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Do-it-yourself greening

Interaction between municipal authorities and community-led initiatives for urban green spaces

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Abstract

The effects of urbanisation and climate change have increased the focus of urban policymakers on sustainability. Nature-Based Solutions (NBS) are increasingly implemented as a means to achieve sustainability, through their versatility and provision of services to urban inhabitants. One way of implementing NBS is through urban green spaces such as parks and street trees, which can be adapted to their surroundings and benefit actors in the surrounding areas. From among these actors, the involvement of citizens can particularly benefit urban green spaces through the governance form of community-led initiatives (CLI). Such initiatives are both initiated and governed by citizens who decide upon its goals, resource use and activities (Edelenbos et al., 2021). They are not independent, as municipalities interact with green space CLIs in various ways and thereby affect their success. However, current literature mainly focuses on municipal facilitation rather than mutual interaction, and uses case studies from large municipalities. Therefore, this thesis asks the question: *How, why, and with what implications do municipalities enable and constrain urban green space CLIs through their interaction?*

This research question is examined using an analytical framework adapted from the Policy Arrangement Approach by Arts et al. (2006) combined with literature concerning interaction of municipalities with NBS and CLI. Data was collected from the Dutch municipalities of Culemborg and Wageningen, with green space CLIs selected on contrasting green spaces and activities, to map diverse interaction dynamics. The research uses a case study approach with data from interviews and documentation, coded according to the framework.

This research found that municipalities and green space CLIs interact through the reflexive provision of resources and rules, with municipal employees working as boundary spanners to translate and navigate between actors. Formalization to obtain resources, emphasis on policy uses of CLI, and the importance of steady points of contact are acknowledged by both actors. The presence of municipal employees or other coordinating individuals enables reflexive collaboration and accommodation for both actors. The research shows that while resources provided by public actors and within green space CLIs are important, reflexivity is a key dimension for interaction by smoothing over existing obstacles within the policy landscape. While the research focuses on municipalities, other public actors are revealed to be important through their various responsibilities and capacities as they take on a similar role for green space CLIs in the absence of municipal involvement.

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Glossary

CLI: Community-led initiative

MUN: Municipality

NBS: Nature-Based Solution

PAA: Policy Arrangement Approach

1. Introduction

1.1 Problem background

Urbanisation and climate change have shifted the view of policymakers on sustainability from one of many policy goals to a major concern. The effects of climate change increasingly pressure the liveability of cities and land has become a scarce resource which must be used efficiently to tackle multiple socio-economic issues at the same time (Dorst et al., 2022; Frantzeskaki et al., 2019). These effects of climate change include increased heat stress, flood risk and biodiversity loss (Dorst et al., 2019; Seddon et al., 2020). The concentration of economic activity in urban centers also makes it an important source of carbon emissions and resource use (Frantzeskaki et al., 2019). As cities thus become important theatres of action in sustainable development, more focus is directed to Nature-Based Solutions (NBS) in urban areas.

Nature-Based Solutions (NBS) are versatile spatial interventions based on nature, which can provide many services to citizens in urban areas. The concept uses a broad definition of "actions which are inspired by, supported by or copied from nature" (European Commission, 2015, p. 5) which allows for its size, form and functions to be adapted to local circumstances (Dorst et al., 2019; IUCN, 2020). Examples include street trees, green roofs, but also large-scale projects such as the creation or restoration of parks (Sekulova & Anguelovski, 2017). Such green interventions provide environmental services to urban inhabitants, such as reducing heat stress, increasing biodiversity, and surface flooding, but also social services, including providing spaces for recreation and social interaction (Cohen-Shacham et al., 2019; IUCN, 2020). These services address urban challenges caused by the effects of climate change, making NBS an important urban planning intervention for public actors to take into account (Frantzeskaki et al., 2019).

One way of implementing NBS is through urban green spaces, which can function as a type of NBS due to their potential to adapt to their surroundings, the benefits they can provide, and the many actors which can be involved in their governance. Urban green spaces are highly varied in their functions, sizes, and environmental elements, ranging from private gardens for personal enjoyment to large public parks with water features (Mattijssen et al., 2018). This versatility is important, as it allows them to provide a wide range of services to citizens: immediate benefits include well-being, aesthetic appeal and connection to nature, whereas longer term benefits include carbon sequestration, air quality improvement, and temperature regulation (Cohen-Shacham et al., 2019; Frantzeskaki et al., 2019). Depending on the location of the urban green space, there is a wide constellation of actors involved in its creation, management and use (Mattijssen et al., 2018). This does not only include local public actors, but also private actors, non-governmental organizations and citizens.

Within this constellation of potential actors, urban green spaces as NBS can benefit in particular from the governance involvement of citizens (Frantzeskaki, 2019). The localized focus of citizens can benefit green space NBS through their local perspective and tacit knowledge (Frantzeskaki, 2019; Sarabi et al., 2019). One such governance arrangement is a community-led initiative (CLI), which is led by a community, a group of citizens connected by a place or an interest (Edelenbos et al., 2021; Igalla et al., 2020; Sekulova et al., 2017). Their shared aim is to initiate and implement projects aimed at providing services for the community connected to it (Edelenbos et al., 2021). This versatile

governance form can also be applied to green space NBS, to create and manage these areas to benefit the community: the green space functions as the place or interest connecting the community. The involvement of local citizens can provide these aspects by shaping the green space to their needs.

Citizens are not the only actors involved in the governance of these urban green space. Other actors include public actors, private actors, and non-governmental actors (Mattijssen et al., 2018; Van der Jagt et al., 2016; Wamsler et al., 2020). This is especially true in the Netherlands, where a key actor for CLIs is the municipality (Aalbers et al., 2019; Dorst et al., 2022; Mattijssen et al., 2018). Municipalities, as public actor closest to the community level, are important for urban green space CLIs due to their diverse interaction dynamics (Mattijssen et al., 2018). Positive interactions include providing funding, public land use, mobilising citizens to start or join CLI, and administrative assistance (Bakker et al., 2012; Chin & Mees, 2021; Van der Jagt et al., 2017). Negative interactions are also acknowledged, such as a lack of policy integration due to conflicting policy domains, or providing selective or rhetorical-only support (Celata & Coletti, 2018a; Dorst et al., 2022). This municipal activity coexists with the agency of the community overseeing the aims, means and implementation of the project, with green space CLIs actively working with or around municipal policy. These interactions matter, as they can either enable or limit the ability of green space CLIs to be active for green spaces: Aalbers et al. (2019) found in their research on local greenspace initiatives that collaboration with the municipality was a key factor in their succesful development. Their interaction is therefore multifaceted, with much potential for mutually beneficial support.

1.2 Research problem

Several facets of this interaction require closer analysis. These aspects include the potential contained within the overlap between the academic fields of NBS and CLI, the perspective of interaction, and the choice of case studies.

Literature on interaction between local public actors and NBS with a community-led governance form is often split in NBS or CLI. These two academic fields each list their own barriers and enablers, but rarely combine their respective insights. The field of civil NBS also cannot provide definitive insights, as this demarcation includes actors such as NGOs as well as citizens' initiatives (Sekulova & Anguelovski, 2017). The creation of a framework from research stemming from both NBS and CLI might thus provide insights into what factors of each academic field apply to green space CLI.

One framework which has been used by academics to conceptualize the interaction between municipalities and sustainability-related citizen initiatives is facilitation (Bakker et al., 2012; Chin & Mees, 2021; Mees et al., 2019). This perspective assumes a deliberate and largely helpful stance of municipalities towards such initiatives, and often leaves out the reciprocal actions of initiatives. Interaction, which acknowledges both actors as actively pursuing their own interests, allows a view on the broader governance dynamics between the two actors.

Interaction as understood through the Policy Arrangement Approach has been used by several studies on green space CLI in their various forms, but this research focuses on larger cities in the Netherlands such as Rotterdam (Buijs et al., 2019; Mees et al., 2019; Van der Jagt et al., 2016). However, few municipalities in the Netherlands contain large cities, and policymakers from smaller municipalities or more rural areas do not necessarily have access to this scale of resources or

policymaking, which can influence their approach to citizen initiatives as emphasized by the research of Van de Griend et al. (2019) on citizen participation in food policy in the municipality of Ede. Current outcomes from the literature might not be fully applicable to urban green space CLI interacting with Dutch municipalities which are smaller in size.

This thesis therefore investigates the interaction dynamics between municipalities and green space CLIs in the context of smaller municipalities in the Netherlands, defined as having 50.000 inhabitants or less.

1.3 Societal and scientific relevance

A deeper understanding of these interaction dynamics have the potential to contribute to both academic literature and practitioners' experiences.

Firstly, this thesis contributes a broad scope to literature on green space CLI, and specific aspects to literature on CLI and NBS. Current literature on green space CLIs focuses on the municipal side of the relationship, through specific municipal policy strategies for interaction, collaboration and facilitation (Chin & Mees, 2021; Grotenbreg, 2019; Mees et al., 2019; Van der Jagt et al., 2017). By examining interaction, the contribution of both actors to the relationship is taken into account equally. This thesis also contributes detailed case studies to contrast against larger-N studies on urban green space CLIs such as those of Mattijssen et al. (2018). Such details include the differences between policy arrangements present within municipalities and how these can affect similar initiatives, providing more information on the effect of local governance context of smaller municipalities. For literature on CLI specifically, this thesis provides insight into the policy landscape for CLI through its use of the Policy Arrangement Approach with its dimension 'rules of the game', examining the effects of local policy for funding or legal status (Dinnie & Holstead, 2018; Celata & Coletti, 2018b). By examining green space CLI, this study also adds to NBS literature. Much research has focused on NBS barriers and enabling conditions, highlighting local government involvement as an important condition for non-state actors (Mendonça et al., 2021; Toxopeus & Polzin, 2021; Wamsler et al., 2020). This thesis examines this commonly applicable enabling condition in detail for green space CLIs, adding to research on the enabling potential of local government involvement.

Secondly, outcomes of this research are also intended to be used by municipal practitioners. Municipal policymakers can use the results to look beyond specific strategies to facilitate CLI and examine their broader interactions instead. This can provide insight for practitioners into factors causing current incentivizing or supportive frameworks to be less effective than desired (Celata & Coletti, 2019; Dinnie & Holstead, 2018). This can improve the efficient use of municipal resources. This thesis can also contribute to municipal facilitation of CLI by highlighting specific barriers present within municipal procedures. Improvements made based on these results can aid existing green space CLIs and provide a stimulus for the creation of new ones (Aalbers et al., 2019; Sekulova & Anguelovski, 2017; Van der Jagt et al., 2017). In general, outcomes of this research can provide a new view on working with urban green space CLI: rather than facilitating from the municipal side, both sides contribute to the interaction and must be treated as such.

1.4 Research questions and framework

This thesis aims to examine interactions between smaller municipalities and their urban green space CLI, and subsequent enabling or constraining effects on urban green space CLIs. Similar to existing

literature on green space CLI in larger cities, this thesis uses an analytical framework based on the Policy Arrangement Approach (PAA) combined with literature on both CLI and NBS, to analyse two case studies. This approach allows both a detailed examination of individual factors and an understanding of broader dynamics surrounding urban green space CLIs.

Thus, the main research question of this master thesis is:

How, why and with what implications do municipalities enable and constrain urban green space CLIs through their interaction?

The following sub-questions will further address the main research question:

1. What are the key aspects of the interaction between municipalities and green space CLIs according to the literature?
2. Based on these key aspects, how and why do the municipalities of Culemborg and Wageningen interact with urban green space CLI within their municipal boundaries?
3. What implications for small municipalities can be found through comparing and contrasting these findings and placing them in a broader governance context?

In order to answer these questions, the research is structured according to the research framework depicted below. Firstly, this thesis performs a literature review to identify how municipalities and urban green space CLIs interact and creates a theoretical framework with which to analyse the cases, answering subquestion 1. The results of the research follow, split into two sections on Culemborg and Wageningen in line with subquestion 2. Then, the discussion synthesizes the findings and answers subquestion 3. Lastly, the conclusion answers the main research question.
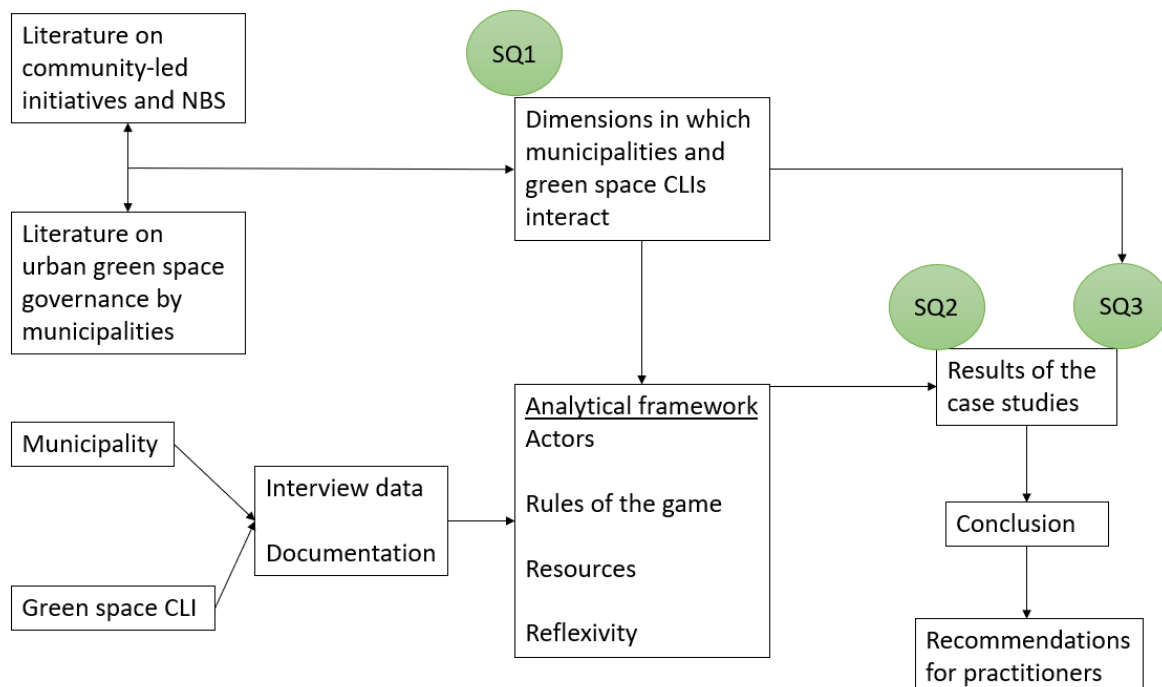

Figure 1: Research framework

2. Literature review

In order to understand the relevant aspects of interaction between green space CLIs and municipalities, it is necessary to critically engage with the literature. This section provides an overview of literature on CLI and NBS, and how their separate traits shape green space CLI. Then, existing literature on municipalities concerning green space CLIs is examined, drawing from literature on both CLI and NBS. Key aspects are collected and used to derive the theoretical framework for this thesis.

2.1 Green space CLIs

Community-led initiatives, similar to community-based initiatives, active citizenship and citizen initiatives, are a form of self-organization by a community to achieve certain goals (Buijs et al., 2019; Edelenbos et al., 2021; Igalla et al., 2020). Edelenbos et al. (2021) define it as

> a form of community engagement in which citizens *mobilize* capacities and resources to *collectively* define and carry out actions aimed at providing public goods or services for their community; citizens control the aims, means, and actual implementation of their activities. (p. 1692)

Thus, a CLI is both initiated and governed by citizens who decide upon its goals, resource use and activities. The activities and goals of green space CLIs are centered around a green space, which connects the community. Within this organizational form, CLIs can be very diverse. Its format is influenced by initiative context, including size, location and composition of the community, their specific goals, organizational structures and engagement with other actors (Mattijssen et al., 2018). Thus, the definition applied in this thesis remains broad, encompassing urban green spaces which are governed through the mobilization of capacities and resources by citizens to provide public goods and services for the community which aligns with interpretations of Edelenbos et al. (2021) and Mattijssen et al. (2018).

