and physical participation. Physical participation can have a direct effect on green space while civic participation mainly requires additional implementation steps. In Table 3 an overview of examples from these two kinds of participation are given. These examples are divided into the making and keeping of greenery.

Table 3. Examples of civic and physical participation (Fors et al., 2015)

Phase	Type	
	Civic	**Physical**
Making	e.g., design, plan input, negotiation Master plan decision	e.g., construction of new site
Keeping	e.g., input in management decisions; fundraising and lobbying	e.g., tree assessment, maintaining vegetation (incl. training in doing so)

Source: Fors et al., 2015

Furthermore, to define the different levels of participation the participation ladder of Arnstein (1969) can be used. This ladder consists of eight forms of participation divided under three levels, which can be seen in Figure 5. The ladder is divided into three different degrees that all have their own subdivision. The ladder starts with nonparticipation to degrees of tokenism and to degrees of citizen power. The lowest level of the participation ladder is 'nonparticipation', the objective of this level is not to let people participate but to facilitate the powerholders to 'educate' the participants. The second level 'degrees of tokenism' consists of informing and consultation that allow the citizens to hear and give their opinion, but on this level, there is no follow-through by the powerful. Placation is a higher level of tokenism that allows the citizens to give advice, but the powerholders maintain the power to decide. The third level 'degrees of citizen participation' with increasing degrees of decision making, starting with partnership that enables the citizens to negotiate with the powerholders. On the highest rungs, delegated power and citizens control, citizens have the majority of power or even the full power (Arnstein, 1969). Thus, it really depends on the level of participation to what extent the citizens have an influence. According to Baycan-Levent and Nijkamp (2009) this is also the main factor that influences Urban Green Space planning.

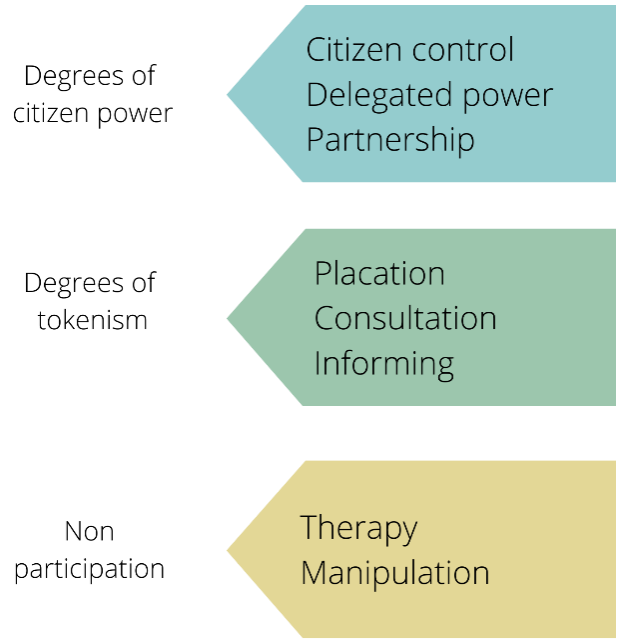

Figure 5. Ladder of participation (made by author adapted from Arnstein, 1969)

2.3.2. Participation in urban planning

In urban planning, participation is a frequently used planning tool because it can, among other things, be efficient for improving social inclusion, improving city planning and empowering citizens (Hassan et al., 2011). Talukdar and Hossain (2011) state that planning never happens without the involvement of the users and that this involvement leads to efficient sustainable planning. Furthermore, it is important that participation comes from two sides: the planner must be open to work with citizens and the citizens must be active (Fagence, 2014). Participation can be categorized as a policy related planning tool (Talukdar & Hossain, 2011).

Different scholars articulate various purposes and objectives of participation in planning. Glass (19797) discusses five objectives of participation: information exchange, education, support building, supplemental decision making and representational input. They also discuss two purposes of participation in the planning process: on the one hand to involve citizens in the process to increase their trust in the government and on the other hand to use their voice to improve decisions and plans. Innes and Booher (2000) discuss two purposes of participation that somewhat match those of Glass (1979). The purposes Innes and Booher (2000) discuss are that participation helps to assure that the preferences of people are heard and that the decisions can be improved because citizens can be more aware of the problems going on.

In contrast other scholars argue that participation is not only a good thing, but can also have negative sides (Morgan, 2013; Williams, 2002; Salemink et al., 2016; Timbrell, 2007). They argue that participation can actually be exclusive and not totally accessible. Participation is often a lifestyle decision and the residents that participate are a homogenous group consisting of middle aged, degree educated and the higher-class people (Morgan, 2013). In addition, participation mostly benefits high income groups that use it for network purposes, while lower income groups do not participate because they feel that those organizations are not for them (Williams, 2002). Sometimes there is no choice volunteering because one feels like they have to participate because nobody else will. Furthermore, it can lead to a volunteer burn-out when the government or market actors do not effectively collaborate which makes the participant feel like losing their voice (Salemink et al., 2016; Timbrell, 2007)

2.3.3. Participation and liveability

As mentioned, participation can have a positive impact on both liveability and the green environment (Fors et al., 2015; Hassan et al., 2011). Participation can have a positive impact on the green environment because for example in the case of civic participation they help to maintain the green environment (Fors et al., 2015). The influence of participation on liveability is related to the social aspect and mainly to local democracy. Various scholars state that participation and involvement is important for democracy (Michels, 2006; Lelieveldt, 1999). For this it is not necessary that participation is active, it is already sufficient that citizens have the opportunity to participate (Lelieveldt, 1999; Van Gunsteren, 2006). The study of Hepworth et al. (2016) shows that citizen involvement can strengthen social capital. Stimulating participation and involvement led to a strengthened social bond between the citizens and other stakeholders. Because social cohesion is an important aspect of liveability, an improved social bond can improve the liveability. In addition, Bernard (2015) discusses that there is a positive relation between participation and a positive evaluation on the environment.

2.4. Analytical framework

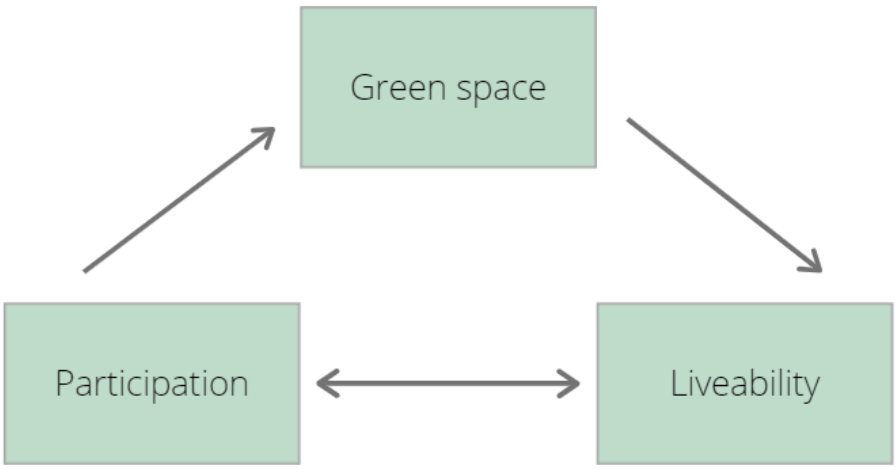

Figure 6. Analytical framework (made by author based on literature)

Based on the previously discussed literature an analytical framework (Figure 6) is made that shows the relations between the three elements: green space, participation and liveability. Discussing the different concepts related to these elements in detail has helped to establish links between them.

The frameworks show how the different concepts of this research are related, this is also shown during the entire theoretical frameworks above. The direction of the arrows show how the concepts influence each other. The relation between participation and green space and green space and liveability have a one way relation. Which means that participation can affect the green environment and the green environment has an impact on the liveability. An example of the effect of participation on green space is that by participating people can have an effect on what the green space will look like. Green space can have an effect on liveability in different ways as is shown in Figure 2, like for example provide space for social activities. Furthermore, it shows that participation and liveability are connected and both influence each other. Participation can have an impact on liveability by creating social contact. The other way around liveability can impact participation because when people feel al social connection with their neighbourhood and neighbours they are more likely to participate.

3. Methodology

In this chapter the focus is on the methodology of this research. First the common research design of the thesis is explained. Second the implementation of the research methods document analysis, observation and interviews are explained separately. Finally, the case study and research ethics are discussed.

3.1. Research design

The previous chapters give an introduction and theoretical background for this research. They discussed the different parts of this research: liveability, greenery and participation. In this chapter the methodology used to answer the research question will is discussed. The main research question is as follows:

How and to what extend do greening strategies and participatory planning in the neighbourhood Geuzenveld contribute to improving its liveability?

To answer this question qualitative research methods are used. There has been chosen qualitative research methods because this method can help to provide insight into the different experiences and perspectives of people (Merriam, 2002; Hay, 2016). During this research, a combination of desk research and field research is applied to a case study.

