



Utrecht University

Mosaic Governance

Combining Strategic Greenspace Planning with Urban Green Active
Citizenship to Enhance Urban Green Infrastructure



Davey J.S. Henninger (4143388)
d.j.s.henninger@students.uu.nl
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Supervisor: dr. A.P.N. van der Jagt
Second Reader: prof. dr. H.A.C. Runhaar

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Summary

Because of the expected exacerbation of environmental problems, especially in urbanised areas, urban greenspaces and their associated effects, such as climate change mitigation, are expected to play a more prominent role in environmental policy. In the last decades, active citizens have claimed an increasingly important role in the development, improvement and management of (urban) greenspaces. However, there are indications that these active citizens are mostly concerned with the local benefits of greenspaces rather than those at larger scales, such as climate change mitigation. They may also face long-term management issues, as well as cases of social exclusion of various socio-economic groups. Local authorities are, however, often more concerned with these issues than active citizens.

The Mosaic Governance (MG) framework was introduced to analyse how the role of active citizens may be improved. It rests on the principles of Urban Green Infrastructure (UGI), in which urban greenspaces are supposed to form a multifunctional, interconnected and socially inclusive network capable of more effectively contributing to combating environmental problems than isolated urban greenspaces. In this thesis, the MG framework is used to analyse how this planning approach can be combined with active citizenship to ‘strategically’ increase active citizenship’s contribution to UGI.

Through a multi-method approach consisting of document analysis and interviews with municipal officials and active citizens, twelve projects across four districts in Utrecht were examined, focusing on the citizen-municipality interactions. Other than elements related to UGI and active citizenship, the upscaling of projects (increase in size or institutional influence) was examined. The results revealed that most citizens were unfamiliar with UGI, that upscaling was relatively rare and mostly occurred in the more spacious districts and that various factors played a role during interactions between active citizens and the municipality. In some projects, goals and visions of the active citizens and the municipality were aligned, while at odds in others. Some active citizens desired a more proactive municipality, while others appreciated their ‘retreat’. Long-term (self-)management was found to be difficult in some projects. What this reveals most of all, is that a diversity of governance approaches is needed to successfully optimise active citizenship’s contribution to UGI because of a diversity of wishes, needs and capabilities of active citizens. A balance between integrating goals and visions, and supporting the active citizens should be sought for each project.

Dutch Summary

Vanwege de verwachte verergering van milieuproblemen, vooral in stedelijke gebieden, is de verwachting dat stedelijke groene ruimtes en de geassocieerde effecten, zoals mitigatie van klimaatverandering, een prominentere rol zullen spelen in milieubeleid. In de laatste decennia hebben actieve burgers een steeds grotere rol gespeeld in de ontwikkeling, verbetering en onderhoud van (stedelijke) groene ruimtes. Er zijn echter indicaties dat deze actieve burgers zich voornamelijk bezighouden met de lokale effecten van groene ruimtes in plaats van effecten op grotere schalen, zoals mitigatie van klimaatverandering. Ook kunnen zij te maken hebben met onderhoudsproblemen op lange termijn en buitensluiting van bepaalde socio-economische groepen. Lokale autoriteiten houden zich echter vaker bezig met deze problemen dan actieve burgers.

Het mozaïek *governance* (MG) raamwerk was geïntroduceerd om te analyseren hoe de rol van actieve burgers verbeterd kan worden. Het berust op de principes van Stedelijke Groene Infrastructuur (SGI), waarin stedelijke groene ruimtes een multifunctioneel, verbonden en inclusief netwerk zouden moeten vormen dat beter in staat is om bij te dragen aan het bestrijden van milieuproblemen dan geïsoleerde groene ruimtes. In deze eindschrijving wordt het MG raamwerk gebruikt om te analyseren hoe deze planningsbenadering gecombineerd kan worden met actief burgerschap om strategisch de contributie van actief burgerschap aan SGI te vergroten.

Via documentanalyse en interviews met ambtenaren en actieve burgers zijn twaalf projecten in vier Utrechtse wijken onderzocht, waarbij gefocust is op de burger-gemeente interacties. Naast de elementen gerelateerd aan SGI en actieve burgerschap, is het opschalen van projecten (vergroten van projecten of institutionele beïnvloeding) onderzocht. De resultaten onthullen dat de meeste burgers onbekend waren met SGI, dat opschalen relatief zeldzaam was en voornamelijk plaatsvond in ruimere wijken en dat verscheidene factoren een rol speelden in de interacties tussen actieve burgers en de gemeente. In sommige projecten waren de doelen en visies van actieve burgers en de gemeente overeenstemmend en elders het tegenovergestelde. Sommige actieve burgers verlangden een proactieve gemeente, terwijl anderen het terugtrekken waardeerden. Onderhoud op lange termijn was soms moeilijk. Maar de hoofdzaak is dat een diversiteit aan beleidsbenaderingen nodig zijn om de contributie van actief burgerschap aan SGI te optimaliseren vanwege een diversiteit aan wensen, behoeften en capaciteiten van actieve burgers. Een balans tussen het integreren van doelen en visies en het ondersteunen van actieve burgers moet gezocht worden voor elk project.

1. Introduction

1.1 Problem Definition

As both the world's population growth and urbanisation are expected to continue and increase (Lee & Maheswaran, 2010), problems associated with cities are likely to worsen in the coming decades. These are problems exacerbated by urbanisation, such as air pollution, urban heat accumulation, sanitary issues, climate change and waste generation. There are indications that these have claimed a more prominent place in the agenda of city planners in recent years (Bulkeley & Betsill, 2013). This can be observed in the adoption of principles such as climate change adaptation (Hunt & Watkiss, 2011) and healthy urban planning (Barton & Grant, 2011). These sustainable practices are adopted to more effectively combat aforementioned problems. Moreover, planning concepts have emerged which are accompanied by various principles dictating how to (strategically) implement measures to (help) solve these problems.

Urban Green Infrastructure (UGI) is such a concept, used to guide planning towards more sustainable practices (Hansen & Pauleit, 2014). UGI is often defined as a multifunctional network connecting different types of greenspaces (Buijs et al., 2016; Wilker et al., 2016). Examples of benefits are recreation, species protection and climate change mitigation (Fors et al., 2015; Wilker et al., 2016). These benefits are recognised by the public, although it varies across socioeconomic variables such as age (Jim & Shan, 2013). Greenspaces may help combat ills associated with urbanisation (e.g. urban heat or pollution) and are becoming especially relevant, given the continuing urbanisation (Lee & Maheswaran, 2010). Indeed, in Berlin for example, motives of citizens range from improving health to socialising to dissatisfaction with a lack of urban greenspaces (Rosol, 2012). To fully comprehend what greenspaces exactly are, it is arguably best to note what these exactly encompass, quoting Wolch et al. (2014): *“Public green space includes parks and reserves, sporting fields, riparian areas like stream and river banks, greenways and trails, community gardens, street trees, and nature conservation areas, as well as less conventional spaces such as green walls, green alleyways, and cemeteries”* (p.234). Through the concept of UGI, planners can strategically deliver these greenspaces. By taking into account the potential multifunctionality of greenspaces and the advantage gained from being interconnected as well as integrated with grey infrastructure, the implementation, configuration and use of greenspaces may be improved.

Urban greenspaces are traditionally delivered and managed by governments. However, a shift from ‘government’ to ‘governance’ is occurring in urban greenspace management, meaning centralised, top-down decision-making is increasingly being complemented by governance approaches with high-level non-state actor involvement (Mattijssen et al., 2017a). One emergent approach is active citizenship (AC); here, non-state actors are more autonomous than in traditional governance modes and state actors generally assume a facilitating role (ibid.). AC is increasingly being encouraged, mainly by Western European governments (van Dam et al., 2015). The supposed reasons for this vary from compensating for funding deficiencies (ibid.) to ‘bettered solutions’ (Fors et al., 2015). Since greenspaces are also being delivered by active citizens and not just governments (Mattijssen et al., 2017a), achieving strategic implementation of UGI requires the cooperation and involvement of all these actors, including active citizens.

Since this means that AC is also relevant for UGI implementation, it requires closer examination. Much like greenspaces, AC also has various potential benefits. More specifically, it has been known to increase environmental, institutional and social resilience (Buijs et al., 2016). Here, resilience should be understood in the context of social-ecological systems theory (SES), where it is generally defined as *“the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure identity, and feedbacks”* (Folke et al., 2005, p.443). Firstly, AC has the capacity to improve environmental resilience (e.g. improving biodiversity is beneficial for ecosystems’ resilience, as it improves genetic diversity) (Buijs et al., 2016). Next, by

offering new ideas, complementary local knowledge and experimental practices, the institutional resilience of urban greenspaces can also be improved (ibid.). Lastly, social resilience could be increased as AC can contribute to social cohesion, can help to build resilience to worsening economic conditions (e.g. increased self-sufficiency due to crop cultivation) and may promote environmental awareness and education (ibid.).

It thus seems favourable that the involvement of citizens has increased in urban greenspace governance (Mattijssen et al., 2017a). However, this does not always seem to improve urban greenspace delivery and management (Buijs et al., 2016). Firstly, cultural capital, the capacity of people to participate in actions around spaces they value, is not evenly distributed, which may lead to selective participation in AC and unfair distribution of access to greenspaces (ibid.; Mattijssen et al., 2017a). Secondly, urban greenspaces require long-term place-keeping (management), but AC is largely voluntary and citizens are often not sufficiently equipped to take on this long-term task (ibid.). Another point here is ecological scale mismatching: heterogeneous use of urban greenspaces, if not accommodated within the wider UGI, may lead to unexpected outcomes at larger spatial scales, possibly leading to a loss of ecological connectivity (fragmentation of city landscapes) (Buijs et al., 2016; Ernstson et al., 2010). Ecological connectivity refers to physical (e.g. ecological corridors) and functional connections (e.g. seed dispersal) between (urban) greenspaces (Buijs et al., 2016).

Nevertheless, these potential drawbacks of AC may be avoided through strategic implementation and management of urban greenspaces according to UGI's principles. Buijs et al. (2016) introduced the Mosaic Governance (MG) framework that allows researchers to analyse this 'policy-citizen interface'. Here, the framework's focus lies on urban green AC and especially the interaction between AC and local authorities' policies. The framework is meant to be used to analyse how UGI is being strategically implemented by those who deliver greenspaces (policymakers and active citizens). Since environmental problems appear at different spatial scales (Newig & Fitsch, 2009; Peterson et al., 1998), MG adapts to these different scales according to the environmental problems it seeks to address. The MG framework is discussed in-depth in chapter two.

1.2 Scientific Background

MG is a new framework which is partly based on two different, but related frameworks. In Buijs et al. (2016), the MG framework is introduced, but is barely analytically elaborated upon. Therefore, it stands to reason that these two frameworks should be discussed. Firstly, Multi-Level Governance (MLG) posits that political power shifts from the government level to lower and higher levels (communities and transnational governance arrangements) and that responsibilities may shift to non-governmental actors (Eckerberg & Joas, 2004). MG distinguishes between multiple levels as well (the municipal and the local level) and acknowledges the partial shift of power and responsibility towards the active citizens. MLG is explained thoroughly in chapter two.

Another important concept is polycentricity and the associated governance mode, polycentric governance, which is characterised by multiple governing units at different levels rather than a single, central one (Ostrom, 2010). These units are formally independent of each other, but may actually '*function in a coherent manner with consistent and predictable patterns of interacting behavior*' (Ostrom, 2010, p.552). MG also acknowledges the existence of multiple governing units which may interact with each other – and encourages this interaction to some extent. Polycentric governance is explained further in chapter two.

There is other scientific literature that also focuses on interactions between active citizens and local authorities. For example, the relationship between participation and sustainability is investigated (e.g. Dennis & James, 2016). Other literature has focused on how the role of governments should be changed to empower citizens' projects (e.g. Aalbers & Sehested, 2018; Franklin & Marsden, 2015). None have introduced a framework such as MG, however.

1.3 Knowledge Gap

While MG is based on multi-level and polycentric governance, and draws from UGI and AC literature, it has its own body of literature. Buijs et al. (2016) is a short paper that introduced the framework. Here, the framework is described, as well as the empirical observations that triggered the framework's development. A follow-up paper (Buijs et al., in press) aimed to analytically elaborate on the concept of MG. That paper tests MG as an analytical lens to investigate actual practices of collaborations between AC and local authorities. It focuses on cities across Europe, but generally investigates one case per city.

This implies a knowledge gap: so far, only individual case studies in different cities are investigated. This study attempts to at least partially address this knowledge gap. There is an opportunity to focus on at least one city, but multiple cases within that city. This is especially important for studying the MG framework, because the framework pertains to the occurrence of *multiple* projects within one cityscape and not simply the interactions between a single project and local authorities. It is also used to investigate interactions between projects. Multiple projects within a city could provide a clearer overview of the extent to which a municipality strategically implements UGI through AC initiatives and top-down policy. This is explained in detail in the following chapter.

2. Conceptual and Theoretical Framework

In this section, the MG framework is fully explained. Firstly, as mentioned in the introduction, there will be a more detailed explanation of MLG and polycentric governance. Secondly, a general description of the framework is given in which the role of the local authorities in delivering UGI (improvements) in collaboration with active citizens is highlighted. The framework consists of several components which will need explanation, namely UGI, AC and upscaling. These require further elaboration by drawing from the associated bodies of literature. This section ends with a table of criteria for each of the components based on the literature; these were used to identify and analyse the components in real-life practices.

2.1 MLG and Polycentric Governance

Active citizenship has become more prominent in the public sphere in part because of the emergence of participatory governance, especially governance forms such as MLG and polycentric governance (as mentioned in the introduction). In shifts toward governance, the nation state may be partially ‘hollowed-out’ as a political authority (Eckerberg & Joas, 2004). This change of the nation state’s institutional position is at the heart of MLG. One MLG type is referred to as ‘vertical MLG’, in which political power moves up to transnational levels and down to local authorities in ‘a coordinated manner’ (Eckerberg & Joas, 2004). This means that actors’ influence can cross scales (e.g. local governments influencing national policy processes). Another type of MLG is horizontal: responsibilities shift from governmental towards non-governmental actors. These two types do not appear to be mutually exclusive. Piattoni (2009) provides a definition based on Sabel and Zeitlin (2007): MLG “denotes a diverse set of arrangements, a panoply of systems of coordination and negotiation, among formally independent but functionally interdependent entities that stand in complex relations to one another and that, through coordination and negotiation, keep redefining the interrelations” (p.172). This means that in MLG, there are different levels which are interconnected; their relationships are dynamic and are being constantly redefined through different systems of coordination and negotiation.

A parallel can be drawn with ecosystems. Different species operate at different temporal and spatial scales. Peterson et al. (1998) note that species operating at the same scale frequently interact, and that the setting of those interactions are determined by the cross-scale organisation of an ecosystem. In this way, an incident at the micro scale can influence the macro scale. An example of interaction between levels of a scale is the ignition of a single tree by lightning. This may ignite other trees and turn into a wildfire. Thus, what originally affected only one tree, now affects an entire forest. In a similar manner, a small-scale urban green space can have an influence on the city scale.

Polycentric governance as a concept emerged as a result of the observation that many governments units operated in the same metropolitan area (Ostrom, 2010). Some scholars argued that this was evidence of a chaotic system. The concept of polycentricity was meant to help understand whether these multiple units were indeed chaotic or a ‘potentially productive arrangement’. Ostrom (2010) found evidence for the latter rather than the former. For example, a study by Ostrom et al. (1978) (as cited in Ostrom, 2010) found that a centralised police department never outperformed multiple smaller ones. Each unit (i.e. centre) enjoyed a degree of independence to make norms/rules. Polycentric systems possess “mechanisms for mutual monitoring, learning, and adaptation of better strategies over time” (Ostrom, 2010, p.552). Advantages of a polycentric system include: using local knowledge and learning from others, solving problems with non-contributors, more investments in innovation, increasing trustworthiness, increased levels of cooperation between participants and more effective, equitable and sustainable outcomes at multiple scales (Ostrom, 2010). What all of this means for the MG framework, is that it also distinguishes between multiple levels and that it also acknowledges the existence of multiple units.

2.2 The MG Framework

What now follows is an elaboration of the MG framework. Firstly, to understand what the MG framework encompasses, the way the city landscape and administration are conceptualised should be clearly described. To begin with, as mentioned in the introduction, the framework draws from MLG. The MG framework focuses on two levels, namely the ‘local or regional authorities’ level and the ‘local AC projects’ level. Traditional governance models posit that most or all power and responsibility (to govern) lie with the local/regional authorities (Driessen et al., 2012). However, in the MG framework, this power and responsibility has partially shifted towards the local citizens. Thus, both local governments and active citizens make (separate) contributions to the delivery and improvement of UGI. The framework also draws from polycentric governance (Buijs et al., 2016). In the framework, multiple ‘centres’ can be distinguished, generally consisting of municipal (sectoral) governments and local AC projects. These centres may interact with each other, for example when working together on a cross-sectoral project.

However, the city landscape is not uniform; its dimensions are characterised by diversity (Andersson et al., 2014; Buijs et al., 2016). Urban greenspaces differ in form and function (e.g. parks vs. gardens) (ibid.). Moreover, there is an institutional diversity in the ways active citizens self-organise (ibid.). This means that the ways each AC project is organised, may differ from one another. For example, one project may choose to only interact with the municipal government if strictly necessary, while another may instead actively cooperate with the local municipality on a regular basis. There is also a socio-cultural diversity (Buijs et al., 2016); different ethnic and welfare groups can be distinguished within a city landscape. A final important empirical observation is that most urban green AC projects tend to stay ‘local’: they generally remain limited in size, as well as their impacts (Franklin & Marsden, 2015; Mattijssen et al., 2017a). This means these spaces are mostly unconnected to other greenspaces and therefore do not become part of the city-wide interconnected green network as conceptualised by UGI’s principles (see 2.3).

While the focus on the local is not a problem by definition, it does limit the contribution of most AC projects to UGI. There are several reasons AC projects may stay local: the citizens have different objectives than local authorities (Mattijssen et al., 2017a), citizens are reluctant to institutionalise, or reluctant to take up predetermined governmental objectives (Buijs et al., in press). Citizens may also lack the knowledge and/or means to contribute to UGI. However, local authorities may know how and/or be capable of increasing the contribution of AC projects on UGI development (Buijs et al., 2016). Thus, there is an opportunity for local authorities to take on a supportive role for AC projects. However, because of the aforementioned diversities, local authorities assuming that role should not adopt a generic, ‘blanket approach’. Diversity in urban greenspaces, forms of self-organisation and socio-cultural contexts means that active citizens of each project will have different needs, wishes and requirements. Such a generic approach for each of these projects will therefore neither lead to optimal results nor support from the citizens. Instead, a ‘mosaic governance’ approach allows for the fulfilment of an AC project’s specific needs, wishes and requirements. Socio-cultural diversity necessitates the social inclusion of all socio-cultural groups. A mosaic typically consists of differently shaped pieces, but still form a coherent whole when placed properly. The separate projects are the pieces of the mosaic, while the mosaic is the interconnected and functional green infrastructure. The overall idea of the framework is visualised in Figure 1.

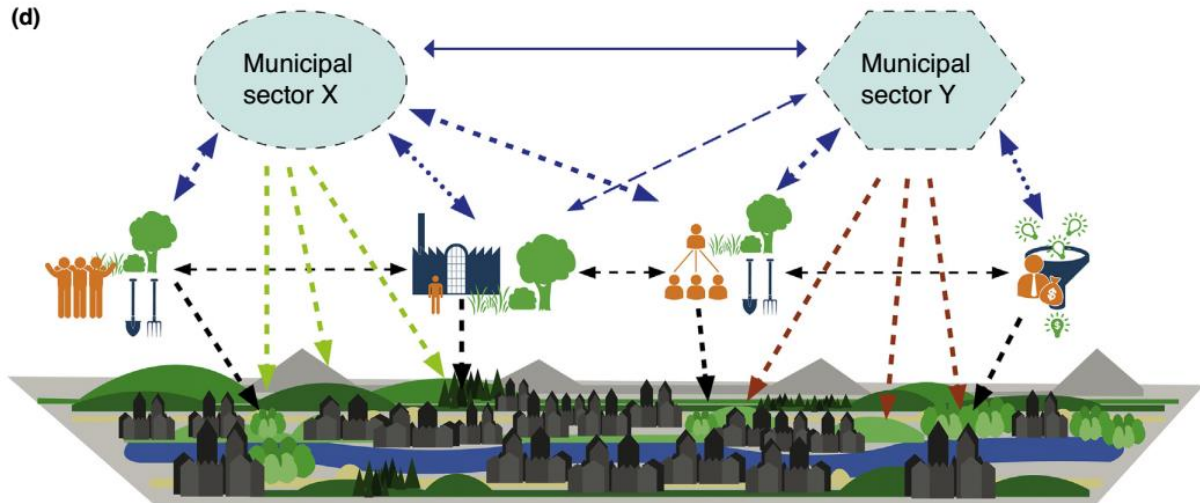


Figure 1: Visualisation of the Mosaic Governance Framework (copied from Buijs et al., 2016)

In the figure, the dashed green and red arrows indicate traditional, municipality-led planning and management of UGI (Buijs et al., 2016). This planning is generally guided by a long-term vision and objectives at higher spatial levels than the local level (e.g. city level). This traditional UGI planning approach may lack “*the adaptive capacity to align with the dynamics of local governance issues*” (Buijs et al., in press). The larger dashed, black arrows pointing downwards indicate AC projects’ individual (local) contributions to enhance and maintain local greenspaces (Buijs et al., 2016). What can also be observed, is that these AC projects are diverse, as mentioned in the previous section.