The term community-*led* initiatives rather than community-*based* initiatives emphasizes civic actors establishing and leading the initiative rather than initiatives started by other actors, such as municipalities or non-governmental organizations, for communities to inhabit. However Mattijssen et al. (2018) emphasize that community-led does not indicate that these initiatives are completely independent concerning their resources, frameworks and activities. As seen in civil governance forms of NBS and CLIs in general, such organizations are often located within a constellation of actors connected to various aspects of the project: municipalities can provide land, crowdfunding provides a small budget, a private actor connected to one of the organizers can provide a location to meet or occasional expertise (Buijs et al., 2019; Mattijssen et al., 2018). This support by other actors coexists with the agency of the community overseeing the aims, means and implementation of the project, leading to a dynamic of interaction rather than one-sided facilitation or self-contained functioning.

2.2 Advantages and disadvantages to CLI for green space NBS

The unique aspects of CLI affect green space NBS governed by them. Research on NBS increasingly recognizes the importance of communities as key stakeholder to achieve its potential, through their

capacity to enable local engagement, enhance its social benefits, and emphasize the multidimensional benefits it can deliver (Sarabi et al. 2019; Sekulova & Anguelovski, 2017).

Through the community-led aspect of the governance form, green space NBS can gain a local perspective and focus on local needs. The contextual nature of CLI can help tailor green spaces to local circumstances, which is emphasized by Cohen-Shacham et al. (2019). This can "increase public awareness and avoid contestation/protest" (Wamsler et al., 2020, p. 3) which improves its chances of success. CLI also use local resources which are more difficult to access for public actors, such as local knowledge, volunteer time of its members, and patches of private land such as gardens (Turner, 2011). This can increase the number of NBS in urban areas and localize benefits to its citizens. Local community acting as a steward for local green space is therefore key for its success, and CLI can provide such stewardship.

When governed by a community, a green space NBS is able to enhance its social benefits rather than its environmental ones as well. By being involved with the green space, community members can provide community services, gain project-related skills, and increase social interaction (Firth et al., 2011; Ramsden, 2021; Turner, 2011). Communities do not only benefit from receiving these services, but also from providing them, as it increases social capital between members and community support for their green space through providing "a space where people can gather, network and identify with one another" (Firth et al., 2011, p. 565). This increases the amount of functions performed by the green space and local attachment, amplifying its uses for both the community and public actors with social policy interests.

The multifaceted nature of green space NBS suits CLIs as well. CLIs are often initiated through a desire to solve local problems, which are rarely singular or bound to instutional silos or policy topics (Chin & Mees, 2021). The many potential functions of NBS therefore lend themselves well to CLIs, as multiple overlapping problems can be included by community actors without considering administrative boundaries or 'sectoral silos' faced by other actors. An example is a civic organization aiming to increase biodiversity in a local natural area, using this to educate nearby inhabitants and involve them in the conservation of nature to increase their awareness. This combination of functions creates an inclusive narrative which bridges between different departments and functionalities (Fran tzeskaki, 2019; Sarabi et al., 2019).

While CLI can enhance the benefits of NBS, the governance form can also reduce NBS' effectiveness in providing benefits due to the limited capacity, local focus and experimental nature of CLI.

Green space CLIs rely on volunteers with limited time, resources and knowledge (Bakker et al., 2012). This forces them to be selective in the size and type of green space they take up, as a lack of resources decreases project quality and subsequent benefits (Firth et al., 2011; Ramsden, 2021). Ramsden et al. (2021) also notes that these capacity limitations enforce a limited reach of projects, aimed in the first place at community benefits and integrating wider benefits only if possible. This local focus of CLI can limit wider policy integration of green space benefits as such practices are local, and community objectives do not need to align with wider policy objectives (Mattijssen et al., 2018; Van der Jagt et al., 2017). This creates initiatives which are "neither connected to, nor aligned with, wider government-led plans and policies" (Buijs et al., 2019, p. 54) and thereby lack institutional support and potential benefits associated with such support, such as subsidy schemes for green spaces or biodiversity initiatives.

The local focus of CLI, while its strength in tailoring the green space to the local environment, can also be its weakness in providing benefits to those not part of its community. Park (2012) notes the uneven spread of opportunities and capacity to start and run CLI among communities, lacking "money, time, and expertise needed to set up a community [green space] project" (p. 402) especially considering the organizational or administrative skills necessary for its formal legitimisation. This understanding of CLI nuances the emphasis of NBS literature on the involvement of citizens in NBS governance, as this lack of equity reduces diversity among citizens who can successfully manage NBS and provide services to their communities. Once initiatives are operational, strengthening social ties within the community increases focus on internal benefits (Edelenbos et al., 2021; Firth et al., 2011). This further reduces the reach and diversity of benefits it aims to provide, potentially limiting its multifunctionality.

While CLI can stimulate experimental forms and activities, initiatives remain subject to existing and enforced frameworks within urban space. These frameworks depend on specific activities implemented by initiatives: for urban green space initiatives, these often relate to the designated use of public spaces, or requirements necessary to receive funding or other resources (Celata & Coletti, 2018b; Van der Jagt et al., 2017). While a green space CLI can start as a creative and multidisciplinary idea aimed to benefit a community, this does not ensure it to be an effective or long-lasting one if it does not comply with existing frameworks. The misalignment between green space CLIs and related policies can therefore not only cause them to overlook available public resources, but confine their activities as well. The importance of such frameworks is reflected in the 'rules of the game' dimension of the Policy Arrangement Approach.

2.3 Green space CLI and municipalities

Municipalities can address these limitations of green space CLIs by supporting them, but their relationship can also be characterized by exploitation and control of their activities. Various authors have explicitly listed local government actors or municipalities as a crucial actor for CLIs for green space NBS (Celata & Coletti, 2019; Van der Jagt et al., 2017). The emphasis on the facilitative role of such actors is present within separate literature on CLI and NBS as well (Bakker et al., 2012; Bulkeley & Kern, 2006; Edelenbos et al., 2021). The different aspects of interaction between municipalities and green space CLI therefore derive from a broad research base.

Municipalities enforce public policies and legal frameworks, which are identified as key for NBS (Sarabi et al., 2019). As local public actor responsible for implementing policies, municipalities can affect these policies and bureaucratic background against which green space CLIs exist. Examples includes creation of policies offering financial support or adaptation of policies to streamline procedures and requirements between departments in order to account for the multidimensionality of NBS (Celata & Coletti, 2019; Frantzeskaki, 2019).

When lacking such streamlining, municipal policies and bureaucratic backgrounds can negatively affect green space CLIs as well (Bakker et al., 2012; Celata & Coletti, 2018b). Barriers can be present within administrative requirements for resources such as financial support or public land (Celata & Coletti, 2019; Mattijssen et al., 2018). Sarabi et al. (2019) notes that these administrative requirements can vary between municipal departments, which often have "their own vision, legal frameworks and procedures, and […] their own sectoral language" (p. 121) which multiplies the bureaucratic barriers faced by green space CLIs. Such institutional fragmentation limits opportunities

for NBS to fulfill their multifunctional potential and subsequently contributes to organizational path dependency, further locking in future projects (Sarabi et al., 2019).

The municipality also often owns much of the public land on which citizens can start their initiatives aimed at improving existing green spaces or green maintenance (Mattijssen et al., 2018). As such initiatives are also bound to existing public policies, the intersection between municipalities as landowner and policymaker creates a necessity for green space CLI to interact with them to be able to use the land legitimately (Buijs et al., 2019; Mattijssen et al., 2018). Municipalities also have access to other resources which are identified as key in NBS and CLI literature. Both Celata & Coletti (2019) and Mattijssen et al. (2018) mention municipalities as key provider of financial means for green space CLIs through municipal subsidies. Other, less material resources such as green knowledge, skills to implement projects, and process facilitation at the start can also be provided by municipalities (Fox-Kämper et al., 2018; Mees et al., 2019; Van der Jagt et al., 2017). Municipalities can also provide access to networks or platforms for initiatives to take part in, in order to connect existing initiatives to other actors or resources and provide stimuli for new initiatives (Bakker et al., 2012; Sekulova et al., 2017; Toxopeus & Polzin, 2021). By providing such resources, municipalities can help CLI to overcome limitations inherent in the key role of volunteers. The collaboration with municipalities can thus increase CLI capacity and expand their focus, increasing their potential benefits. This crucial role of resources aligns with the resource dimension of the Policy Arrangement Approach, and understanding the resources involved in the interaction between municipalities and green space CLIs therefore provides insight into their dynamics.

The diversity of green space CLIs and the changes initiatives undergo through time requires municipalities to not only provide resources, but to showcase a "responsive and facilitative attitude towards initiatives of active citizens" (Buijs et al., 2019, p. 60). Research emphasizes roles played by municipalities in relation to CLI. Such governance arrangements, ranging from partnerships to facilitation strategies, create a conducive policy landscape emphasized by several authors as a key enabler for CLI (Edelenbos et al., 2021; Sekulova et al., 2017; Van der Jagt et al., 2017). Within these arrangements, flexibility throughout time is required in order to accommodate progress and shifting goals, such as a green space CLI expanding its range of activities (Grotenbreg, 2019; Mees et al., 2019; Van der Jagt et al., 2017). This flexibility in combination with the various resources which can be provided by municipalities are an important indicator of supportive force for green space CLIs, as they are capable of facilitating its initiation, continuation and potential growth (Bakker et al., 2012; Buijs et al., 2019; Mees et al., 2019).

While municipalities can interact positively with green space CLIs, there is also a more cautious view on interaction between municipalities and CLI, summarized as "a problematic balance between promotion and control, co-optation and 'policing'" (Celata & Coletti, 2018b, p. 23).

The desire to make efficient use of limited municipal resources can create selectiveness of municipalities in supporting initiatives (Toxopeus & Polzin, 2021). Compared to professionally organized initiatives, self-organization by citizens requires significant resources and effort for municipalities to interact with (Dorst et al., 2022; Mees et al., 2019; Van Ham & Klimmek, 2017). Examples include collaboration on customized agreements for activities of green space CLIs, or the calibration of bureaucratic requirements across municipal departments. With increasing tasks being delegated to municipalities, the time and resources available for green space CLIs are limited already (Droste et al., 2017). These limitations can cause municipalities to be selective in which green space

CLIs to support, risking partiality to either green space CLIs which require little resources or produce results which are of value to the municipality. Municipalities and municipal staff have to balance their responsibilities and legal obligations towards citizens with a responsive and flexible approach towards citizen initiatives which stretch the municipal 'boxes' they are in (Van de Griend et al., 2019). Keeping this balance is therefore an important factor for either positive or negative interactions between municipalities and green space CLIs.

The municipal organizational system also applies isomorphic pressure on green space CLIs. Such pressures are present in legal, financial and organizational frameworks used to conform and control initiatives and their interactions with municipalities (Celata & Coletti, 2019; Dinnie & Holstead, 2018). An example are specific goals attached to funding opportunities, requiring initiatives to fit these requirements (Mattijssen et al., 2018). While such requirements restrain citizen initiatives in general, Celata & Coletti (2019) and Mattijssen et al. (2018) emphasize the risk for green space CLIs: the multidimensional nature of NBS crosses municipal silos and thus increases the bureaucratic burden for the limited capacity of CLIs, which puts green space CLIs in particular at a disadvantage for obtaining these resources (Celata & Coletti, 2019; Mattijssen et al., 2018). This negatively affects the non-conforming and contextual nature of green space CLIs as well, as they have to fit within these traditional bureaucratic 'boxes' in order to be supported and legitimised by municipalities (Celata & Coletti, 2018b).

When municipalities do provide support, it can be politically motivated. Several authors criticise municipalities for seeking to use CLIs and their benefits to further their own policy goals (Frantzeskaki et al., 2016; Mattijssen et al., 2018; Park, 2012). Dinnie & Holstead (2018) notably emphasizes the difficulty of initiatives to remain relevant to policymakers and retain their financial support, creating an unstable foundation for green space CLIs to maintain access to vital resources. Bakker et al. (2012) and Frantzeskaki et al. (2016) in particular criticise the use of CLIs in policy fields which receive less funding as a way of filling gaps within municipal capacities, functioning as a low-budget and high-participation replacement for public services. This view of green space CLIs threatens their multifunctionality, as their use to a single municipal policy can draw attention away from their other functions.

With these limitations to the capacity and willingness of municipalities to interact with green space CLIs, critical perspectives within the literature on the importance of municipalities must also be acknowledged. The research of Igalla et al. (2020) concluded that government support was not a key factor for the performance of CLIs. However, this does not take into account the aspects of NBS on the initiative, and can be explained through the use of local resources and connections with non-public actors which are so common for CLIs (Mattijssen et al., 2018).

Both literature on CLIs and NBS emphasize the enabling capacities of municipalities, and subsequent barriers which can appear when these opportunities are not used or actively obstructed (Edelenbos et al., 2021; Van der Jagt et al., 2017). These capacities are mainly linked to interactions in the areas of policy and resource provision, and the flexibility of municipalities in accommodating the innovative nature of green space CLIs. As such, these interactions require a more holistic investigation which takes all of these aspects into account, which the Policy Arrangement Approach can provide.

2.4 Theoretical framework

The variety of ways in which municipalities and green space CLIs can interact, both positively and negatively, can be organized using the Policy Arrangement Approach. This framework is both holistic and practical, viewing interaction using four separate elements which are explicitly acknowledged to affect each other.

The PAA is an analytical framework used to analyse governance arrangements where multiple actors interact within a policy arrangement, defined as "the content and organization of a policy domain" (Arts et al., 2006, p. 99). This is analysed using four analytical dimensions, these being actors and coalitions, rules of the game, resources, and discourse, which all contribute separately and in
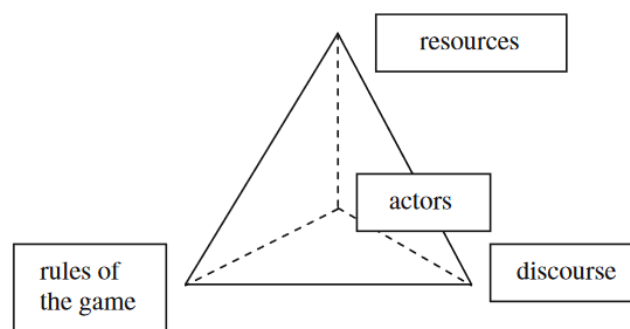
tandem to the larger policy arrangement as visible in Figure 2.

Figure 2: The tetrahedron visualising the connection between the dimensions of the PAA (Arts et al., 2006)

The integrative perspective of the PAA on governance allows this thesis to conceptualise interaction and how it should be understood and investigated. This framework is particularly suited for analysing governance arrangements involving multiple actors in various constellations of influence (Buijs et al., 2019). Thus, analysis can move beyond an understanding of a single actor dominating a governance arrangement, and recognize the various ways in which interaction can take place. Several authors have recently used the PAA for such governance arrangements for urban green spaces, including mosaic and participatory governance, providing a comparative backdrop for this research and its findings (Aalbers et al., 2019; Buijs et al., 2019; Mattijssen et al., 2017; Mattijssen et al., 2018; Van der Jagt et al., 2016; Van der Jagt et al., 2017).