The desk research consists of a literature review and a policy document analysis. The literature review forms the theoretical framework and provides an overview of the most important and relevant concepts related to the research. Furthermore, the document analysis provides information about the context and gives the first insights into existing challenges (Bowen, 2009). In addition, the document analysis is complemented with observations and semi-structured interviews, which are conducted as part of the field research. The observations give a first insight into the neighbourhood of the research case and are together with the literature review and document analysis used as input by formulating the interview questions (Bowen, 2009). The interviews help to give insight into peoples' personal experiences. Semi-structured interviews allow the researcher to go deeper into information that appears during the interview but also keep a structure that makes analysing easier because of the in advance drawn-up topics (Hay, 2016; Scheepers et al., 2016). Together the document analysis, observation and semi-structured interviews form a triangulation that reduces the impact of potential biases (Bowen, 2009). Furthermore, in this research, a single case is used. A single case study gives the opportunity to go more in-depth into the specific situation, which helps to gain a deeper understanding of the Case (Gustafsson, 2017).

Table 4. Method per sub question

Research question	**Research method**
How can green strategies improve liveability?	Desk research (Scientific literature)
How does participation in planning for greening contribute to liveability?	Desk research (Scientific literature) and field research (Interviews)
To what extent does the greenery in Geuzenveld have an impact on the liveability of the neighbourhood?	Field research (Interviews)
How is the participation regarding the green interventions organized?	Desk research (Policy document analysis) and field research (Interviews)

3.2. Document analysis

First seventeen policy documents are analysed through document analysis. Document analysis is a method that can be used on different kind of texts, but in this case there it is a policy document analysis. Document analysis helps to systematically analyse written documents and provides data on the context of a research (Wach & Ward, 2013; Bowen, 2009). The document analysis is used to help identify the different policies on different policy levels and in this way define the planning context. It also gives an overview on the general plans and interventions for improving the liveability and green environment. Furthermore, the document analysis forms, together with the theoretical framework, the basis for the rest of the research. It gives suggestions for research questions and points of attention for the observation (Bowen, 2009).

The document analysis started with selecting the relevant documents for this research (see Table 5). These are documents from different planning levels, therefore the second step was dividing the documents into the different scales: Global, European, National, Regional and Local. The policy documents of these scales impact the planning context of Geuzenveld Amsterdam. In preparation for the document analysis, a list of topics was drawn up and loaded into Excel. The primary purpose of the document analysis was to inventory the policy context of different levels and in this case, especially about the topics: liveability, greenery/urban green places, and participation. When reading documents, the first step was to check general information such as their purpose, authors, and dates to understand the context. While analysing the documents, notes were taking in Excel along the lines of the topics. After reading all the documents the most important and striking information was summarized, this information is discussed in chapter 4.

Table 5. Overview of the analysed policy documents

Policy level	**Document**
Global	Environment Strategy 2012-2022 from World Bank Group
	IPCC ARG 6 WGII
	IPCC ARG 6 WGIII
	WHO Urban green spaces and health
European	7th Environment Action Programme (EAP)
	Paris Agreement
	ESDN The European Green Deal
National	Nationale Omgevingsvisie
	Healthy Urban Living RIVM
	Nederland Natuurpositief
	Bouwen aan een gezonde stad
Regional	Groenvisie
	Omgevingsvisie Amsterdam
	Beleidskader participatie
	Nota duurzaam landschap
	Amsterdamse Gezondheidslogica
Local	Actualisatie bestuursopdracht Ontwikkelbuurten
	Gebiedsagenda Nieuw-West

3.3. Observation

According to Hay (2016) the purposes of observation are counting, contextualizing and complementing. By doing observations before doing interviews the researcher has a better understanding of the context of the neighbourhood. In this research the observation is mainly used for a first impression of the neighbourhood and already get some idea of what the green areas look like and how they are used. It also gives the opportunity to take some photos of notable things that can later be connected to the literature. During this research semi structured observation is used (Scheepers et al., 2016). In advance to the observation, there was made an observation scheme. This scheme is based on the literature and policy documents, and it also contains other relevant aspects to gain a better understanding of the context of the case study. However, semi-structured means that there is also room to include other things that stand out during the observation. This scheme can be found in Appendix 1. Furthermore, prior to the observation it was examined which places in the neighbourhood should be visited. This is based on the locations indicated in the local policy documents as urban green places or places where a green intervention has taken place or will take place. Only the first time the researcher walked past all these indicated locations. During the research it was decided to focus on Lambertus Zijlplein and Eendrachtspark. These are also the locations were most of the respondents are interviewed. In this way the interviews could be alternated with observations and taking pictures.

3.4. Interviews

In addition to document analysis and observation, interviews are used as a data collection method. For this research there is chosen for semi-structured interviews. The reason interviews are used as a research method is because they allow to go deeper into 'why' this in contrast to a survey that mainly goes into the 'what'. Furthermore, semi-structured interviews allow the researcher to ask further about information that appears during the interview, but on the other side it also has a structure which makes analysing easier (Hay, 2016; Scheepers et al., 2016).

For this research fifteen people are interviewed. Eight of those participants are professionals who are involved in Geuzenveld regarding participation or greening. The other seven participants are citizens of Geuzenveld. citizens are interviewed to get an insight in their experience. The professionals are interviewed to get an insight in the reason behind the decisions for the way of participation and design of the green intervention. Because of the different purposes of the interviews the interview guide also differs per role of the interviewee (see appendix 2). Two of the professionals are also living in the neighbourhood, they are both asked questions about their role as professional as about their experience as a citizen. In appendix 2.1. a more detailed overview of the participants can be seen. The participants are approached in different ways. Some of the participants are reached through the network of the internship company Omniplan, that is involved in the municipality of Amsterdam and the 'Ontwikkelbuurten'. The participants reached through this network are the community manager, the area coordinator and someone from 'Buurtcampus Nieuw-West'. The professionals from 'de Pleinkamer' and 'Eigenwijks' are contacted by visiting them on location. Furthermore, the professionals from 'Groen in de Buurt' are contacted via LinkedIn. The researcher also contacted people from de 'Gezonde Stad' and the project 'Vooruit', but they did not react. For recruiting the citizens, the researcher first posted a message on some neighbourhood Facebook pages and contacted some people that left there contact information on a neighbourhood webpage, but this only led to one participant. The other participants are reached by going to Geuzenveld and asking people in Eendrachtspark and on Lambertus Zijlplein if they were willing to participate in the research.

As a preparation for the semi-structured interviews an interview guide is drawn up. The interview guide is constructed with the research question and sub questions in mind. This interview guide

consists of some guiding questions and topics regarding the green environment and how it is used, the different aspects of liveability, if and how they participated. After doing a few interviews, the question 'what grade would you give Geuzenveld as a whole?' was added. This question was added to make it easier to see a relation between how the participant experiences the neighbourhood and their experience of the green. This also made it easier to get some more interesting information out of shorter conversations.

All the recorded interviews are transcribed, analysed and coded by using the programme, Atlas.ti. Coding has the three following purposes: data reduction, organization and creation of searching aids and analysis (Hay, 2016). In this research coding is mainly used as a tool to analyse the data from the interviews. To analyse the transcripts of the interviews were all quickly scanned first. Then all the interviews were read extensively and coded by using open coding. After the first few interviews were coded, axial coding was used to connect codes together in code groups. The schema of the used codes can be found in Appendix 3.

3.5. Case study selection

This research is conducted in the city of Amsterdam and specifically in the neighbourhood Geuzenveld. Amsterdam is the capital city and the biggest city of the Netherlands with 873,338 citizens in 2021 (CBS, 2022). Geuzenveld is located in the West of Amsterdam (also called Nieuw-West) and is a so-called 'Ontwikkelbuurt'. The 'Ontwikkelbuurten' are not only located in Nieuw-West but also in Noord and Zuid-Oost. In Figure 7 the corresponding neighbourhoods are indicated in red. Geuzenveld is located on the location indicated by the arrow. As can be seen in the smaller map on the top left the neighbourhood consists of five smaller neighbourhoods. Geuzenveld in its entirety has 16,345 citizens (Kadastralekaart - Geuzenveld, n.d.).