Moreover, the dark blue, dashed arrows indicate interactions between local authorities and AC projects. While Buijs et al. (2016) do not specify exactly what kind of interactions these entail, other than the notion of ‘horizontal and vertical integration’, the figure is meant to show the diversity in this relationship between local authorities and AC projects. The horizontal black, dashed arrows indicate interactions between the AC projects, for example regular meetings to discuss problems encountered in each project. Buijs et al. (in press) paper mention ‘upscaling’ as one type of interactions between municipalities and AC projects. This basically refers to increasing local projects’ UGI impacts at higher scales. The follow-up paper noted that the challenge for mosaic governance is to “*combine the planning-based long-term vision on spatial greenspace networks with the energy manifested in locally embedded - but usually not spatially interconnected - initiatives from AC*” (Buijs et al., in press). The fit between UGI planning and active citizenship should be improved to ultimately enhance UGI. This fit seemed important for the MG framework, but was not yet explicitly measured. What seems to be central here, based on the preceding quote, is that there may be differences in visions, goals or approaches between local authorities and the active citizens. To analyse the fit, attempting to uncover such differences would be a first step. The next paragraphs dive deeper into UGI, AC and upscaling, which is necessary for properly observing and analysing these components in actual practices.

2.3 Urban Green Infrastructure

UGI is a strategic planning concept, as well as an implementation approach (Wilker et al., 2016). The European Commission defines it as “*a strategically planned network of high-quality natural and semi-natural areas that include other environmental features and is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings*” (Wilker et al., 2016, p.229). Thus, multifunctionality and both physical and functional connectivity of greenspaces are principles of (U)GI. According to Hansen & Pauleit (2014), connectivity “*represents the spatial distribution and relations of GI elements and consequently the distribution of benefits they provide*” (p.520). Greenspaces are configured so that certain functions (e.g. urban heat mitigation or species migration), are reinforced or made possible. Connectivity “*involves creating and restoring connections*

to support and protect processes, functions and benefits that individual green spaces cannot provide alone” (Hansen et al., 2017, p.4). Multifunctionality means “that multiple ecological, social, and also economic functions shall be explicitly considered instead of being a product of chance” (Hansen and Pauleit, 2014, p.518). Considering increasing urbanisation and environmental issues (Lee & Maheswaran, 2010), the regulating effects of UGI, e.g. air filtration, pollution removal, cooling and groundwater replenishment (Wolch et al., 2014), are especially relevant for urban green policy. Thirdly, Hansen & Pauleit (2014) also mention ‘integration’ as a principle, which “aims at physical and functional synergies between urban green space and other kinds of infrastructure” (Hansen et al., 2017, p.23). Moreover, ‘multi-object’ and ‘multi-scale’ are also considered UGI principles (Hansen & Pauleit, 2014). The former refers to the inclusion of all kinds of urban greenspaces and not just large spaces, while the latter refers to the fact that UGI planning can be used for initiatives at different scales (ibid.). There are also two principles relating to the ‘governance process’: social inclusion and transdisciplinarity (ibid.). The former refers to communicative and socially inclusive urban planners, while the latter refers to the use of knowledge from different disciplines, e.g. landscape ecology, planning and landscape architecture (ibid.). While both MG and UGI have elements of ‘social inclusion’, it was not the explicit focus of this study, because the MG framework is relatively broad and multi-faceted and as such, needs more than one study to cover all elements. Scaling-out, scaling-up and the ‘fit’ were deemed to be more central to the MG framework. It is finally important to realise that there are many definitions of UGI, but this one was also used by (Buijs et al., in press).

2.4 Active Citizenship

The question most important to answer here, is what exactly encompasses ‘active citizenship’. In the scientific literature, AC is rarely directly defined and instead, relatively vague descriptions are given. For example, Murray et al. (2010) note that AC ‘encompasses’ social, economic and cultural rights and responsibilities; citizens play an active role in shaping these. Moreover, according to Eriksson (2012), AC is a response to the “problems of the passive citizen, who is dependent on the benefits of the welfare state and constantly risks being displaced to the margins of society” (p.687). From these, it can be deduced that AC is about citizens ‘taking matters into their own hands’, they move beyond the ‘passive’.

Arnstein’s ladder of participation can give a more nuanced distinction between ‘active’ and ‘passive’. The ladder, in Figure 2, distinguishes between forms of ‘non-participation’, ‘tokenism’ and ‘citizen power’. The forms of ‘citizen power’ are the active ones, while ‘tokenism’ remains mostly passive because no decision-making power is conceded to citizens (Cornwall, 2008). A more recent typology is provided by Pretty (1995) (as cited in Cornwall, 2008), where ‘functional participation’, ‘interactive participation’ and ‘self-mobilization’ are the active forms. In functional participation, authorities see participation as a means to achieve a goal; there is shared decision-making, but most major decisions are already taken. In ‘interactive participation’, participation is seen as a right and citizens participate in joint analysis and plans. Lastly, self-mobilization involves taking initiative independently of external authorities. Even though authorities may still provide resources, initiators remain in control of how these are used.

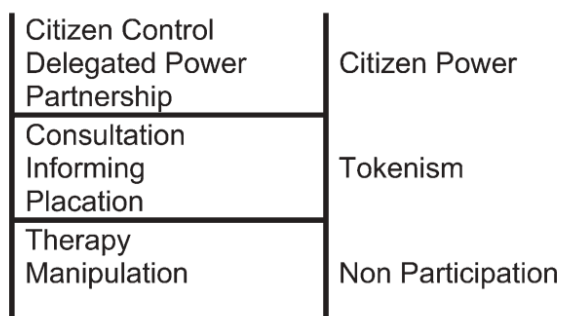


Figure 2: Arnstein’s Ladder of Participation (adapted from Cornwall, 2008 and based on Arnstein, 1961)

The notion of community also requires clarification. Community is regarded a new focus (of governments and civil society) for dealing with societal problems (Marinetto, 2003). AC and community involvement are linked to notions such as self-help and empowerment. In this study, ‘community’ implies not just organised citizen groups, but individuals as well. ‘Civil society’ generally includes other actors such as NGOs and companies. However, this study did not consider projects set up by such actors if they did not involve ‘regular’ citizens (i.e., they do not represent NGOs or companies). NGOs and companies operate in an organisational structure and generally have more resources available on a consistent basis, which distinguishes them from citizens, who generally operate on a strictly voluntary basis. NGOs and companies are indeed relevant for the MG framework, but the choice was made to not explicitly compare AC projects mostly involving active citizens and AC projects mostly involving NGOs and companies (see Discussion).

2.5 Upscaling: Scaling-Up and Scaling-Out

Upscaling has different definitions and interpretations across disciplines (Wigboldus & Leeuwis, 2013). In the most abstract sense, it means ‘do more of that which works’. According to van Doren et al. (2018), upscaling refers to “*progression in degrees or levels that are located at different positions on a scale*” (p.177). Here, a level or degree is “*a unit of analysis located on a position of a scale*” (van Doren et al., 2018, p.177). Two forms of upscaling are distinguished: scaling-out and scaling-up.

Scaling-out or horizontal upscaling refers to the “*spatial growth of an initiative or parts thereof*” (van Doren et al., 2018, p.178). There are two ways scaling-out can manifest: the spatial growth of a project within one area (e.g. from neighbourhood to district) and replication of one project to other areas/cities. Increasing impacts in terms of increasing connectivity, multifunctionality and green-grey infrastructure could also be considered scaling-out. Scaling-up or vertical upscaling refers to the process where ‘information’ (e.g. ideas, values or knowledge) from individual projects influences institutions at higher levels (van Doren et al., 2018). This can manifest in policy goals, policy instruments, routines, values and ideas. Generally, scaling-up refers to more radical actions because of structural learning, such as changing rules or routines (van Doren et al., 2018).

While terms like policy goals, values and ideas are relatively straightforward, the notion of ‘policy instruments’ needs further explanation. Brukas & Sallnäs (2012) (as cited in Mees et al., 2014) provide a clear definition: “*a deliberate structured effort by governors to solve a policy problem by modifying actions of the governed*” (p.58). Policy instrument types are distinguished by Mees et al. (2014) according to two dimensions: 1) the type of governance arrangement; and 2) the associated policy instruments and their underlying rationale. The first dimension, however, is not relevant for this study’s purpose, as the exact governance arrangement for delivering and improving UGI has already been described extensively in paragraph 2.2. Types of instruments are: legal, economic and communicative. Although Mees et al. (2014) do not provide exact definitions, the authors do provide examples. Examples of legal/regulatory instruments are building requirements and mandatory labels. Examples of economic instruments are subsidies or bulk purchase discounts. Finally, an example of communicative/informational instruments are public information campaigns.

Examples of scaling-out are public funding measures, such as access to credit (loans), hiring project developers, increasing information availability, hiring technical experts and subsidy schemes (van Doren et al., 2018). These are only considered scaling-out if these measures are taken beyond the original arrangement, i.e., they are ‘extras’ in response to perceived needs or suggestions from the citizens. Scaling-up measures are more difficult to identify, but examples include lobbying, establishing an information centre disseminating projects’ results and more ambitious policy goals due to the success of initiatives (ibid.). Lastly, it should be noted that scaling-out and scaling-up are interrelated; for example, more ambitious policy goals may stimulate replication or public funding measures (ibid.). Moreover, van Doren et al. (2018) state that both scaling-out and scaling-up are necessary for successful upscaling of AC projects.

Based on the literature, several criteria for the different elements of the framework can be distinguished:

Element	Criteria
<i>Urban Green Infrastructure / Structural Green</i>	<ul style="list-style-type: none"> - A focus on spatial interconnectivity of urban greenspaces: integration with surrounding greenspaces - Improving/taking into account the multifunctionality of greenspaces - Integration of green and grey infrastructure - ‘Multi-object’ approach: a wide variety of green is considered part of ‘greenspaces’ - ‘Multi-scale’ approach: the acknowledgement that UGI planning can be used for projects at different scales - Social inclusion: relevant stakeholders are included - Transdisciplinarity: knowledge used from multiple disciplines
<i>Active Citizenship</i>	<ul style="list-style-type: none"> - Citizens must be actively involved; i.e. beyond being informed or consulted
<i>Scaling-up</i>	<ul style="list-style-type: none"> - AC project has informed and influenced at least one of the following local authorities’ attributes: <ul style="list-style-type: none"> - Policy instruments (formal) - Policy goals (formal) - Routines - Ideas (informal) - Values (informal)
<i>Scaling-out</i>	<ul style="list-style-type: none"> - AC project has: <ul style="list-style-type: none"> - increased spatially - and/or increased in impacts - and/or has been replicated (in terms of practices) to another area or city

Table 1: Criteria for empirically analysing different elements of the MG framework

2.5 The Policy Arrangement Approach

Finally, while the preceding section made clear how this study has attempted to observe the components of MG in practice, a systematic approach was also needed to organise and analyse the results. Buijs et al. (in press) has deemed the Policy Arrangements Approach (PAA) (Arts et al., 2006) to be an appropriate analytical framework for this purpose, especially for scaling-up and scaling-out. PAA was “developed to assist understanding of the synthesis of stability and dynamism in environmental policy” (Arts et al., 2006. p.96) and “stability and change in arrangements and the driving forces behind them are the crux of analysis. We describe and analyse the design of the environmental policy domain, or parts of it, in terms of its content and organisation with the aid of four dimensions.” (p.99). Four analytical dimensions are distinguished: ‘discourses’, ‘actors’, ‘rules of the game’ and ‘resources’ (Arts et al., 2006). Actors are those involved in the policy domain (ibid.), while ‘discourses’ are the shared visions and objectives of actors (Buijs et al., in press). These actors can mobilise, deploy and/or divide ‘resources’, such as funding or knowledge (Arts et al., 2006). Lastly, the ‘rules of the game’ define the scope of action for the actors in the policy domain (Buijs et al., in press). The different instruments for scaling-out and scaling-up can pertain to each of these dimensions, even though it is possible one instrument could be placed in multiple dimensions. Indeed, Arts et al. (2006) mention that these dimensions are ‘inextricably interwoven’. The next chapter addresses the associated research aim, questions, explains the exact societal and scientific relevance and describes the case study.

3. Research Framework and Case Study

In this chapter, the research aim and associated main research question and sub-questions are presented. A visual representation of the research framework is also included. Then, the empirical case study is described, which is the Municipality of Utrecht's greenspace policy. This chapter ends with explaining this study's societal and scientific relevance.

3.1 Research Framework

The research aim is to contribute to the MG literature by investigating how the MG framework can be applied to analyse multiple comparable urban green AC cases and their interactions with local authorities. It aims to do so by including the fit between AC projects' vision and the municipality's long-term vision in the analysis. In this regard, this study does not attempt to address the actual effects of the MGP and DGPs projects such as the increase in ecological functions. Instead, it focuses on the interactions between the AC projects and the municipality. The associated main research question is:

How can the mosaic governance framework be applied to analyse and understand how urban greenspace planning and urban greenspace active citizenship can be combined to strategically develop and enhance urban green infrastructure?

To answer this question, it is firstly necessary to determine what local authorities exactly attempt to do through policy to improve UGI. This question thus mainly pertains to strategic UGI planning element of MG:

1. *How can the mosaic governance framework be applied to analyse the (municipality-led) improvement and delivery of urban green infrastructure?*

Here, the local authorities' vision, definition and goals of UGI are important for identification of the overall approach to municipality-led UGI improvement and delivery. Document analysis and supplementary interviews with municipal officials are used to answer this sub-question. What is also important here, is how active citizens perceive and apply UGI. Secondly, local authorities may attempt to stimulate active citizenship initiatives and/or actively involve citizens in their projects. Thus, the second sub-question is:

2. *How can the mosaic governance framework be applied to analyse the promotion of urban green active citizenship by local authorities?*

Answering this question requires interviews with both municipal officials and active citizens. This question pertains to the general policy strategy of the municipality and the exact form of involvement of citizens. After answering the first two sub-questions, the general strategy of UGI and AC enhancement by local authorities should be known, as well as the forms of AC initiatives subject to that strategy. The next step is to investigate the interactions between the local authorities and AC initiatives. The third question thus pertains to another element of the framework: upscaling.

3. *How can the mosaic governance framework be applied to identify and analyse instances of scaling-up and scaling-out in interactions between local authorities and active citizens?*

This also requires interviews with both municipal officials and active citizens. Scaling-out and scaling-up may both increase AC projects' contribution to UGI. But just because upscaling is occurring, does not mean the aforementioned 'fit' between the local and municipal levels is present. The last sub-question is thus:

4. *How can the mosaic governance framework be applied to analyse the fit between the local level (active citizens) and the municipal level?*

Answering this last question mostly relies on interviews with active citizens. It is about the alignment of wishes, goals and visions of the active citizens and the local authorities and any problems arising in the interactions between them. Figure 4 displays the steps taken.

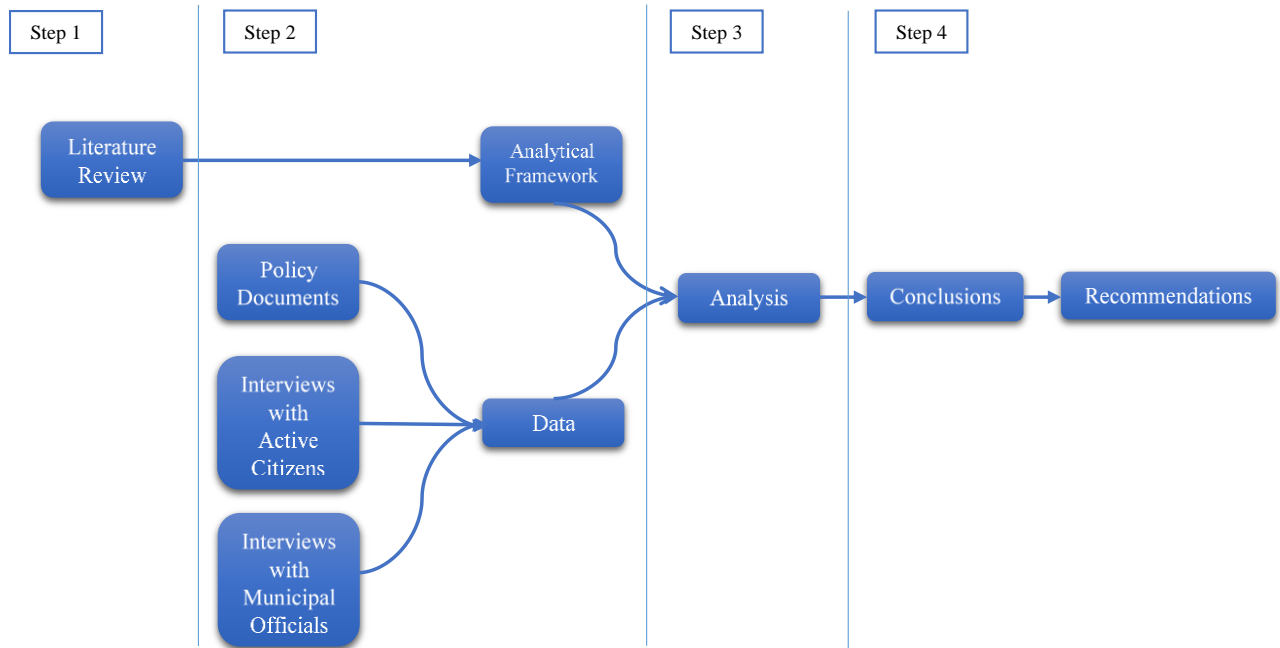


Figure 4: Research Framework

3.2 Case Study

This study’s focus is on the Municipality of Utrecht’s policies targeting UGI. These are subsumed under the Green Structure Plan (GSP), which include the following sub-programmes: The Multiannual Green Programme (MGP), the District Green Plans (DGPs), the Trees Policy (TP) and the Green Web Programme (GWP). The GSP and its programmes, especially the DGPs, are unique in the way that they consist of multiple AC projects within a single policy framework. Moreover, these different projects are subject to the same municipality with the same vision on UGI and AC. This makes them comparable, at least in terms of the interactions between the initiators and the municipality. This is why Utrecht as a case is interesting for the purpose of this study.

Since the DGPs are specifically focused on promoting AC, they are especially relevant for this study. The DGPs consist of several district plans aiming to realise multiple AC projects. The DGPs are more focused on citizen involvement and sparking interest in (structural) green (Implementation official, pers. comm. 22 November 2017). The DGPs seek to implement residents’ ideas for greening projects (Municipality of Utrecht, 2013). Ten to 29 initiatives were realised in each district, with project lead times up to three years. The last plans were to be finalised in 2017 (Municipality of Utrecht, 2017a), but will now be finished in 2018 instead (Municipality of Utrecht, 2018). Utrecht’s ten districts each have a €500.000 budget, of which €80.000 is reserved for management. The municipality decided to decrease its involvement as much as possible to increase citizen engagement and thus, the DGPs have no explicit main goal of improving the overall green structure (Implementation official, pers. comm. 22 November 2017). The DGPs are not completely bottom-up because it is still a policy framework developed by the municipality.

3.3 Scientific Relevance

This study served to better understand the interactions between local authorities and active citizens and how this can be organised optimally. It is scientifically relevant because the framework has not been applied before to an urban context, where both municipal policy and multiple comparable AC projects are analysed. This setting is ideal for studying local-municipal interactions, how these are organised and the problems encountered during these interactions. On a more theoretical note, it explores ways to empirically measure and analyse MG. The framework is relatively new and so far, there has been one attempt to explore how to measure and analyse MG (Buijs et al., in press). But since this was not done in a setting ideal for MG (i.e., multiple projects in one city instead of several projects in different cities), there is still much to be researched. Studies such as these may lead to new insights regarding the framework's design, e.g. the general ease of applying the framework to an actual case.

3.4 Societal Relevance

The results of this study may influence the governance approach of any future programme concerning urban green AC. Through better understanding of how interactions between municipalities and active citizens are organised and optimised, governance approaches can be refined accordingly. The study is a step towards adequately understanding when and how AC projects can contribute to enhancing UGI. Moreover, increasing MG's literature base may draw attention to this novel governance approach, further prompting expansion and fine-tuning of the literature and the framework respectively. The next chapter elaborates on the methods used.