The PAA also explicitly acknowledges the connections between its four dimensions (Arts et al., 2006). This allows research to be holistic while remaining practically applicable by identifying opportunities for improvement present within dimensions to improve the policy arrangement as a whole (Mattijssen et al., 2017). This interplay is often acknowledged by literature on NBS seeking to understand barriers and opportunities present for NBS in urban environments (Dorst et al., 2022; Sarabi et al., 2019; Toxopeus & Polzin, 2021). This is particularly relevant for community-led forms of NBS, as Frantzeskaki (2019) and Buijs et al. (2019) both highlight more collaborative forms of governance as a way to integrate local knowledge into such projects and "enable the salience of nature-based solutions from design to implementation and operation" (Frantzeskaki, 2019, p. 107).

The four dimensions of the PAA are used as conceptual foundation to structure findings from the literature into an analytical framework for the research. The four dimensions are described in turn.

Firstly, *actors and coalitions* are those actors involved in the policy arrangement (Arts et al., 2006). For this research, this includes both the municipality and the green space CLI. However, other actors which are formally included in the policy arrangement must be taken into account as well (Buijs et al., 2019; Frantzeskaki, 2019; Mattijssen et al., 2018). While municipalities are an important actor as testified by the literature, other actors cannot be excluded from the analysis if formal ties to the policy arrangement exist, such as land ownership or formal annual agreements to provide resources similar to governmental subsidies (Droste et al., 2017; Mattijssen et al., 2018). Contributions or conditions within such agreements can affect resources or rules outlined between green space CLIs and municipalities, and thereby affect their interaction. Informal ties are not included in this research, due to their broad definition.

Secondly, *rules of the game* are the actual rules and formal procedures which delineate actions undertaken by actors (Arts et al., 2006; Buijs et al., 2019). For green space CLIs and municipalities, the rules and procedures which "establish the scope and content of their reciprocal relationship, as well as their positions towards each other" (Celata & Coletti, 2019, p. 985) are often present within the policy domain of green maintenance and public land use (Buijs et al., 2019). Frameworks such as policies and administrative procedures set the duties performed by the green space CLI and the municipality (Bakker et al., 2012; Celata & Coletti, 2019; Van der Jagt et al., 2017). Monitoring green space CLI conformity to these frameworks is often formalized into evaluations (Dinnie & Holstead, 2018; Mattijssen et al., 2018). Such structures can support their activities by providing access to resources, but stifle them as well, by imposing municipal goals or standardized organizational forms on green space CLIs (Celata & Coletti, 2019). This can affect interactions with municipalities and other actors surrounding green space CLIs, and determine what resources are available within the structures green space CLIs are placed within.

Thirdly, *resources* can be mobilised, distributed and used to achieve desired outcomes of actors (Arts et al., 2006; Mattijssen et al., 2018). For green space CLIs, these are split into financial, material, non-material and human resources in order to distinguish between them (Mattijssen et al., 2017; Van der Jagt et al., 2017). Financial resources can be provided through subsidies or one-time financial support (Bakker et al., 2012; Dinnie & Holstead, 2018; Fox-Kämper et al., 2018; Van der Jagt et al., 2017). Material resources can be split into land, in-kind resources such as tools or natural materials, or utilities such as water or electricity (Buijs et al., 2019; Van der Jagt et al., 2017). Human resources can be split into volunteers and experts. Volunteers can provide manpower for activities (Mattijssen et al., 2018). Experts can provide knowledge related to green space, such as knowledge of planting or tool availability, or skills related to CLI organizational structure, such as administrative or management skills, both of which are mentioned as vital enablers for green space CLI (Fox-Kämper et al., 2018; Sarabi et al., 2019). Many of these resources can be supplied or withheld by the municipality, thus influencing CLI capacity to take care of their green spaces (Van der Jagt et al., 2017). When provided, their usefulness also depends on if the resources provided match green space CLI needs and the requirements to obtain them do not impose a strain on their current capacity (Dinnie & Holstead, 2018; Sarabi et al., 2019). Resources are therefore a key aspect of the interaction between green space CLIs and municipalities, as well as the rules attached to them.

Lastly, *discourse* is defined as "the views and narratives of the actors involved—in terms of norms and values, definitions of problems and approaches to solutions" (Arts et al., 2006, p. 99). In this thesis, this broad definition is modified to flexibility and learning capacities, shortened to *reflexivity*

(Buijs et al., 2019; Chin & Mees, 2021). Reflexivity here is intended as responsive flexibility or learning capacity within the interactions between green space CLIs and municipalities, affecting their views on problems and solutions. Van der Jagt et al. (2017) summarized it as "an open-minded management style in which facilitators or leading members were approachable, responsive and spoke the language of the local people" (p. 272). This management style is vital in enabling or constraining the ability of CLI to implement activities specific to their context and green space, through their responsiveness towards needs of CLIs in relation to bureaucratic frameworks or desired resources (Van der Jagt et al., 2017).

These facilitators enable reflexivity using their interpersonal skills and knowledge of formal frameworks, functioning as boundary spanners to bridge between CLIs and formal municipal structures (Hassink et al., 2016; Mees et al., 2019). They can also work as policy entrepreneurs, to develop innovative opportunities which can create new value (Edelenbos et al., 2021; Igalla et al., 2020). These functions rely on trust between municipal workers and initiative members, as emphasized by Hassink et al. (2016) and Van der Jagt et al. (2017) as a necessary aspect to overcome formal obstacles within policy or legal frameworks. However, this does not negate existing rules as concluded by Van de Griend et al. (2019) when describing the need for municipal workers to balance existing policy frameworks and responsiveness to experimental initiatives of citizens: reflexivity has to complement the other dimensions in a non-disruptive manner (Sarabi et al., 2019; Van der Jagt et al., 2017). Thus, rules enforced by municipalities and reflexivity present between the two actors require alignment in order to be effective.

Reflexivity in regards to rules and resources connected to green space CLIs depend on the objectives underlying activities undertaken by initiatives. Mattijssen et al. (2018) notes that when objectives of green space CLIs and municipalities align, green space CLIs have more access to resources. For clarity, these objectives are split in economic, environmental, social and political objectives. Van der Jagt et al. (2016) emphasize the increasing social goals of NBS instead, and the political activism which can be present within initiatives. Such objectives guide the activities and resources necessary to perform them. Alignment of these objectives with municipal policies can enhance their interaction, which benefits both actors: however, this depends on whether these objectives do not intersect with other policy objectives or responsibilities.

Authors in literature on both CLI and NBS emphasize the importance of flexibility and a capacity for change in order to respond to changing circumstances of either of the actors (Bakker et al., 2012; Mees et al., 2019; Sarabi et al., 2019). Several authors mention flexibility in the roles played by municipalities when interacting with green space CLI, and emphasize the importance of contextual measures which are evaluated regularly on their continued effectiveness (Grotenbreg, 2019; Mees et al., 2019; Van der Jagt et al., 2017). Flexibility from either side, to learn from experiences, can provide an opportunity to evaluate and adapt, which can improve interactions between municipalities and green space CLI (Chin & Mees, 2021).

These four dimensions can be summarized in a theoretical framework utilizing both the structure of the PAA and findings from literature on interaction between municipalities and green space CLIs, as visible in Table 1.

Dimension	Concept	Definition	Authors
Actors	Green space CLI	Urban green space NBS with CLI as governance arrangement	Mattijssen et al., 2018
	MUN	Local governmental administrative unit determined by the Dutch state	CBS, 2022b; Mattijssen et al., 2018
	Other	Public, private or non-governmental actor formally included in the policy arrangement	Droste et al., 2017; Mattijssen et al., 2018
Rules	CLI duties	Activities performed by the green space CLI based on the rules of the game	Mattijssen et al., 2018; Van der Jagt et al., 2017
	MUN duties	Activities performed by the municipality based on the rules of the game	Mattijssen et al., 2018; Van der Jagt et al., 2017
	Evaluation/monitoring	Evaluation of actors to examine whether the rules set out have been adhered to	Dinnie & Holstead, 2018; Mattijssen et al., 2018
Resources	Financial	Financial resources intended for use by the green space CLI	Dinnie & Holstead, 2018; Fox-Kämper et al., 2018
	Material	Material resources intended for use by the green space CLI	Buijs et al., 2019; Fox-Kämper et al., 2018; Van der Jagt et al., 2017
	Human	Human resources intended for use by the green space CLI	Fox-Kämper et al., 2018; Mattijssen et al., 2018
Reflexivity	Objectives	Goals set by actors which inform their activities	Mattijssen et al., 2018
	Flexibility	Ability to learn from interactions and developments, and subsequently adapt interactions to new knowledge	Chin & Mees, 2021; Mees et al., 2019
	Trust	Trust in the abilities and intentions of the other actor	Hassink et al., 2016

Table 1: Theoretical concepts on the interaction between green space CLIs and municipalities, based on Arts et al. (2006), Buijs et al. (2019) and assorted authors

3. Methods

The research strategy of this thesis is built on case study research to provide data and analyse it. First, the research strategy is outlined, followed by the choice of case studies. Then, data collection and techniques for its analysis are described, and ethical considerations are taken into account.

3.1 Research strategy

This research aims to answer the main research question using three sub-questions. The first sub-question was answered through the literature review, using it to construct an analytical framework based on the PAA which is then used to structure the second and third sub-question. To examine how municipalities and green space CLIs interact, this research used a case study approach.
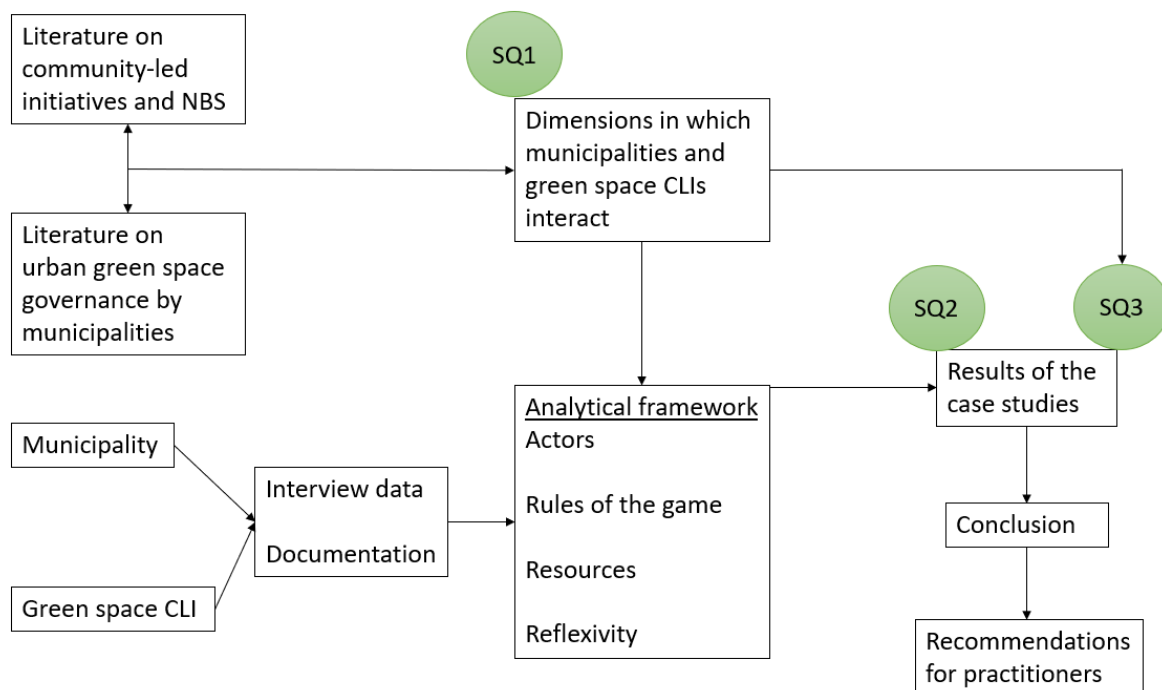
Figure 3: Research framework

Gerring (2004) defines case study research as "an intensive study of a single unit for the purpose of understanding a larger class of (similar) unit" (p. 324). Case studies can provide insight in complex, multi-factor situations through their ability to capture complexity and capacity for holistic understanding, and by comparing multiple cases conclusions gain greater validity and a broader understanding than a singular in-depth case can provide (Gerring, 2004; Neuman, 2014). Thus, comparative case study research as a method allows the research to not only examine urban green space CLIs interacting with municipalities, but to view these interactions in the broader governance context in order to understand their implications.

The unit of analysis is on the municipal level, with several green space CLI per municipality serving as internal research units to map interactions based on the four research dimensions of the PAA (Arts et al., 2006; Verschuren et al., 2010). All research objects were strategically selected to reduce the number of uncontrolled variables and enable identification of patterns and relationships in order to

understand the effects of interaction without influences of other variables (Burnham et al., 2008; Neuman, 2014). For this thesis, this required the selection of similar municipalities with an internal variety of green space CLIs, to increase the variety of interaction dynamics which could be observed.

Similar municipalities were chosen by selecting them from the same province in the Netherlands for comparable governance contexts, with a limited amount of inhabitants to serve as indicator of municipal scale. The Netherlands was chosen as national context due to existing academic research on green space CLIs of which case studies were chosen from the Netherlands, thereby increasing its validity by choosing the same governance context. Municipalities are defined as the smallest local governmental administrative unit as determined by the Dutch state (CBS, 2022b). The population limit for municipalities to qualify as case study for this research is 50.000 inhabitants, which corresponds with classification 4 and below of the Centraal Bureau voor de Statistiek (CBS) (CBS, 2022a). This limit encompasses 73% of Dutch municipalities in 2022, and is considerably less than the more than 500,000 inhabitants included in previously analysed municipalities such as Amsterdam, Rotterdam and The Hague (CBS, 2022a). This difference in inhabitants indicates the scale of the municipality, which can affect resources available and organizational procedures.

3.2 Case study selection

For this research, case studies were selected from the province of Gelderland, as shown in Figure 4.
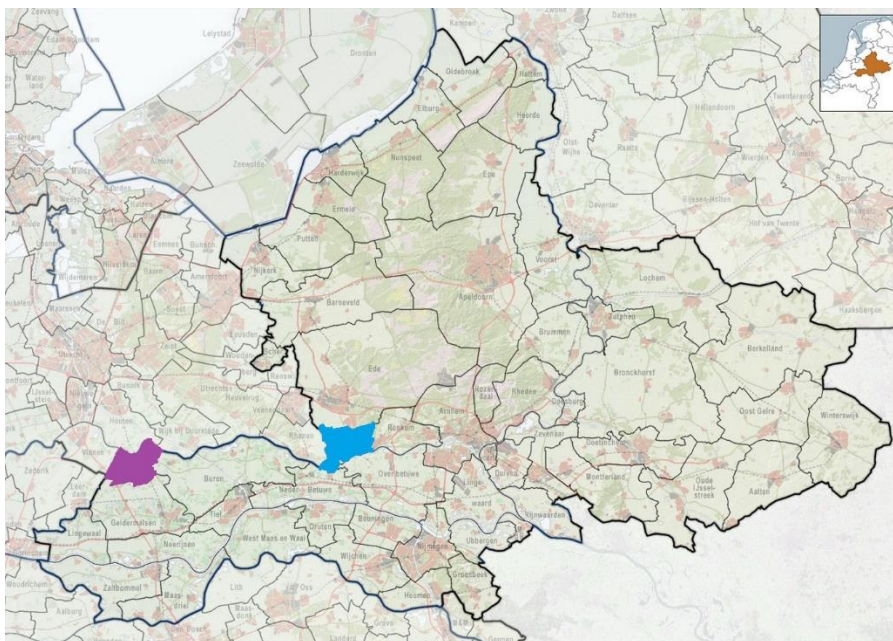
Figure 4: A map of the province of Gelderland, case studies highlighted (source: Wikimedia Commons, 2020, edited by the author)

Gelderland is not part of the Randstad, the urban conglomeration of the four largest cities in the Netherlands and their suburbs. This allows for a larger number of small municipalities to consider as case studies, and its variety of large natural areas and agricultural enterprises displays a broad presence of green spaces which can be included in green space CLIs. As a province of the Netherlands, Gelderland has multiple responsibilities towards the Dutch national government which this thesis deems relevant for the policy arrangement of its municipalities.