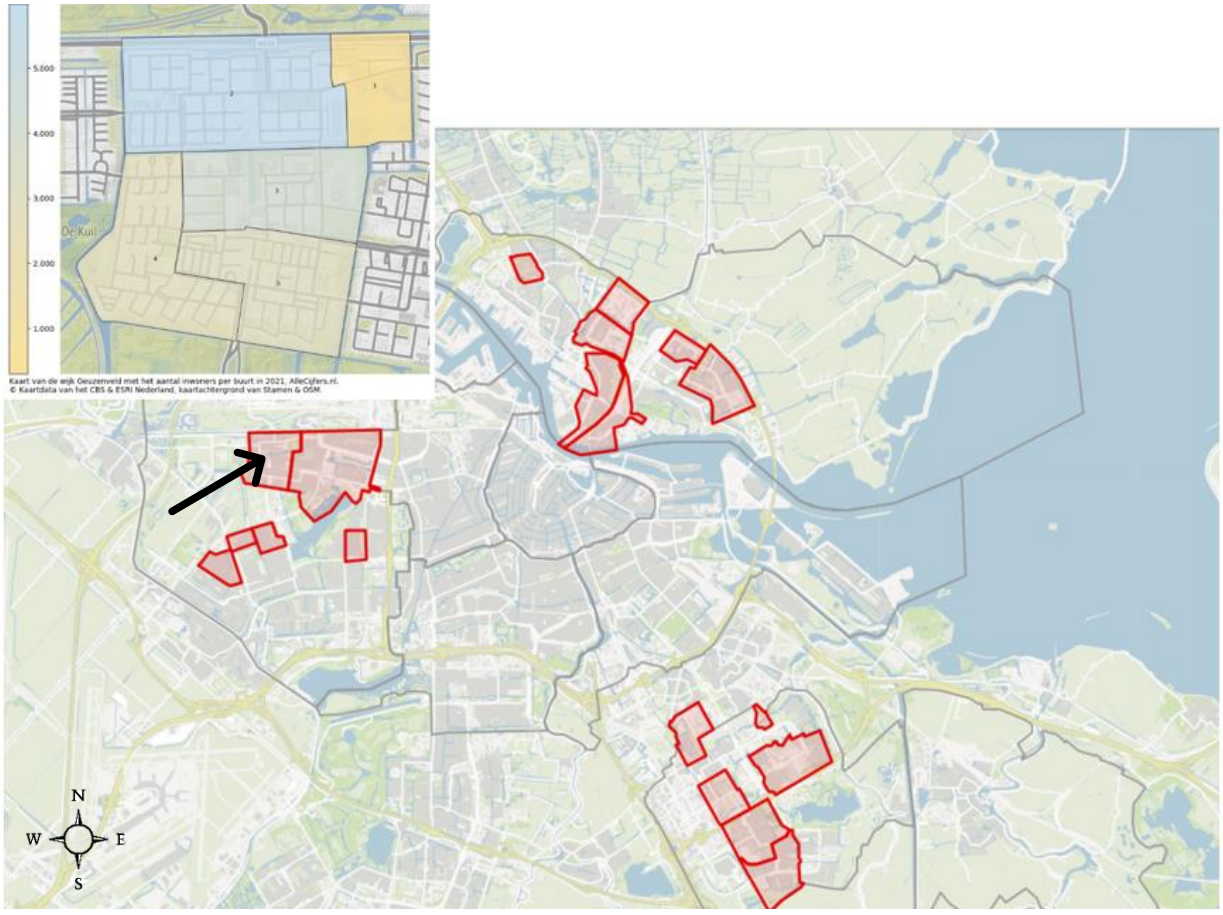

Figure 7. Map of Amsterdam and Geuzenveld (adapted by author from BRON)

The main reason Geuzenveld is chosen as a case study is because the municipality of Amsterdam already focusses on greening strategies and participatory planning. This can be seen in the policy documents which are further elaborated in the planning context. Firstly, this strong focus on greenery can be seen in their 'Omgevingsvisie Amsterdam 2050', which shows the strategy of Amsterdam for the future and greenery plays a big role in this (Gemeente Amsterdam, 2021). Secondly, Amsterdam also has the 'Groenvisie' 2020-2050 [Groening Vision], which is a vision specifically focused on greening (Gemeente Amsterdam, 2020). The existence of this vision also shows how important greening is for Amsterdam. Furthermore, the city of Amsterdam has a special program for neighbourhoods with the biggest social problems, also called 'Ontwikkelbuurten'. In those neighbourhoods the municipality, citizens, corporations and other stakeholders work together to improve the situation (Gemeente Amsterdam, 2019). As discussed, earlier Geuzenveld is one of those 'Ontwikkelbuurten'. There are drawn up five objectives for the 'Ontwikkelbuurten', those can be seen in Table 6. Multiple of those objectives are related to the themes of this research.

Table 6. Objectives of the 'Ontwikkelbuurten'

Five objectives for the 'Ontwikkelbuurten'	
1.	Improving the quality of the houses, living environment and built facilities;
2.	Improving the liveability;
3.	Improving the social economical position of the neighbourhood and its citizens;
4.	Linking urban development areas with strategic neighbourhood development;
5.	Improving the sustainability of the houses including making the existing and new buildings natural gas free.

Source: made by author based on Gemeente Amsterdam, 2019

There are already some numbers available on different aspects of Geuzenveld related to liveability, participation and greenery published by Research, Information and Statics Amsterdam (2022). All the scores are in comparison to the rest of Amsterdam. On the aspect greenery, does Geuzenveld scores around average on the availability of greenery, but low on the beauty of it. Geuzenveld also scores high on degradation. The scores regarding liveability are mainly focused on the social aspect. The neighbourhood scores low on social cohesion and safety. Regarding participation Geuzenveld has a high rate of committed neighbours and the contact people have with their neighbours is around average. Furthermore, the social economic status of the citizen of Geuzenveld is lower than the average in Amsterdam. This score is 5,1 in Geuzenveld compared to 6,3 as the average for Amsterdam (Research, Information and Statistics Amsterdam, 2022).

3.6. Research ethics

To guarantee the quality, a number of aspects are taken into account while conducting the research. Firstly, document analysis can lead to a biased view, to prevent this, various measures are taken. For every document the purpose and author(s) of the documents are checked, this helps to understand the tone and purpose of the document (Hajer, 2006). In addition, the document analysis is also complemented with both observation and interviews to prevent subjectivity. To secure objectivity during the observation photos and notes are taken. Furthermore, assumptions are checked in the literature or during the interviews.

For the interviews it is important that people are aware of the content and purpose of the research, and that their anonymity is guaranteed when they want to. This is guaranteed by informing the interviewees beforehand about the purpose and content of the research by giving a short introduction and summary about the research. To guarantee the anonymity, the interviews will be analysed anonymously by using 'Respondent x' instead of their real name. Furthermore, the interviewee can request the transcript of the interview afterwards. The reproducibility is provided by using in advance drawn up topics both during the document analysis, observation and interviews. At last, all the empirical data is linked to the literature which helps to provide overall objectivity.

Thus, to summarize briefly, the validity of this research has been ensured in the following ways:

- The interviews of the residents have been processed anonymously;
- The topic lists for the observations, interviews and document analysis are based on the literature;
- The recorded interviews were transcribed first before analysing.

4. Planning context

In this chapter the planning context of the case, Geuzenveld, is discussed. To determine this context various (policy) documents are analysed. The document analysis helped to get an overview of the planning context regarding liveability, greenery and participation. The documents can be divided into different scales: Global, European, National and Regional and Local. The policies of the different scales are frequently based on a policy from a 'higher' scale. For example, the local environmental visions are based on the national environmental vision. The policies are discussed per scale separately starting with Global going down to the local scale. For every level the most important, relevant and striking things are discussed.

4.1. Global

There are no global policies worldwide, but research institutions like IPCC, WHO and World Bank Group do share studies and information that can be the basis for (inter)national policies. Most of the global policies are more on the European scale. Some important global research reports are the Urban Green and Blue spaces and mental Health from WHO, AR6 WGII and WGIII from IPCC and the Environment Strategy 2012-2022 from World Bank Group. The report from the WHO [World Health Organization] is mainly about how green and blue spaces can be used to improve (mental) health (WHO, 2016). In their report IPCC discusses information from various studies about the different aspects of climate change (Pörtner et al., 2022). Furthermore, the World Bank Group discusses how to become a Green, Clean and Resilient World for All (World Bank Group, 2012). In their report, the agendas from these three themes are discussed. The relevant sphere points are promoting greenery, inclusiveness and poverty reduction while protecting ecosystems and biodiversity. This in combination with working on reducing the vulnerability of countries to climate risks and improving their climate resilience. These different documents do not consist of policies, but they are incorporated into the regional or local policies.

4.2. European

From a European perspective the most important policies regarding greenery and sustainability are the European Green Deal, the 7th Environment Action Programme (EAP) and the Paris Agreement. The main objective of the Green Deal is climate action, and it consists of measures regarding preserving the natural environment of Europe, cutting greenhouse gasses and investing in cutting-edge research and innovation (Fetting, 2020). The European Climate Law, European Climate Pact, Eu Strategy on Climate adaptation and 2030 Climate Target Plan are all part of the Green Deal. The EAP describes the vision of the European Union for 2050 and consists of multiple objectives (European Commission, 2014). The objectives that are relevant are protecting, conserving and enhancing the natural capital and protecting the citizens from environment-related risks to (mental) health. The European Union [EU] wants to achieve this by making the European cities more sustainable and by addressing environmental and climate challenges more effectively. Furthermore, the Paris Agreement is also important for the planning context, this is a legally binding agreement with climate change measures (Horowitz, 2016). The main goal of this agreement is to limit the global warming below 2 degrees Celsius by reducing the greenhouse gas emissions.

4.3. National

An important development on the national level is the implementation of the new 'Omgevingswet' [Environmental law]. This Law should already be implemented in 2022, but it this is postponed to 2023 (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2022). Participation is an important pillar and government organisations have to show how their participation policies are structured (Ministerie van Infrastructuur en Waterstaat, 2021). In addition, the 'Nationale Omgevingsvisie' [National Environmental Vision] also provides an important national context. The main objective of the vision is

to keep and create a healthy, liveable and economically strong Holland. More greenery in the cities is an important subject in the vision as one of the objectives for 2050 is to strengthen the quality and offer more nearby greenery in the cities.

More specifically also policies regarding a healthy city, green city and sustainability are relevant. In the Netherlands the RIVM [Rijksinstituut voor Volksgezondheid en Milieu] has a program 'Healthy Urban Living'. This consists of aspects strongly related to liveability and using greenery as a tool to create this. In this program, the RIVM collaborates with various stakeholders (e.g., local businesses en munipalities) for a healthy life in a healthy city. They use different conceptual models to keep a broad focus (RIVM, 2017). There is also a model called the 'leefbarometer' which can show the liveability of different cities and neighbourhoods in the Netherlands (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, n.d). Also related to a healthy city is the policy 'Bouwen aan een gezonde stad' [Building for a healthy city]. Although this is more about the air quality the goal is to combine this with also improving health by creating an environment that stimulates active mobility, creating a climate proof city and using innovative technologies for greener and more sustainable energy and transport (Kruize et al., 2014).