4. Methods

What follows are the methods used for data collection, the methods used for analysis and an examination of the reliability and validity of these methods. The type of data collected, such as perceptions on autonomy, the extent to which the municipality supports AC and UGI, favoured qualitative methods. Empirically, this study attempted to understand how the MG framework can be applied to analyse how UGI is being strategically implemented with regards to urban green AC projects and their interactions with local authorities. The DGPs have been mostly implemented, as well as some MGP projects, meaning the evaluative component of this study is ex-post. Moreover, to rely on a single method within the social sciences is not recommended (Poteete et al., 2010), because all social sciences methods provide data with some level of uncertainty; they also have different strengths and weaknesses. Using complementary methods is therefore advised; having multiple research goals necessitates this.

4.1 Data Collection Methods

The overarching method was case study analysis. What distinguishes case study analysis is that “*it attempts to examine: (a) a contemporary phenomenon in its real-life context, especially when (b) the boundaries between phenomenon and context are not clearly evident*” (Yin, 1981, p.59). The phenomenon here is strategic UGI improvement and delivery by active citizens and local authorities. Utrecht is the case of analysis, the different projects are the units of analysis, while the MGP, DGPs, GWP and TP form the context for the units. The DGPs (and MGP) have been described as unique in their approach (Implementation official, pers. comm. 22 November 2017) and therefore, it was assumed that, thus far, this was the only viable policy context for the empirical analysis of MG.

Before discussing the actual methods of data collection, clarification is needed on what kind of data was exactly collected. Easton (1965) (as cited in Underdal, 2002) distinguishes between output, outcome and impact of a decision-making process. Outputs are the norms, principles, rules and the consequences from the implementation of (and adaptation to) these. The consequences are further divided in outcomes and impacts. Outcomes are “*consequences in the form of changes in human behavior*” and impacts are “*consequences that materialize as changes in the state of the biophysical environment itself*” (Underdal, 2002, p.6). Establishing causality of impacts was not the goal of this study. Moreover, it should be mentioned that the MG framework is not yet fully developed (in terms of precision, degree of elaboration, consistency and scope), and therefore, conclusions were carefully made. This study should be seen as an initial step towards the full development of the framework: it attempted to find an appropriate way to use the MG framework for analysis of actual cases in practice. Because of this, a comprehensive evaluation of the municipality’s policy was not viable, but careful recommendations could be made.

The first used method of data collection was document analysis. Four districts were chosen: Noordoost, Noordwest, Leidsche Rijn and Oost. Two were considered ‘green-poor’ (Noordwest and Noordoost) whereas the other two were not (Implementation official, pers. comm. 22 November 2017). Differences between districts were important to consider during the comparison. Factors such as the building density and welfare could have had an influence on the extent of AC participation (Table 2). Conclusions were made only after considering these factors. Examining all ten districts was too extensive for this study, considering the required depth of analysis and given time and resources.

Factor	Year	Oost	Leidsche Rijn	Noordwest	Noordoost
<i>No. houses per hectare</i>	2015	13.2	10.2	44	34.8
<i>% that helps with maintenance of green spaces</i>	2016	8	11	6	14
<i>Average disposable income of households (x1000)</i>	2014	41.5	43.7	30	42.3
<i>% GCSE/A-levels</i>	2013	75.1	57	36	74.6

Table 2: Factors which may have influenced AC participation (source: <https://utrecht.buurtmonitor.nl//jive>)

The analysis was used to determine which projects actively involved citizens, as those without active citizen involvement were not the focus of this study. Moreover, the document analysis was used to gain as much information on the different elements of the MG framework. For example, it was used to gain information on the municipality’s overall strategy and vision on UGI and AC and what is being done in each programme to promote these. All documents were systemically analysed according the scheme in Appendix A. Moreover, several documents and websites of some projects were also used (see Table 4).

Additionally, semi-structured interviews served to supplement the document analysis. The aim was to interview as many active citizens as possible from different projects, be it DGP or MGP, in the four districts. Information from AC projects not part of any of the policies, was also used, since these may still contain information on the different components of the MG framework, such as upscaling examples. Snowball sampling was also used to gain more interview opportunities. The questions asked (translated to Dutch) can be seen under appendix B. Moreover, municipal officials were interviewed using different questions (Appendix C). The questions pertained to all the elements of the MG framework. All interviews were semi-structured interviews in person. Respondents remained anonymous in the results. Interview transcripts and audio files were not shared. The questions cover all the described elements of the MG framework. Consent forms were used (Appendix D). Table 3 briefly describes the different operationalisations.

Variable	Operationalisation	Question(s) (see Appendix)
<i>UGI (municipality)</i>	Municipality-led UGI delivery and enhancement. Specifically, the vision, associated goals and policy instruments used to improve UGI. Also pertains to the vision on, goals of and instruments for AC.	C1, C2, C5
<i>AC</i>	The extent of citizen involvement (Cornwall, 2008): functional participation – interactive participation – self-mobilization	B2, B3, C4
<i>Scaling-up</i>	Occurrences of the municipality being influenced (manifesting as structural learning) by an AC initiative in terms of policy instruments, goals, values and ideas. Different types of policy instruments can be distinguished: economic, regulatory or informational/communicative (Mickwitz, 2003; Mees et al., 2014).	B9
<i>Scaling-out</i>	Any measure taken beyond the original arrangement by higher-level actors that increased the size/extent and/or impacts of the initiative.	B6, B7, B8, C6
<i>‘Fit’ between the local and city level</i>	Presence of contrasting visions, goals, wishes and/or methods. Whether active citizens were satisfied with the cooperation with the municipality and their autonomy.	B10, B11, C8
<i>UGI (local)</i>	Whether citizens were familiar with the concept and if they have applied it, and whether the municipality has attempted to apply it.	B4, B5, C3

Table 3: Operationalisation of variables

4.2 Data Sources

For the GSP in general and the MGP, TP and DGPs specifically, several policy documents were publicly accessible, listed in Figure 5 below. For the GSP, two documents were available: the original document from 2007 and a progress report from 2017. For the MGP, multiple (yearly) documents covering (overlapping) periods of three years each were accessible. The Tree Policy has a document dating from 2009 and an evaluation from 2016. Lastly, the for the DGPs, each district had one document available. These were all the relevant publicly accessible policy documents, which is why these were chosen.

Green Structure Plan

- Groenstructuurplan Utrecht (2007)
- Actualisatie Groenstructuurplan 2017-2020

Multiannual Green Programme

- Multi-annual Green Programme Documents from 2007 to 2017

Tree Policy

- Bomenbeleid Utrecht (2009)
- Evaluatie Bomenbeleid 2013-2016

District Green Plans

- Leidsche Rijn
- Oost
- Noordoost
- Noordwest

Figure 5: List of relevant policy documents

Table 4 contains an overview of the interviews and to which project(s) these pertained, along with additional material, such as separate documents, articles or websites, if available. Data was collected between March and June.

Interview No.	Date	Initiative(s)	District	Policy	Documents	Website
<i>i1</i>	26 Mrt 2018	Abstederdijk; Abstederhof	Oost	DGP		
<i>i2</i>	27 Mrt 2018	Kaatstraat	Noordwest	DGP	- District Post (2014)	
<i>i3</i>	4 Apr 2018	Oosterspoorbaan	Oost	MGP	- Functional Design (OKRA, 2015)	- http://oosterspoorbaan.nl/
<i>i4</i>	5 Apr 2018	Wulpstraat	Oost	DGP		
<i>i5</i>	16 Apr 2018	Oosterspoorbaan Natuurlint; De Biltstraat; Toegangswegen; Bikkershof	Noordoost	DGP; N/A (Bikkershof)		- http://www.bikkershof.nl/
<i>i6</i>	25 Apr 2018	Máximapark	Leidsche Rijn	MGP	- Year Plan 2018	- https://www.maximapark.nl
<i>i7</i>	26 Apr 2018	Noordse Park (Speeltuin)	Noordwest	MGP		
<i>i8</i>	8 May 2018	Minstroom Route	Oost	MGP		- http://minstroomutrecht.nl/
<i>i9</i>	8 May 2018	Noordse Park	Noordwest	MGP		- http://www.noordsepark.nl/
<i>i10</i>	17 May 2018	Voorveldse Polder	Noordoost	MGP	- Vision Park Voorveldse Polder (2010)	
<i>i11</i>	17 May 2018	Vlinderhof	Leidsche Rijn	MGP		
<i>i12</i>	28 May 2018	Wilhelminapark	Oost	MGP		- http://www.wilhelminapark.com/nieuws-uit-het-park/
Interview No.		Municipal Official		Policy		

<i>i13</i>	12 Feb 2018	Program Manager, Ontwikkelforganisatie Ruimte		MGP, DGP	
<i>i14</i>	16 May 2018	Project Assistant DGPs		DGP, MGP	
<i>i15</i>	22 Nov 2017	Implementation Official, Ontwikkelforganisatie Ruimte		MGP, DGP	

Table 4: *Overview of Interviews with Active Citizens and Municipal Officials*

4.3 Data Analysis Methods

The documents were analysed according to the ‘interview’ method: to search for the answers to specific ‘interview questions’ (O’Leary, 2004). These interview questions are the questions as seen in Appendix A and are similar to those of the actual interviews in the sense that they also cover the components described in the theoretical section: UGI, AC and upscaling. Document information was used mainly in the first section of the results, which explain the municipality’s vision, associated goals and (intended) approach for each of the plans and programmes. The municipality’s vision, associated goals and approach give an indication of how the municipality approaches urban green AC. Interviews with municipal officials were used to deal with unclarities.

Interviews with active citizens and municipal officials were used to determine how UGI was understood and used, if at all, how active citizens were involved, what kind of scaling-up and scaling-out occurred and whether there were any tensions between active citizens and the municipality regarding goals and visions. All interviews were transcribed. These transcriptions were then coded using open coding. Five codes were used: one related to UGI, one to AC and participation, another to scaling-out, one to scaling-up and the last pertained to interactions between citizens and the municipality, including problems and other (beneficial) factors. On basis of the coding, the data was analysed. Results are presented through narratives and organised according to the sub-questions and the PAA, if applicable. Information from documents were used to a lesser extent here, although some projects have associated documents, articles and/or websites which at times contained relevant information.

4.4 Reliability & Validity

Reliability pertains to the uniformity in what is being measured (O’Leary, 2004). Firstly, respondents may have been biased or may have given socially desirable answers. Poteete et al. (2010) note the lack of reliable data sources for collective action, which means this type of research generally has limited reliability. Nevertheless, several measures have been taken to ensure sufficient reliability. Firstly, all active citizens were asked the same or similar questions. It should also be noted that the majority of information collected was descriptive and not subjective, which makes it somewhat less likely that results are unreliable. Secondly, reliability of the document analysis was ensured through the use of an analysis scheme. In short, while reliability is certainly not ideal, it is sufficient.

Next, validity indicates that conclusions drawn are trustworthy and that methods, approach and techniques relate to what is being explored (O’Leary, 2004). This study had a relatively large, comparable sample size as opposed to studies examining individual cases of AC. However, the validity of mosaic governance assessments is reduced due to the novelty of the framework. Conclusions were therefore carefully made. Nevertheless, some information collected from the interviews could be validated using the municipal documents and various online websites and material (Table 4 only contains material used in the results).

5. Results

Now that the frameworks and methods are known, the results are presented. Each of the plans/programmes, the GSP and MGP, the DGPs, the TP and the GWP, may have different visions, goals and approaches for UGI, AC, scaling-up and scaling-out. In the first part, the municipality's policy is analysed. It starts with an overview of the structure of the municipality's policies, and then analyses the vision, associated goals and overall approach regarding UGI. Then, the same will follow for AC, scaling-up and scaling-out. For this part, the results from the document analysis and the interviews with municipal officials were used. Afterwards follow four sections detailing the extent of citizen involvement, UGI, scaling-out, the local-municipal fit (incl. scaling-up) for projects in four districts.

a.



b.

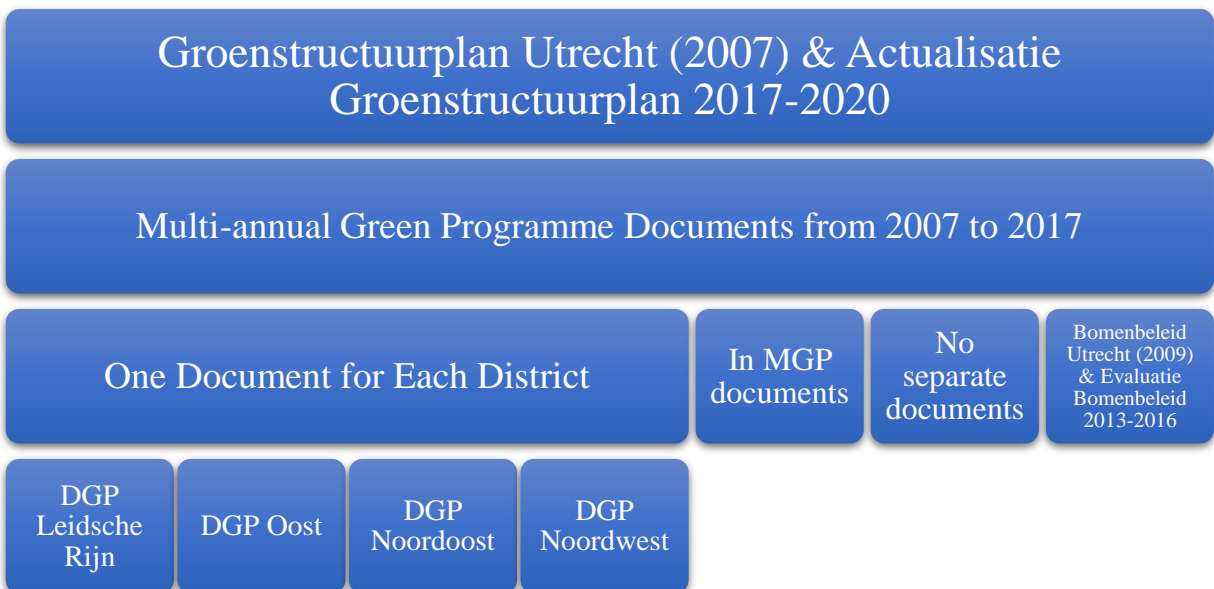


Figure 6: This diagram shows (a) the structure of the policies and in (b) all associated documents for each plan or programme. This structure became evident by analysing the documents and interviewing the implementation official (i15) and program manager (i13). The Green Structure Plan (GSP) is the overarching plan for urban greenspaces in Utrecht. The Multiannual Green Programme (MGP) is the implementation of the GSP, of which documents were available for every year from 2007 onwards, covering three years each. Within the MGP, the District Green Plans, Tree Policy and the Green Web Programme are embedded, even though the latter has existed since 1991.

5.1 Municipality's Vision, Goals and Approach Regarding UGI

This section deals with the municipality's vision, goals and overall approach regarding UGI. It starts with an overview of the purposes and goals of the different plans and programmes and their associated documents as seen in Figure 6. It is then assessed in how far the municipality, based on a joint assessment of all documents and interviews with municipal officials, adheres to the principles of UGI. As a reminder, the principles are: connectivity, multifunctionality, green-grey integration, social inclusion (not focused on in this study), multi-object, multi-scale and transdisciplinarity.

5.1.1 Overview of the Purposes and Goals of the Plans, Programmes and Associated Documents

The Green Structure Plan (GSP) is the overarching plan focused on Utrecht's greenspaces. It has two documents: the original document from 2007 and the updated plan from 2017. The municipality has a vision on urban greenspaces and focuses on the year 2030. The latest version of this vision is expressed in the 2017 document and is presented in the form of a map of Utrecht and surroundings (Figure 7), showing current greenspaces and connections in 2007 as well as the *desired* greenspaces and connections, which are to be realised by 2030. The map was created based on four types of 'green networks': recreational, ecological, spatial and cultural-historic.

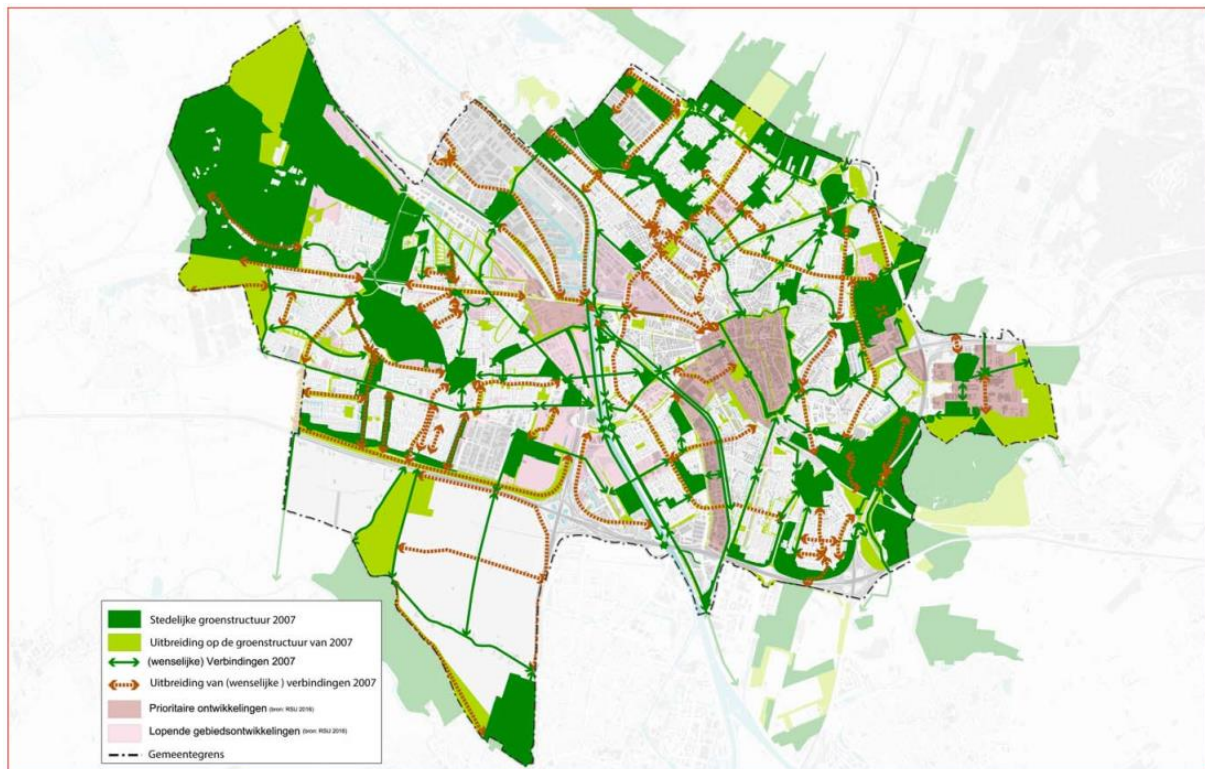


Figure 7: Map of the Green Structure by 2030 (dark green: greenspaces in 2007; light green: expansions; green arrows: (desired) connections in 2007; red arrows: expansion of (desired) connections in 2007)

Originally, the GSP had four broad aims: 1) to connect greenspaces in and around the city; 2) to develop greenspaces surrounding the city; 3) to develop greenspaces in the city; and 4) to enhance the 'trees structure'. In the 2017 update, improving health and climate adaptation were added to these four aims, which signifies a greater understanding of UGI. Why this is the case, will be explained in 5.1.2; this section only deals with the purposes and goals of the plans and programmes.

There are several reasons the municipality pursues this vision (Municipality of Utrecht, 2017b). Firstly, the municipality expects an increasing demand for recreation due to Utrecht's population rising to 400.000 and because the use of greenspaces has intensified. Secondly, the municipality considers urban

green to contribute to the quality of life through health improvements and recreation. Thirdly, climate considerations are important to the municipality. This includes climate adaptation, combating heat stress, droughts and flooding. Fourthly, biodiversity conservation improvements are also said to play a large role. Lastly, according to the municipality, urban greenspaces should be easily accessible for everyone.

The Multiannual Green Programme (MGP) is the implementation of the GSP. There is one MGP document each year, from 2007 onwards. Each document covers three years (e.g. the 2007 document covers 2007 to 2010). The MGP contains projects for greenspaces such as parks and public gardens. The (desired) green connections as seen in Figure 7 are generally separate projects as well. Since this programme represents the implementation of the GSP, it shares its vision. Nevertheless, in 2009, a comprehensive ‘Goal Tree’ was introduced, which has remained unchanged ever since. Figure 8 is a translated version of this Goal Tree. Its purpose is to provide specific effect and performance goals for the broad aims described in the GSP.