Firstly, the province is the intermediary governance level between national policies and their local implementation in municipalities, translating national ambitions to policy which is implemented on a local level based on local circumstances (Rijksoverheid, n.d.b.). Thus, municipalities are subject to the provincial interpretation of national policy guidelines, and base their individual policies on this interpretation.

Secondly, the province is responsible for the protection and expansion of natural areas, and the increase of biodiversity (Rijksoverheid, n.d.b.). This does not only include large protected natural areas, but also encompasses urban green spaces (Rijksoverheid, n.d.a.).The province can also provide subsidies for environmentally and biodiversity-relevant projects to interested actors, including municipalities. (ProDemos, n.d.).

Lastly, the province is responsible for supervising the municipalities within its borders. This supervision is mainly financial, to ensure sound budget management. This is done through a yearly budgetary check (Rijksoverheid, n.d.b.). This indirectly affects financial decisions and resource direction of municipalities.

The case studies chosen are Culemborg and Wageningen, respectively highlighted in purple and blue in Figure 4. Both fulfill the requirements set for this thesis, as neither had more than 50.000 inhabitants at the time of research and are located within the province of Gelderland, with multiple green space CLIs found during desk research. Additionally, both municipalities are located near larger natural areas and have limited financial means.

Culemborg is a municipality with approximately 30.000 inhabitants in 2022 (CBS, 2022c) located on the border of Utrecht and Gelderland, alongside the river Lek. The municipality of Culemborg is divided in 19 neighbourhoods, of which Parijsch Zuid is currently being built and the city centre is oldest (Gemeente Culemborg, 2020b). Its territories are bounded by the floodplains, which also function as nearby natural leisure area for Culemborg's inhabitants. The municipality of Culemborg became a Fairtrade municipality in 2010, indicating municipality-wide support for sustainably produced products (Fairtrade Gemeenten, 2022). There are a wide variety of civic organizations working on environmental, social and other local issues. Examples include ELK Welzijn, Kleurrijk Wonen and the Elisabeth Weeshuis, which support smaller initiatives in achieving their social, humanitarian and environmental objectives (Gemeente Culemborg, 2020a). However, the municipality has systematically been implementing budget cuts since 2019, negatively affecting their sustainability policies and programmes (Gemeente Culemborg, n.d.; Gemeente Culemborg, 2019).

Wageningen is a municipality with approximately 40.000 inhabitants in 2022 (CBS, 2022c) located on the border of Utrecht and Gelderland, alongside the river Nederrijn which transitions into the Lek. Wageningen has 16 neighbourhoods, of which Buitenoord is currently being constructed (Gemeente Wageningen, 2016). The city is connected with the local floodplains and a natural area, named the Binnenveldse Hooilanden, both of which are available to residents as natural leisure area. The municipality of Wageningen accommodates an university and attached research institute named Wageningen University & Research (WUR), which has a reputation of being highly sustainability- and green-focused. In terms of its civic life, Wageningen has a wide variety of civic organizations working on environmental, social and other local issues. Examples include Platform Duurzaam Wageningen and Mooi Wageningen, which support smaller initiatives in achieving their social, humanitarian and environmental objectives (Communicatiebureau de Lynx, 2022). In 2020 however, the municipality

had to reduce its spending with 5 million Euros in order to avoid being put under provincial financial management, limiting its spending across departments (Huibers, 2021).

CLIs working on urban green spaces within these two municipalities were selected based on contrasting green space management activities, to map diverse interaction dynamics. CLI sample size was expanded through snowball sampling, i.e. by asking members of CLIs whether they were aware of other CLIs in the area (Verschuren et al., 2010). The CLIs are summarized in Table 2 below.

Municipality	Name	Activities	Type of green space
Culemborg	Stichting Terra Bella	Green space maintenance	Neighbourhood green
	De Tuinpiraat	Green space recreation	Production area, semi-wild recreation
	Culemborgse Stichting van Volkstuinen	Sustainable production and consumption	Vegetable gardens
Wageningen	Groen Kortenoord	Green space maintenance	Neighbourhood green
	Mooi Binnenveld	Ecological maintenance and education	Natural area
	Stichting Wageningse Eng	Green space policy input	Semi-wild areas, production area, recreational

Table 2: Green space CLIs selected within the municipalities of Culemborg and Wageningen

3.3 Data collection

From these case studies, several types of data were collected for analysis. These data types included semi-structured interviews, documentation from the green space CLIs, and documentation from the municipalities themselves. These data types were used to triangulate and deepen the analysis.

The primary data source for the case studies were semi-structured interviews. These interviews were held in Dutch, in order to allow interviewees to express themselves fluently. From each CLI, at least 3 members were interviewed about their experiences to minimize bias through triangulation of accounts (Neuman, 2014). Initiative members were chosen for their organizing or participating role in the initiative, and for their degree of interaction with the municipality. Additionally, 1 municipal employee with expertise concerning the green space CLI or green space/CLI in general was interviewed as well to supply their perspective. The interviews were held in person or through video calls, to increase interaction and trust of interviewees. Some interviewees preferred to respond to questions through email rather than directly. Such data was used as documentation for data triangulation rather than primary data source, as the lack of interaction reduces contextual information obtained through in-depth questions. In total this amounts to 25 interviews averaging at 42 minutes, and 2 email-interviews.

These interviews were based on one set of questions per perspective (see Appendix A) which were adapted when insights presented themselves during the interview or previous interviews. These questions are designed to touch on every aspect of the analytical framework and to supplement the documentation if necessary, and to gather practical experiences on interactions between the municipality and green space CLI. To provide a broader understanding, a provincial employee

familiar with policy on green space and citizen initiatives was also interviewed in order to further understand the context and nature of interactions taking place (Verschuren et al., 2010).

Documentation from the green space CLIs was collected from various sources to complement interview data. All documentation was from 2017 onwards, to focus on recent interaction. Websites from green space CLIs and (online) newspaper articles functioned as external material, which was collected before interviews to understand the local context. Internal documentation, such as financial administration and formal agreements, was solicited from interviewees. Site visits by the researcher during these interviews provided spatial and contextual insight. Lastly, documentation from the relevant municipality was also collected before interviews for local context. This includes general policy documentation on green space regulation and citizen initiatives in general, but also publicly available documentation on the green space CLIs such as references on municipal websites. If necessary, documentation was requested from interviewees.

3.4 Data analysis

The data was analysed using the analytical framework depicted below in Table 3.

Dimension	Aspects	Sub-aspects	Operationalization	Examples
Actors	Municipality	*none*	Municipality included in the CLI-MUN-contract	Municipality in which CLI is located
	CLI	*none*	CLI included in the CLI-MUN-contract	Neighbourhood association for green space, locally organized nature foundation
	Others included in the agreement	*none*	Actors officially included in the CLI-MUN-contract	Green maintenance company, local non-green neighbourhood association, nature organization
Rules of the game	CLI duties	*none*	Duties and tasks assigned to the CLI in agreement with the municipality and the CLI	Maintenance of green space, organizing maintenance days for volunteers, creating proposals for new green spaces, administration of finances
	Municipal duties	*none*	Duties and tasks assigned to the municipality in agreement with the municipality and the CLI	Provision of resources, creating green space use plans, checking administration of CLI

	Evaluation and monitoring	*none*	Monitoring methods and evaluation moments in agreement with the municipality and the CLI	Visual checks, appointments, meeting minutes
Resources	Financial	*none*	Monetary resources available to the CLI	Grants, subsidies, loans
	Material	Space	Material, non-monetary resources available to the CLI related to physical space	Land, buildings
		Utilities	Material, non-monetary resources available to the CLI related to utilities	Water, electricity
		In-kind	Material, non-monetary resources available to the CLI related to material for CLI purpose fulfillment	Seeds, equipment
	Human	Time/manpower	Material, non-monetary resources available to the CLI related to human resources	Volunteers, professionals, networks
		Green skills	Informational resources available to the CLI related to CLI purpose and green space	Pruning, planting, sowing, appropriate planting techniques
		CLI-related	Informational resources available to the CLI related to CLI management and interaction with the municipality	Administration, bureaucracy, monitoring records
Reflexivity	Objectives	Physical	Physical objectives pursued by the entity as a whole	Biodiversity aims, greenspace visuals, m2 of green space maintained in a year

		Social	Social objectives pursued by the entity as a whole	Greenspace uses, amount of volunteers, amount of maintenance days
		Economic	Economic objectives pursued by the entity as a whole	Money saved on maintenance, sales of greenspace bounty
		Political	Political objectives pursued by the entity as a whole	Policy integration, (change of) policy goals, regular contact with municipality
	Flexibility in rules and procedures	Design	Flexibility in rules and procedures related to the initial features of the CLI or the green space	Adapting the contract to initial CLI capacity, size, or green space attached to the CLI
		Learning	Flexibility in rules and procedures related to developments concerning the CLI or the green space	Adapting the contract to ongoing developments within the CLI
		Experimenting	Flexibility in rules and procedures related to deliberate changes in the purpose or manner of working of the CLI or the green space	Adapting the contract to changes in purpose or ideas for experimentation
	Trust	*none*	Trust in other actors to fulfill their duties and uphold their promises	Consistent contact with the municipality, stable underlying rules, mutually supportive attitude

Table 3: Analytical framework for analysis, as adapted from Buijs et al. (2019), Mattijssen et al., (2018) and Van der Jagt et al. (2017)

All data was coded using the software application NVivo, organizing data into the themes and structures identified earlier in the analytical framework (Neuman, 2014). Any codes or themes found during data analysis were examined and added using an iterative approach. The interviews were used as a primary data source. Each interview was transcribed and coded accordingly, and after each case study any new codes were examined and merged if necessary. Documentation was used to triangulate interview data (Verschuren et al., 2010). Depending on the topic and case focus of the document, each file was examined from the perspective of its relevant dimension within the framework, analysing it for information missing from interviews or information which required validation.

Once all the data was coded, connections between the different dimensions of the framework were made for each green space CLI and subsequently compiled for each municipality. Green space CLIs with similar functions were similarly examined for emerging clusters. The interview with the provincial employee was used to complement the data with patterns carrying through the levels of authority.

3.5 Ethics

The collection, storage and processing of data obtained through interviews and documentation was conducted according to university policy and relevant legislation. After informing interviewees of the broad purpose of the research, willing verbal or written consent of participants was obtained before conducting and recording interviews. All names are anonymised in the thesis. The citation of statements was discussed with the respective interviewees beforehand to ensure these statements were used in their appropriate context and translated correctly.

4. Results

4.1 Culemborg

Within the municipality of Culemborg, three green space CLIs are active in their own areas of expertise and interest.

Stichting Terra Bella is a foundation focused on organizing green space maintenance in the ecological neighbourhood of Lanxmeer. Terra Bella was initiated in 2004 through collaborative efforts between local inhabitants and the municipality (Stichting Terra Bella, n.d.). It aims to achieve the dual goals of ecological maintenance and social cohesion within the neighbourhood by organizing green space maintenance with inhabitants through "wijkdagen" (neighbourhood maintenance days) and individual responsibility for patches of land.

De Tuinpiraat (TP) is an initiative which runs a local nature playground in a Staatsbosbeheer-owned forest at the southwestern edge of Culemborg's municipal territory. It was initiated 15 years ago by a small group of citizens, who continue to organize several playdays a year. Its aims are to provide a location for children to play freely yet safely in nature, increasing their contact with nature and providing space for creative play (Tuinpiraat, n.d.). The area and used by Staatsbosbeheer as a wood production area, but is open to the public for recreation purposes.

De Culemborgse Stichting van Volkstuinen (CSV) is a foundation set up to manage the lease of plots to local inhabitants for vegetable gardens. It was initiated with the goal of providing land for inhabitants to grow their own food and enjoy their leisure time in nature (De Culemborgse Stichting van Volkstuinen, 2017). The location itself is freely accessible and visible from the adjacent neighbourhood Hoge Prijs, which requires renters to keep their vegetable plots tidy.

4.1.1 Actors
The actors present in around green space CLIs in Culemborg function as key providers of resources such as land and professional services, enabling green space CLIs to organize their activities. Such actors do not only comprise the municipality, but also other actors with formal agreements on the

use of resources such as land and services. This is visible in Table 4, in which actors in Culemborg and a rough outline of resources they contribute to activities of green space CLIs is shown.

Initiative	Financial	Land	Material	Human resources: volunteers	Human resources: professionals
TerBel: own		renting a shed for storage	equipment for maintenance by volunteers	neighbourhood inhabitants for maintenance and volunteer board members	hired coordinator for green knowledge and CLI-management skills; hired green professionals for green knowledge and guidance
TerBel: MUN	annual subsidy for green maintenance	municipally-owned land, permission to use and maintain			municipal green professionals performing municipal duties; informal guidance during negotiations with Vitens
TerBel: other		Vitens-owned land (orchard), permission to use and maintain			
TP: own	investments from volunteer board members; crowdfunding for activities		equipment for maintenance for volunteers; play material for activities	volunteers for maintenance and activities; volunteer board members	hired professionals for constructing and clearing stream
TP: MUN					
TP: other	crowdfunding for start by private and civil organizations	Staatsbosbeheer-owned land, permission to use	SKPC: play material		
CSV: own	income from gardeners renting vegetable patches	self-owned section	CLI-owned pumps, gardeners invest in own necessary material	gardeners renting vegetable patches; volunteer board members	hired professionals to clear old vegetable patches
CSV: MUN	occasional support for investments in municipally-	municipally-owned section, rented for symbolic sum	repairs to infrastructure of municipally-owned section,		municipal green professionals performing municipal duties

	owned section of land		yearly waste container for municipally-owned section		
CSV: other					

Table 4: Actors and resources present around green space CLIs in Culemborg

As shown, Terra Bella and CSV organize their respective activities on land partially owned by the municipality. Both CLIs have multiple land owners: Vitens owns a forested water extraction area bisecting Lanxmeer, and CSV owns half of its land due to a historic donation of the Elisabeth Weeshuis. An exception is the Tuinpiraat, which is entirely located on land owned by Staatsbosbeheer. Agreements on the use of both public and private land have been formalized between land owners and green space CLIs, in order to outline the organization of activities and duties performed by either.

Green space CLIs do not only collaborate with their respective land owners: as visible in Table 4, private actors also contribute. These private actors are tied to green space CLIs through formal agreements for provision of services which are difficult for green space CLIs to provide within the limitations on their own material. An example is the agreement between CSV and a local professional who owns heavy equipment for property maintenance:

> If gardens are freed up, someone dies or just gives up, it's standard procedure to mill the land, which is what he does. And certain jobs, heavy-duty jobs, those too.
> - board member of CSV (personal communication, April 12, 2022)

Services of private actors can be material-based, such as illustrated above, or based on expertise, such as the green skills and guidance provided to Terra Bella by Persimoen. Such services provide expert human resources rather than volunteer resources, allowing green space CLIs to direct their volunteers to tasks they are better suited to perform.

4.1.2 Resources
The contribution of actors to green space CLIs extends beyond land and services, with customized in-kind and financial support of land owners, standardized municipal support, and internal resources of green space CLIs notably present in interviews and documentation.