Related to creating green cities is the policy 'Nederland Natuurpositief' [The Netherlands Nature positive] is relevant (Interprovinciaal Overleg & Ministerie van Landbouw, Natuur en Voedselkwaliteit, 2019). This policy focuses on the 4 V's: strengthen (versterken), improve (verbeteren), broaden (verbreden) and connect (verbinden) and wants to apply this to nature and greenery in the cities. The policy is a collaboration between different parties for example the minister of agriculture, provinces, and municipalities. Furthermore, regarding a sustainable and climate adaptive city there is not really a national policy besides the national message that cities should be more climate adaptive. The policies on this subject are regulated per city.

4.4 . Regional and local

Most important are the policies on city and neighbourhood level because those are based on the above mentioned policies, but more specifically focused on Geuzenveld. There are multiple relevant policies for the whole city of Amsterdam. These policies are the 'Groen Visie' [Greening vision], 'Nota Duurzaam Landschap' [Nota sustainable landscape] and 'Omgevingsvisie Amsterdam' [Environmental vision Amsterdam], 'Beleidskader Participatie' ('policy framework participation), and the 'Amsterdamse Gezondheidslogica' [health logic Amsterdam]. Furthermore, there are policies for specific neighbourhoods in the city like Geuzenveld-Slotermeer and 'de Ontwikkelbuurten'. These policies are 'actualisatie bestuursopdracht Ontwikkelbuurten' [actualisation policy Ontwikkelbuurten] and 'Gebiedsagenda Geuzenveld-Slotermeer' [the Evironmental Agenda Geuzenveld-Slotermeer].

The 'Groenvisie' shows the importance of nature and greenery and what will be done to make the city greener and more liveable for both humans and animals (Gemeente Amsterdam, 2020). The content of this vision is based on information obtained via conversations with different stakeholders. Four principals are important in the 'Groenvisie', these can be seen in Table 7. In addition, there is also a policy document about the landscapes around Amsterdam ['Nota Duurzaam landschap']. Because of the growing city the value of the landscapes around Amsterdam increases. The goal of this Nota is to create a sustainable and connected landscape (Van Nieuwkoop, 2019). The objectives of the Nota are included in the 'Omgevingsvisie Amsterdam' and the 'Groenvisie'.

Another important policy document is the 'Omgevingsvisie Amsterdam'. In this vision the municipality discusses their long-term ambitions and policy objectives for the physical living environment regarding different subjects. In the 'Omgevingsvisie' five strategic choices are discussed, the most important choices are rigorous greening and working together to make a city (see Table 7; Gemeente Amsterdam, 2021).

The 'Beleidskader participatie' is an effort of the municipality to increase the citizen control. The document discusses principles, an guidelines and objectives. The objectives are: creating ownership, quality and approach of the policy, control, personal development (ontplooing), legitimacy and portraying people's interest. Which means that the participation should be designed in a way that those objectives are reached. The framework shows that for every objective demands a certain level of participation, this is included in the guideline. This can be seen in the ways that participation is designed in the other local policy documents.

The policy document 'Amsterdamse gezondheidslogica' discusses twelve principles for a healthy city. Those principles can be seen in Table 7. This document is a guideline and source of inspiration for promoting health in spatial plans. The document is thus mainly focused on health, but it also states: *'We make a healthy city together'* (Sleurink et al., 2021). This shows that participation is also incorporated.

A more neighbourhood focused policy document is the 'Actualisatie bestuursopdracht Ontwikkelbuurten'. As explained in the methodology Geuzenveld is one of the 'Ontwikkelbuurten'. In this document it is discussed how the objectives for the 'Ontwikkelbuurten' will be reached (see Table 7). Different objective of this policy document are relevant for this paper, these are: determining the approach together with the citizens, the plans are small-scale and flexible and do not form a blueprint (Gemeente Amsterdam, 2019).

Every area plan ('gebiedsplan') contains maximum six integral focus assignments. All those assignments are drawn up in collaboration with citizens, entrepreneurs, self-organisations and neighbourhood partners ('wijkpartners') to give citizens more control over their direct environment. The areaplan starts with some general information about the neighbourhood. 'Gebiedsplan Geuzenveld-Slotermeer' is mainly focused on decreasing the nuisance, physical improving the shopping areas Lambertus Zijlplein and plein 40-45, and improving the parks and activities provided in the parks. Lambertus Zijlplein is shopping area and square located in Geuzenveld. In the area plan there are also drawn up six priorities. These priorities and the related integral focus assignments can be seen in Table 7.

Furthermore, the municipality has a budget available that can be used for greening Amsterdam Geuzenveld. Citizens can apply for a budget via 'Buurtbudget' and 'Groen in de buurt'. 'Buurtbudget' can be used for all different kind of projects to improve a neighbourhood and citizens can also vote for the idea they think is the best. 'Groen in de buurt' is specifically focused on greenery and citizens can submit an idea and then there will be examined if it is achievable and how the municipality can help with this.

4.5. Overview principles and objectives of local policies

Table 7 shows the different principles and objectives of the local policies. The local policies all have different perspectives. However, there are also a lot of similarities. The main focus areas of the discussed documents are inclusivity, sustainability and liveability (especially the health aspect). For example, the 'Groenvisie' is specifically focused on greening but principle 1 and 4 show that participation and inclusivity are also important in this policy even though it is not focused on it.

Furthermore, the document ‘Beleidskader participatie’ is focused on how to design the participation. The objectives of this policy can also be seen in the other policies, which shows that participation is one overarching theme. On the other side it is the same for greenery, because greening is a lot of the time proposed as a tool to work on and to the principles and objectives.

Table 7. Overview local policies

	Principles	Objectives
Groenvisie	1. Enough and varied greenery for everyone	
	2. Greenery contributes to as many tasks as possible	
	3. The city is built and managed in an environmentally inclusive way	
	4. We work on greenery together	
Omgevingsvisie	1. Multi core development	
	2. Grow within the limits	
	3. Moving sustainable and healthy	
	4. Rigorous greening	
	5. Making a city together	
Beleidskader participatie		1. creating ownership
		2. quality and approach of the policy
		3. control
		4. personal development (ontplooing)
		6. legimiacy and portraing people's interest
		7. portraing people's interest
Gezondheidslogica	1. Cyclists and pedestrians are given enough space	
	2. The city is a playground	
	3. Sports around the corners	
	4. Space for meeting and connection	
	5. Busy places are alternated with peace and quiet places	
	6. Healthy food is everywhere	
	7. Neighbourhoods are pleasant for the elderly	
	8. School environment is particularly healthy	
	9. Clean air for everyone	
	10. The city is resistant to climate change	
	11. Buildings and outdoor spaces contribute to health	
Actualisatie bestuursopdracht Ontwikkelbuurten		1. Improving the quality of houses, living environment and buildings
		2. Improving the liveability
		3. Improving the social economic position of the neighbourhood and its citizens
		4. Connecting/ linking urban development areas with strategic neighborhood development
		5. Improving the energetic quality (sustainability) of the homes, including making existing and new houses natural gas-free
Gebiedsagenda Niew-West	1. In 2022 the vunerable youth will have more opportunities (focusopgave 1,4)	
	2. In 2022 there are better language skills, less poverty and better Health (focusopgave 1,2)	
	3. In 2022 citizens feel safer in the neighbourhood (focusopgave 2, 3, 4, 5)	
	4. In 2022 sustainable neighbourhood renewal leads to more perspective on pleasant an future proof living (focusopgave 5, 6)	
	5. In 2022 citizens can go home easier and safer (focusopgave 3)	
	6. In 2022 citizens and visitors can relax more in the liveable and green neighbourhoods (focusopgave 2, 3, 4, 5, 6)	

Source: made by author based on policy documents

5. Findings

In this chapter an overview of the findings is provided. These findings are obtained through observations, interviews and small conversations. More information about these research methods can be found in the methodology chapter and the appendix. The findings are presented by using the analytical frameworks, which are introduced in chapter 2. First the results of the interviews with the professionals are discussed and secondly those of the residents. The results of the observations and small conversations are also incorporated in the below discussed findings.

As mentioned earlier two of the professionals are also a resident of the neighbourhood and are therefore also asked questions about their view on the neighbourhood as a resident.

5.1. Professionals

During the research seven professionals were interviewed. Those professionals are involved with the neighbourhood in different ways and through different organisations. Because of this, one of the first questions was also asked about the role and function of this person and that of the organization within the district. Table 8 gives an overview of this information. Some of the information about the organisations or role of the professionals is complemented or checked on the website of the associated organisation.

Table 8. Overview organisation and function of respondents.