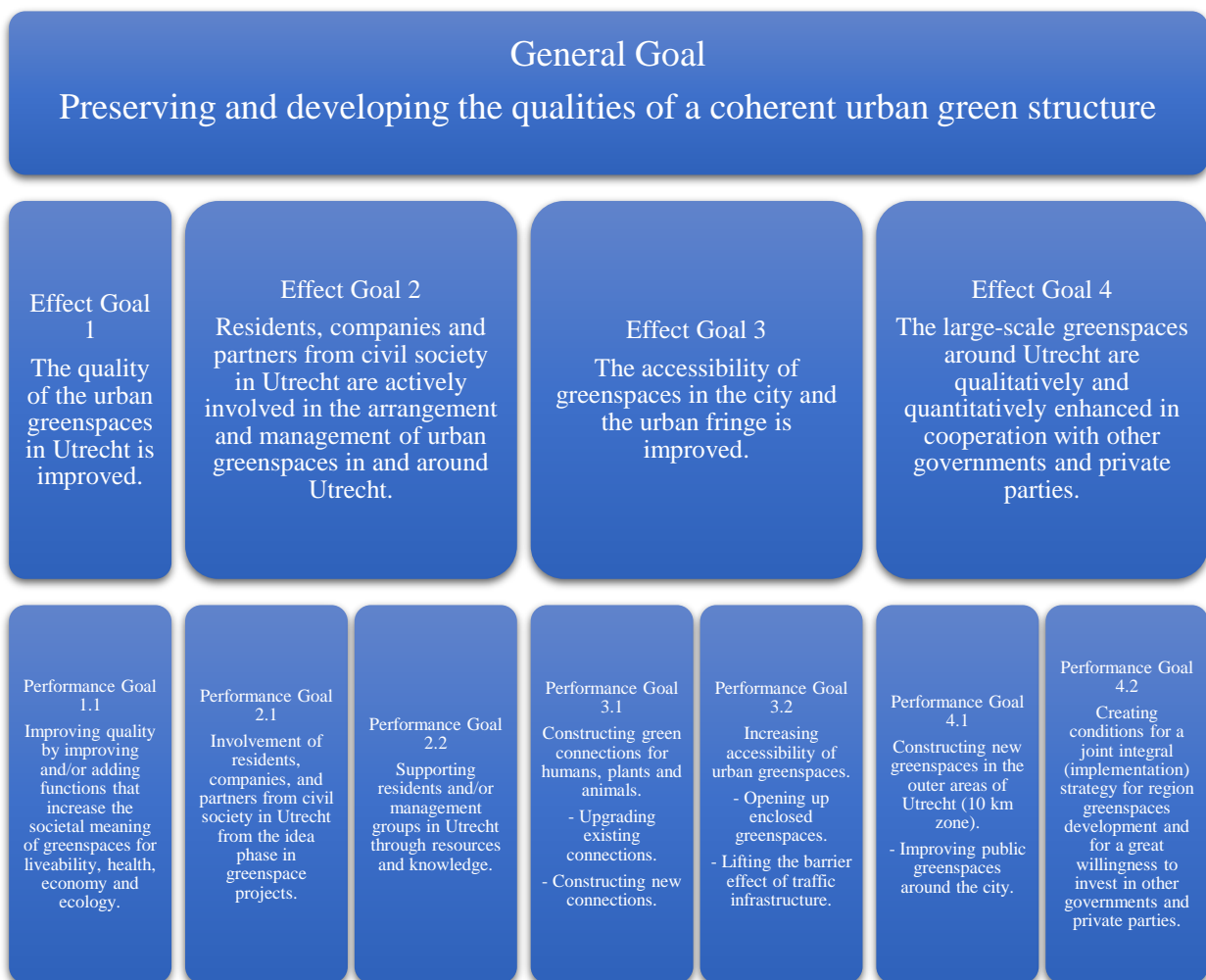


Figure 8: Goal Tree of the MGP Documents

The District Green Plans (DGPs) are part of the MGP and it is stated that “*in the district green plan, projects to develop greenspaces on the district level are described according to citizens’ wishes*” (Municipality of Utrecht, 2012, p.5). The DGPs are described as one of MGP’s follow-up plans. The main goal of the DGPs is: more, better and accessible urban greenspaces in the district (Municipality of Utrecht, 2012). The DGPs were meant to create and enhance local greenspaces, they have ‘green-social’ goals, which includes increasing social cohesion (i13). Self-management of these projects is another goal (i13). It was also meant to spark citizens’ interest in (developing and managing) greenspaces (i15).

Thus, whereas the MGP focuses on the city level, the DGPs focus on the district level, which was reaffirmed by a project assistant involved in the DGPs (i14).

The program manager of the MGP has reflected upon the purpose of the DGPs. He noted a desire to design such plans differently in the future: “*So, there is a GSP, and you want to create a network as well, and then you determine where the willpower and resources are located at this moment. Is there an urban development plan? Where are the investments and the wishes? You want to combine those.*” (i13). This quote indicates that there is a desire to combine the needs of the municipality with those of the citizens. Moreover, the program manager said that: “*Those district green plans are actually about their own living environment and do not go beyond that. And what you actually want, is that you also take a look at health, air purification, sound, climate and water storage. Those are suddenly entirely different issues, which citizens often will not solve. [...] That is slowly being realised, you actually want to include citizens’ awareness of other issues.*” (i13). Furthermore, he mentioned the desire to include the urban green network in the next round of DGP plans, if the local government decides to push for this (i13). These new ideas were experimented with in Maarschalkerweerd (an MGP project), where the municipality identified potential ecosystem services together with citizens. Nevertheless, what citizens considered especially important were accessibility, fences and such, in other words, mainly improvements for recreational use of the area (i13). This example indicates that it may be difficult to spark citizens’ interest in UGI.

Just like the DGPs, the Trees Policy is another ‘follow-up plan’ of the MGP. The TP was created specifically for trees because these are stated to have ‘their own (i.e. unique) spatial dimensions and issues’ (Municipality of Utrecht, 2009). The vision of the TP is comparable to that of the GSP: the municipality has created a map of the desired trees structure on the city level, just like Figure 7. Both visions pertain to the city level. The form of the structure was created in consultation with nature- and environmental groups of Utrecht. The map shows current tree lanes, lines and parks, as well as the ‘missing links’ in this structure. The TP has the following goals: 1) creating a coherent trees structure in the city, based on cultural-historic, spatial and ecological considerations; 2) complementing, improving and developing this structure; 3) more attention and care for monumental trees in municipal and private property; 4) more adult trees in 2030 than in 2008; 5) weighing the interests of trees sooner and more carefully in projects through timely and clear decision-making; 6) improving communication to residents about how the municipality treats her trees; and 7) simplifying regulations for citizens.

The 2007 GSP document states that the Green Web Programme (GWP) projects provide a ‘modest’ contribution to completion of an urban green structure. ‘Bottlenecks’ in the city’s ecological infrastructure were identified, and based on this, projects were initiated. According to the 2007 MGP document, the GWP’s main purpose is to “*improve the quality of the ‘nature’ in the city through optimisation of opportunities for nature in the public green.*” It is furthermore stated that “*this is done through the improvement of the arrangement of green(spaces), the realisation of a connected structure and the neutralisation or reduction of barriers in this structure.*”. The types of projects include: creating ‘ecological walls’, drilling ‘fauna tunnels’, ‘gangways’ and creating flower-rich zones (Municipality of Utrecht, 2007). Projects may also pertain to the management of the ‘web’ and creating awareness. The 2017 GSP document states that the municipality is working on creating a ‘nature appreciation’ chart for each district.

5.1.2 Extent of the Municipality’s Adherence to UGI Principles

What follows is an assessment of the municipality’s urban greenspaces policy in terms of whether it adheres to the UGI principles. The first principle is connectivity. Recall from chapter two that connectivity “*involves creating and restoring connections to support and protect processes, functions and benefits that individual green spaces cannot provide alone*” (Hansen et al., 2017, p.4). The GSP’s first broad aim is about connections between greenspaces. In the MGP, this broad aim is translated into concrete goals: performance goals 3.1 and 3.2 (Figure 8) are about improving or adding green

connections. Thus, on the city level, connectivity as a principle appears to be present. This is further supported by the TP, where ‘missing links’ in the trees structure are identified and added. The GWP also adheres to the connectivity principle, as the ‘realisation of a connected structure’ is a goal of this programme. The ‘Green Web’ here is considered the ‘ecological structure’. Moreover, “*through this green web of places and connections, animals and plants can make the city their habitat*”. This suggests that the GWP is explicitly focused on the ecological aspects, and more specifically on biodiversity. However, on the local level (neighbourhoods and districts), the connectivity principle appears to be absent. In all DGP documents, it is stated that the DGPs have the goal of improving urban greenspaces at the district level and not the city level. Because the MGP already focuses on the structural greenspaces on the city level, they are not the focus of the DGPs. Greenspaces at the neighbourhood and district level are not considered part of the green structure, according to the municipality (i13). Nevertheless, it is possible that some projects are focused on the structural greenspaces. For example, in Noordoost, it is stated that there are projects aiming to enhance ‘special’ green structures (likely refers to Natuurlint Oosterspoorbaan). The Leidsche Rijn DGP was also said to be more focused on ecological connectivity (e.g. the placement of ecological bushes) (i14). Thus, the municipality aims to connect greenspaces, but only on the city level.

The second principle is multifunctionality. Recall from chapter 2 that multifunctionality means “*that multiple ecological, social, and also economic functions shall be explicitly considered instead of being a product of chance*” (Hansen and Pauleit, 2014, p.518). Multifunctionality is reflected in the 2007 GSP document. It is indicated by the fact that multiple network types are distinguished. Moreover, the ‘stacking of qualities and functions’ is mentioned (p.7), which further implies multifunctionality and also the fact that multiple functions of greenspaces are mentioned throughout the GSP and MGP documents. However, this does not necessarily mean multifunctionality is taken into account in each of the municipality’s projects. In fact, the original GSP document from 2007 was mainly about human use (recreation) of greenspaces (i13). As of 2017, however, more explicit attention has been paid in the GSP to multiple functions greenspaces can have, especially to climate adaptation and health improvements. Moreover, multifunctionality is included in the Goal Tree: goal 1.1 is about improving greenspaces’ quality by improving or adding functions (liveability, health, economy and ecology). In the TP, multifunctionality is also recurring, as the multitude of functions of trees is carefully described. These include functions beneficial for traffic, recreation, identity, experience, design (of public spaces), biodiversity and the environment. The following indicates that these multiple functions are taken into account: “*Many cultural-historic [tree] lines are also spatially and ecologically important. Thus, the overlap is great and that makes the position of these trees in the city more important*” (TP, 2009, p.20). The GWP, however, is predominantly ecologically focused and therefore does not adhere to the multifunctionality principle. Lastly, the DGPs entail projects mostly designed by citizens and therefore, any multifunctionality arising from these, likely originated from the citizens and not the municipality. The documents do not indicate that the municipality attempted to stimulate the multifunctional design of these projects and the goals also do not explicitly reflect such an approach. Thus, there are indications that the municipality stimulates multifunctionality, but only on the city level.

The third principle is green-grey integration. Recall from chapter 2 that green-grey integration “*aims at physical and functional synergies between urban green space and other kinds of infrastructure*” (Hansen et al., 2017, p.23). Green-grey integration is not explicitly mentioned, but there are some indications that this principle is acknowledged. For example, in the ‘balancing framework’ for greenspaces, it is mentioned that the ‘mixing of urban green with other urban functions’ is possible as long as the urban greenspace is preserved or improved (Municipality of Utrecht, 2017b). Moreover, in the TP, the ‘spatial structure’ is considered to consist of trees that have an important connection or coherence with their environment (landscape, infrastructure and buildings). These trees are part of the ‘spatial interplay’ of the underlying landscape, network of roads and buildings. This spatial structure is one of three structures (ecological and cultural-historic are the others) determined and defined for the city. However, it seems that this mainly pertains to aesthetic functions rather than to ecological ones. In the GWP, some projects,

such as ‘fauna tunnels’, may imply integration of green with grey infrastructure, but such integration is otherwise not explicitly stated. This principle is also not present in the DGPs. Overall, green-grey integration is mostly implicit, and not strongly represented in any way, on any level.

The fourth principle, multi-object, refers to the inclusion of all types of greenspaces in the green infrastructure network. The 2007 GSP document considers the following as part of ‘urban greenspace’: estates/country houses, city parks, cemeteries, allotments, sports fields, forts, forests, landscape parks, golf courses, as well as puddles. Green facades, green roofs, neighbourhood gardens, public gardens, green-blue corridors and tree lanes are also considered greenspaces, as of 2017 (Municipality of Utrecht, 2017b). However, as mentioned with the connectivity principle, greenspaces at the neighbourhood and district level are not considered part of the green structure, according to the municipality (i13). This exclusion of the local level is not according to UGI’s principles. What follows from this, is that the ‘multi-level’ principle is also not adhered to by the municipality. This principle states that greenspaces on multiple levels should be linked with each other (local, city, regional). It seems that the local level is not explicitly linked with the other levels, such as the city and the regional level. The municipality does attempt to link the regional and city levels through greenspaces, as signified by performance goal 4.1 (Figure 8). Greenspaces surrounding Utrecht are connected to greenspaces in the city. Thus, the multi-object and multi-level principles are only partially adhered to.

The last two principles are social inclusion and transdisciplinarity, although the former was excluded from this study. Transdisciplinarity is about linking disciplines, integrating knowledge and demands from different fields (Hansen et al. 2017, p.5). Throughout the documents, transdisciplinarity or any similar terms or phrases are not explicitly mentioned. However, several interviewees, such as the respondent from Park Oosterspoorbaan, indicated that multiple disciplines are involved, such as ecologists and architects (i3). However, this implies multidisciplinary (not necessarily *integrated* knowledge and demands) and not necessarily transdisciplinarity.

5.2 Municipality’s Vision, Goals and Approach Regarding AC

In this paragraph, the municipality’s vision, goals and overall approach regarding AC are explained. Firstly, an overview of the goals related to AC is given. It is then assessed in how far the municipality, based on a joint assessment of all documents and interviews with municipal officials, has policy on AC. As a reminder, active citizenship is about the active involvement of citizens. Pretty’s (1995) typology (see 2.4) is used: functional participation, interactive participation and self-mobilization. Functional participation is about the involvement of citizens, but they only have limited decision-making power. Participation is seen as a goal of the municipality and not as an intrinsic right or an effective means to achieve objectives. In interactive participation, citizens and municipality are equal partners; citizens have significant decision-making power, e.g. they may create the project’s design with the municipality’s assistance. Lastly, self-mobilization concerns active citizens who operate largely independently of the municipality, who initiated the project, but may ask the municipality for help when desired.

5.2.1 Overview of the Municipality’s Goals Regarding AC

Effect Goal 2 of the Goal Tree (see Figure 8) aims to ‘actively involve’ citizens (as well as firms and civil organisations) in the configuration and management of greenspaces from the ‘ideas phase’ onwards (Municipality of Utrecht, 2013). However, it is initially unclear what the municipality means by ‘actively involved’. Performance Goal 2.1 states that citizens are involved from the idea phase onwards, which is at the early stages of the greenspace projects. Nevertheless, this still does not clarify anything about the level of involvement. The analysed documents otherwise do not explicitly mention AC. However, related terms are mentioned, such as the ‘entrepreneurship of citizens’ and ‘citizen initiatives’. Some plans and visions for different areas of the city were made together with local residents. New projects are said to be derived from ‘district ambitions’, which is a vision of a given district made together with residents, or are directly based on ideas of citizens. Furthermore, it is clear that involving

residents in greenspace projects is one of the main purposes of the DGPs: the “*social participatory setup is the basis for drawing up the district green plan*” (Municipality of Utrecht, 2012, p.5). The DGPs documents state that the citizens get the ‘most important vote’ in determining the content of the DGPs. A precondition of the DGPs is that the contents are suggested by the citizens ‘as much as possible’ (Municipality of Utrecht, 2012).

The 2009 TP mentions that citizens are involved in the plan development phase. The only specification of this is that citizens are involved in the choice of new trees. There is no explicit goal related to AC in the TP. Anything related to citizen involvement in the 2009 document is mostly referred to as ‘communication’, which implies a level of involvement of ‘information’ or ‘consultation’. For example, the municipality aims to communicate timely and clearly about the management of trees and ‘unavoidable’ interventions. The municipality also tries to involve citizens in the management of trees, but the exact level of involvement remains unclear. In the 2007 GSP document, it is mentioned that GWP-related projects are being done ‘as much as possible with nearby residents’. However, the exact form of involvement is not elaborated upon. The program manager mentioned that the GWP has a participatory nature (i13).

5.2.2 Extent of AC in the Municipality’s Vision, Goals and Approach

While it is relatively clear that the DGPs involve AC, this is not as clear for the other plans or programmes. What may shed light on this, is the general policy on participation. The municipality has a general ‘participation standard’ (Municipality of Utrecht, 2010). This small document clarifies the municipality’s approach to participation. Four levels are distinguished: informing, consulting, advising and co-producing. In informing, the municipality decides on the agenda for decision-making and keeps involved parties up to date, but they have no input. In consulting, the municipality sees involved parties as an ‘interlocutor’, but their opinions, experiences and ideas are not compulsory. In advising, the municipality still decides on the agenda for decision-making, but involved parties can bring problems and solutions to the table. These play a ‘worthy role’ in the development of policy. In co-producing, the municipality and involved parties decides together on the agenda for decision-making and ‘search for solutions together’.

From these four levels, only the latter appears to be ‘active participation’. Although citizens may have significant decision-making power in the third level (advising), citizens are still not equal partners. The participation standard also clarifies when ‘co-producing’ is recommended, based on four questions/factors. On the city and neighbourhood levels, co-producing is recommended (to the municipality) when: 1) the (expected) effect on liveability and safety is ‘great’; 2) input of knowledge and experience from stakeholders is considered necessary; 3) the scope for influence is large (little is fixed in laws or policy); and 4) there are no limiting factors such as a lack of time or money. Additionally, on the neighbourhood level only, ‘co-producing’ is recommended if 1) the (expected) effect on liveability and safety is small; 2) no input from stakeholders is considered necessary; 3) when the scope for influence is large (little is fixed in laws or policy); and 4) there are no limiting factors such as a lack of time or money. Since twelve different situations on both the neighbourhood and city level (24 in total) are identified by the participation standard, and in only two and one situation(s) respectively, co-producing is recommended, active citizenship is likely not always stimulated or engaged in by the municipality.

Since ‘actively involved’ is explicitly mentioned in one of the MGP’s performance goals, the MGP most likely includes some degree of AC. The TP and GWP, however, are more reminiscent of the other three levels, based on the information in 5.2.1.

5.3 Municipality’s Vision, Goals and Approach Regarding Scaling-up and Scaling-out

In this paragraph, it is discussed whether and how the municipality approaches scaling-up and scaling-out. Performance Goal 2.2 is about supporting citizens or management groups in terms of resources and knowledge. This may also include support for scaling-out activities, but scaling-out is not directly

mentioned in relation to this Performance Goal. In other words, it is not specified *what* aspect(s) of AC projects the municipality exactly seeks to support. This could indeed include the spatial expansion of such a project, or an ‘upgrade’ of the project, leading to increased connectivity, multifunctionality or green-grey integration. There is at least one strong indication that the municipality attempts to increase the number of projects. This is done through the Initiatives Fund. This fund is meant for “*permanent improvements of the public space or innovative initiatives aimed at care and welfare in the neighbourhood*” (Municipality of Utrecht, 2015). ‘Permanent improvements’ suggest the Initiatives Fund may be used for expansion of pre-existing initiatives. The size of the fund is 4.2 million euros each year, of which 0.7 million is reserved for city level initiatives and the rest for the districts. Each district gets a base of 200.000 euros and the rest is distributed proportionally to the population size of the districts. The maximum amount one initiative can receive each year is 50.000 euros. This support may last for up to three years. However, the Initiatives Fund does not necessarily only pertain to greenspaces, but to any citizen initiative; there are also no indications that the municipality actively tries to stimulate the scaling-out of greenspace initiatives specifically to improve UGI. In the plans and programmes part of the GSP, no goals referring to scaling-up could be identified. However, there are some indications that scaling-up is occurring. For example, in resolution 155: *Al Doende Vernieuwen* (Renewing by Doing), the municipality draws ‘lessons’ from various initiatives actively involving and/or set up by citizens. Thus, both scaling-out and scaling-up is occurring, though more often implicitly than explicitly, which is also reflected in the relative lack of goals specifically related to scaling-out and scaling-up. What now follows is the thematic presentation and analysis of collected empirical data concerning several AC projects.

What can be concluded is that the municipality adheres mostly to the principles of connectivity and multifunctionality, but only on the city level, and only limitedly to the multi-object principle. Active citizenship is mostly stimulated in the DGPs and the MGP. Finally, the municipality stimulates scaling-out and scaling-up, but this is barely reflected in their stated goals.