Land owners contribute to "their" CLI with a range of resources. Vitens allows Terra Bella and residents of the neighbourhood to claim the harvest of the orchard for own use. The BEL (Bewonersvereniging EVA Lanxmeer) as homeowners association provides Terra Bella with legitimacy.

> We are accountable to the BEL. Technically we're accountable to the municipality, but we work in the interests of the BEL.
> - board member of Terra Bella (personal communication, April 18, 2022)

This dual accountability translates to an annual financial audit by the neighbourhood committee, alongside a similar audit performed by the municipality. The municipal audit is included in the conditions of the formal maintenance agreement, to ensure responsible financial and public green management as based on the maintenance plan. The audit performed by the BEL on the other hand

is, as shown above, based on accountability for green space quality of inhabitants as represented by the BEL, rather than strictly financial accountability.

For CSV, the only other landowner besides the municipality is the foundation itself. The foundation charges a fee for people to rent the vegetable plots, which forms its primary source of income. As the Tuinpiraat is not located on municipal land, it does not receive any official support from the municipality and instead signed the agreement of use with the land owner, Staatsbosbeheer.

> The land is owned by Staatsbosbeheer, the municipality is not responsible for that. So essentially they can do whatever they like, as long as it's been discussed with Staatsbosbeheer.
> - municipal employee (personal communication, May 12, 2022)

Staatsbosbeheer contributes material aid by providing a choice of young trees to replace those removed for production. These examples are all highly dependent on the green space used by green space CLI rather than its community-led aspects, as contributing actors are directly tied to the physical area itself (Dorst et al., 2022; Mattijssen et al., 2018).

Additionally, the municipality also provides different kinds of formal support of the municipality to Terra Bella and CSV. Terra Bella receives financial support only. This financial support is equal to the budget which municipal green maintenance would receive for the area, and is intended to be used for all green maintenance activities of Terra Bella. Any money saved or generated by Terra Bella can be used for other maintenance- of public space-related investments, as stipulated in the formal agreement with the municipality. CSV receives financial support through an agreement with the municipality to rent land for a symbolic sum rather than its actual value. Material support is also provided through the free annual provision of a waste container for gardeners to dispose their waste in, and repairs to infrastructure such footpaths (see Table 4). However, this support is limited to the section of land rented of the municipality rather than the entire area. This specific choice of support aligns with literature on NBS and CLI which notes that the limited means of municipalities creates more specific resource provision (Toxopeus & Polzin, 2021; Van de Griend et al., 2019).

The municipality also provides resources for smaller CLIs concerning maintenance of green spaces, such as geveltuintjes (façade gardens, slender rectangular gardens along sidewalks) or neighbourhood maintenance of public green spaces. However, in contrast to the agreement with Terra Bella, the municipality does not provide any financial support. Instead, the municipal green department provides support to ready the area and, if requested, providing more diverse vegetation. Additionally, for neighbourhood maintenance, department employees remain active when the initiative is already operational.

> We also give advice, or we help once or twice to show "this is how you prune it, or you shouldn't prune this at all". In that way we always keep offering a helping hand.
> - municipal employee (personal communication, May 12, 2022)

This aid is similar to services provided by private actors to CLIs: material resources or expertise related to green maintenance which is not easily accessible to civic actors is provided by larger, external organizations in order to allow civic actors to perform their tasks.

CLIs contain many resources as well, mainly human resources through volunteers and in-kind resources such as gardening equipment. Volunteers are requested through communications with

their local support base, and financial resources are provided through CLI activities such as selling snacks on Tuinpiraat playdays or payment of rent for vegetable plots. In-kind resources can be bought through municipal support or alternative financial resources, such as crowd funding organized by the Tuinpiraat. At the heart of all three CLIs are their boards, with volunteers organizing events and administration. These volunteers possess a variety of skills, such as financial management or green maintenance education, which allows them to limit the amount of knowledge they need to import to run the CLI. For Terra Bella, the board is complemented by a hired green professional to organize contact with the municipality on shared maintenance, decreasing the work load of the volunteer board members. De Tuinpiraat does not require a hired green professional, despite its responsibility to maintain the area for play activities. Any maintenance required can be done by volunteers in the board who possess professional knowledge and material for this task, and there is no need for intensive coordination with Staatsbosbeheer to do so. Several board members also mentioned their active involvement with other local nature or social organizations in the region, creating and using their connections to other civil organizations for the green space CLI. This tacit and local knowledge on top of volunteer time allows access to other resources, making human resources a highly versatile and vital resource for CLIs.

These types of resources activated by green space CLIs are in line with literature on CLIs. Mattijssen et al. (2018) in particular highlight the wells of civil and local resources they can draw upon. These resources, such as human resources, time of volunteers or locally held resources are often more difficult to access for public actors. CLIs can access these resources due to the combination of their close position to inhabitants and the promotion of local interests which provides motivation (Mattijssen et al., 2018; Ulug & Horlings, 2019).

4.1.3 Rules

The actors providing resources to CLIs also set requirements to which they have to adhere (Dinnie & Holstead, 2018). These requirements must be met in order to receive their material support, such as conditions under which land can be used. Thus, rules set by other actors affect activities on which capacities of green space CLI are spent.

Generally, these rules are set by the municipality. Even when the municipality does not own the land, such as half of the land at CSV, the municipality still has territorial jurisdiction. For green space CLI, these responsibilities are mainly based around green space, such as maintenance standards, public space, and infrastructure and safety, as several instances were mentioned by all initiatives. Once again, this aligns with literature on both NBS and CLI stating that the municipality, as actor closest to them, is most relevant in terms of policies (Celata & Coletti, 2018b; Edelenbos et al., 2021).

Table 5 outlines the duties taken up by relevant actors, with four aspects highlighted in the text below.

Initiative	Duties green space CLI	Duties MUN	Duties landowner	Evaluation
TerBel	maintaining agreed-upon area, managing administrative duties, insurance	maintaining agreed-upon area and infrastructure	Vitens: none municipality: see duties MUN	bi-annual inspection together, financial check by MUN and BEL
TP	making area play-ready, organizing playdays in line with land owner rules, managing administrative duties, insurance	safety of service road leading to area	Staatsbosbeheer: ensuring area safety, providing new trees after removal	bi-annual inspection together
CSV	managing land to keep it neat and accessible, accommodating municipal maintenance, managing administrative duties	maintaining paths and fencing around municipal area, maintaining public green space around the entire area	CSV: see duties green space CLI	bi-annual inspection together

Table 5: Rules of the game applying to actors respective to green space CLIs in Culemborg

Firstly, responsibilities of the municipality are often centered around maintenance, either of the green spaces themselves or areas bordering these locations. For Terra Bella, there is a division of labour with the municipality on what green spaces are maintained by whom.

> Broadly speaking, the agreement with the municipality is that the municipality remains responsible, and takes care of green space quality and safety. To ensure that, there are regular checks and agreements, but at least an evaluation twice a year. And [green maintenance] is partially outsourced to the neighbourhood of Lanxmeer, organized through Terra Bella.
> - board member of Terra Bella (personal communication, April 20, 2022)

For CSV, municipal responsibilities requiring joint effort mainly concern infrastructure maintenance such as fences or footpaths. This difference is linked to CLI duties and where these overlap with municipal responsibilities: due to CSV owning part of the land, infrastructure maintenance is also part of their duties. To ensure the municipality can fulfill its responsibilities, green space CLIs have to keep certain areas free for machines to access it. For both CLIs, municipal tasks are mainly those for which larger (municipally-owned) materials such as mowing machines or aerial work platforms are necessary. Such tasks, such as tree maintenance, are often difficult for CLIs to perform independently due to high costs and safety-related responsibilities for municipalities. Both CLIs mentioned their active role in communication with the municipality on any duties they would like the municipality to take up, allowing for a clear understanding of responsibilities for both actors.

The Tuinpiraat has a similar relationship of accountability and communication to Staatsbosbeheer.

> We have very good contacts with Staatsbosbeheer. Because we come here regularly for
> maintenance, and then we see that a tree has fallen down. Then we call Staatsbosbeheer— or
> something has been destroyed, you know— we notify them, so we keep an eye on that. And the
> other way around as well, if there's something going on, they notify us too.
> - initiative member (personal communication, April 9, 2022)

Secondly, duties performed by CLIs are determined by both their own objectives and frameworks applied to them by the municipality or landowner. These duties are often enscribed into the formal agreement, such as on maintenance of green space to the satisfaction of its owner. Two examples of Terra Bella highlight how objectives and frameworks can intersect, and how they can exist separately. Terra Bella maintains the smaller paths in the neighbourhood as stipulated by the agreement with the municipality. To achieve their own objectives as well, maintenance to these paths is often done during communal maintenance days by inhabitants, thus increasing social interaction and time spent in nature. Terra Bella also celebrates the annual apple feast in the orchard owned by Vitens (Stichting Terra Bella, n.d.). While its maintenance is part of the agreement with Vitens, the feast is entirely for Terra Bella's own objectives of social cohesion by organizing a neighbourhood-wide party. Thus, CLI duties are not solely determined by the frameworks they are subject to.

Thirdly, the division of labour is checked through evaluation and monitoring. This varies per land owner: while Vitens does not monitor maintenance to the orchard, the municipality and Staatsbosbeheer actively evaluate green space maintenance by the CLIs. This occurs through annual visual inspections where initiative members, their contact person, and employees with green maintenance expertise walk across the terrain and discuss any developments. For CSV and the Tuinpiraat, this evaluation is mainly to examine the state of the area and to discuss any tasks which must be taken up to make the area as neat as both desire. Neither CLI receives financial support from their respective land owners and are therefore not reliant on their approval for their financial resource stream. As the municipality provides both land and financial resources to Terra Bella, their evaluation is directly connected to the subsidy provided, with the evaluation touching upon the current and future division of tasks between the two actors and subsequent financial support.

> So you have an inspection where you walk around twice a year. And at first it was absolutely the
> case that the municipality checks if everything is going as it should, which is logical, it's their
> responsibility. […] After a couple of years it became more of a collaborative view, to look at ideas
> or to see if certain goals or additional benefits were possible.
> - board member of Terra Bella (personal communication, April 20, 2022)

As illustrated above, this form of evaluation is informal despite its importance, and serves as a form of regular face-to-face contact between municipalities and green space CLIs. During these meetings, new ideas for the upcoming years can also be discussed, providing a space for experimental collaboration as well as existing collaboration.

Lastly, part of the duties of the CLI are bureaucratic as well. All three CLIs are formally registered as foundations, and both Terra Bella and the Tuinpiraat have insurance for working with volunteers for damage claims as well. Financial records are kept for internal administration, but also for external

justification of spending towards actors providing such resources (see Table 4). All these formalized aspects provide a form of legitimacy for green space CLIs, but also additional work for volunteers on the board.

For smaller and less organized green space initiatives, such as façade gardens, the municipality of Culemborg uses formalized agreements as well for citizens wishing to start such an initiative. These agreements highlight requirements for "draagvlak", translated as local and continuing support of the initiative, and duties taken up by citizens of the initiative. Examples include imparting façade gardens to new residents in case of property sale, and responsibilities of regular watering and maintenance for a tidy appearance. These developments are in line with the research of Celata and Coletti (2018b) who highlight the increasing formalization of urban green space initiatives by local public actors which can stifle its creative forms and activities.

4.1.4 Reflexivity

With actors, resources and rules set out, reflexivity is also applied to these rules for resource use and green space activities. Flexibility and learning capacities are visible in the role of municipal employees, strategic interaction, responses to aligned objectives, and the presence of the Initatievenloket, all illustrated with examples from interviews.

Municipal employees serve as official contacts between municipalities and green space CLIs, who function as policy entrepreneurs. Interviewees from each initiative highlight that these individuals provide translation between the green space CLI and the municipality, and navigate the municipal system for the CLI in order to achieve their objectives. In the literature these actors are defined as entrepreneurs or leaders: actors who use their specific resources in order to increase and integrate experimentation (Edelenbos et al., 2021; Hassink et al., 2016). This is most relevant at the start of the initiative, as exemplified by the close collaboration between a municipal employee and Terra Bella for the initial agreement and the close collaboration between CSV and their permanent municipal contact for the relocation of part of its gardens. However, once these initiatives are steadily on their way, these employees change their predominant activities from experimentation to translation and navigation. They increasingly become boundary spanners, guiding their respective CLI through the municipal system and providing them with knowledge of developments which can affect their plans and ideas (Hassink et al., 2016).

This relationship is not one-sided. Initiatives are aware of the importance of these individuals and the trust built up between them, as mentioned by several members of CLIs.

> In the beginning it could be quite difficult, that relationship […] but eventually those contacts have become quite close and we've received material from them, and especially their trust that we're doing good things. (personal communication, April 19, 2022)

> I consciously worked for that to keep that relationship going, because it pays itself back. (personal communication, May 9, 2022)

> He has always been our point of contact. He has helped us get through some very difficult times in the municipality. (personal communication, April 20, 2022)
> - members of the various green space CLIs

Examples of their aid include legal advice, solving infrastructure problems, functioning as a municipal contact with other relevant organizations, and creating a space for CLIs to contribute their wishes to formal policies. In return, CLIs use local human resources and communicate readily with their contacts to inform them of developments in the area which might be of interest to the land owner, such as dangerous situations. These increased communications with standard contact points allows municipal employees to optimize municipal capacity towards that which the CLI actively needs.

Such relationships are to the advantage of both sides, and many of their objectives visibly align. Examples include ecological and high-quality green space maintenance, and increased social interaction between citizens. The initiatives use this alignment between policy objectives of the municipality and objectives of the initiatives. They interact purposefully and strategically to propel their interests by obtaining more resources or stable public support, as illustrated below.

> The strategy is that occasionally, or sometimes more often than that, you have to emphasize that there are mutual goals between what we have as objectives and the municipality.
> - initiative member (personal communication, May 9, 2022)

The municipality is aware that their respective objectives align, and responds by providing resources when the objectives of green space CLIs and municipal policy are similar. Such instances include positive civic engagement and local benefits arising from CLIs: however, support is reliant on policies currently deemed valuable by the municipality, creating a potentially unstable foundation for resources obtained this way. Regardless, the mutual benefits creates reflexivity from both sides, to interpret rules to fit with both formal frameworks and the needs of CLIs. Both actors collaborate on this in an environment of trust such as yearly evaluations, allowing for experimentation from both sides.

A closing example which highlights both rules set by the municipality and its awareness of the need to be flexible when dealing with CLIs is the Initiatievenloket. The Initiatievenloket is a municipal entry point for prospective CLIs, where municipal employees discuss the idea with initiators and connect them with any relevant municipal departments for any formal requirements. This entry point is flexible, translating the various functions of initatives into the perspective of municipal departments.

> During that first conversation, I hear lots of things, and I think okay, connection here, and there, and there. And then I connect someone to those [civil servants], I inform them. And then I withdraw again. Then the filter of the Initiatievenloket has done its job.
> - municipal employee (personal communication, May 12, 2022)

This flexibility accommodates the multidisciplinary of the CLI by providing connections for the various functions it contains. To stimulate this, the Initiatievenloket contains employees from several municipal departments which therefore allows for a variety of expert perspectives. This municipal initiative aligns with the findings of Buijs et al. (2019) on the potential of "a front office for active citizenship" (p. 60) to enable CLIs related to urban green spaces.