Respondent	Organisation	Role respondent	Explanation
Respondent 1	Gemeente Amsterdam [Municipality of Amsterdam]	Gebiedscoördinator Geuzenveld Slotermeer	The 'Gebiedscoördinator' [area coordinator] works for the municipality of Amsterdam and in specific for the neighbourhoods Geuzenveld and Slotermeer, both located in the West of Amsterdam. The 'gebiedscoördinator' coordinates the team of 'gebiedsmakelaars'. The 'gebiedsmakelaars' are directly in contact with the residents and other stakeholders and work operational in the neighbourhood. They come up with the plans and the 'gebiedscoordinator' provides the resources and capacity for those plans and makes the connection with the current policy programs.
Respondent 2	The Bookstore Project 'de Pleinkamer'	Project coordinator	The Bookstore Project is a project that provides artists an affordable living place in exchange for a social contribution to the neighbourhood. This social contribution can be done in different ways. In the case of Geuzenveld this is done through 'de Pleinkamer' [Plein: square, kamer: room] which is a clothing swap store but is also involved by organizing events like for example plant swaps and dirt picking. Their mission is to contribute to the liveability of Lambertus Zijlplein (a square in Geuzenveld) with 'de Pleinkamer' with among other things art as their tool.
Respondent 3	Buurtcampus Nieuw-west	Projectleider	'Buurtcampus Nieuw-West' is a location of the concept 'Buurtcampus' which is an organisation founded by the Hva (Amsterdam University of Applied Sciences). The organisation focusses on creating a social, healthy and sustainable city and do this by organising different activities al related to one of those subjects.
Respondent 4	Eigenwijks	Medewerker balie & beheer	'Eigenwijks' is a resident organisation, which means that it is all about the residents. This includes connecting residents, but also offering help when it is needed. 'Eigenwijks' also has some sort of public living room, where residents can meet. Their mission is to create a socially strong and liveable neighbourhood.
Respondent 5 & Respondent 6	Groen in de buurt	R5: Projectleider R6: Projectcoördinator	'Groen in de buurt' is a concept that has a kind of counter function where residents can submit their greening plans for

			their neighbourhood. They help the residents with resources and budget to execute the plan. The mission of 'Groen in de buurt' is to combine greening and participation and create some form of ownership.
R7: Manisha	Gemeente Amsterdam [Municipality of Amsterdam]	Communitymanager	The community manager is involved with the renewal of Lambertus Zijlplein with the focus specifically on the people, because when people feel more connected, they will also have more feeling of ownership. The community manager also contributes to creating a more bottom-up strategy for the renewal. *Respondent 7: 'my mission is to make people feel more connected to the square and to each other'*
R8: Bouchra	Buurtwerkkamer 'het Geuzennest'	Team coordinator	'het Geuzennest' is a 'buurtwerkkamer', which is some sort of neighbourhood centre that is mostly managed by the residents themselves. The team coordinator makes sure everything runs smoothly and sees the needs and contribute to this. An important part of this is connecting the forces of the neighbours and seeing who would be the best fit to organize a specific event. The coordinator also makes participation easier by contacting the right people for a specific plan *Respondent 8: 'I'm the ears and eyes of the neighbours'*

Table 8 shows the different functions and roles of the professionals. The Table also shows that the professionals are all from different organisations: the municipality of Amsterdam, the bookstore project, 'Buurtcampus Nieuw-West', 'Eigenwijks', 'Groen in de buurt' and 'het Geuzennest'. Most of those professionals and organisations have a specific social function and contribute to improving social cohesion, except from the 'gebiedscoordinator' and 'Groen in de buurt'. The 'gebiedscoordinator' coordinates 'het gebiedsteam' [area team], and ensures that the plans can be implemented, and that there is made a connection with the current policy and programs of the city. The plans are collected by the 'gebiedsmakelaars' who are operationally involved in the neighbourhood and multiple 'gebiedsmakelaars' together form the area team.

Respondent 1 (Gebiedscoordinator): 'I call it back office […] I mainly make the connection between the strategic and tactic and the living world on the streets'

'Groen in de buurt' also does not have a specific social function, but they focus on participation and supporting greening projects. They do this by providing help and a budget for greening projects which residents have to build and maintain together.

Respondent 6 (Groen in de buurt): 'the idea is that residents get in this way some ownership of their living environment'

5.1.1. Greenery

As mentioned above, the main focus of the professionals is on social cohesion and participation, but urban green spaces and greenery are also important elements of this research. Therefore, the professionals are asked how and if they use green spaces or greenery for their activities.

Most of the professionals are not focused on greening and greenery specifically, but their activities are in some way related to it. Respondent 2 (Pleinkamer) mentioned that they contributed to the reprofiling of Lambertus Zijlplein, where greening was a big part of. Furthermore respondent 2 said:

'I can't do that much with the greenery. [….] However, in the past, we did a lot of gardening projects, with children and also in Eendrachtspark'

This quote shows that 'de Pleinkamer' currently does not do many greening activities, but they did in the past. Examples of previous greening projects they did are gardening with children, plant workshops and a spice tour through the neighbourhood. This project also contributed to the art they make:

Respondent 2: *'one of the artists photographed all those plants [from the spice tour] and put it together in a book.'*

In addition, 'de Pleinkamer' is still committed to improving the green environment. They do this by organizing a dirt prick campaign, which is in collaboration with other 'wijkpartners' like the community manager, 'Eigenwijks' and 'de Buurtwerkkamer Geuzennest'. Furthermore, 'Buurtcampus Nieuw-West' also contributes to improving the green environment with the aim to improve the social environment in Geuzenveld. For this they have submitted a plan via 'Buurtbudget' for benches, other furniture and playgrounds in the park. Respondent 3 gives the following reason for this idea:

'*The park has many different functions now, but they don't really come together. […] The more activities happen the less nuisance.'*

In addition, 'Buurtcampus Nieuw-West' uses the green spaces in the neighbourhood as locations for some of their activities. This is also the case for the organisations 'Eigenwijks' and 'Buurtwerkkamer Geuzennest'. Some examples of these activities are sport activities for children, walking and biking. In addition, 'Buurtwerkkamer Geuzennest' also has a few 'moestuinbakken' (see Figure 8) and every once a week a breakfast made from the vegetables out of the 'moestuinbakken' is organised. The communitymanager is involved in the renewal of Lambertus Zijlplein and one of the improvements is more greenery. She is also regularly involved with for example the dirt picking campaign. The projects that 'Groen in de buurt' supports are especially greening projects, making the city greener is definitely one of their missions.

Furthermore, the 'gebiedscoördinator' (respondent 1) is involved with all different kind of plans regarding Geuzenveld- Slotermeer and greenery is often used as a tool to improve the neighbourhood. The interview with respondent 1 gives some insights into different considerations that are made before a plan is implemented (see the quote below). Considerations he mentions are: the maintenance responsibility, costs and the type of green.

Respondent 1: '*For all the plans we make, because they are located in public space, there is need for a "beheertoets" (study to see how and who will maintain the greenery) […] We are hesitant for more costs, but because Lambertus Zijlplein is of course a facility for the whole neighbourhood, some extra money can be invested […] What we also take into account when choosing the greenery, the designers take a special look at the type of greenery that fits the location best*.'

Figure 8. Mini-gardens (moestuinbakken) Geuzennest (Source: Author)

5.1.2. Participation

During the interviews several questions were asked to get insight in how the professionals contribute to the participation of the residents. Table 9 shows in which ways the professionals contribute to participation and some quotes from the interviews are added to illustrate this. The professionals both facilitate participation as contribute to the participation themselves.

Table 9. Professionals and their role regarding participation

Professional/ Organisation	**Contribution to participation**
Eigenwijks	Informing people about the opportunities of participation *'Not directly but indirect. We can facilitate location and indeed inform the residents […] We can also use our Social Media' (Respondent 4)*
Buurtwerkkamer Geuzennest	*Respondent 8: 'I do not organise anything the neighbours do that themselves'* So, the community centre is managed by neighbours and the team coordinator also tries to make participating in plans more easy.
Groen in de buurt	Specifically focused on participation. Citizens have to submit a plan themselves and will also implement it themselves.
Community manager	Organises citizens- and participation evenings, but the idea is as follows: *'I try to slowly pass the baton to the citizens, so that in this way the initiative will come from the citizens' (Respondent 7)* The mission is that in this way the citizens get more feelings of ownership of their neighbourhood.
Gebiedscoordinator	Not directly involved with the participation of citizens, but coordinates 'gebiedsmakelaars' who collect ideas from the citizens.
Pleinkamer	Artists from the neighbourhood work here and are in this way also involved in events like the dirt picking campaign. Sometimes consultation evenings are also organized in this location.

5.1.3. Liveability

One of the goals of the interviews with the professionals was to get insight in how they contribute to the liveability of Geuzenveld. As discussed above most of the professionals mainly have a social function which is also a part of liveability. Especially because a lot of the organisations focus on creating and improving social cohesion. Respondent 5 said the following about the role of 'Groen in de buurt' and their contribution to liveability:

'I think that both are actually related: liveability and greening. A green city is also a liveable city, there are many aspects that relate to this. Greening is also a bit more colourful and looking a bit nicer. In another way, greenery also has a big social aspect […] I think that also contributes to liveability. And also, the idea of ownership, I think that can also improve liveability.'

What this respondent means is that they contribute to liveability both by creating more greenery as by creating a way people can work on a green project together with their neighbours. Besides creating social cohesion through 'Buurtwerkkamer Geuzennest' the respondent also contributes to liveability by being the ears and eyes in the neighbourhood to find out what the citizens need to improve their living environment. Futhermore, the community centers (e.g. Buurtwerkkamer Geuzennest & Eigenwijks) also contribute to liveability because people can also come here to ask for help.