5.4 The Extent of Citizen Involvement

This section deals with the extent of citizen involvement in projects in four districts of Utrecht: Oost, Leidsche Rijn, Noordoost and Noordwest. Recall that the forms of citizen involvement are: functional participation, interactive participation and self-mobilization (see 5.2). Other forms such as informing and consultation are not considered active participation. Moreover, key features of each project is also given in terms of the PAA: the actors involved, the (in)formal rules defining interactions and procedures, division of resources among the actors and the shared visions and objectives of actors.

Project	District	Programme/Plan	Actors	Rules	Resources	Discourses	Level of Citizen Involvement
<i>Absterdijk/Abstederhof (i1)</i>	Oost	DGP	Active citizens, gardener, municipality	- Co-designed by citizens and gardener - Citizens involved in specification of greenspaces (e.g. choice of trees species)	- Active citizens: human resources - Gardener: knowledge - municipality: funding, knowledge, capital	- Active citizens: desired green streets and courtyards - Municipality: see municipal goals under 5.1.1	Interactive
<i>Wulpstraat (i4)</i>	Oost	DGP	Active citizens, gardener, municipality	- Co-designed by citizens and gardener - Citizens involved in specification of greenspaces (e.g. choice of trees species)	- Active citizens: human resources - Gardener: knowledge - municipality: access to funding, knowledge, capital	- Active citizens: desired green streets and public gardens - Municipality: see municipal goals under 5.1.1	Interactive
<i>Park Oosterspoorbaan (i3)</i>	Oost	MGP + DGP	Active citizens from different initiatives (incl. landscape designers), consistently involved municipal official, various experts	- First disused track used to create a green bicycle pathway, co-created by citizens and municipality	- Active citizens: human resources, knowledge - Experts: knowledge - Municipal officials: access to funding, knowledge, capital	- Active citizens: desired a green park fulfilling recreative, aesthetic, social and ecological functions - Consistently involved municipal official:	Track 1: Interactive Track 2: Self-mobilization

				<ul style="list-style-type: none"> - Second track used for citizens initiatives - Core group set up for the second track consisting of one municipal official and leaders of the initiatives - Citizens mapped the interests of residents 		pro-citizen initiatives discourse	
<i>Minstroom Route (i8)</i>	Oost	MGP	Active citizens, municipality, ecologist	<ul style="list-style-type: none"> - Citizens initiative - Implementation by the municipality 	<ul style="list-style-type: none"> - Active citizens: human resources, knowledge - Ecologist: knowledge - Municipality: access to funding, knowledge, capital 	<ul style="list-style-type: none"> - Active citizens: increase ecological and recreative value of the Minstroom; increase visibility of the Minstroom - Municipality: Project should be aligned with GSP's goals 	Interactive
<i>Wilhelminapark (i12)</i>	Oost	TP / MGP	Wilhelminapark Foundation, municipality	<ul style="list-style-type: none"> - Foundation's initiative, but tree plan was created by a workgroup consisting of both the foundation and the municipality 	<ul style="list-style-type: none"> - Foundation: human resources, knowledge - Municipality: access to funding, knowledge, capital 	<ul style="list-style-type: none"> - Foundation: preserve monumental status of the park - Municipality: maintain sufficient management level 	Interactive
<i>Máximapark (i6)</i>	LR	MGP	Park organisation:	<ul style="list-style-type: none"> - Four workgroups and 	<ul style="list-style-type: none"> - Park organisation: 	<ul style="list-style-type: none"> - Park organisation: 	Interactive

			active citizens and municipal officials, consultants, workgroups	the secretariat make up the park council: management, development, programming and communication - New projects are presented to the workgroup development and then the park organisation - 'open', trust-based and action-oriented culture	human resources, knowledge - Consultants: knowledge - workgroups: human resources - Municipal officials: access to funding, knowledge, capital	maintain and develop the park - Municipal officials: projects should be aligned with GSP's goals	
<i>Vlinderhof (i11)</i>	LR	MGP	Initiator, architect, municipality, volunteers, companies	- Citizens initiative: initiator had to gather 50.000 euros and public support before receiving municipal approval - Initiator is responsible for the management of the green infrastructure, while the municipal is responsible for the grey infrastructure	- Initiator, volunteers: human resources, knowledge - Architect: knowledge - Municipality: access to funding, knowledge, capital - Companies: capital	- Initiator: desired architectural public garden - Municipality: project should be aligned with GSP's goals	Interactive/self-mobilization

<i>Biltstraat (i5)</i>	Noordoost	DGP	Active citizens, gardener, municipality	- Co-designed by citizens and gardener - Citizens involved in specification of greenspaces (e.g. choice of trees species)	- Active citizens: human resources - Gardener: knowledge - Municipality: access to funding, knowledge, capital	- Active citizens: desired green street - Municipality: see municipal goals under 5.1.1	Functional/Interactive
<i>Crossroads Sartreweg, Kardinaal de Jongstraat (i5)</i>	Noordoost	DGP	Active citizens, gardener, municipality	- Co-designed by citizens and gardener - Citizens involved in specification of greenspaces (e.g. choice of trees species)	- Active citizens: human resources - Gardener: knowledge - Municipality: access to funding, knowledge, capital	- Active citizens: desired aesthetically pleasing green crossroads - Municipality: see municipal goals under 5.1.1	Functional/Interactive
<i>Bickershof (i5)</i>	Noordoost	N/A	Active citizens, architect, municipality	- Citizens initiative, mostly independent from the municipality	- Active citizens: human resources, knowledge - Architect: knowledge - Municipality: access to funding, knowledge, capital	- Active citizens: desired independent, self-sufficient garden - Municipality: see municipal goals under 5.1.1	Self-mobilization
<i>Voorveldse Polder (i10)</i>	Noordoost	MGP	Voorveldse Polder Foundation, municipality, companies, sports clubs	- Vision created by stakeholders, which serves as a guide for the approval/rejection of initiatives	- Voorveldse Polder Foundation: knowledge, human resources - Municipality: access to funding, knowledge, capital	- Voorveldse Polder Foundation: preserve ecological value of the park - Municipality: balancing	Interactive

					- Companies, sports clubs: knowledge	interests of the park - Companies, sports clubs: optimise recreative value of the park	
<i>Kaatstraat (i2)</i>	Noordwest	DGP	Active citizens, gardener, municipality, companies	- Co-designed by citizens and gardener - Citizens involved in specification of greenspaces (e.g. choice of trees species)	- Active citizens: human resources - Gardener: knowledge - Municipality: access to funding, knowledge, capital - Companies: funding	- Active citizens, companies: desired green street - Municipality: see municipal goals under 5.1.1	Functional/Interactive
<i>Noordse Park (i9)</i>	Noordwest	MGP	Active citizens, architect, municipality	- Citizens initiative - Five phases plan, first two completed - Municipality and architect responsible for implementation	- Active citizens: human resources - Architect: knowledge - Municipality: access to funding, knowledge, capital	- Active citizens: desired improved park - Municipality: project should be aligned with GSP's goals	Interactive/self-mobilization
<i>Noordse Park playground (i7)</i>	Noordwest	MGP	Active citizens, gardeners, municipality	- Citizens initiative	- Active citizens: human resources - Gardeners: knowledge - Municipality: access to funding	- Active citizens: desired improved playground - Municipality: project should be aligned with goals	Self-mobilization

Table 5: Citizen Involvement in and Key Features of the Researched Projects

From Table 5, it can be deduced that most investigated projects were either the improvement or establishment of a park (*Park Oosterspoorbaan, Wilhelminapark, Máximapark, Voorveldse Polder and Noordse Park*) or adding green infrastructure to a street (*Abstederdijk, Wulpstraat, Biltstraat and Kaatstraat*). There are also three gardens (*Vlinderhof, Bickershof and Abstederhof*). The remaining ones, a playground, an ecological route (river) and the greening of crossroads, cannot be subsumed under any of these categories. Most (if not all) of these projects were initiated by actors from civil society.

Examining the projects by the PAA dimensions, the ‘actors’ dimension reveals that in these projects, three types of actors were common: the active citizens, the municipality and some kind of ‘expert’, such as a gardener, architect or ecologist. Additionally, some projects also involved (nearby) companies.

The ‘rules of the game’ dimension demonstrates that different ‘arrangements’ of participation can be identified. The projects do not perfectly fit these types and details may differ, but in general terms, they are similar. In the investigated DGP projects, these arrangements were rather uniform: they typically involved a citizens’ idea, upon which a gardener co-designed the final plan for the project together with residents. However, the process has been known to be hampered. For example, in *Kaatstraat*, the original plan was drafted in 2011, but, according to the respondent, a different plan surfaced half a year later from the municipality (i2). The citizens rejected this plan and in 2014, the aforementioned arrangement arose after urging by citizens (i2). These projects are either self-managed, or by the municipality.

Another type of arrangement concerned the creation of a plan or vision by both active citizens and the municipality, upon which it was implemented mostly or fully by the municipality (*Minstroom Route, Wilhelminapark, Voorveldse Polder and Wilhelminapark*). Just like the first type, these projects are also either self-managed, or by the municipality.

Yet another type involved the creation of a deliberative meeting group for temporary or permanent purposes, such as a ‘core group’ or a ‘park council’ (*Park Oosterspoorbaan and Máximapark*). While the purpose(s) and form of such a group may differ per project, the establishment of such a group is an extra step on top of jointly designing a plan or vision for a project or area. To illustrate, in Figure 9, Máximapark’s park organisation is displayed.

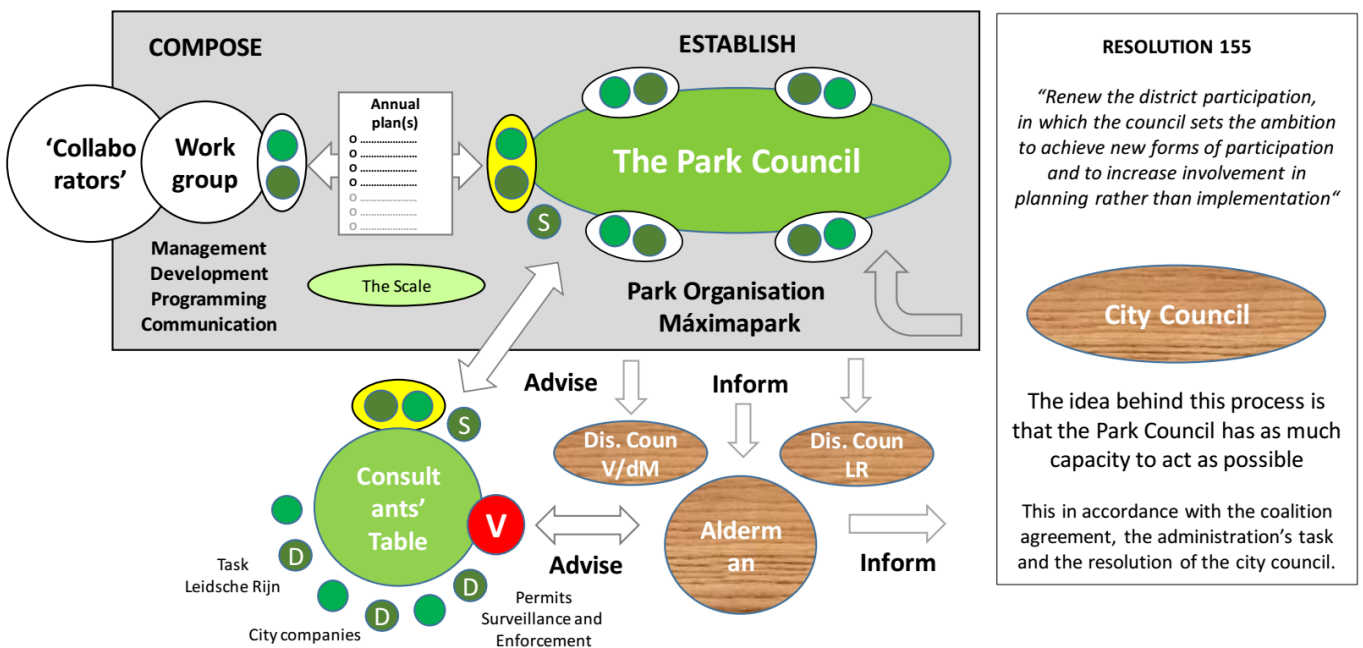


Figure 9: Máximapark Park Organisation (translated)

Firstly, there are four ‘couples’, consisting of a municipal official and a person from civil society. Each couple is responsible for one of the four fields: management, development, programming and communication. The four couples, together with the park’s secretariat, form the Park Council. The couples do the thinking, writing, discussing and elaboration, and are backed by a workgroup (i6). This workgroup effectuates the measures to be taken in their field. The workgroup is backed by volunteers (‘collaborators’). The culture is action-oriented and open: the members want to avoid endless discussions and will not meet if there is nothing to discuss; they divide tasks amongst each other and not roles (i6). The workgroups become increasingly autonomous and take action more independently of the park council, especially when it only concerns the execution of a task (i6). The culture is based on trust, which means that people clearly communicate what they expect from each other – and can take more action autonomously (i6). The consultants’ table consists of parties from civil society with less attachment and vested interests in the park and ex municipal officials (i6). They can bring problems the Park Council cannot solve by itself, to the attention of officials in ‘higher places’, for example directly to the alderman (i6). This arrangement is thus intended to be permanent and fulfils multiple functions and not just for the project(s) themselves, but the entire area. In Park Oosterspoorbaan, a core group was set up consisting of one municipal official and leaders from different projects (i3). The functions of this group were to provide help and advice and to improve interactions with the municipality (i3). Thus, this group was temporary in nature and only meant to serve the projects’ implementation.

The last type of arrangement is one where the initiators attempt to be as self-sufficient as possible, in the design, implementation and management of the project, and only ask for (the municipality’s) help when necessary (*Vlinderhof*, *Bickershof*, and *Noordse Park playground*). This type of arrangement thus corresponds to the ‘self-mobilization’ level of the participation typology used in this study. In these type of arrangements, the design is mostly derived from civil society’s input and not so much from the municipality’s. Moreover, some type of self-management generally occurs.

The ‘resources’ dimension does not reveal particularly interesting insights. Active citizens generally possess ‘human resources’ (manpower) and knowledge or experience, much like the municipality, for example on legal matters, but also through various experts. It has access to funding and capital as well. Lastly, the discourses dimension reveals that the active citizens are interested in living in a greener environment and less interested contributing to anything beyond the local, while the municipality seeks to support them in most of these cases (as per the GSP and MGP’s goals) and balance the different interests.

Overall, most of the investigated projects are interactive in nature. Thus, the overall picture is one of active involvement of citizens in Utrecht’s projects. Essentially all of these were initiated by civil society (active citizens), although, in the case of the DGPs, the overall policy framework was provided by the municipality. Another peculiarity is that the only traces of functional participation can be found in Noordwest and Noordoost, which are the two ‘green-poor’ districts. These three projects also happen to be DGP projects. Nevertheless, since no other DGP projects have been investigated in these districts, it cannot be said whether this was related in any way to the nature of the DGPs. However, the fact remains that in some of these projects, citizens *felt* they were not (always) actively participating.

When comparing with the municipality’s goals and approach, some remarks can be made. Active involvement does seem to occur in most of these projects. This is in line with goal 2 (Figure 8), which states that the municipality seeks to actively involve citizens. According to the DGP documents, the municipality claims the citizens get the ‘most important vote’ in determining the content of the DGPs. However, out of six investigated DGP projects, in three, citizens felt that they did not actually get the most important vote (based on two respondents). Nevertheless, because of the low number of DGP projects, it cannot be said whether this is a widespread sentiment shared by the participants of the DGPs.

5.5 Active Citizens’ Familiarity with and Application of UGI

This section deals with the citizens’ familiarity and application of UGI in projects in four districts of Utrecht. Recall that UGI’s principles are: connectivity, multifunctionality, green-grey integration, multi-object, multi-level, inclusiveness and transdisciplinarity. The focus here will be on the first three principles, since Buijs et al. (in press) has also focused on these principles in this regard plus inclusiveness, though inclusiveness was excluded from this study (see chapter two). In the end, the four districts are compared with each other and the results are also compared with the municipality’s described vision, goals and approach regarding UGI.

Project	District	Programme/Plan	Familiarity	Connectivity	Multifunctionality	Green-grey Integration
<i>Abstederdijk/Abstederhof (i1)</i>	Oost	DGP	Yes	No [^]	No	No
<i>Wulpstraat (i4)</i>	Oost	DGP	No	No	No	No
<i>Park Oosterspoorbaan (i3)</i>	Oost	MGP + DGP	Yes	Yes	Yes	No
<i>Minstroom Route (i8)</i>	Oost	MGP	Yes	Yes	Yes	No
<i>Wilhelminapark (i12)</i>	Oost	TP / MGP	No	No [^]	No	No
<i>Máximapark (i6)</i>	LR	MGP	Yes	No [^]	No [^]	No
<i>Vlinderhof (i11)</i>	LR	MGP	No	No	No	No
<i>Biltstraat (i5)</i>	Noordoost	DGP	No	No	No	No
<i>Crossroads Sartreweg, Kardinaal de Jongstraat (i5)</i>	Noordoost	DGP	No	No	No	No
<i>Bikkershof (i5)</i>	Noordoost	N/A	No	No	No	No
<i>Voorveldse Polder (i10)</i>	Noordoost	MGP	No	No	No [^]	No
<i>Kaatstraat (i2)</i>	Noordwest	DGP	Yes	No [*]	No [*]	No
<i>Noordse Park (i9)</i>	Noordwest	MGP	No	No [^]	No [^]	No
<i>Noordse Park playground (i7)</i>	Noordwest	MGP	No	No	No [^]	No

Table 6: UGI in the Researched Projects

^{*}not applied, but originally intended by citizens

[^]only implicitly applied

Table 6 contains the results regarding UGI. The first aspect investigated here was whether the involved active citizens were familiar with the concept of UGI. The results indicate that in most projects, this was not the case. UGI, or at least its connectivity and multifunctionality principles, was known in two DGPs projects (*Abstederdijk/Abstederhof* and *Kaatstraat*) and in three MGP projects (*Park Oosterspoorbaan*, *Minstroom Route* and *Máximapark*). In three out of four projects in Oost, active citizens were familiar with UGI. In Leidsche Rijn, the Máximapark management overall was familiar UGI, but the initiator of Vlinderhof, which preceded the current management form, was initially not familiar with the concept. In Noordwest, only Kaatstraat’s active citizens were familiar with connectivity and multifunctionality and none in Noordoost. Thus, the lion’s share of active citizens familiar with UGI resided in the more spacious, richer and higher educated districts.

Examining results for the connectivity principle, especially in relation with familiarity, reveals interesting insights. In two projects, UGI was a familiar concept and was applied in terms of connectivity. In *Park Oosterspoorbaan*, there is currently a missing link between the Singel and Park

Oosterspoorbaan (i3). There are plans to expand the park to add this link, but the construction of houses has delayed this endeavour (i3). Moreover, through a DGP project, a ‘Natuurlint’ was created, connecting Kromme Rijn, Minstroom and Singels (<http://oosterspoorbaan.nl/natuurlint/>). In Minstroom Route, various facilities such as gangways and staircases were created specifically for hedgehogs and other animals for easier migration through the Minstroom. In the other three projects where UGI was familiar, connectivity was not the explicit focus, however. In Abstederdijk/Abstederhof, the reason was that UGI goals were already being realised through other, structural projects (i1). Therefore, there was a perceived lack of necessity among citizens here. However, numerous trees have been added, which contributes to the trees structure and therefore implicitly to connectivity. In Máximapark, the respondents said that most citizens are not familiar with UGI and its principles, mainly because it would not interest them; the respondents noted that they are instead focused on the local (i6). Generally, connecting Máximapark is relatively meaningless to them. One of the respondents further noted that Máximapark was already initially checked for its connectivity and whether it fitted (i6). It was therefore deemed unnecessary to put further emphasis on connectivity. The organisation does constantly check whether any projects fit the overall park, i.e. they are not harmful to the park or its overall structure (i6). Moreover, the other respondent said that the district office and not the organisation attempts to connect Máximapark to ‘the rest of the city’ (i6). Lastly, in Kaatstraat, in the original plan, connecting surrounding greenspaces was a goal, but the plan was amended and no longer included connective green infrastructure (e.g. trees) (i2). Some projects also implicitly sought to improve connectivity, despite unfamiliarity with UGI. In Noordse Park, this concerned the addition of trees as well (i7). In Wilhelminapark, the foundation seeks to connect ‘separate islands of greenspaces’, separated by roads, on the Emmalaan, and to connect these to the park (i12).