4.1.5 Summary

The interactions between the municipality of Culemborg and its green space CLIs are generally positive. The municipality formally limits interactions to what it considers to be part of its duties, but individual municipal employees extend them to other aspects which they perceive to be helpful to

both the objectives of the municipality and the objectives of CLIs. This mainly concerns human resources rather than financial or material resources. While the municipality does provide financial and material support to the CLIs within its jurisdiction, other actors which are tied to the physical green space contribute other resources and provide a rich web of frameworks and interests which affect the policy arrangement surrounding the green space CLIs as well. The green space CLIs actively work to maintain their points of contact and increase flexibility to achieve their own objectives. At its core, these points of contact are vital to the success of their interactions through their building of familiarity and easy access to information. The municipality and green space CLIs are aware of this, as exemplified by the active engagement of green space CLIs and the municipal creation of the Initiatievenloket. Thus, the municipality provides both fixed structures for the CLIs to adhere to and flexibility through their accumulated knowledge of both the municipality and the CLIs.

4.2 Wageningen

Groen Kortenoord (GK) is an informal initiative functioning as an umbrella organization for all green spaces which are maintained by local inhabitants in the neighbourhood of Kortenoord. It was set up in 2019, and there are currently plans to expand its functions to formally organize green space maintenance in the neighbourhood (Groen Kortenoord, 2022). To do so, it would require financial support from the municipality. Its aims are to improve the quality of green space maintenance in the neighbourhood, and to increase social cohesion between inhabitants by maintaining green spaces in the neighbourhood together. While the initiative is not yet formalized, it supports many small informal green space initiatives in the neighbourhood.

Mooi Binnenveld (MB) is an initiative consisting of both an association and a foundation of the same name which are centered around the area of the Binnenveldse Hooilanden and the Groene Grens. This Binnenveldse Hooilanden were split up and sold in 2019 by the province of Gelderland to the association Mooi Binnenveld, the Boerencoöperatie and Staatsbosbeheer respectively (Mooi Binnenveld, n.d.b). Mooi Binnenveld has as its dual aims to protect and maintain its 50 hectares of land and to educate and enthuse the public. To achieve these goals, it receives a maintenance budget from SNL (Subsidieverordening Natuur- en Landschapsbeheer), and regularly organizes lectures and tours through the area.

Stichting Wageningse Eng (WE) is a foundation created to represent and achieve the interests of the variety of actors present in the Wageningse Eng, a natural area at the edge of Wageningen. This historical natural area serves recreational, economic and cultural-historical functions, which the foundation aims to harmonize (Stichting Wageningse Eng, 2022). To do so, the Stichting Wageningse Eng works on local projects and has regular contact with actors and the municipality to activate them.

4.2.1 Actors

The municipality of Wageningen is not the only nor the most important actor for the three green space CLIs, as multiple public actors are involved with green spaces as opposed to the prominent role of the municipality in Culemborg.

This is visible in Table 6 in which actors in Wageningen and a rough outline of resources they contribute to activities of green space CLIs is shown.

Initiative	Financial	Land	Material	Human resources: volunteers	Human resources: professionals
GK: own	investments from volunteer board members		equipment for maintenance by volunteers	neighbourhood inhabitants for maintenance and volunteer board members	professionals living in the neighbourhood
GK: MUN		municipally-owned land, permission to use and maintain Buurtgroen areas	in-kind aid with municipally-sanctioned projects		municipal green professionals performing agreed-upon duties
GK: other	Wageningen Doet & WUR funding individual projects	local entrepreneur-owned land (compost heap), permission to use			
MB: own	membership fees; income from activities; crowdfunding for land purchase	self-owned land	equipment for maintenance by volunteers	volunteers for maintenance, activities and monitoring; volunteer board members; members of the association	Board of Recommendations; hired green professionals for green knowledge and guidance; hired professionals for mowing
MB: MUN	subsidy Groene Grens (Veenendaal); initial financial support for land purchase; financial support for educational program (Ede)				
MB: other	SNL subsidy for green space maintenance	Waterschap: ownership of waterways			province: management support at initiation of CLI
WE: own			owners invest in their own areas	volunteers for maintenance and activities; volunteer board

				members	
WE: MUN	annual subsidy for upkeep foundation	municipally-owned sections			municipal green professionals performing municipal duties
WE: other		various owners			KNNV: professionals for biodiversity monitoring

Table 6: Actors and resources present around green space CLIs in Wageningen

As visible above, there is a wide variety of actors which are formally relevant to the green space CLIs. This is partially due to the variety of land owners. The municipality is legally responsible for the area on which Groen Kortenoord and the Stichting Wageningse Eng operate, and maintains the infrastructure in and around the Binnenveldse Hooilanden. These areas have multiple land owners, which increases the actors with which the green space CLIs have to communicate: the province of Gelderland and the Waterschap share responsibility for the Binnenveldse Hooilanden, and part of the Wageningse Eng has different land owners. To facilitate these communications, multiple formal agreements between CLIs and various owners are present. Aside from land owners, green space CLIs also have connections with other public actors through formal agreements on funding or resource use which are explored in Section 4.2.3..

Several civil organizations have formal collaborations with green space CLIs. Various interviewees mentioned the help of civil organizations in providing legitimacy, through their expert knowledge and human resources. This is most visible at Mooi Binnenveld, which was supported by several local nature organizations in the design of their maintenance plan and continues to receive human resources to fulfill their monitoring obligations. Similarly, Stichting Wageningse Eng receives help from the local branch of the KNNV to provide expert knowledge as input for future policies. Such expert knowledge is otherwise unavailable within green space CLIs themselves due to their reliance on volunteers. By using expert knowledge, activities can maximize CLI capacity to organize activities and achieve their objectives.

4.2.2 Resources
With a larger group of actors with formal ties to green space CLIs, provided resources are also more dispersed among these actors, with limited municipal support, other public actors, and local resources emerging as key aspects.

As visible in Table 6, the municipality provides financial support for both Stichting Wageningse Eng and Mooi Binnenveld. Mooi Binnenveld received funding from the municipality of Wageningen when it was raising funds to buy the land from the province. Stichting Wageningse Eng receives a small stipend from the municipality to run their projects and buy any resources necessary to maintain contact with the various users of the Eng. In both cases, the objectives of the municipality align with the continued functioning of these initiatives, as attested to by municipal employees and members of the green space CLIs.

However, none of this financial support is for green space maintenance despite Mooi Binnenveld and Groen Kortenoord sharing this objective with municipalities. As Mooi Binnenveld is located on

land owned by the province, they do not receive municipal subsidy for green maintenance; as Groen Kortenoord does not yet have an agreement with the municipality on taking over part of municipal green maintenance, neither do they.

The separate initiatives included within Groen Kortenoord do receive non-financial support from the municipality as they are official Buurtgroen initiatives. Such initiatives maintain small plots of public land.

> Until approximately four years ago you could receive a subsidy for Buurtgroen, but not anymore
> […] because it has becomes so popular. And at first we had set up a subsidy scheme to make it
> more attractive.
> - municipal employee (personal communication, June 28, 2022)

This quote illustrates that Buurtgroen is not only for the benefit of citizens, but that it benefits the municipality to such a degree that they formally stimulated its uptake. Now that it is a popular feature, the municipality no longer provides financial support as it is no longer perceived to be necessary. Instead, people can request support from municipal green workers for clearing a plot and additional support if they require it, and they are allowed to use Buurtgroen initiatives do not receive special plant material, but leftover plants can be provided if in stock and green waste from pruning is removed upon request.

With limited financial resources provided by the municipality, other public actors take up this responsibility. As visible in Table 6, the WUR supports a new initiative within Groen Kortenoord to start up a Green Library, a place where residents can exchange plants. The province of Gelderland has provided human resources to manage the process of organizing the various parties involved in the Binnenveldse Hooilanden, and provided access to EU funds for the Waterschap to redesign the Binnenveldse Hooilanden. Mooi Binnenveld also receives a maintenance subsidy from the municipality of Veenendaal to maintain the Groene Grens, a nature area owned by that municipality and maintained by Mooi Binnenveld. All these actors provide resources which are difficult to gather for CLIs on their own, and which are used for activities which support shared objectives such as quality green space maintenance.

Most resources are contained within CLIs themselves, of which human resources are the most important resource these organizations can call upon. Inhabitants living in or near areas where green space CLIs are active are kept up to date through the respective websites, on which communications regarding volunteers and events are posted (Mooi Binnenveld, n.d.b.). The boards, comprised of volunteers with experience in a variety of disciplines, organize these communications to mobilize resources along with organizing activities and managing the administration for the initiative. They also use their own resources for this, such as locations, expertise and connections to related organizations.

One vital resource addressed by all CLIs are skilled human resources contributing to the organizational board. These skilled professionals mainly includes those with both green skills and organizational skills to do green maintenance which cannot be done by volunteers and to coordinate and guide volunteers in what they can do. Mooi Binnenveld has hired two such professionals with the subsidy money it receives, and Groen Kortenoord aims to hire one once they expand their

functions to neighbourhood green maintenance. These individuals contribute their organizational and green capacities to enable the work of green space CLIs.

Lastly, the presence of the university in Wageningen contributes its own, local resource, from which all green space CLIs profit.

> There are a lot of people here who are connected to or actively work at the university. That's a lot of desk work, and they really enjoy to do something more physical on other days. I think a lot of them are really interested, but also a lot of people with knowledge, who are involved and who provide input.
> - member of Groen Kortenoord (personal communication, June 15, 2022)

As shown above, the presence of the university allows green space CLIs to profit from 'expert volunteers' with either green skills or green expertise. Such "expert volunteers" are a valuable human resource which increase the amount of resources available to CLIs without requiring additional financial resources, merging the most useful attributes of both experts and volunteers as a human resource. This cannot be separated from the presence of the university in Wageningen, which provides a central point for information and a work environment for individuals with theoretical and practical green skills.

4.2.3 Rules
The wide support network the green space CLIs in Wageningen draw upon for their resources affects the rules they have to adhere to in order to maintain their support. This affects the activities they organize with their resources, and limits their interaction with the municipality as merely one of many rather than primary resource provider.

Table 7 shows the duties which are taken up by each of the relevant actors, with four interesting aspects highlighted below.

Initiative	Duties green space CLI	Duties MUN	Duties (other) landowner	Evaluation
GK	maintaining green spaces alotted by Buurtgroen, organizing neighbourhood events, managing administrative duties, insurance	maintaining public green spaces		MUN: separate buurtgroen areas monitoring (no timespan)
MB	maintaining the Binnenveldse Hooilanden and the Groene Grens, organizing events, managing administrative duties, insurance	maintaining infrastructure in the area	Waterschap: maintaining waterways	MB association: yearly meeting Province: five-yearly evaluation, yearly reporting

| WE | organizing events, organizing projects to improve the area, providing advice to the municipality, managing administrative duties | maintaining public green spaces | various: maintaining private areas | WE members: annual evaluation |

Table 7: Rules of the game applying to actors respective to green space CLIs in Wageningen

While the municipality of Wageningen does not own all of the land, it affects green space CLIs through rules and policies surrounding maintenance standards, public space, and infrastructure and safety. In contrast to Culemborg, green space CLIs have less intensive contact with the municipality. The subsequent independent functioning of initiatives in Wageningen thereby reduces the amount of initiative-specific duties for the municipality aside from enforcing boundaries and providing resources where necessary, such as for singular instances of coordinated maintenance for initiatives within Groen Kortenoord.

This relative independence increases the amount of duties for which green space CLIs are responsible. While their duties are determined through both their own objectives and the frameworks applied to them by the municipality and various landowners, minimal engagement between the municipality and green space CLIs increases the tasks CLIs have to perform independently. The duties and tasks are all enscribed into formal agreements: in theory there is therefore evaluation and monitoring, but in practice interviewees from both the municipality and green space CLIs mentioned this is not strictly adhered to. This allows for CLIs to focus more on their own objectives, as less resources need to be directed towards fulfilling formal duties.

These two types of duties can be combined or kept separate, as shown with examples of Mooi Binnenveld. As agreed upon with the province, the Binnenveldse Hooilanden are maintained and accessible to the public. Mooi Binnenveld also organizes maintenance of the Groene Grens, a nature area near the municipality of Veenendaal, despite this not being land owned or sold by the province and therefore not required. Mooi Binnenveld has agreed to take up these duties however in order to increase their knowledge of how to maintain areas with similar ecosystems and speed up the development of the Binnenveldse Hooilanden using local seeds. Thus, Mooi Binnenveld pursues its own objectives as well.

While the municipality is not very active, other landowners do provide input on the duties of green space CLIs through various feedback mechanisms.

The Stichting Wageningse Eng has a list of different users of the area, ranging from farmers to residents, all of whom are represented in the Raad van Advies (Advisory Council). The council members each represent their user type, and provide feedback on ideas and projects of the board as shown below.

> If we get a question from the municipality on what we think about a certain issue, we first ask our [Advisory Council].
> - board member of Stichting Wageningse Eng (personal communication, July 6, 2022)

This feedback mechanism is part of their duties, as the Stichting Wageningse Eng aims to implement the various functions of the Wageningse Eng in accordance with the wishes of its users. While the foundation does not have authority of these users, their input provides projects with legitimacy and local support. Mooi Binnenveld on the other hand independently maintains the land it has bought, but coordinates its maintenance duties and developments with other land owners in order to share resources and reduce costs. While neither green space CLIs has formal authority over maintenance activities performed by other land owners, there is an active effort to maximize the effects by coordinating actions across land owners.

> Every single one of the three parties manages their own territory. But there is one maintenance plan. And there is monthly deliberation between the parties about the current affairs surrounding the maintenance. So there is solid coordination, but in practice each of the parties is responsible for their own territory.
> - board member of Mooi Binnenveld (personal communication, June 22, 2022)

The duties of green space CLIs are monitored and evaluated, but not by the municipality. Instead, interviewees of each CLI emphasize that they take their own responsibility in monitoring their progress and evaluating it with actors they deem relevant. This varies for each CLI, as each has different landowners with different priorities. Groen Kortenoord communicates with neighbourhood residents about the progress of its projects. Mooi Binnenveld has an ongoing formal monitoring and evaluation duty to the province, with local volunteers monitoring agreed-upon biodiversity aspects and a yearly report provided to the province. There is also a general meeting of members of the association of Mooi Binnenveld where members monitor and provide input into decisions of the association and the foundation. The Stichting Wageningse Eng has a formal evaluation process with the municipality: however, thus far it has not been utilized according to the foundation. The foundation's Advisory Council provides monitoring and evaluation when necessary on specific cases.

The monitoring of the duties of CLIs mainly occurs through bureaucratic processes, as shown with the example above of Mooi Binnenveld. All CLIs are either registered as a foundation or planning to register as one, for a variety of reasons succinctly summarized by one of the interviewees.

> Look, it's also especially for the legal side of it all. The biggest property is of course the land itself, and it is pleasant that that's solidly safeguarded in the foundation. The association is a lot of participation and all, and you'd prefer the land to be stable in a foundation where a good board is accountable for it.
> - board member of Mooi Binnenveld (personal communication, June 28, 2022)

This example shows why CLIs choosing to formalize themselves. Firstly, Mooi Binnenveld was required by the province to organize themselves formally in order to be eligible to receive the land. The form of a foundation was chosen for its stability in land ownership and tax benefits available for citizens participating in crowdfunding. The association was set up at a later point, in order to provide a formalized way to allow memberships and public input, and to organize educational objectives. Lastly, Mooi Binnenveld also chose to use their status as a foundation to register as a member of the

Bosgroep Midden-Nederland in order to access the maintenance subsidy of SNL (Subsidieverordening Natuur- en Landschapsbeheer). Thus, while bureaucratic obligations create more work, the formalization itself allows them access to legitimacy and resources. This aligns with literature on isomorphic pressure and frameworks, which provide entry to existing structures and resources (Celata & Coletti, 2018b; Dinnie & Holstead, 2018).