5.2. Residents

During the interviews nine residents were interviewed. Two of those residents are also involved in the neighbourhood as a professional (Respondent 7 and Respondent 8). Table 10 gives a short overview of the interviewed residents.

Table 10. Information resident interviews

Respondent	Location of the interview	Time of residence	Gender
Respondent 7	Online via Teams	-	Woman
Respondent 8	Geuzennest	14 years	Woman
Respondent 9	Online via Teams	4 years	Woman
Respondent 10	Lambertus Zijlplein	+/- 2 years	Man
Respondent 11	Lambertus Zijlplein	2 months	Woman
Respondent 12	Lambertus Zijlplein	-	Woman
Respondent 13	Somewhere between Lambertus Zijlplein and Eendrachtspark	30 years	Man
Respondent 14	Eendrachtspark	-	Woman
Respondent 15	Eendrachtspark	30 years	Man

5.2.1. Greenery

During the interviews the respondents described their opinion on and use of the green spaces in Geuzenveld. It emerged that all of the interviewed residents think that the neighbourhood has a lot of greenery and green spaces. Multiple respondents literally said that a green environment is important for them while that was not even a specific asked question. They also indicated that a green environment improves how they experience their neighbourhood.

Respondent 10: 'Greenery is really important to me'

Respondent 8: 'We use it [green spaces] daily. [….] So it is really important for us [family].. for me'

Respondent 12: 'I love nature, is so nice and quiet'

Opinion greenery

One of the first questions about the greenery was 'What do you think of the overall greenery and green spaces in Geuzenveld?'. The residents interviewed were generally positive about the green environment of Geuzenveld. One notable aspect is that all of the interviewed residents think that the neighbourhood already has a lot of greenery and green spaces. Below follows a selection of statements that demonstrate this:

Respondent 7: 'The amount of greenery, I think that that is good and beautiful. I don't think that there is a lack of greenery.'

Respondent 10: 'I think that there is quite a lot of greenery in Geuzenveld, and it looks good'

Respondent 11: 'I lived in Osdorp [other neighbourhood closeby] for almost a year a few years ago and I do compare it the whole time. And Geuzenveld is so much greener. […] This is really a nicer neighbourhood than Osdrop because it is greener'

Respondent 12: 'I think the neighbourhood and the greenery is good.'

Respondent 14: 'I think that it is really green here.'

In addition to the amount of greenery in Geuzenveld the residents also indicate that they find greenery in general attractive.

Respondent 9: 'It looks a lot better right? [when there is more greenery]'

Respondent 11: 'Because it is a green environment and yes that makes it look attractive'

When talking specifically about Geuzenveld multiple respondents say that they think the green environment in Geuzenveld is attractive. For example, respondent 8 says the following about this:

'We have the most beautiful pieces, we have the most beautiful parks and fields'

The reasons mentioned for greenery being attractive varies from it making the residents relaxed, it smells good, more biodiversity and providing a nice environment for a walk or playtime with the kids. However, there also emerged some negative aspects regarding the greenery. The most important one is the amount of trash that can be found in the parks and other greenery in the neighbourhood. During the observation this was the first thing that was noticed. Some examples can be seen in the photos of Figure 9. In addition, this was also explicitly mentioned by 4 of the residents. The dirt picking campaign fits well with this and shows that it is a known problem.

Figure 9. Trash in the greenery (Source: Author)

Besides trash as a negative component respondent 8 also indicates that the greenery should also be maintained better.

Respondent 8: 'Among other this yes, but not only the trash also the maintenance. Sometimes there are bushes from which I think like.. you know.. what is this? There is a lot of trash in it and I don't think it is fitting for the time we live in.'

This quote shows that trash goes hand in hand with the maintenance of the greenery. Respondent 8 and 11 also say that it is not only the job of the municipality but that the residents should also contribute to this. An interesting addition to this is that during the various observations it was noticed multiple times that there were people maintaining the greenery (see Figure 10).

Multiple respondents mention that the youth sometimes causes nuisance in the park. According to the respondents they demolish things like fences around the trees (Lambertus Zijlplein) and people drive through the grass with their scooters. This was also seen multiple times during the observation.

Figure 10. Maintenance of the green environment (Source: Author)

Function

There is not only gained more insight in what people think of the greenery but also about what function the greenery has for them. As mentioned above most of the respondents find the greenery relaxing. The most two functions of the greenery in Geuzenveld are social activities, active activities and climate adaptation. This last function of climate adaptation is mostly mentioned by the professionals but also two respondents mentioned this, for example:

Respondent 9: '.. that we don't get problems with street flooding with all this rainfall '

The greenery and especially Eendrachtspark is often used for different social activities. This was both mentioned by six of the interviewed residents as seen during the observation (see Figure 11). The respondents go picnicking or barbecuing with their friends or family in the park. One of the respondents even specifically mentions that she only uses the greenery for social activities:

Respondent 6: 'Yes mostly social activities not really to relax, but more… I don't go downstairs [lives in a building next to the park] alone.'

The park is actually used as some sort of public living room, because most of the houses are not big enough for (family) parties.

Respondent 9: 'Houses in Amsterdam are often small so then it [parties] will be held outside'

Respondent 15: '.. we have a big family. And if we are with 2,3 or 4 children they will be walking on the ceiling. […] You can't do that at home.'

Both Lambertus Zijlplein as the park are used and designed to be a meeting spot. The green interventions at Lambertus Zijlplein actually improved this meeting function. This was seen during the observation and mentioned by respondent 14, who answered the following on the question 'so because this you are sitting there more often?'

'yes, yes, before there where only two benches in front of the Albert heijn now there is space to sit everywhere'.

Furthermore, people mainly go sit in the park or on the square with family or friends, people they already know, but it was also asked if they got to know new people when being outside in a green environment. The answers differ, some of the respondents indicate that they do not really meet new people but that that is probably just them. However, there are also respondents that say they did meet new people when being in the park especially when they are with their children or when they need something when picnicking. These can both be used to start a conversation with someone. Respondent 8 specifically mentions greenery/nature as a connecting factor which makes making a social contact easier.

Respondent 8: 'You can level with each other, because most people love green and only they go to the park. So, you know, you often make a connection very fast, because you both already like the same thing'

In addition, the respondents also say they use the greenery for active activities like a walk. Or some respondents even change their biking route so that they come across some greenery. During the observation there were seen people do sports like soccer, calisthenics, playing baseball and frisbeeing (see Figure 11).

Figure 11. People doing activities in Eendrachtspark (Source: Author)

5.2.2. Participation

With regard to participation, the respondents were asked whether they had been involved in the plans for Lambertus Zijlplein and whether they voted for the plans submitted by others. None of the interviewed residents were actively involved in plans for the neighbourhood, except for respondent 7 and 8 who are also involved as professionals. Because of their role as professional, they are also actively involved as resident. However, the other interviewed residents do get the opportunity to be involved and four of them do vote for plans submitted by other neighbours.

Respondent 9: 'I always voted, and always for the green solutions of course'

Respondent 12: 'I'm not really involved with the environment to be honest. But some day you could vote for different things and I then did vote for "fonteintjes" and something else for the kids, something with soccer I think'.

As respondent 12 indicates it is a personal decision to not submit an own plan, but still show a voice by voting for somebody else's plan. This relates to the other residents that indicated they got the opportunity to participate but did not feel the need to vote. Furthermore, respondent 10 and 11 are involved in another way in the neighbourhood because they are both artists working for 'de Pleinkamer'. This work brings them in contact with other residents and be involved with events like the dirt picking campaign or the opening event of the renewed park.

However, according to the residents there are also some things regarding the participation that can be improved. Two respondents indicate that the communication about plans and participation could be improved. Respondent 9 said the following about this: *'You have to come across it by a chance, that is what it comes down to. […] I once offered to help, but I never heard anything back about it'.* This shows that the opportunities to participate are not always known by everyone. The missing communication when offering help is also sometimes the case with submitting a plan. Respondent 7 also said something similar about a plan submitted by another resident: *'That was rejected, because it was too expensive. But I thought why didn't they tell her earlier because she was already very far in the process. She collected a lot of votes and put up flyers and all that kind of stuff, so you know..'*. The plan respondent 7 talks about is the plan of placing 'bedriegertjes', this are some sort of mini fountains that suddenly turn on and spray water. These 'bedriegertjes' are mentioned multiple times by different respondents who all said they think it is a pity that this plan was not implemented. Furthermore, respondent 15 is also critical about the participation and does not really feel heard: *´The municipality sends me letter to do a survey a lot. I did it a few times, but I never heard something back. I think they are not really interested, but only want to have it on paper. […] Because the law asks for it'.* Respondent 15 also indicates that there is not always communicated clearly what kind of construction will happen in the neighbourhood and why.

5.2.3. Liveability

In this research liveability is defined as the ability of the neighbourhood to support the quality of life and match the requirements of the citizens. Liveability consists of four components as can be seen in Figure 12.