In terms of multifunctionality, Park Oosterspoorbaan and Minstroom Route have also explicitly focused on this principle. In Park Oosterspoorbaan, the respondent noted multiple functions of the park that were taken into account, such as the functional properties (shading and edibility), aesthetic properties and educative value (i3). The different projects also reflect multifunctionality: Natuurlint has an ecological function, ‘Buitengewoon Sportief’ and ‘Natuurspeeltuyn’ have a recreative function, ‘Eetbaar Groen’ and ‘Utrechtse Aarde’ have an ecological and educative function, while ‘Markt om de Hoek’ also has an economic function (<http://oosterspoorbaan.nl/de-initiatieven/>). Minstroom Route was designed, keeping in mind and improving not only the ecological function, but also the recreative function. In Máximapark, Voorveldse Polder, Noordse Park and Noordse Park playground, the projects improved multiple functions, but this was more ‘a product of chance’ (as per multifunctionality’s definition) rather than a deliberate improvement of the multifunctionality of the greenspaces. Lastly, in Kaatstraat, multifunctionality was originally a prominent principle, as the original design considered multiple functions of greenspaces, such as shading, urban heat reduction, air filtration and safety barriers (i2). However, the amended plan so far only resulted in small, green facades.

Green-grey integration was practically absent from the results as defined in this study. There was no clear emphasis on synergies between green and grey infrastructure. Concluding, most of the researched projects did not explicitly improve UGI. Even though the municipality had explicit goals focused on improving connectivity, with an accompanying vision clearly showing planned connections between greenspaces, the projects themselves rarely included such connections. This indicates that the municipality may have implemented those connections independently of the studied projects involving active citizens.

5.6 Instances of Scaling-out

This section deals with instances of scaling-out in projects in four districts of Utrecht. Recall that scaling-out occurs if: the project increased in size beyond the scope of the original design, the project increased in ‘impacts’ (i.e. connectivity, multifunctionality and/or green-grey integration were applied) or the project has been replicated elsewhere.

Project	District	Programme or Plan	Description	Type
<i>Absterdijk/Abstederhof (i1)</i>	Oost	DGP	-	-
<i>Wulpstraat (i4)</i>	Oost	DGP	1. Funds for equipment	1. Not focused on UGI
<i>Park Oosterspoorbaan (i3)</i>	Oost	MGP + DGP	1. All AC projects on the second track (incl. Natuurlint) 2. Natuurlint Oosterspoorbaan	1. Expansion, impacts 2. Impacts: connectivity
<i>Minstroom Route (i8)</i>	Oost	MGP	-	-
<i>Wilhelminapark (i12)</i>	Oost	TP / MGP	-	-
<i>Máximapark (i6)</i>	LR	MGP	1. Projects such as the Japanese Garden, Vlinderhof, De Samenloop and Buitenhof. 2. Equipment	1. Impacts: multifunctionality 2. Not focused on UGI
<i>Vlinderhof (i11)</i>	LR	MG	1. Multiple expansions of the garden, for which irrigation systems and reduced costs of electrical infrastructure was provided (by companies).	1. Expansion
<i>Biltstraat (i5)</i>	Noordoost	DGP	-	-
<i>Crossroads Sartreweg, Kardinaal de Jongstraat (i5)</i>	Noordoost	DGP	-	-
<i>Bickershof (i5)</i>	Noordoost	N/A	1. Ecological gardener funded by the municipality	1. Not focused on UGI
<i>Voorveldse Polder (i10)</i>	Noordoost	MGP	-	-
<i>Kaatstraat (i2)</i>	Noordwest	DGP	1. Additional green infrastructure (plants)	1. Expansion
<i>Noordse Park (i9)</i>	Noordwest	MGP	-	-
<i>Noordse Park playground (i7)</i>	Noordwest	MGP	1. Additional green infrastructure (e.g. plants)	1. Expansion

Table 7: Scaling-out in the Researched Projects (red indicates scaling-out not focused on improving UGI)

As seen in Table 7, in the researched projects, several instances of scaling-out were identified. These instances could be grouped in several global categories. The first category is one of spatial expansions; the project has grown in size. The Vlinderhof is a good example of this. The garden was enlarged several times, from 2000, to 3000, to 4000 and eventually 5000 m² (i11). The management contract stated that the initiator and volunteers were responsible for managing the greenspaces within the garden. Thus, it was decided to limit the garden to 5000 m², because such expansions would be accompanied by increased labour. To avoid going over budget, the initiator and volunteers attempted to find sponsors for the expansions. For example, they managed to find a company that provided them an irrigation system, saving them 40 to 50 thousand euros (i11). Likewise, they managed to save costs with public utilities, such as electricity (i11). Other examples are gardeners performing maintenance for free and providing guidance or Starbucks doing catering during the opening (i11). The scaling-out instances of *Kaatstraat* and *Noordse Speeltuín playground* could also be subsumed under this category, as additional green infrastructure will be added, such as plants (i2, i7).

A second category are the projects in parks that were initiated beyond the original plan, but not necessarily led to actual spatial expansions of the park. Instead, these improved or added functions to the park. *Máximapark* and *Park Oosterspoorbaan* are clear examples. Projects such as the Japanese Garden, Buitenhof and Vlinderhof enhance the park's ecological functions as well as aesthetic and recreative functions to some extent. *Natuurlint Oosterspoorbaan* was initiated in the context of the DGPs and improved connectivity.

The last category consists of instances of scaling-out not directly improving UGI, but lead to improved management of the green infrastructure (*Wulpstraat, Máximapark, Bickershof*). This includes measures such as new equipment or an architect creating a new management plan. Long-term management ('placekeeping') is also an element of the MG framework, but not the explicit focus of this study. Nevertheless, it thus seems that scaling-out to improve (long-term) management does occur.

In Noordwest and Noordoost, the only instances of scaling-out identified were either focused on improving management or adding some plants. Either way, they did not consist of considerable projects. In contrast, in Leidsche Rijn and Oost, scaling-out in the form of additional projects or large expansions could be found. This is notable, as these are the districts which are more spacious, and of which the residents are richer and higher educated than of Noordwest (and Noordoost to a lesser extent). Actual examples of 'replication' was not found in any of the projects.

5.7 The Fit Between the Local and Municipal Level

This section deals with the local-municipal fit in the researched projects. Recall from chapter 2 that this fit constitutes the challenge to combine the long-term vision on green infrastructure with the vision of local active citizens. In this regard, scaling-up and other positive factors are the ‘success stories’, while negative factors are the ‘challenges’ that may remain. Recall that scaling-up indicates that the project has influenced the municipality’s policy goals, instruments, norms, values or ideas. This section starts with the scaling-up instances, followed by other positive factors as well as the challenges identified.

Project	District	Programme/ Plan	Description	Type
<i>Absterdijk/Absted erhof (i1)</i>	Oost	DGP	-	-
<i>Wulpstraat (i4)</i>	Oost	DGP	-	-
<i>Park Oosterspoorbaan (i3)</i>	Oost	MGP + DGP	1. Park Oosterspoorbaan was one of the projects that influenced Resolution 155	1. Norms/values, routines
<i>Minstroom Route (i8)</i>	Oost	MGP	-	-
<i>Wilhelminapark (i12)</i>	Oost	TP / MGP	1. Integral meetings with municipal officials initiated and institutionalised for Wilhelminapark	1. Routines
<i>Máximapark (i6)</i>	LR	MGP	1. Máximapark was one of the projects that influenced Resolution 155 2. Location profiles originally created by the park organisation now applied city-wide 3. Easier creation of destination plan	1. Norms/values, routines 2. Policy instruments 3. Ideas/Routines
<i>Vlinderhof (i11)</i>	LR	MGP	1. Initiator provided advice to the municipality 2. Initiator recommended the creation of ‘district managers’ 3. Initiator recommended the existence of only one fund	1. Routines 2. Ideas 3. Ideas
<i>Biltstraat (i5)</i>	Noordoost	DGP	1. Adjustment of the municipality’s management plan to include the Biltstraat’s additional green infrastructure	1. Routines
<i>Crossroads Sartreweg, Kardinaal de Jongstraat (i5)</i>	Noordoost	DGP	-	-
<i>Bickershof (i5)</i>	Noordoost	N/A	-	-
<i>Voorveldse Polder (i10)</i>	Noordoost		1. The Voorveldse Polder acts as an ‘advice hub’ for other initiatives, through the municipality, and also for the management of the park.	1. Routines
<i>Kaatstraat (i2)</i>	Noordwest	DGP	-	-
<i>Noordse Park (i9)</i>	Noordwest	MGP	-	-

<i>Noordse Park playground (i7)</i>	Noordwest	MGP	1. Persuaded the municipality to collect the playground's green waste as well	1. Routines
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Table 8: *Scaling-up in the Researched Projects*

Overall, as seen in Table 8, little scaling-up could actually be identified. However, some patterns can be discerned. Firstly, there are instances of scaling-up where the project influenced the way the municipality organises interactions with active citizens. The practices used during the creation of Park Oosterspoorbaan have, according to the respondent, influenced the municipality (i3). She more specifically said that the project would serve as a pilot project for other similar projects. Evidence of this can be seen in the elaboration of the municipality's resolution 155: *Al Doende Vernieuwen* (literally 'renewing by doing'). Creating a design in co-creation sessions, gathering all ideas and interests in a single book and organising an 'open ballot' in the neighbourhood were dubbed 'new forms of participation' by the resolution. Park Oosterspoorbaan was one of the projects that made the municipality realise that 'early involvement' of citizens is appreciated and that it would lead to 'nice' results (because it was a citizens' initiative, the citizens were 'involved early'). Park Oosterspoorbaan helped shape three new principles: 1) the municipality aims to involve the residents immediately to determine the 'playing field' and problems in cooperation with them; 2) they aim to determine the form of participation based on the local context and provide clear frameworks for who decides what and when; and 3) they find 'wiggle room' in rules for tendering, contracting and design in order to increase the influence of involved parties at an early planning stage. Lastly, it is noted in the resolution that there were successful attempts in Oosterspoorbaan to involve a diversity of citizens by visiting people at their homes and organising hikes.

Máximapark has also influenced resolution 155, much like Park Oosterspoorbaan. According to the resolution, the most important lesson from Máximapark is to have an 'open culture' during meetings, as discussed in 5.4.2. It also notes the early involvement of citizens. The division of tasks rather than roles is also mentioned as important. Máximapark made the municipality realise the importance of having flexible municipal officials, willing to work outside of office hours (though no other specification of this 'flexibility' is mentioned). The organisation is considered a form of equal cooperation. These two examples were about the municipality drawing lessons from the entire process of projects. Scaling-up of this type, however, could also occur the other way around, where the active citizens provide advice to the municipality. Vlinderhof is such a case, where the initiator, along with the project leader, were featured in an internal publication (note: *not* resolution 155) of the municipality to demonstrate new forms of cooperation (i11). The initiator has also regularly provided advice to the municipality either for internal purposes or for other specific new initiatives (i11). The initiator mentioned providing advice to the active citizens of Park Oosterspoorbaan (i11). The initiator has also done a presentation several times for municipal officials outlining his lessons learned (i11). These lessons included the installation of 'district managers' which can more quickly and accurately determine whether any initiative would fit or be appropriate without the initiator(s) having to 'navigate' through the municipality, which takes up considerable time (i11). Another lesson was that while a starting budget was helpful, there were different funds an initiator could apply to. The initiator of the Vlinderhof suggested a single fund. While district managers and a single fund now exist, this does not automatically imply the initiator was responsible for this. However, the repeated instances of the initiator providing advice does imply he has had influence in these changes.

There are also instances of scaling-up where new routines, a network or similar arrangements are introduced to support the project itself, or other projects. In Wilhelminapark, the Foundation organised an 'integral consultation' meeting with all the different municipal officials involved in Máximapark (i12). The idea was that the municipal officials learned about each other's perspectives on the park (i12). This idea was favourably received by the officials and has been organised regularly ever since (i12). Thus, the Wilhelminapark changed the routines of the officials and improved integral cooperation. For example, in 2016, the meeting resulted in the creation of two workgroups, further tackling identified problems (Foundation Wilhelminapark, 2016). Another relevant instance of scaling-up here, occurs in

Voorveldse Polder. The foundation is becoming more known in the municipality. There have been cases where another project asked the municipality for advice, upon which the municipality or district bureau redirected the project towards the foundation. The foundation provides advice for the management of projects, for example.

Other instances of scaling-up pertained to changing the city works' management plans. In the Biltstraat, initially, the city works only mowed the lawn in that street (i5). However, the citizens persuaded the city works to assist in the management of the green infrastructure the citizens added through the project. Moreover, even though the playground's management has declared to self-manage their playground, they were able to persuade city works to collect the playground's green waste, which would normally not be possible because the playground is under 'self-management' (i7). Originally, the city works only collected the park's green waste and excluded the playground from this deal. Thus, these instances were relatively small changes in routines, unlike the examples of Park Oosterspoorbaan and Máximapark.

The remaining examples are also worth mentioning. The park council of Máximapark made what they called a 'location profile' of the park (i6). This location profile indicates the 'framework' in which events such as festivals are possible. It is an overview of what is possible in terms of such events in a given location. The municipality has created several different location profiles of different locations throughout the city, following the example of Máximapark. Creating a destination plan for Máximapark also proved to be easier for the municipality, as the park group provided a wealth of information to the municipality, saving hours of work.

Project	District	Programme/Plan	(Perceived) Factor(s) Playing a Role in Shaping Local-Municipal Fit	PAA Dimension	Autonomy
<i>Absterdijk/Absteder hof (i1)</i>	Oost	DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Turnover of municipal officials - Municipal officials' old ideas - Difficult to maintain network of initiatives - More transfer of knowledge and information between officials and citizens necessary - Officials should help with design instead of pointing out limitations <p><i>Positive</i></p> <ul style="list-style-type: none"> - Network important to keep officials involved 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Actors/Resources - Discourses - Actors/Resources - Resources - Discourses <p><i>Positive</i></p> <ul style="list-style-type: none"> - Discourses - Actors/Resources 	Yes
<i>Wulpstraat (i4)</i>	Oost	DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Slow (decision-making) process - Unclear decision-making <p><i>Positive</i></p> <ul style="list-style-type: none"> - Gardener contributed creative ideas (knowledge) 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Rules <p><i>Positive</i></p> <ul style="list-style-type: none"> - Resources 	Yes
<i>Park Oosterspoorbaan (i3)</i>	Oost	MGP + DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - No vote in some decisions - Slower (decision-making) process when regularly involved municipal official was not available <p><i>Positive</i></p> <ul style="list-style-type: none"> - Regularly involved municipal official - Network created through core group - Wide range of involved experts 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Rules <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors/Resources - Actors/Resources - Resources 	Yes
<i>Minstroom Route (i8)</i>	Oost	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Slow (decision-making) process - Lack of leader figure among citizens - Some groups were not involved immediately - Expressed desire for municipality to be more proactive - Limited funding (for a website) <p><i>Positive</i></p> <ul style="list-style-type: none"> - Network was created for taking collaborative action 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Actors/Resources - Actors/Rules - Rules - Resources <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors/Resources 	Yes, but a more proactive municipality was desired
<i>Wilhelminapark (i12)</i>	Oost	TP / MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Compartmentalisation of municipality 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules 	Yes, but a more proactive

			<ul style="list-style-type: none"> - Turnover of municipal officials - Expressed desire for municipality to be more proactive - Differing goals and visions on the park (between the local and the municipal levels) - Contrasting views between officials and politicians <p><i>Positive</i></p> <ul style="list-style-type: none"> - Creation of a network of initiatives/green group 	<ul style="list-style-type: none"> - Actors/Resources - Rules - Discourses - Discourses <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors/Resources 	municipality was desired
<i>Máximapark (i6)</i>	LR	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Turnover of municipal officials - Municipal officials tend to think in terms of limitations and risks - Self-management difficult <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors from business world important (leadership and organisational skills) - ‘Open’ (sharing) culture 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Actors/Resources - Discourses - Rules <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors/Resources - Discourses 	Yes, ‘retreating’ municipality was appreciated
<i>Vlinderhof (i11)</i>	LR	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Compartmentalisation of municipality - Slow (decision-making) process - Unclear decision-making - Resistance from city works <p><i>Positive</i></p> <ul style="list-style-type: none"> - Garden fit the ecological structure, i.e. alignment with municipality’s goals - Dedicated municipal official/project leader - Dedicated leader figure 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Rules - Rules - Actors <p><i>Positive</i></p> <ul style="list-style-type: none"> - Discourses - Actors/Resources - Actors/Resources 	Yes, but respondent had difficulties with demarcating autonomy
<i>Biltstraat (i5)</i>	Noordoost	DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Self-management difficult, but no ‘safety net’ from the municipality 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules 	No, respondent did not feel involved enough in decision-making
<i>Crossroads Sartreweg, Kardinaal de Jongstraat (i5)</i>	Noordoost	DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Funding eventually ran out - Project already took place in the designated location (unclear decision-making) 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Resources - Rules 	No, respondent did not feel involved enough in decision-making

<i>Bickershof (i5)</i>	Noordoost	N/A			Yes
<i>Voorveldse Polder (i10)</i>	Noordoost	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Compartmentalisation of municipality - No tool for amending the vision - Harder to ‘reach’ the higher level of municipality - Foundation would have liked to be involved more <p><i>Positive</i></p> <ul style="list-style-type: none"> - District level cooperation was positive - Steering of the municipality was welcomed because of its green orientation - Network for assistance 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Rules - Actors - Rules <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors - Discourses - Actors/Resources 	Yes, but the Foundation would have liked to be involved more often
<i>Kaatstraat (i2)</i>	Noordwest	DGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Municipal officials tend to think in terms of limitations and risks - Turnover of municipal officials - Slow (decision-making) process - Unclear decision-making - Tension between municipality’s long-term vision and short-term goals of citizens - Lack of funding 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Discourses - Actors - Rules - Rules - Discourses - Resources 	No, respondent did not feel involved enough in decision-making
<i>Noordse Park (i9)</i>	Noordwest	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Slow (decision-making) process - Long-term self-management difficulties (e.g. ageing of citizens) - No funding to complete the entire project <p><i>Positive</i></p> <ul style="list-style-type: none"> - Consistent involvement of one municipal official - Hired architect had ties with the municipality - Dedicated leader figures 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules - Rules - Resources <p><i>Positive</i></p> <ul style="list-style-type: none"> - Actors/Resources - Resources - 	Yes
<i>Noordse Park playground (i7)</i>	Noordwest	MGP	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Being designated as self-management meant more difficulty with receiving help from the municipality 	<p><i>Negative</i></p> <ul style="list-style-type: none"> - Rules 	Yes

Table 9: The Local-Municipal Fit in the Researched Projects

As can be seen in Table 9, the interviews also revealed several positive factors and challenges in fitting the municipality's vision with those of the active citizens. Comparing the districts did not reveal clear patterns in negative and positive aspects, nor when looking at the PAA dimensions. There appears to be a great variation between the different factors, but there are several factors recurring over multiple projects, as can be seen in Table 10:

PAA Dimension	Factor(s)	Times Mentioned
Rules of the game	Slow (decision-making) process	6
	Long-term self-management difficulties	4
	Unclear decision-making	4
	Compartmentalisation of municipality	3
	Proactive or steering municipality was desirable	3
Actors	Turnover of municipal officials / Consistent involvement of one municipal official	4 / 3
	Network of projects	5
	Presence or lack of a leader figure	4
Discourses	Municipal officials thinking in terms of risks and limitations	3
	Aligned / different goals of the municipality and the active citizens	2 / 2
Resources	Lack of funding	4
	Good / limited use to municipality' expertise	2 / 1

Table 10: Number of Times the Recurring Factors Were Mentioned

It is important to realise that these factors pertain to the relationship between active citizens and the municipality and not necessarily problems or opportunities related to the projects themselves. Thus, Table 10 is *not* an overview of all barriers and stimuli identified in the projects, as this was not the purpose of this study. These factors require further elaboration.

First, a slow decision-making process was the most frequently mentioned problem. The general sentiment was that the active citizens could finish up the project faster, if not for the long decision-making periods of the municipality. Instead, the average running time of these kind of processes is several years, which may also have arisen due to a lack of funding (i2, i9). It is important to note that slow decision-making may be a symptom of the democratic apparatus rather than a particular trait of local-municipal interactions. Nevertheless, to illustrate the consequences, one respondent noted hesitation in initiating or taking part in such projects again (i2) and another the loss of motivation among citizens (i9).

Second, difficulties with self-management were also mentioned several times. Management was either perceived as dangerous or impractical in some situations (e.g. along a highway) (i5), or hard to keep up for a long time (i7). Three out of four respondents here criticised the lack of a 'safety net' by the municipality. Once a project is designated as 'self-management', it falls off the municipality's radar, making it difficult to get the municipality's assistance again. One respondent noted that the management of a project constituted most of the costs (i11), which may explain the municipality's reluctance to 'cast out' such a safety net.

Third, unclear decision-making is a factor to consider. This was most evident in the preliminary process, where decisions were not clearly made or communicated to the initiators (e.g. i5, i11). Moreover, three of the four respondents felt that the municipality made promises they could not deliver upon.