Financial records are kept for both internal administration and external justification of spending, and the extensive work with volunteers requires Mooi Binnenveld to take out volunteer insurance as well. While Groen Kortenoord is not a formal entity yet, insurance for volunteer work is already included in their organizational proposal, showing the necessity of this formal aspect for the functioning of CLIs reliant on volunteers. These formalized aspects of the CLI provides a form of legitimacy, but also additional work for the volunteers on the board: however, all CLIs have a specialized board member organizing this aspect.

In general, the municipality of Wageningen has a formalized procedure for several types of green space CLI called Buurtgroen, using standardized agreements outlining the features and requirements for each type.

> The destination 'public' is not permitted to be changed. You can therefore not use the area as vegetable garden. Additionally: do not place fences or other blocking structures. Storage or placement of built structures is not permitted either. A compost heap, compost vat, chicken coop etc. is also considered to be a built structure. Additionally, chickens, compost etc. can cause nuisance for other residents.
> - fragment from standard agreement for Buurtgroen (personal communication with municipal employee, June 28, 2022)

These agreements highlight permitted actions and duties taken up by citizens responsible for such CLIs. The reasoning behind these permitted actions is, as illustrated above, largely linked to duties in the public green space which would otherwise be the responsibility of the municipality. Other examples include requirements for façade gardens to exclusively plant vegetation which does not create deep root systems to avoid damaging underground infrastructure, and responsibilities of regular watering and maintenance for appropriate appearances.

4.2.4 Reflexivity

With a larger network of actors providing both resources and rules, there are also more options for reflexivity concerning resource use and green space activities, leading to more internal variation among CLI activities. In Wageningen, the informal acknowledgement of the value of green space CLIs, lack of steady contact, distance to the municipality, and subsequent unsanctioned bending of rules stand out.

Both sides acknowledge that objectives of CLIs contribute to municipal objectives, and that their capacity for experimentation unlocks valuable resources.

> That's why we said, that's what the Stichting Wageningse Eng is for. They've sprung into life to— and that is word-by-word in their articles of association— to develop initiatives which improve the quality of the Eng.
> - municipal employee (personal communication, July 11, 2022)

This quote illustrates the value of the foundation to the municipality: they provide a central contact point and an active initiative striving to improve the area, both of which benefit the municipality and its policies. The municipality funds Stichting Wageningse Eng to perform these functions. Groen Kortenoord on the other hand performs similar functions by providing a central point of contact for neighbourhood green space initiatives and implementing projects to improve the social ties within the neighbourhood, and is not formally acknowledged by the municipality.

This lack of municipal support despite aligned objectives is linked to the relative lack of policy entrepreneurs. Most policy entrepreneurs are present on the side of the green space CLIs, and those on the side of the municipality do not appear to have enough time for meaningful contact with the CLIs. Existing formal agreements are adhered to, but experimentation and individual CLI action are less common.

Several municipal employees with more regular contact with green space CLIs strive to fulfill their function as boundary spanners instead. An example is the careful monitoring of plant material in municipal storage for maintaining its green spaces. When there is leftover vegetation, Buurtgroen initiatives which have previously requested plants are contacted whether they are interested: thus, municipal resources for green initiatives are optimized by municipal employees using their knowledge of both municipal capacity and requests made upon it.

The lack of policy entrepreneurs limits the time and resources available for experimentation. CLIs are aware of the limited resources available to the municipality and act upon that, as illustrated by the quotes below.

> We just couldn't make it work together. So let's start small, then. That's easier for everyone involved. (personal communication, June 15, 2022)

> If we see possibilities, we seize them. And then we try to find out which civil servant belongs to that department, and we personally contact them. (personal communication, July 7, 2022)
> - members of various green space CLIs

There is a distance between the municipality of Wageningen and the three green space CLIs chosen for this case study. This distance is enabled through bureaucratic structures intended for efficient use of municipal resources, such as differentiated formal agreements between the municipality and active citizens for each Buurtgroen type. The strong independence of the green space CLIs, through different land owners and lack of shared duties, contributes to this. By optimizing their requests on municipal resources, CLIs limit municipal capacity necessary to fulfill them and strategically increase the chances on mutually succesful interaction. Even so, frustration remains with members of CLIs about the perceived lack of cooperation of the municipality.

> They don't stimulate the ideas that you provide. They tend to ask questions about local support, and that has to be 100%. And waiting, long waiting for answers.
> - member of Groen Kortenoord (personal communication, June 15, 2022)

Thus, as policy entrepreneurs within CLIs work to achieve their objectives despite limitations on municipal resources, they bend existing rules. Notably in the case of Groen Kortenoord there is a strong aspect of individual action to the degree of guerrilla gardening. The municipality approves of

their goals, as these objectives align with their own, but they do not approve of the methods as these interfere with their other responsibilities, as shown below.

> In the end, when you look at it, [the effects] are only ever positive. It's just because of our policies that we would prefer if such things didn't happen.
> - municipal employee (personal communication, June 28, 2022)

A closing example which highlights this fraught balance is the compost heap of Groen Kortenoord. Permission for this initiative was requested by Groen Kortenoord, but denied because of existing policies on safety and hygiene. Inhabitants of the neighbourhood then requested help of a private actor who provided land just outside of the boundaries of the neighbourhood, which strategically positioned the compost heap on land not subject to these policies. Subsequently, the compost heap was not removed, but neither does the municipality contribute financial or material resources to it despite its contribution to municipal goals for citizen participation and local climate measures. This is a policy of tolerance rather than one of structural reflexivity and support, which creates a moderately stable yet unsupportive foundation for green space CLIs to operate on.

4.2.5 Summary

The interactions between the municipality of Wageningen and its green space CLIs are limited, which limits the potential of the interaction to be constructive. The municipality provides limited financial resources, causing other actors to step in to provide material, human and financial resources. These actors, not all of whom are connected through land ownership but also through proximity, pursue their own interests through green space CLIs, affecting their frameworks and obligations, and expanding their possibilities. While the municipality sets underlying boundaries, both the frameworks of other relevant actors and the individual objectives of the CLIs can override these in importance and create a wider variety of activities and objectives pursued by green space CLIs. The CLIs are aware of resource shortages at the municipality, especially in the municipal green department. Municipal employees work to minimize these shortages and provide individual attention to CLIs but while the objectives of the CLIs align with those of the municipality, their methods do not, which causes tension. Increased contact and thereby more chances for policy entrepreneurs are viewed by both sides as a mending point. Until then, the independence and perseverance of green space CLIs can propel them without necessarily requiring policy entrepreneurs on the side of the municipality, despite it costing more effort and being less effective.

5. Discussion

With the results of both municipalities outlined, a comparative examination of both sides of the interaction can reveal larger patterns and validate the framework. The patterns found on the level of green space CLIs will be discussed first, followed by clusters surrounding the municipality, and patterns present around other public actors. Finally, the analytical framework is reflected upon along with the limitations of the research.

5.1 Community-led initiatives for urban green space

From the side of the six CLIs present in the municipalities, interactions were characterised by formalization, limited communication, coordination as a resource, and strategies for independence.

Firstly, all CLIs are either formalized into foundations or aimed to do so in the future. As illustrated with Mooi Binnenveld, formalization was the result of both obligatory formalization to allow interaction with resource-providing actors, and voluntary formalization to increase access to legal benefits attached to the status of a foundation. Their formal status affects their access to various resources, it also changes their duties. Board members of green space CLIs mentioned bureaucratic obligations attached to this status, ranging from providing financial administration to account for budgetary spending to monitoring the quality of land provided to them. For Mooi Binnenveld, this includes the provision of reports to the province monitoring ecological progress of the Binnenveldse Hooilanden, which they have to organize using volunteers and consolidate into yearly reports. On the other end of the scale, the Tuinpiraat only has an annual visual inspection and occasional financial administration for sponsors. However, they do not receive standard subsidies and are largely self-reliant for their resources, limiting their ability to organize activities. This example shows how formalization affects their activities and resource use, and can be necessary for some green space CLIs to perform their duties to the satisfaction of both themselves and the land owners. Green space CLIs of which the activities heavily relied on active volunteers, including Terra Bella, Mooi Binnenveld and the Tuinpiraat, are also obliged to take out insurance for volunteers in case of injury or other risks. This formality adds a financial burden which can add pressure to organize activities. Groen Kortenoord is also aware of the importance of this formality, adding it in their proposal to the municipality of Wageningen. Thus, the isomorphic pressure as noted by Celata & Coletti (2018b) and Dinnie & Holstead (2018) is experienced and acted upon by green space CLIs.

Secondly, CLIs experienced a lack of communication, either with the municipality or between municipal departments. Communication with the municipality was found lacking on new developments in the area which were then not passed on to the CLIs, often when not working directly with their own contacts. Internal communication within the municipality regularly did not include existing CLI-specific agreements which were not communicated municipal-wide, such as the official function of the Stichting Wageningse Eng as a point of contact and consultation with the users of the Wageningse Eng. This displays policy fragmentation, as described by Sarabi et al. (2019) and Dorst et al. (2022) which can hamper NBS implementation. Despite, or perhaps because of the limited communication, any communication initiated by green space CLI is carefully selected in order to obtain resources and achieve their objectives. Initiatives purposefully emphasize how their objectives align with those of the municipality, and highlight aspects of the initiatives which fit current policy interests. Thus, while the argument of Mattijssen et al. (2018) that specific subsidies conflict with the multifunctionality of green space CLI is correct, this does not stop green space CLI from strategically using their multifunctionality in order to obtain resources.

Thirdly, all green space CLIs for which the management of urban green spaces formed an important part of their duties all considered coordination to be a vital resource. Coordination is a specific type of professional human resources, exemplified by the role of the coordinator between the municipality and Terra Bella: he provides knowledge of ecological green maintenance, keeps an overview of the activities of Terra Bella, coordinates volunteer activity, aligns maintenance done by the municipality and the initiative, and in general ensures a steady point of communication between both actors. Interviewees from CLIs emphasized that this workload is often too much for volunteers, preferring instead to hire a professional to perform these coordination duties. As such, these individuals function as boundary spanners similar to municipal employees and as constant sources of

commitment, and their role is vital to the functioning of green space CLI with maintenance as an objective (Fox-Kämper et al., 2018).

Lastly, green space CLIs which had little interaction with their respective municipalities displayed common mechanisms to function. For such CLIs, volunteer human resources formed a core resource which enabled them to organize activities. In the absence of public funding or support, interaction with other actors capable of providing resources increased markedly to the point where these actors performed a similar role to the municipality. An example is the Tuinpiraat, which has no formal interaction with the municipality due to its position on land owned by Staatsbosbeheer. Instead, Staatsbosbeheer performs most duties which would otherwise be the responsibility of the municipality: the formal agreement on land use, annual inspections on the status of the land, and formal rules during play days are all agreed upon with Staatsbosbeheer. Even as green space CLIs with little interaction with their respective municipalities turn to their own resources and other actors, the peripheral presence of the municipality remain important due to their responsibilities. As exemplified by Groen Kortenoord and its activities around their compost heap, the municipality does not actively interact: however, policies around their activities are examined and adapted if appropriate. This accommodating peripheral presence allows initiatives to organize their activities and contribute to municipal policy goals while not requiring an active contribution of municipal resources. Additionally, municipalities also aim at independent initiatives, as testified by multiple interviewees: literature such as Droste et al. (2017) on the limited possibilities of municipal resources contextualizes this as a conscious policy decision. Thus, a minimum of municipal interaction does not reduce its importance, but can be in the interest of both actors as underlying policy and legislation provide enough structure for green space CLI to function.

For their interactions with the municipality and the aspects discussed above, green space CLIs are highly dependent on human resources. These resources include local support, through for example crowdfunding or local volunteers, volunteers within the organizational board to mobilize resources and coordinate activities with the municipality, and notably professionals to provide knowledge on management and green skills. Interactions are however also dependent on boundaries set by the municipality, and their own work to interact with green space CLIs.

5.2 Municipalities

There are are four ways in which the municipalities of Culemborg and Wageningen interact similarly with green space CLIs, these being mechanisms of control, individual employees, mutual accommodation, and policy contributions.

Both municipalities limit their provision of financial aid and explicit support to green space initiatives. There are mechanisms of control built into initial agreements, such as the custom to start small and expand only once the initiative is running well, which was articulated by interviewees from both initiatives and municipalities. Other mechanisms of control, recognizable from Dinnie & Holstead (2018), are monitoring and evaluation protocols which are attached to provided resources. Such mechanisms are not only used for financial aid through yearly financial check, but also to public land through informal annual visual inspections. Thus, municipalities take measures to see their limited resources used in a way that is satisfactory to them (Droste et al., 2017). One interviewee summarized it as "we can only spend our budget once": supporting initiatives which do not entirely fit requirements, for example through another land owner, can inspire requests from other, similar,

initiatives which can limit resource availability for initiatives which do fit requirements and need the support. As argued by Celata & Coletti (2018b) and Frantzeskaki et al. (2016), rather than interaction to secure the success of initiatives, such efforts by municipalities can also be viewed as an attempt to control and 'police' green space CLIs. This thesis argues that this control is not only aimed at curtailing municipal resource scarcity, but also at ensuring existing municipal responsibilities are met. While green space CLIs fulfill public functions such as green space maintenance on public land, municipalities remain legally responsible: emphasis on local support and accountability mechanisms are used to ensure that municipal responsibilities towards *all* its citizens are met.

While mechanisms of control are built into the municipal system, municipal employees are very active in contributing to initiatives with the non-financial resources available to them. Such resources include services, advice, connections within the municipality or to external organizations, and in-kind material such as plants or soil. Resources provided through such relationships of trust are often provided in a more informal way, such as the service of the municipality of Wageningen to remove pruning waste for citizens with a Buurtgroen area based on requests per email, in contrast to the bureaucratic processes required for financial resources. This highlights the key role of individuals serving as policy entrepreneurs and boundary spanners to aid the interaction between municipalities and green space CLIs (Van de Griend et al., 2019). Policy entrepreneurs are linked to experimentation, bending or working outside of existing frameworks to create a new initiative (Igalla et al., 2020). This function is key at the start of a green space CLI as policy entrepreneurs streamline the process of collaboration and exploration. On the other hand, boundary spanners function as a steady point of contact between actors once the green space CLI is already operational. This is most visible through the 'translation' of CLI interests and needs towards the frameworks of public actors they are most connected with, such as the guidance provided to steer the initial idea of a civic idea for a Buurtgroen area towards the eventual formal arrangement (Hassink et al., 2016). Boundary spanners also arrange 'navigation' of green space CLIs through formal municipal frameworks, exemplified by the alignment between municipal and initiative green maintenance for Terra Bella and the provision of guidance for bureaucratic processes to obtain resources or legitimacy. Both Hassink et al. (2016) and Van der Jagt et al. (2017) also mention good relationships based on trust with municipal staff of green space CLI as an approach to streamline policy- and legal frameworks. A single individual can function as both policy entrepreneur and boundary spanner, as several initiatives noted that initiators of the green space CLI remained active within the organization as contact person.

The collaboration with these municipal employees enables both green space CLIs and municipalities to accommodate each other. Green space CLIs formalize into foundations with organizing boards and their subsequent duties: adhering to municipal or provincial procedures for evaluation, and adopting accountability mechanisms. These include taking up insurance for volunteers, as also noted by Van der Jagt et al. (2017) in their research, and agreeing to written evaluations for financial resources and ecological progress. While green space CLIs formalize, public actors become more flexible to meet them between what one interviewee called "the paper reality relative to the real world". The translation and navigation function of boundary spanners enables them to be more flexible with existing rules to accommodate unconventional functions and forms of green space CLIs. This accommodation is often formalized in agreements specifically enacted per CLI such as the symbolic yearly rent for the Culemborgse Stichting van Volkstuinen to let them use public land for their activities. Generally, both actors accommodate each other's resource limitations by reducing

the amount of demands made on each other, as exemplified through the emphasis on starting off green space CLIs as small initiatives which can expand throughout time if desired. As contact continues, a gradual process of aligning interests and trusting in each others' capacity unfolds, enabling reflexive responses rather than those guided by existing formal structures. This gradual process of collaboration is resource intensive for municipalities, but key for setting out boundaries and responsibilities of both actors which is beneficial in the long run.