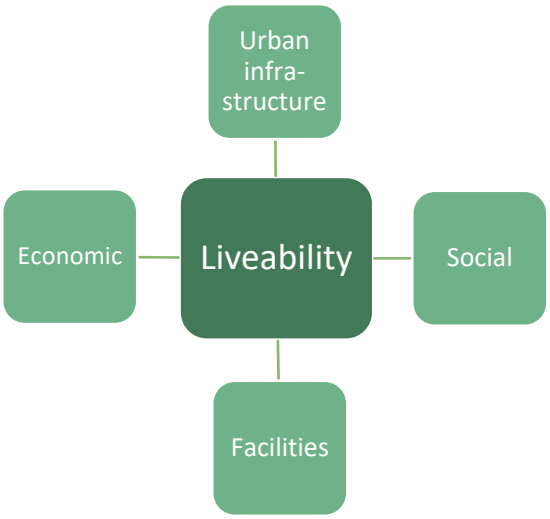

Figure 12. the four components of liveability (made by author based on literature)

First to get an insight into how the residents feel about living in Geuzenveld they were asked about their experiences of living in Geuzeneld. Six of the residents were asked to grade the neighbourhood with a grade between 1-10. This question was only asked to six of the respondents because the question was added later in the research. These respondents all gave the neighbourhood a grade of 7 or higher. Respondent 13 even said a grade between 8-9. However, the respondents that did not get asked this question did mention that they think Geuzenveld is a nice neighbourhood to live in.

<u>Urban infrastructure</u>

Regarding urban infrastructure the respondents talked about biking and walking. Multiple respondents mention that they like to walk through a green environment or a green park and specifically in Eendrachtspark. Three respondents even specifically say that they change their route, so they go through a more green environment. Respondent 9 and 10 say something similar about this.

Respondent 10: 'I choose my route to cycle through it [Eendrachtspark], because I want to come across as much greenery as possible when I go from A to B'

Furthermore, respondent 9 specifically said the following about the physical design of the neighbourhood: *'the environment is clearly implemented by Van Eesteren [architect & urban planner] in the fifties with the green strips between the houses […] And that is really nice, we have it everywhere here. So the houses are quite close together and in some parts there are many stones..'.* So, the respondent indicates that with the design of the neighbourhood there is actually thought about creating enough greenery.

Social (interaction)

Liveability has an important social aspect, so the respondents were asked about their social contact in Geuzenveld. This differs per respondent, some know a lot of people in the neighbourhood while others just have some contact with their close neighbours. The term 'gezellig' [translation: cozy] is used multiple times to describe the neighbourhood or Lambertus Zijlplein or Eendrachtspark. This shows that most residents have a positive image of Geuzenveld. In addition to social contact feelings of safety is also an aspect of the social side of liveability. Respondent 11 mentions feeling safer because of the social contact with her neighbours.

Respondent 11: 'This makes me feel safer than when I do not have contact with anyone at all. So, I think that is very nice'

On the other hand, some respondents mentioned some negative experiences related to safety. They talk about theft, demolishment and yelling people. Respondent 13 mentions a fight where a pistol was involved and people demolishing things but still says Geuzenveld is a nice place to live and that those things are the only negative things of the neighbourhood.

Facilities

The third aspect of liveability is the availability of facilities. During the interviews, some respondents indicated that they think Geuzenveld is a nice neighbourhood because it has all different kind of facilities close by: many stores including supermarkets and a bakery, a pharmacy, a mosque, and the city center are close by. Furthermore, there are also enough benches to sit both in Eendrachtspark and Lambertus Zijlplein. Specifically, about Eendrachtspark different respondents indicate that there are a lot of different facilities in the park and that this is also why they like this park.

Economic

During the interviews the main thing that emerged regarding *economic* had to do with the demolishment of old houses for new more modern ones. Two respondents indicated that after their previous house had to be demolished, they got designated a new house that was a lot more expensive than the one they had before. This because that new house was more modern. Another respondent mentions that the neighbourhood is really improved because of the gone old buildings and new more modern buildings.

6. Discussion

In this research it is explored to what extent greenery (green interventions) and participatory planning contribute to liveability. This is explored with the help of policy analysis, observation and interviews. The literature indicates that greenery does improve the liveability, but there is no consensus about participatory planning also improving liveability. In this chapter the findings of those relations will be discussed.

6.1. Greenery

In this research it was found that greenery plays a role in improving the liveability by having a positive impact on various aspects of liveability. Greenery especially has an effect on the social aspect of liveability. The findings regarding this strongly relate to what was expected from the literature. First, it was expected that greenery and especially parks create space for social gatherings (Jaszczak & Kristianova, 2019; Rasidi et al., 2012). This was both seen during the observations as during the interviews. During the interviews it emerged that the greenery was often used as some sort of public living room for, for example, birthday or graduation parties. This is partly in line with what was expected. Jaszczak and Kristianova (2019) stated that greenery often has a function of a common living spaces, but that this is mainly the case in small towns. However, according to Faye and Le Fur (2012) this is also the case in cities. In line with this the findings of this research shows that this is also the case in Geuzenveld. The residents mentioned as a reason for this that the houses in the city are often small, while they have a big family they want to invite. Secondly, in the theoretical framework greenery was expected to create a neutral place and in this way support inclusion (Dunnet et al., 2002). This is not specifically found, but in relation to this it emerged that due to the various functions of the greenery a diverse group of people do use it. Thirdly, previous research shows that a green environment makes it easier to meet new people (Cohen et al., 2007). The findings of this research partly agree with this. On one hand, the residents indicated that they often go to a green space for social activities with people they already know. On the other hand, they also mentioned that because a common interest (e.g., children, dogs or loving green) it was easier to come into contact with other people in the green environment. Lastly, it was expected that closed and badly maintained greenery has a negative impact on the feelings of safety (Groenewegen et al., 2006). This relation was not found during this research because there was not explicitly asked about feelings of safety. Some respondents did mention that some of the greenery is badly maintained, but they did not say anything about how this effected there feeling of safety.

Furthermore, the findings show that for most of the interviewed residents the availability of facilities is an important reason for why they like to live in Geuzenveld. In addition, the findings show that the greenery contributes to the available facilities in the neighbourhood. The green interventions of Lambertus Zijlplein for example contribute to providing more facilities by providing more places to sit and relax. Greenery does not only provide space for social gatherings, as mentioned above, but also for physical activities and a playground for children. The findings show that the residents often use the greenery in Geuzenveld for physical activities (e.g., biking, walking, running or other sports), this is in line with was expected from the literature (Cohen et al., 2007; Douglas et al., 2018). Some of the respondents even plan their walking or biking route in a way that they will come across the greenest environment, this was not expected from the theoretical framework. However, this can be connected to other previous research (Park & Akar, 2019) that states that people are likely to detour to a biking route with more greenery. Providing space for physical activities also contributes to improving (mental) health (De Vries et al., 2013; Cohen et al., 2007). One resident explicitly said that a walk helps to relax after a long hard day at work. In addition, other residents did mention that they like to go to a green environment to relax. In the theoretical framework it was shortly mentioned that greenery also provides a playground for kids (Jaszczak & Kristianova, 2019). During the interviews children were

often mentioned as a reason to go to the park regularly, because it is a nice environment for the children to play. So, to conclude, greenery contributes and improves facilities by providing space for social and active activities, which can be seen as leisure activities and which can (in)directly provide relaxation and improve both mental and physical health.

In addition,, greenery also contributes to liveability through making the neighbourhood aesthetically more attractive and by contributing to climate adaptation (De Kruijf et al., 2019; Gill et al., 2007). These aspects of greenery are explicitly mentioned in the policy documents as reason to implement more greenery. During the interviews residents mentioned that greenery makes the neighbourhood more attractive. Furthermore, several residents stated that a green environment is really important for them, even without it being specifically asked. They also indicated that Geuzenveld is a nice neighbourhood to live in, but this was not specifically mentioned a relation with the greenery. However, there were also some residents that stated that Geuzenveld is a nice neighbourhood to live in because of the amount of greenery available. This shows that a green environment can have an effect on the way people experience their environment.

6.2. Participation

In the theoretical framework different forms and effects of participation on liveability are discussed. In Geuzenveld there are both opportunities for the citizens to participate in a civic and physical way. During the interviews the most common way of participation among the interviewed residents appears to be civic participation, especially in the making phase (Fors et al., 2015). This because the residents interviewed mainly mention voting for a plan that is submitted by another resident as a way they participate. In this way the residents have an indirect impact on the way the greenery looks. However, according to the local policy documents and the interview with 'Groen in de buurt' there is also the opportunity to participate in all four options of participation of Fors et al (2015). The theoretical framework also discussed the participation ladder of Arnstein (1969) which indicates that the extent of influence citizens has depends on the level of participation. During this research it emerged that in Geuzenveld citizens can participate through consultation, which is part of the level 'degrees of tokenism' (Arnstein, 1969), by means of various 'toekomstcafes' and consultation evenings. In addition, there are also some options, such as 'Groen in de buurt', where it is a case of 'citizen power' (Arnstein, 1969). In the case of submitting a plan via 'Groen in de buurt', citizens are fully involved and in control from the start of submitting the plan to the implementation and maintenance. The findings show that 'Groen in de buurt' has the objective to create a feeling of ownership for the residents. In addition, Geuzenveld also has other opportunities to participate as for example joining the dirt picking campaign. This is a way in which the residents can participate in an accessible way and immediately have an effect on their living environment.