Fourth, the compartmentalisation of the municipality was another problem mentioned several times. There are two sides to this problem. Firstly, initiators need to deal with different officials in different departments, which takes considerably more effort and time than simply dealing with one official (e.g.

i11). The other side is that the involved municipal officials generally know little about each other, especially in terms of their perspectives on the issues surrounding the project (e.g. i12).

Fifth, some respondents noted that municipal officials tend to change frequently over time. It was often said that the ‘progress made’ would reset after a switch of officials (e.g. i2). In this light, other respondents were delighted with having to deal with only one municipal official (i3, i9). Such a municipal official becomes more invested in and familiar with the project over time.

Sixth, several respondents claimed that municipal officials tend to think in terms of limitations and risks. Such an official would examine and evaluate a proposed project primarily based on whether it is possible and what kind of risks it would entail. Several respondents said that they need to think more ‘creatively’ (‘out of the box’) (e.g. i1, i2), this means envisioning a design without considering risks and limitations, and only then determining in how far such a design would be possible.

Seventh, the presence of a leader figure was mentioned four times as playing a role. A leader was needed for their organisational skills, but also for their dedication and means, which sped up the process. In this regard, the presence of one, continuously invested municipal official fulfilled a similar role. Without such a leader, the entire process *could* take considerably longer (e.g. i8) or come to a standstill (i9). In the Vlinderhof, the respondent noted that people said they would have given up in the preliminary process (which took two years), but the respondent (the initiator) persisted, resulting in the Vlinderhof that can be visited today (i11).

Eighth, a network of nearby projects was often said to emerge during the AC process, not only through the citizens’ own initiative, but also frequently stimulated by the municipality. One function of such a network was that the active citizens from the different projects were able to help each other out, by providing advice or expertise. Another function was that the network allowed the active citizens to take collective action. The last function mentioned in the interviews was that the network allowed the different projects to ‘lobby’ as a collective, which enhanced their ability to influence the municipality.

Ninth, the alignment of goals and visions or lack thereof was also mentioned multiple times. Alignment here means that the project’s implicit or explicit contribution was in line with the municipality’s goals and visions (with regards to UGI). In Voorveldse Polder, the green network discourse was welcomed by the foundation (though not necessarily other parties such as sports clubs), because the latter sought to preserve the ecological functions of the park, which the green network discourse facilitated. In Vlinderhof, the proposed project fit the Máximapark and would enhance ecological functions and was therefore also in line with this green network discourse. Moreover, three respondents mentioned that a more proactive municipality was desirable. On the other hand, in other projects, such as Máximapark, a retreating municipality was more appreciated. These findings indicate that the goals and visions of municipalities and active citizens are not necessarily always at odds with each other, and that a degree of steering by the municipality is also desired by the active citizens in some projects.

Tenth, some respondents noted a lack of funding. For example, in the crossroads DGP project, the extent of green infrastructure added was less than intended due to a lack of funding (i5). Likewise, in Kaatstraat, no trees other than an illegal tree were added, possibly due to a lack of funding (i2). In Noordse Park, only the first two phases were completed with 1.1 million euros, although the entire project would cost 6 million (i9). Many active citizens look for alternative ways to gain additional funding or to save costs, such as donations or funds (e.g. i6, i7, i11).

Last, some respondents particularly noted the (hired) expertise of the municipality. In Wulpstraat, the gardener was particularly praised for his creative ideas (i4). Park Oosterspoorbaan’s respondent noted the involvement of a variety of experts (i3). However, one respondent noted the need for more transfer of knowledge and information between municipal officials and active citizens (i1). It should furthermore be noted that most, if not all, projects involved the expertise of the municipality, regardless of whether this was particularly praised or not.

6. Discussion

This chapter firstly discusses the results, elaborating on their theoretical implications for the MG framework. A comparison of the results and other scientific literature is made. Next, the methodological limitations of this study and the implications of these will be discussed. Furthermore, based on this, recommendations for potential future research are outlined. Finally, some policy recommendations are given based on the results.

6.1 Theoretical Implications

The important question that remains is what these results exactly mean for the MG framework. What follows is a careful examination of the results to answer this question. The results indicate that most active citizens were not familiar with the concept of UGI nor its principles. Overall, UGI was applied explicitly in only two projects. Other active citizens were partially aware of the concept, especially its connectivity principle, but did not apply it explicitly. They were either not interested (e.g. Wilhelminapark and Wulpstraat) or mentioned that another actor or programme/plan was responsible for improving connectivity (e.g. Máximapark and Abstederdijk). Nevertheless, four projects did contribute to the improvement of UGI in terms of connectivity and multifunctionality, but only implicitly so. These results reaffirm the literature's finding that active citizens are mostly focused on local concerns (e.g. Mattijssen et al., 2017a; in preparation). However, this principle did not apply to all groups as some active citizens were explicitly interested in UGI or some of its principles. Active citizens of Park Oosterspoorbaan and Minstroom Route have improved green connectivity through their project. Moreover, both the Foundation Voorveldse Polder and active citizens of Kaatstraat have expressed interest in improving UGI. These projects suggest that the wishes and goals of the active citizens and the municipality are not necessarily completely at odds with each other, at least in terms of UGI.

Regarding scaling-out, the results yielded few examples. Relatively large-scale instances such as expansions or entire projects occurred in the context of the MGP and in the Oost and Leidsche Rijn districts, which have relatively low building densities (when compared to Noordwest and Noordoost). These instances all occurred in parks. In the DGPs, only relatively minor instances could be identified, such as the provision of equipment, which improved self-management. The finding that most citizens are mostly interested in the local level may explain the relative lack of scaling-out. Scaling-out, especially 'replication' of projects to other areas, essentially means going beyond this local level. Adding extra connections means the project increases in size. Because some projects are under self-management, this means that the citizens would have to put extra time and effort into the management. Considering that some active citizens experienced difficulties with self-management, scaling out the project further or replicating it elsewhere would then be undesirable for the citizens. Accordingly, no instance of replication was found, although Buijs et al. (in press) appears to consider the DGPs as an example of scaling-out, namely an increase in the number of existing practices. However, this thesis adopted a definition of scaling-out where it was referred to as either a spatial expansion, an increase in impacts or the replication or copying of the initiative (the practices) to another area. While the DGPs have indeed stimulated the emergence of multiple AC projects, it is doubtful whether this constitutes the 'replication' of existing practices. While there is an overarching policy framework (which includes citizens submitting ideas, which are then reviewed by the municipality), one project is not literally replicated to another location; they are different, (theoretically) separate projects. What this reveals, is that the exact definition and interpretation of scaling-out is still ambiguous and is in need of clarification. If the increase in number of projects does not equal replication, should it be considered scaling-out? It could be argued that it indeed should, as new AC projects are being started and supported. After all, supporting AC projects is central to the MG framework. However, the results also reveal that not every AC project contributes to UGI and enhanced UGI is still an 'end result' of MG. Simply considering the increase in the number of existing green AC practices could therefore obscure and/or overestimate the actual contribution to UGI. It depends on how 'replication' is interpreted; for example, only one effective aspect of a single project (instead of the entire project) could be transferred to another area. In

short, conceptual clarity on scaling-out in the context of the MG framework is needed. A suggestion would be to more precisely define what ‘replication’ exactly implies in the context of MG. It may be useful for the MG framework to define replication as the copying or transferring of *one or more aspects* (practices) of one AC project to another area. This is because some parts of the DGPs are indeed replicated in each project started through those plans, such as the practice to employ a gardener in each project or the enablement of citizens to submit ideas.

Numerous examples of scaling-up were found. Most of these pertained to changes of the municipality’s routines or introducing new ways of organising AC. Some of these examples remained limited to the project that influenced the change, while others became more institutionalised, for example through a resolution. It is questionable whether examples that only remained limited to the project that influenced them, could be considered scaling-up. After all, ‘institutionalisation’ or ‘structural learning’ is an important aspect, although it depends on what these terms exactly mean. A strict interpretation means that these examples are not, in fact, scaling-up, because they would have to be widespread and applied elsewhere or, as van Doren et al. (2018) states, “*serve as the basis of wider policy and/or institutional change*” (p.179). It would mean that, for example, the ‘integral meetings’ of Wilhelminapark are not an example of scaling-up. However, these meetings take place on a regular basis on Wilhelminapark and it could happen in other projects. It is therefore not recommended to ignore these examples. Moreover, institutionalised or not, they could still increase a project’s contribution to UGI. Resolution 155, on the other hand, clearly shows the municipality’s willingness to learn from AC projects and has led to the institutionalisation of new principles (see 5.7). The document introduces a total of ten new principles, though not all of them were influenced by projects investigated in this study. These relate to increasing social inclusiveness, use of digital instruments, use of different governance approaches based on local wishes and needs, use of language adjusted to the target groups, early and increased involvement of district councils and the willingness to learn through monitoring and evaluation. Interestingly, some principles are in line with MG, such as social inclusiveness and the use of different governance approaches.

Moving on to other examples of scaling-up, the emergence of new policy instruments through the influence of AC projects was scarce. Only one example was found, which involved making a ‘location profile’ detailing possibilities for the organisation of events (e.g. festivals) on greenspaces. No scaling-up that directly enhanced UGI could be found; most examples pertained to the improvement of AC practices or the management of a greenspace. However, such scaling-up could still indirectly lead to enhanced UGI. For example, capacity building may allow a project to scale out, as they may be more capable of doing so. The lack of UGI-related scaling-up may imply that such activities are relatively rare within a single city. This could be explained, again, by the relative disinterest of active citizens in UGI. It may also be explained by a possible inability of citizens to introduce novel ideas and concepts regarding UGI. The local municipality may be viewed as progressive in UGI-related ideas and concepts; for example, one respondent noted it was ‘hard to get ahead of the municipality’ (i10). Lastly, the municipality may be unwilling to learn from active citizens, but the results contradict this in the case of Utrecht (at least in terms of AC ideas and principles).

The data also revealed the existence of ‘supportive’ activities that were not reminiscent of either scaling-out or scaling-up. For example, the provision of a place to organise meetings by the municipality (i3) or civil society actors (i8), the purchase of land (i3), stimulating the creation of a network of projects (e.g. i1) and organising studying sessions (i10). These examples have in common that they have not been implemented because of the influence of an AC project; it appears that these are the initiative of the municipality. Moreover, they have not directly led to the scaling out of any AC project. The question remains whether these activities should also be part of the MG framework in some way. To answer this question, recall that a central element of the MG framework is the ‘fit’ between the municipal or local level. On the one hand, AC projects should be supported, as the active citizens have their own set of visions, goals and needs. On the other hand, the municipality also has a vision and goals, which are

related to both the improvement of UGI and the support of AC projects. One strategy to achieve this fit is to search for and create situations where the goals and visions of the municipality and active citizens align, which was also found in several projects (e.g. i10). However, there will be situations where a clash of visions and goals is inevitable. It then stands to reason that some kind of ‘balance’ must be sought between the different visions and goals. This balance constitutes not only goals related to the longer term strategic planning of UGI, but also goals explicitly meant to support the goals of active citizens. This means that any type of supportive activity, be it scaling-up, scaling-out or neither, may help to achieve this balance. It would therefore make sense to include any kind of supportive activity (by civil society or the municipality) in the MG framework; Buijs et al. (in press) appears to have included activities such as trainings as well. The fit is achieved by essentially integrating the goals and visions of the municipality and those of the active citizens. Whereas a project may normally not have any goals related to UGI, after integrating, there may be a joint goal or activity related to UGI. This balance could thus lead to an increase in the UGI contribution of AC projects, without compromising the goals of active citizens disproportionately.

The results give some indications on how to achieve this ‘balance’ of integrating and supporting. The fact that some citizens are interested in UGI while others are not, demonstrates the existence of the diversity of the cityscape, not only spatially, but also temporally. The wishes, goals and visions of active citizens may vary per project and over time. This indicates that the municipality should likewise adopt a diversity of strategies. Mapping the familiarity with, interest in, and willingness to invest in UGI among active citizens may reveal opportunities, which should be capitalised on, but also risks. If any UGI-related effort of the municipality would lead to too much resistance in any given project, it may be wise for the municipality to make (more) concessions or to avoid strategic UGI planning in that project altogether. This is but one of the dimensions the cityscape may show diversity in. The extent of knowledge of the local environment may vary, the extent of various skills (e.g. organisational skills) may vary, the socio-cultural context may be diverse, the interests among citizens are often diverse and so on. For example, some AC projects had access to organisational or leadership skills (e.g. Máximapark, Noordse Park), while others did not (e.g. Minstroom Route). Such factors may influence the potential for lasting UGI improvements (although more research is needed). It is important to realise that normative statements are being made here, though the MG model is also normative in nature. Thus, while there is support for these statements, they still need more evidence.

The results have indicated potential enabling factors for enhancing the contribution of AC projects to UGI. Firstly, the potential of AC projects to contribute to UGI should be recognised by local authorities. The results revealed that the municipality of Utrecht does not consider greenspaces on the local (district and neighbourhood) level as part of the ‘green structure’ of Utrecht. This means local urban green AC projects are generally disregarded in the strategic UGI planning sense. While the results also demonstrate that AC can occur on larger scales (e.g. Park Oosterspoorbaan and Máximapark), UGI is multi-object and multi-level focused: all greenspaces on all levels should essentially be part of the urban green infrastructural network. Nevertheless, as discussed in the preceding section, some AC projects may simply be too impractical to consider for enhancing UGI contributions (e.g. too much resistance from active citizens, or limited possibilities to contribute to UGI). Despite this, all urban green AC projects should be assessed for their potential to contribute to UGI.

Secondly, because of the aforementioned diversity, multiple governance approaches may be needed, which requires a flexible municipality and flexible municipal officials. Results show that the need of flexibility of municipal officials was acknowledged partially in resolution 155. Municipal officials need to be able to switch between and/or mix retreating, steering, integrating and supporting as the situation requires. This ‘adaptability’ was also already noted by Buijs et al. (in press).

Thirdly, it would be auspicious if the limitations of active citizens were to be acknowledged and this would require local authorities to act accordingly. Active citizens implement and manage greenspaces largely on a voluntary basis. Some respondents noted difficulties with long-term self-management,

related to various reasons, such as deteriorating health, ageing of citizens or demotivation. They also generally need to contend with limited resources. Thus, attempting to increase projects' contribution to UGI without considering their needs and supporting them accordingly, will likely not lead to improved UGI. In Utrecht, several respondents noted the lack of a 'safety net' for projects under self-management. Active citizens faced with increasing difficulties may then lead to the abandonment of the greenspaces and complete loss of the potential to contribute to UGI. It is, however, conceivable that such a safety net may become very costly. Likewise, adaptability may be relatively intensive. The stimulation of AC, when combining it with strategic UGI planning, should therefore not be seen by local authorities as a means to reduce government expenditure. Effective combination or fit of strategic UGI planning and AC projects may instead be relatively costly. In order to further aid the AC projects, the municipality of Utrecht has facilitated the creation of networks of different AC projects. These networks can have an advisory function, stimulate collective action and increase the influence of AC projects on the municipality. One project may ask another for advice on self-management, for example.

Lastly, another enabling factor is the involvement of local and consistent municipal officials. Several active citizens have had to deal with different municipal officials of different departments. All of these may have different views on how to deal with a given project, as well as a different degree of 'attachment'. Several active citizens found it easier to deal with local (district level) municipal officials (e.g. i10, i11) than higher-level municipal officials. Moreover, a consistently involved municipal official was often praised, a frequent change in officials would generally extend the length of the process. Thus, a local, consistently involved municipal official avoids the demotivation of citizens, while decreasing the chance of extending the process.

More can be learned from the comparisons between the districts. It was already mentioned that scaling-up and scaling-out tend to occur more in larger-scale projects than small-scale projects. Most of those examples have occurred in Oost and Leidsche Rijn, which are more spacious in terms of number of houses per hectare than Noordoost and Noordwest (see Table 2). Having more space means it is more likely for large projects to emerge, which are accompanied by more vested interests and therefore could be more impactful for citizens and the municipality alike. This means it would also be more likely that the project influences the municipality and thus, for scaling-up to occur. Both Oost and Leidsche Rijn are also the wealthier districts, although Noordoost is just as wealthy (but lacks the space). Because of the low number of projects to compare, it cannot be reliably said that in wealthy, spacious districts, scaling-up and scaling-out is more likely to occur than in poorer districts. However, the results do seem to support this.

In short, this study has provided additional evidence for the potential of AC projects to contribute to the enhancement of UGI, but has also demonstrated that not every AC project is necessarily able to practically contribute to UGI. It has furthermore found indications that scaling-up and scaling-out is relatively rare within one city, and that they generally occur in larger-scale projects. This study has also provided evidence for the need to adopt multiple governance approaches, depending on the project. Its results have uncovered several 'enabling factors' for MG. A visual representation, using this study's results, can be seen in Figure 11:

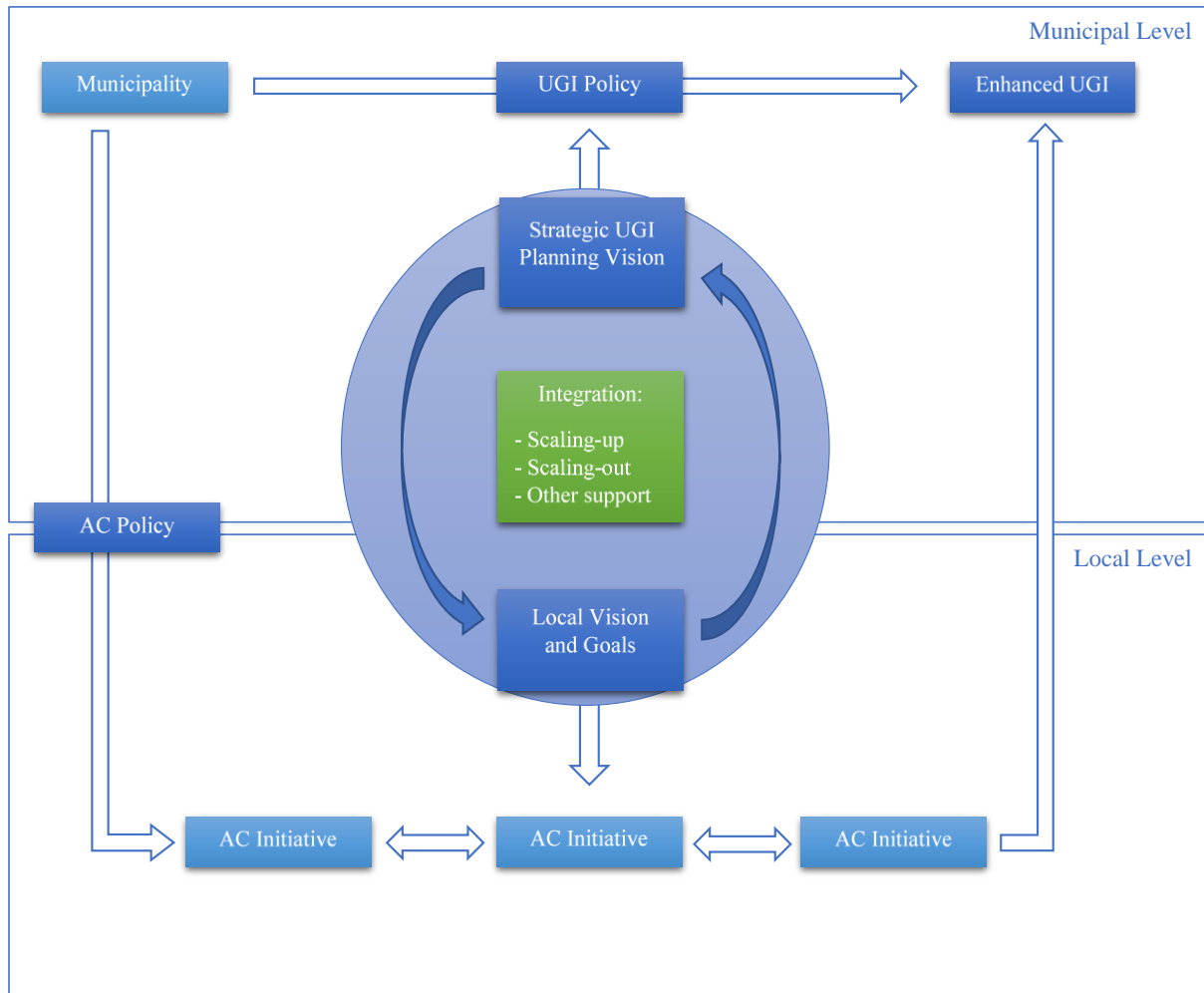


Figure 11: Visualisation of the Mosaic Governance Framework

In this visualisation, the fit between the local and municipal levels is central to MG. While it is valuable to identify instances of scaling-up and scaling-out, it was demonstrated that MG encompasses more than just these two phenomena and that they may also be relatively uncommon within one city. Yet, scaling-up and scaling-out still play a large role in MG; they have been subsumed under the notion of ‘integration’. After all, both scaling-up and scaling-out may serve to increase the contribution of AC projects to UGI and their own goals. Integration is about representing both the municipality’s and the active citizens’ visions and goals in UGI policy. Thus, analytically, the MG framework should focus on this local-municipal fit which includes scaling-up and scaling-out.

What still needs to be addressed, is how all of this fits within the wider literature field. The results touch upon several ‘hot topics’. Firstly, there is scientific literature regarding the relationship and interactions between active citizens and local authorities. Van Dam et al. (2015) identified three prevailing discourses of governmental organisations on what it means to be an active citizen. Firstly, governmental organisations prefer to deal with citizens’ projects that have corresponding objectives. Interestingly, the municipality of Utrecht does not necessarily seem to prefer these projects, as demonstrated by the DGPs and the Initiatives Fund. Secondly, they also prefer to deal with projects with ‘familiar’ and ‘sound’ organisational forms. However, in Utrecht, several new organisational forms have emerged, such as in Máximapark. Lastly, governmental organisations tend to frame disagreeing active citizens as ‘NIMBYists’ (Not In My Backyard). The results do not affirm nor contradict this statement, as no such ‘disagreements’ between citizens and the municipality could be linked to NIMBYist behaviour. This thesis thus indicates that it is possible for municipalities to abandon these discourses, at least in urban

greenspace governance. Another article, Wilker et al. (2016), zooms in on the need for participation in green infrastructure planning. Some of the lessons learned here correspond with this study's results, namely to involve citizens in early stages, that the continuity of participation is important and that a mixture of approaches should be employed (depending on the context). Note, however, that Wilker et al. (2016) mainly refer to 'participation' and not AC, indicating government-initiated interactions. What this study adds, is that these lessons are also relevant for citizen-initiated collaborations and interactions. Wilker et al. (2016) note that, through participation, the willingness of citizens to develop and maintain green infrastructure can be determined. This study has likewise opted for a way to determine this willingness (and capability). Other literature has focused on which governance arrangements lead to greater resilience of initiatives. For example, van der Jagt et al. (2017) attempted to identify what governance arrangements contribute to increasing social resilience of communal urban gardening. A list of success factors was identified, and include factors that correspond with this study's results, such as the creation of a (social) network and municipal support (land, funding, tools, training, policies, legal permissions).

A second topic concerns the contribution of AC to sustainability and avoiding the 'local trap'. Some authors argue for the potential of AC, while others are more reserved. Among those arguing for the potential are Born & Purcell (2006). They state that the local trap refers to the tendency to assume inherent desirability of the local over larger scales. Dennis & James (2016) provide quantitative evidence of a synergetic relationship between user participation and urban biodiversity. Franklin & Marsden (2015) observed a disconnection of local sustainability initiatives and the local municipal planning strategy; they argue for the co-production of sustainable initiatives. They state that connected communities (projects) could enable scaling-up and scaling-out. Aalbers & Sehested (2018) state that AC projects develop 'different types' of greenspace than the municipality, which may allow for scaling-up (change of practices) to occur. Some authors are more reserved about AC projects' contribution, however. Mattijssen et al. (2017a) argue that the potential of citizens to contribute to green spaces protection should not be overestimated and that the added value is mostly on the local level. Fors et al. (2015) state that very little empirical evidence was found for a direct link between participation and the physical quality (environmental performance) of greenspaces. Note that most of these studies address one aspect of sustainability, such as conservation or urban biodiversity, while this study has investigated the contribution to UGI, which encompasses multiple sustainability aspects. This study adds to this debate by arguing that some projects' potential to contribute (to sustainability) is higher than others, linking it to aligned or divergent goals and visions, as well as other contextual factors.

Finally, another important debate, as noted by Wilker et al. (2016), concerns the long-term management of greenspaces. Although not the focus of this study, evidence was found for the difficulty surrounding the long-term management. This difficulty was also noted by other papers (e.g. Buijs et al., 2016; Mathers et al., 2015; Mattijssen et al., 2017b). Mattijssen et al. (2017b) state that projects benefit from some degree of formalisation and that supportive authorities are also key (contracts and resources). Nevertheless, AC will likely continue to play a role in the governance of public greenspaces, which is why it is necessary to (further) investigate how this can be done.

The contribution of this study to these different, but related topics can be summarised as follows. The results demonstrate the potential of AC projects to contribute to UGI through scaling-up and scaling-out, which is in line with previous efforts by authors such as van der Jagt et al. (2017), Aalbers & Sehested (2018) and Franklin & Marsden (2015). However, this study also acknowledges the reservations of other authors, such as Mattijssen et al. (2017a) and Fors et al. (2015). This study, through the MG framework, effectively synthesises these articles by stating that a balance should be sought between supporting local AC projects' goals and visions and integrating the municipality's goals and visions into the AC projects. It underpins that not all AC projects are as suitable for such integration and that long-term management support may be critical for successful integration. Thus, this study builds upon and adds to current literature that combines UGI, AC and upscaling.

6.2 Methodological Limitations

There are several methodological limitations that need to be considered. Firstly, the size of the dataset is relatively limited: a dozen interviews with citizens, along with three interviews with municipal officials. Overall, twelve interviews for a city like Utrecht is fairly low, considering that the total number of AC projects regarding urban greenspaces is at least a couple hundred. The consequence of this is that the study's reliability is somewhat low. On the other hand, the different projects are heterogeneous (in terms of practices and contextual factors), which means that the reliability of such data is by default relatively limited.

Secondly, the collected information on any given project is based on one interview with one involved active citizen. Given that some of the data is at least partially subjective, such as the feeling of autonomy, interviewing multiple active citizens within one project would have led to a higher validity of the results. Moreover, multiple respondents per project *may* have resulted in more complete information. Limiting the number of initiatives and increasing the number of respondents per initiative could have increased validity, but would have likely decreased reliability, because the data would then pertain to even less projects. Including less projects makes it (even) harder to generalise the findings for the entire city. Evidently, having a large size of initiatives and respondents per initiative would have been ideal, but choices need to be made when faced with limited time.

Thirdly, because of the relative difficulty of arranging interviews with citizens, the dataset is somewhat unequal in size when comparing districts. This is not necessarily detrimental, but may limit the validity of any findings resulting from comparing districts. What likely hurts validity in this respect more, is the fact that no DGP project in Leidsche Rijn could be included. All data from Leidsche Rijn essentially originated from Máximapark, which is likely not representative of the entire district.

Fourthly, as mentioned in the theoretical section, while NGOs are essentially 'active citizens', they are still different from any unorganised individual (citizens) or even organised citizens. An organisation is a juridical person and may have access to additional funding, for example. This fact, however, was not taken into account explicitly. For example, Wilhelminapark is essentially a 'project' that mainly includes the foundation, which is an NGO. Projects involving a foundation or other juridical persons instead of only a group of citizens, may have more access to resources, may have less difficulties with long-term management and may have access to more channels of influence, possibly resulting in relatively more scaling-out and scaling-up.

Lastly, not all components of the MG framework, as proposed in this thesis, were included in the data collection. This concerns the components of social inclusiveness and long-term management. While some results bear relevance to the latter component, it has not been explicitly taken into account as this thesis focused on theoretical development concerning the scaling-out, scaling-up and the local-municipal fit components of the model. Future research is needed to further explore the roles of social inclusiveness and long-term management in mosaic governance.

6.3 Recommendations for Future Research

In this paragraph, a non-exhaustive list of several potential directions for future research is outlined. Firstly, the limited validity of this study makes it desirable to conduct additional research into multiple urban green AC projects within one city. The preference here would be a large sample size consisting of a diversity of urban green AC projects. It would be interesting to see whether the municipality in that city adopts a multitude of governance approaches and whether this increases AC's contribution to UGI. This study did not explicitly focus on identifying enabling factors for MG, but future research could benefit from such a focus, since this study has demonstrated the possible significance of these factors in the potential of AC projects to contribute to UGI.

Secondly, future research could also put more emphasis on the long-term self-management element of the MG framework. This study indicated that difficulties with self-management may be an inhibiting

factor in increasing contributions to UGI. It could be investigated whether and how scaling-out and scaling-up are employed to improve self-management.

Thirdly, social inclusiveness was practically absent from this study, despite being an element of the MG framework. There was an attempt to take into account mean income during the comparison between districts. In Noordwest, with a lower socio-economic status than the other three districts, the investigated projects were unfinished (Kaatstraat and Noordse Park), unlike in most other investigated projects. However, beyond this, no other observations could be made with respect to social inclusiveness. Future research could focus on what role social inclusiveness may play in increasing contributions to UGI and whether and how the lack of it leads to detrimental effects, in any way. For example, it is conceivable that social inclusiveness could possibly improve long-term self-management, as more motivated people would be involved in the project. Future research could select AC projects with a high degree of social inclusiveness and analyse what kind of contributions such a diversity may bring, such as (organisational) skills, resources, knowledge, ideas, social capital and motivation. Researchers could also ask involved citizens whether any difficulties arose during cooperation with other socio-economic groups.

Fourthly, there were some indications that companies and NGOs may play a supportive role in these projects. Future research could more explicitly uncover the possible roles of these actors in MG. This study did not find evidence of NGOs or companies explicitly increasing the contribution of UGI, although they did provide support in other ways (e.g. free water installations).

Finally, this study did not find evidence of clear, explicit attempts by the municipality to increase urban green AC's contribution to UGI. Most examples remained limited to including the project in the policy framework(s) of the municipality and providing support without explicitly trying to increase connectivity or multifunctionality, for example. Most UGI contributions were the result of active citizens' ideas, such as Oosterspoorbaan Natuurlint. Future research may focus on explicit attempts by the municipality to increase urban green AC's contribution to UGI, to uncover how such attempts are responded to by the active citizens and what the results of such attempts are. This may provide more insight in enabling factors of MG.

6.4 Policy Implications

The question remains what kind of implications this study has for the municipality of Utrecht's policy. Overall, the municipality of Utrecht is showing signs of structural learning, continuously improving understanding of UGI and a willingness to support AC on a city-wide basis. However, some recommendations can be made. Firstly, although there are indications that this is happening, the municipality should no longer disregard greenspaces on the local level in terms of their potential contribution to UGI. Local greenspaces could become part of the city's green network as much as the larger, structural ones. Any green plans focused on the local level should therefore not disregard the UGI goals. The municipality could explore the extent to which active citizens are willing to invest in UGI and identify opportunities. A 'creative' approach may be fruitful, where urban green AC projects are evaluated for their potential contribution to UGI and municipal officials could suggest changes that would increase this potential contribution, should active citizens be receptive to enhancing UGI.

Secondly, the self-management policy may be in need of reconsideration. Self-management may indeed be difficult, which is why the municipality should explore options to support self-management. Providing only limited attention to projects under self-management may give active citizens the impression that participation was a means for reducing municipal expenditure, and not a goal in its own right. Considering how this may be demotivating for active citizens, it could then lead to the loss of potential for UGI contribution of AC projects. Support may manifest the form of a safety net, extra trainings or simply assisting in the search for motivated citizens or organisations to help with self-management (e.g. social network facilitation).

Thirdly, a bottleneck appears to be a perceived slow decision-making process. While this may depend on factors that cannot be readily changed, such as political disagreement, there are indications that the overall process could be sped up. For example, dealing with AC projects through local and consistently involved municipal officials appears to be fruitful. The Wilhelminapark's idea of 'integral meetings' could be institutionalised for major projects or parks, as this alleviates problems associated with the compartmentalisation of the municipality. Another related recommendation is to clearly communicate what the active citizens may expect from the municipality. For example, the citizens of Kaatstraat were under the impression that they were promised trees, when it was still uncertain whether trees could actually be placed. The management of expectations needs improvement.

Lastly, investing in making municipal officials more flexible allows them to respond more effectively to changing contexts in dealing with different AC projects. The diverse cityscape makes a 'one size fits all' approach ineffective, which makes flexibility essential. Flexibility here pertains to adopting a different, context-sensitive approach for each AC project.

7. Conclusion

Mosaic governance (MG) is a model aimed at optimising the contribution of urban green active citizenship (AC) projects to the enhancement of urban green infrastructure (UGI). This study started with the observation that such projects generally do not go beyond the local in terms of size and impacts. Therefore, they are generally not in line with UGI planning policies of the municipality. The MG framework was used to analyse multiple comparable urban green active citizenship projects, as well as their interactions with the local municipality. The main research question this study aimed to answer, is: *“How can the mosaic governance framework be applied to analyse and understand how urban greenspace planning and urban greenspace active citizenship can be combined to strategically develop and enhance urban green infrastructure?”*. Interviews with municipal officials and active citizens from projects in four districts revealed that, in order to increase contributions from these projects, there should be a fit or balance between the municipality’s vision and goals and those of the active citizens. How this fit or balance is exactly achieved, differs per project, which means a diversity of governance approaches must be employed to optimise AC’s contributions to UGI. Generally, the municipality should end up with a mixture of policy instruments meant to fulfil both the goals of the active citizens (support) and of the municipality (integration with the UGI planning approach). Integration may be achieved through scaling-out (increasing the coverage or size of the project) and/or scaling-up (municipal structural learning through the influence of projects) and other support.

Thus, when applying the MG framework to analyse how strategic planning of UGI can optimise AC projects’ contribution to UGI, the fit between the active citizens’ goals and visions and those of the local authorities, should be the focus. The goals and visions regarding UGI of both active citizens and local authorities should be identified and analysed, as well as potential enabling factors for increasing AC projects’ contribution to UGI. In analysing UGI planning through the MG lens, it is important to analyse all forms of support, as simply focusing on scaling-out and scaling-up may not capture the full extent of supportive measures taken by the municipality or other actors (e.g. NGOs). A MG approach encompasses both support for achieving active citizens’ goals and support for achieving municipal goals. The MG framework has proven useful for analysing the diversity in AC projects, the potential to contribute to UGI and the supportive measures taken by local authorities. Applying it has led to a greater understanding of how local authorities may optimise the contribution of AC projects to enhancing UGI.

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Appendix

A. Document Analysis Scheme

Code	Question/category	Explanation
1	Basic information	
1.1	Full, original title of document	
1.2	English translation of title	
1.3	Publication date	
1.4	Responsible department	
1.5	Aim of document	
1.6	Spatial scale	<i>Municipality or district</i>
1.7	Link	
1.8	Legal status?	
2	General policy objectives	<i>This section is about the overall goals/objectives of the policy.</i>
2.1 A	Is ‘(urban) green infrastructure’ mentioned in relation to policy objectives?	<i>(urban) green infrastructure specifically.</i>
2.1 B	If yes to A, does the document give a definition of UGI?	
2.1 C	If no to A, are there any similar terms mentioned in relation to policy objectives?	
2.1 D	If yes to C, is the term defined?	
2.1 E	If yes to A or C, what is the stated importance of the objective(s) in question?	<i>Is it a main goal of the policy?</i>
2.2 A	Is ‘active citizenship’ mentioned in relation to policy objectives?	<i>Any term similar to AC.</i>
2.2 B	If yes to 2.2 A, does the document give a definition of AC?	
2.2 C	Are there any other instances or descriptions that are reminiscent of AC?	<i>Any descriptions of an AC process or similar terms, e.g. ‘self-governance’.</i>
2.2 D	If yes to A, what is the stated importance of the objective in question?	
3	Specific initiative objectives	<i>This section is about the goals/objectives of individual initiatives or projects.</i>
3.1 A	Is improving UGI a specific objective of the initiative or project?	
3.1 B	If yes to 3.1 A, what is the stated importance of the objective?	<i>Is improving UGI a main objective?</i>
3.1 C	If no to 3.1 A, is the initiative or project set to contribute to UGI?	<i>This is about the implicit contribution to UGI; while not stated, the initiative/project may still contribute.</i>

3.1 D What is the exact form of citizen involvement? *Are citizens merely informed or actively participating in the design, for example? functional participation – interactive participation – self-mobilization*

3.1 E Based on 3.1 D, is AC the main governance approach for this initiative or project?

4 Scaling-up and integration

4.1 A Is there any mention of activities reminiscent of ‘scaling-up’?

4.2 Is there any mention of attempts to integrate structural policy with initiatives or projects?

B. Interview Questions for Active Citizens

The following interview questions were used for interviews with active citizens.

1. *What are the end results of the initiative?*
2. *How were you exactly involved in the initiative? What form did the cooperation with the municipality have?*
3. *Are you familiar with the municipality’s vision, approach and instruments regarding active citizenship?*
4. *In how far were involved citizens familiar with the concept of urban green infrastructure? Was this ever mentioned and was it used/applied in any way?*
5. *Has the municipality ever tried to make the initiative more oriented towards urban green infrastructure?*
6. *What has the municipality exactly done/provided to help the initiative?*
7. *Have you ever encountered problems you could not solve by yourselves? Have you asked the municipality for help (to realise extra ideas/measures)? Has the municipality offered to help, even if this was not asked?*
8. *Were there any other parties such as NGOs or companies that offered to help out, or have you ever asked these parties to help out (with realising extra ideas/measures)?*
9. *Was there any indication that the initiative has influenced the municipality in any way, in terms of policy goals, instruments, norms and/or ideas?*
10. *How did you experience the municipality’s aid and cooperation?*
11. *Have you had the idea that you were autonomous enough?*

C. Interview Questions for Municipal Officials

The next interview questions were meant for the interviews with municipal officials. Because of the municipality’s different functions, different questions were asked in each interview.

Interview with the program manager:

1. *I have noticed that the vision of the municipality on urban green infrastructure has changed throughout the years. What are today’s foremost reasons of the municipality to improve urban green infrastructure and why has this changed throughout the years?*
2. *How is the municipality’s urban green policy structured? This is still unclear.*

3. *To what extent do these district green plans actually contribute to improving urban green infrastructure?*
4. *Are there any other policies that aim to involve citizens in urban green infrastructural projects?*
5. *What does the municipality consider 'urban green infrastructure'?*
6. *Have you ever made adjustments according to citizens' wishes?*
7. *Have you tried to involve minorities in the district green plans?*
8. *Were there ever any citizens who felt they were not autonomous enough?*

Interview with project manager's assistant:

1. *Has the municipality ever been influenced by a DGP initiative, for example policy instruments, policy goals, norms or ideas? Can you give specific examples?*
2. *Was a particular AC practice ever so successful or intriguing that the municipality attempted to organise other initiatives in a similar way?*
3. *In the DGPs, was there ever a case where the active citizens wanted to expand their initiative beyond what was originally conceived? Did the municipality help them?*
4. *Do you know whether any active citizens ever expressed displeasure with a lack of autonomy?*
5. *Can you think of any conflicting views or objectives of the municipality and active citizens in the DGPs (or MGP) and how did this play out?*
6. *Are there any DGP initiatives that more or less contribute to UGI after all, despite this not being an explicit goal?*

Interview with implementation official. It was mostly exploratory in nature, in order to get to know more about the DGPs, hence the lack of questions:

1. *Do the DGPs aim to enhance UGI? What are the goals of the DGPs?*
2. *Which districts would be suitable and/or interesting for comparison purposes?*
3. *How do the DGPs and the rest of the plans and programmes relate to each other?*
4. *Which plan or programme is responsible for structural greenspace improvement?*

D. Consent Form

Toestemmingsformulier – Interview

ONDERZOEK NAAR BELEID OMTRENT ACTIEF BURGERSCHAP

Respondent

Hierbij verklaar ik dat ik voldoende ben geïnformeerd over de aard en doel van het onderzoek. Tevens zijn al mijn vragen naar behoren beantwoord.

Ik geef toestemming om het onderzoek op te nemen. Ik ben me bewust van het feit dat de audio uitsluitend voor het onderzoek wordt gebruikt.

Ik ben me tevens bewust van het feit dat ik me op ieder moment kan terugtrekken uit het onderzoek zonder gevolgen en dat ik het beantwoorden van bepaalde vragen mag weigeren.

Ook verklaar ik hierbij dat ik begrijp dat de verstrekte informatie anoniem wordt verwerkt.

Ik ben verder op de hoogte gebracht van het feit dat ik geen directie compensatie krijg van deelname aan dit onderzoek.

Ik begrijp dat de verstrekte informatie als vertrouwelijk wordt behandeld en daarom niet zal worden gedeeld met derden tenzij dat expliciet vereist is (door de wet).

Tenslotte verklaar ik dat ik me bewust ben van het feit dat ik de resultaten van het onderzoek mag inzien.

Handtekening respondent

Datum

Onderzoeker

Ik, Davey Henninger, verklaar hierbij dat ik de aard en doel van het onderzoek volledig heb uitgelegd, alsmede de procedures. Ik heb aan de respondent een kopie van het informatieformulier verstrekt.

Handtekening onderzoeker