In the literature there is a contradiction of participation on the one side improving liveability by social inclusion and the empowerment of citizens and on the other side reducing liveability by being exclusive, leading to volunteer burn-out and no choice volunteering (Jancovich, 2015; Joseph & Skinner, 2012). Unfortunately, this research does not clearly rule out this contradiction. Nonetheless the interviewees do indicate things related to both of the positions. The citizens involved with 'de Pleinkamer' indicated that this involvement contributes to their contact with other residents. On the other side some interviewees mentioned that it is not always clear when there is an opportunity to participate and that they just came across it by chance. This shows that participation is not always inclusive and is in line with the literature that states participation sometimes being exclusive.

According to the theoretical framework the participation of citizens has three purposes: to ensure that the preferences of the citizens are heard, to gain the trust of citizens in the government and to be more aware of the problems going on in the neighbourhood and in this way improve the plans (Glass,

2007; Innes & Booher, 2000). The first and third purpose both came forward during the policy analysis as during the interviews. This is for example discussed in the document 'Beleidskader participatie' where portraying people's interest is one of the objectives. In the interviews it also became clear that getting an insight into the preferences of the residents is seen as important by the professionals.

Furthermore, most of the interviewed residents where not actively involved with greening plans in the neighbourhood. However, they still thought Geuzenveld is a nice neighbourhood to live in. Still, there was not found a clear relation between the participation of the citizens and their liveability. Even though those residents were not actively involved they did indicate having the opportunity to participate (more actively) if they wanted to. This can be connected to what was stated in the theoretical framework about that participation can already be sufficient if citizens have the opportunity to participate (Lelieveldt, 1999; Van Gunsteren, 2006). Lastly, the findings of the interviews do not show a clear effect of participation on greenery and liveability, but the professionals and municipalities do use participation and greenery as tools to improve liveability.

6.3. Sub conclusion

This research aimed to find a relation between participatory planning, greening strategies and liveability. Unfortunately, no direct relation between these three elements was found in the interviews with the residents, but by looking deeper into the results some indirect relations can be found. During this research liveability is defined as 'the ability of the neighbourhood to support the quality of life and match the requirements of the citizens'. For most of the residents the existence of greenery or a green environment is important. In addition, several residents do say they think Geuzenveld is a nice neighbourhood because of the green environment. Greenery can therefore be seen as a requirement of the citizens. Furthermore, the residents do have the opportunity to participate if they want and according to the literature participation helps to get a better insight in the preferences of the citizens (Booher, 2000; Glass, 2007). So, if residents do have a specific requirement for the neighbourhood they can participate and in this way can contribute to achieving this. Thus, this can mean that greening strategies and participation can indeed improve liveability as this helps to meet the requirements of the citizens.

7. Conclusion

In this chapter the research will be concluded with an answer to the main research question, followed by the social and theoretical implications of the findings. Furthermore, the limitations of the used research methods will be discussed together with an overall reflection on the research process. Lastly, recommendations for future research will be presented.

The aim of this research was to answer the following research question: '*How and to what extend do greening strategies and participatory planning in the neighbourhood Geuzenveld contribute to improving its liveability?'.* To answer this question qualitative research was conducted through policy document analysis, observations and interviews. For the policy document analysis seventeen documents regarding different spatial levels were analysed. During the observations it was observed what the greenery looked like and how the greenery was used. Fourteen people were interviewed about their personal experiences regarding participation and greenery.

The theoretical framework discussed how greenery and participation can have an impact on liveability according to the literature. Participation can contribute to liveability and especially in the form of civic participation where residents help with making or maintaining the greenery and in this way have a direct impact (Fors et al., 2015). Furthermore, participation can improve liveability because it can improve social inclusion, city planning, and it empowers citizens (Hassan et al., 2011). Greenery can improve the liveability by having an effect on the four component of liveability which can be seen in Figure 2 (Chapter 2.2). Firstly, it has an impact on the urban infrastructure because it can improve the appearance of a place (De Kruijf et al., 2019). Secondly, it can create and provide place for social interaction (Jaszczak & Kristianova, 2019; Godbey et al., 2005). Thirdly, greenery creates and improves facilities (Jaszczak & Kristianova, 2019; Cohen et al., 2007). Lastly, greenery can increase the value of the houses and provide employment (Bockarjova et al., 2020; Cadena & Thomson, 2021). In theoretical part of the thesis these effects are further elaborated.

The theoretical framework looked at the effects of greenery and participation on liveability in general while the policy documents analysis, interviews and observations focus on Geuzenveld specifically. The policy documents show that greening strategies and participation are used as tools to improve liveability. 'Groen in de buurt' is a tool in which both are used together to improve the liveability. It is also shown that greenery is used to improve the environment in various ways, for example by providing sitting places. This can be related to the four components of the theory, as mentioned above (see Figure 13). During the interviews the greenery in Geuzenveld is mentioned as the best part of the neighbourhood. And as discussed in the discussion for several of the residents greenery is a requirement which is the reason why it also contributes to improving the liveability. Furthermore, not all the residents participate (actively), but they all mention having the opportunity to do so. Lastly, the observations mainly showed that the statements of the respondents about the use and condition of the greenery corresponds to the reality.

Thus, to answer the main research question shortly: greening strategies do have an impact on the liveability in Geuzenveld, but the research did not find a strong contribution of participation in greening strategies to all components of liveability. The greenery does contribute to liveability and especially the 'social interaction' and 'facilities' component of liveability. This by providing space for social activities, stimulating physical activities and providing space to sit and relax. Regarding participation, the findings do show that most of the residents do have the opportunity to participate for example by voting for a plan, participating in a consultation evening or 'toekomstcafe', or joining the dirt picking campaign. In this way participation can still contribute to liveability because it gives an insight in the preferences and requirements of the residents of the neighbourhood.

7.1. Theoretical and social implications

This research has several theoretical and social implications. Most of the findings were unsurprising and according to what was expected from the theory, which is further elaborated in the discussion chapter above Perhaps a bit of a surprising finding is that in the case of Geuzenveld green interventions did not (yet) lead to gentrification. This is surprising because previous research shows that green interventions are often related to gentrification. Furthermore, children were often mentioned as a reason to go to a green space. This might be specifically the case for the interviewed residents or Geuzenveld, but this could be added to the literature more extensively.

In regard of the social implications this research shows that the communication about participating in plans or about submitting an own plan can be improved. The residents did mention that they have the opportunity to participate but they also mentioned that it was not always clear when and how to participate. This could for example be improved by sending all the residents a letter with an overview of the opportunities to and how to participate (e.g., Buurtbudget, Groen in de Buurt). Furthermore, this research shows that green interventions improve liveability therefore it would be recommended to keep coming up with ideas for further greening Lambertus Zijlplein despite the weekly market. To improve the liveability of a neighbourhood it is important to know the requirements and wishes of the residents. Therefore, it is important that the municipality and the other professionals stay in touch with the residents and keep improving their communication.

7.2. Limitations and reflection

Despite ensuring the best possible quality of research, there still need to be considered some limitations. The limitations are related to the used research methods, the group of people interviewed and the focus of the research.

Firstly, one of the limitations regarding the used research methods is that the results cannot be generalized. This because the findings are conducted through a qualitative method and are focused on one specific Dutch neighbourhood. Furthermore, in comparison to doing a survey, doing interviews reaches a smaller group of people. This can also be related to the fact that in general, participating in an interview often takes more time than participating in a survey. This could have contributed to the amount of people who indicated they did not have the time to participate and made it more difficult to find people willing to participate. This was already apparent during the research and therefore the questions have been slightly modified. Short questions have been added to ensure that in a shorter amount of time still some interesting information could be conducted.

Secondly, there were some limitations regarding the participation group. During the fieldwork days, it happened a few times that the people approached indicated not speaking Dutch or English well enough, which meant that they were unable to participate in the interviews because of this language barrier. This also means that the perspective of a certain group of residents is not represented in the research. Furthermore, an attempt was made to study a diverse group of residents. However, the majority of the participants are women because when approaching people, the women were more willing to participate in the study.

Thirdly, this research focused on four different components of liveability and the relation with participation and greenery. As a result, the scope of the research was very broad, making it difficult to go into depth in all the research elements and components. This also made it challenging to question all topics, discussed in the theory, during the interviews.

7.3. Recommendations

In addition to the limitations this section discusses the recommendations for future research. First a recommendation regarding the research methods is to combine a survey with interviews to get both the opportunity to generalise the data and get an insight in the 'why'.

Secondly, when having a longer timeline it would be recommended to interview more people, especially men, to get a more diverse group of participants. A suggestion for interviewing more people can be to ask people only one or two questions that they can answer immediately. In this way it will be easier to get information from more people. Furthermore, a recommendation is to let someone that speaks multiple foreign languages, that better reflect the residents, a similar research. In this way a language barrier can be prevented.

Thirdly, a recommendation is to do research on one specific component of liveability. In this way the relation between this specific component of liveability and participatory planning and greenery can be studied more extensively. This also gives the opportunity to go more in depth and get more specific results.

Fourthly, during this study, there were also some conversations with people who did not live in the neighbourhood themselves, but often come to the area. The information from these conversations is not incorporated in this research. However, a recommendation is to do research on the difference between the residents and people that do not live there and their experience of the green spaces in the neighbourhood.

Finally, some recommendations for specific topics for future research:

- How the social component of liveability is affected by participatory planning in greening strategies;
- What the relation is between the opinion of people on the greenery and their use of it;
- Studying the different perspectives of the neighbourhood from different demographic groups (e.g. age, gender, ethnicity etc.)
- Specifically look at the impact of participation on liveability.

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