Lastly, both municipalities are aware of the ways in which green space CLIs can contribute to various municipal policy goals. Municipal employees recognize the contributions of green space initiatives to policy areas such as health, climate adaptation, biodiversity and social connections, and the creative way in which they do so. However, the control mechanisms present for resource allow for reasonable doubts about to what extent this recognition is transformed into systemic measures. This aligns with the multidimensionality at the heart of NBS outlined by Sarabi et al. (2019), but also with caution on the use of CLI to achieve municipal policy goals (Bakker et al., 2012).

The major difference between the municipality of Culemborg and Wageningen is the amount of contact between the municipality and the green space CLIs, affecting the subsequent interaction dynamics. The amount of contact directly affects the work and accommodation that can be done by boundary spanners present within organizations. Both green space CLIs and municipalities agree on the importance of contact for a trusting and flexible relationship. These contacts play a role in experimentation at the start of a CLI, shown in the close collaboration between the municipality of Culemborg and the neighbourhood of EVA Lanxmeer for the creation of Terra Bella. Once an initiative is functioning, such contact is used to navigate the municipal administrative system and to translate objectives of CLIs into something fitting into the municipal system as well. The difference appears to be in part due to the amount of resources available to municipal employees, its importance emphasized by both municipal employees and members of green space CLIs.

In the absence of personal contact and opportunities for mutual accommodation, bureaucratic processes gain importance. Formalizing moments of contact through written reports as monitoring method optimize municipal human resources, but creates distance between the municipality and green space CLIs. Both municipalities use this for smaller Buurtgroen initiatives through the use of forms, combined with municipal employees for provide reflexive interaction. This is in line with Dinnie & Holstead (2018) and Celata & Coletti (2018b) who emphasize isomorphic pressure exercised by public actors: green space CLIs are put in 'boxes' to which they have to conform if they want to receive resources, in this case the use of public land for Buurtgroen initiatives.

5.3 Public actors

In the absence of municipal responsibilities, municipalities limit their efforts to reach out or interact with green space CLIs. In this situation, other public actors such as Staatsbosbeheer or the province of Gelderland step in to perform a role which is very similar to the one which would otherwise be carried out by municipalities. Such broader patterns which can be observed carrying across levels and actors are land and financial resources as central support, the importance of politics, and diversity concerns.

Land and financial means as resources are provided by central enabling actors for the respective CLIs. Land owners can set rules to which activities must adhere, such as Tuinpiraat playdays

occurring according to rules set by the land owner Staatsbosbeheer. Financial supporters can also affect activities, as accountability mechanisms are set up for green space CLIs to obtain financial support. As financial support can be transformed in many other resources, such as maintenance tools and wages for professionals, this resource is vital for organizing activities. While land is often tied to a single owner with whom collaboration is necessary, financial support can also be obtained through dispersped means, such as funding for the Tuinpiraat by contributions of visitors or crowdfunding for the purchase of land for Mooi Binnenveld. Land and financial support can be provided by the same actor, such as Terra Bella working both on public land and with municipal funding, which provides much power to this actor. The importance of land owners in particular aligns with literature on NBS which emphasize the dependence on land for such initiatives to occur (Dorst et al., 2022; Sarabi et al., 2019). However, it does not reduce the importance of interaction with municipalities. Other resources such as financial support or in-kind support are still available from the municipality, and there is always interaction with the municipality as their legal responsibilities extend to the area around the land, such as for road maintenance and safety concerns. Thus, their legal position as responsible public actor remains important.

Politics, while not formally part of the PAA, remains influential for interaction dynamics. Broader political developments through democratic processes such as elections can affect policy priorities, enabling or constraining resources available for green space CLIs and their contacts within the organization (Dorst et al., 2022). Several interviewees mentioned the effects of elections on public bodies of government, affecting the speed of bureaucratic processes and affecting the resources allotted to citizen's initiatives or green space maintenance. This occurs throughout institutional layers: similar to the awareness that local green space initiatives can support municipal policy goals, the actions of municipalities can affect whether the province achieves their policy goals. These policy goals are affected by political priorities, and resources are allotted in turn. An example is the option for municipalities to request provincial financial support for citizen's initiatives related to biodiversity: however, there is a limit to the amount of money alloted to this subsidy, which can vary per election period.

> For nature and protected areas, the responsibility [for protection and restoration] has been decentralized to the province. A budget is allotted from the State to the provinces to implement their policies. For biodiversity outside of natural areas that is in general not the case and the objectives are less clear. So then it's a political choice whether you as a provincial organization set aside money for that purpose.
> - provincial employee (personal communication, July 12, 2022)

The reliance on political support in order to free up resources creates an unstable foundation for green space CLIs supported by them, and pushes them to constantly consider the angle and objectives which they use to present themselves as observed in previous research by Dinnie & Holstead (2018) and Mattijssen et al. (2018). The subsequent importance of politics as an underlying factor matches the emphasis of Dorst et al. (2022) on structural conditions affecting NBS mainstreaming, present throughout institutional levels.

Lastly, diversity among volunteers and initiatives and the subsequent effect on inclusivity is a concern shared by green space CLI and public actors, although in different contexts. Several green space CLIs are linked to the same individuals, who are also active for other nature-related organizations. This is a concern for green space CLIs, with several interviewees remarking that in the

end it was often the same group of people participating in activities which restricted the amount of human resources available, one interviewee linking it to the lack of available time of working parents for volunteer activities. Public actors are also concerned at the lack of diversity in inhabitants active in green space CLIs, but for matters of inclusivity. One municipal employee described their policy for green space CLI support as a passive stance rather than an active engagement of specific groups. This aligns with authors such as Buijs et al. (2019 and Van der Jagt et al. (2017) expressing their concern about the disconnect between civic initiatives and wider public policies, with initiatives primarily focused on local objectives. Actions are undertaken by various actors to broaden their reach and engagement to increase diversity, by interacting with schools and reaching out to less-represented groups.

These broader patterns of the importance of land owners, politics, and inclusivity for public actors carries across their interactions with green space CLIs. While land owners and shifting policy priorities are existing concerns for green space CLIs which they take up with public actors, their different understandings of diversity priorities causes both actors to pursue solutions which do not require interaction.

5.4 Reflection on the framework and research limitations

All the findings so far have implications for the analytical framework. As described in the research strategy, the analytical framework is constructed using literature on NBS and CLI to adapt the Policy Arrangement Approach of Arts et al. (2006), into the dimensions of *actors*, *resources*, *rules* and *reflexivity*. This analytical framework was used to analyse the data from the case studies: however, these findings from practice also reflect back on the analytical framework itself. Within the framework, the function of reflexivity and its various aspects as link between the other dimensions stands out in particular. This link is exemplified through the role of boundary spanners serving as point of contact and enablers of flexibility. Change in reflexivity shows the development of the interaction between municipality and green space CLIs: in documentation of green space CLIs, it is visible that rules of the game, actors included in the agreement and resources received from public actors often stabilize early on in the relationship. The relationship with their contact person and their role in creating trust between the two actors functions as a sign of change. This is visible in the increasing availability of informal resources such as advice in relation to bureaucratic processes, and increasing input of green space CLIs in the interaction.

As the framework for this thesis has used aspects from literature on CLI as a governance form and NBS as a project form, many findings are connected to both bodies of literature. However, three factors which can be attributed more clearly to its dual NBS and CLI roots can be identified. The multidisciplinarity of NBS requires reflexivity: a flexible mindset is necessary to understand and utilize the various functions of green space CLI. Subsequently, departments connected to these functions must increase their flexibility and collaboration with one another to accommodate the green space CLI. The importance of land and its providers can also be traced back to NBS specifically (Sarabi et al., 2019). This lends extra weight to the resource dimension and subsequently affects the other dimensions as well (Arts et al., 2006). From research on CLI comes the reliance on another resource, human resources. The activities and capacities of the organizing board and their work to increase reflexivity on behalf of their initiatives is reminiscent of the emphasis of Fox-Kämper et al. (2018) and Mattijssen et al. (2018) on human resources as a core resource.

The interpretations of my data however remain subject to the limitations of my research, of which the data collected and the academic perspective through which it was examined must both be addressed.

Firstly, access to data varied for each green space CLI. The municipality of Wageningen and its green space CLIs were familiar than Culemborg and its initiatives, in particular Terra Bella, due to the researcher being a long-time resident of the neighbourhood. To prevent this familiarity and subsequent increased access to material causing a bias in the amount of detail per case, the amount and type of research material per case study was carefully balanced by collecting various data types as outlined in the methods. To increase familiarity with all green space CLIs and, the process of snowballing and making contact with green space CLIs was aimed at building trust and openness. The data collected was also affected by the lingering effects of Covid-19, in particular the effects on the financial position of green space CLIs due to a decreased amount of activities and shifts in municipal policy priorities and financial capacities. This was taken into account by using financial information from before and during Covid, and by discussing the long-term relationship between the municipality and its green space CLIs during the interviews.

Secondly, the framework upon which this research is built contains both a new dimension and a combination of two academic fields. While previous studies support its validity, as it uses a similar research framework as studies examining similar NBS arrangements (i.e. Buijs et al., 2019; Van der Jagt et al., 2017), the interpretation of the "discourse" dimension of the PAA as "reflexivity" has not been done before in literature on green space CLIs. However, the foundation of this dimension encompasses flexibility, shared objectives and trust which are all concepts found on literature from both NBS and CLIs, and iterative coding during data analysis revealed these aspects to be present within interactions between municipalities and green space CLIs.

The multidisciplinary foundation of the analytical framework itself, being drawn from both NBS and CLI is also important. The concept of "NBS", "green space CLI" and "CLI" are broad concepts which are separately defined even within their own academic fields. The literature review took the variety of terms and frameworks into account, and the analytical framework drew on concepts which appeared in literature on both green space CLI and either NBS or CLI literature to ensure its applicability to case studies in this research. The subsequent findings from the case studies verified the dimensions of the PAA and confirmed prior research from Buijs et al. (2019), Mattijssen et al. (2018) and Van der Jagt et al. (2017). It also highlights how various aspects of the framework from NBS or CLI literature is present within these case studies: thus, the multidisciplinary foundation of the analytical foundation is reflected by findings of the case studies.

6. Conclusion

This thesis set out to answer the research question *How, why and with what implications do municipalities enable and constrain urban green space CLIs through their interaction?* using the small Dutch municipalities of Culemborg and Wageningen as case studies. As set out in section 6.1, the resulting answer is threefold, building on the sub-questions guiding the research which are shortly listed below. Section 6.2 explores the theoretical and practical implications of the research.

What are the key aspects of the interaction between municipalities and green space CLIs according to the literature?
The key aspects outlined by literature on NBS, CLI and green space CLI are the importance of resources available to both actors, the rules to which they are subject, and the capacity to adapt to changing needs within the interaction. This aligns with the Policy Arrangement Approach of Arts et al. (2006), which outlines actors, resources, rules and discourse as key dimensions. Reflexivity, defined as responsive flexibility or learning capacity within interactions, fills in discourse as dimension to reflect its key role for either actor in adapting respective organizational forms and activities to suit the other actor while not disrupting their own organizations.

Based on these key aspects, how and why do the municipalities of Culemborg and Wageningen interact with urban green space CLI within their municipal boundaries?
The municipalities of Culemborg and Wageningen interact with urban green space CLIs using the resources they provide, the rules they set out, and the official contacts which function as boundary spanners for communication and trust. The municipalities provide money only when accompanied with accountability mechanisms and a clear vision on how this support complements policy objectives. In-kind resources, such as help with maintaining green spaces through large municipal material, is offered more freely. Policies surrounding green space maintenance and safety are set out around the activities of green space CLI, informing any custom agreements. Flexibility in rules or provision of in-kind resources is obtained through municipal employees functioning as boundary spanners within the municipality, using their knowledge of the municipal system and the green space CLI to translate between the two organizations and accommodate the objectives of both. Green space CLIs utilize alignment between their respective objectives to obtain more resources or ensure their continued existence by strategically emphasizing their policy use to the municipality. When other providers of land are present, the municipalities retreat and leave interaction to the actors responsible.

What implications for small municipalities can be found through the comparing and contrasting of these findings and placing them in a broader governance context?
When contrasting the findings of Culemborg and Wageningen, the importance of municipal employees or other individuals functioning as boundary spanners and the need for mutual accommodation becomes apparent. Individuals functioning as contact point between municipalities and individual green space CLIs translate the interests and needs of both actors and arrange the 'navigation' of green space CLIs through existing formal frameworks. Mutual accommodation is achieved by formalization of green space CLIs and increasing flexibility of municipalities, allowing both to achieve their respective objectives by interacting with the other. Within the broader governance context, the role of other public actors and the role of political interests affect interactions as well. In the absence of municipal interaction, green space CLIs interact in a similar

way with other public actors connected to the green space. The fluctuation of political priorities also affects interaction as resources are allotted based on policy goals, requiring green space CLIs and their contacts to interact strategically with municipalities in order to ensure their continuation.

6.1 Answer to the main research question

The research question of this thesis focuses on three aspects to the interaction between municipalities and green space CLIs which build on one another: how, why and with what implications they interact with one another, as structured through an analytical framework based on the Policy Arrangement Approach.

Firstly, *how* they interact. As seen through the structure of the Policy Arrangement Approach, municipalities interact with green space CLIs through its four dimensions: actors, rules, resources and reflexivity. The application of these dimensions overlaps in practice. Alongside municipalities, a variety of other civil, private and public actors interact with green space CLIs to provide resources and outline rules for their uses. For example, in the case of Mooi Binnenveld land ownership was shared among three civic organizations and the Waterschap, with the province of Gelderland overseeing developments. The interaction through rules is both passive and active, relying on passive frameworks which form the background against which green space CLIs exist such as policies for infrastructures and public green space standards. These rules are similar among municipalities: both Culemborg and Wageningen referred back to policies on public space use and safety as their responsibilities informing their interactions. Active interaction occurs by creating and customizing individual agreements with green space CLIs detailing duties of the actors involved, such as the agreement with Terra Bella on the maintenance of green spaces in the neighbourhood. Interaction for resource provision is built on these rules, centered around the use of public land as a resource and the provision of financial resources to organize activities. Reflexivity hinges on individual employees within the municipality, functioning as policy entrepreneurs to accommodate beginning green space CLIs and shifting towards the role of boundary spanners to continue guiding them through the municipal system as they develop. This finding adds depth to the analytical dimension of reflexivity: while municipal policy frameworks can integrate flexibility to a certain degree, customized agreements for individual green space CLIs are possible through the intervention of municipal employees even if existing frameworks are not built to accommodate such initiatives. The role of individuals therefore supports much of the reflexivity and subsequent interaction. Interactions are performed only when green space CLIs actively reach out or the municipality feels it is necessary and appropriate to do so, creating the necessity to examine the reasoning *why* they interact.

Secondly, *why* municipalities interact with green space CLIs the way they do can be summarized, similarly to literature on CLIs and their connection to the municipality, as a desire to either enable or constrain green space CLIs. However, this does not fully explain their incentives to do so, which are municipal responsibilities, politics and efficient resource use. Both enabling and constraining CLIs is based in a desire to stimulate their activities in a way that ensures municipal responsibilities are still met. Politics are also an important driver, mainly to enable: the recognition of the policy value of green space CLIs can incentivise smaller municipalities to support them. Constraint is enacted for caution or control of CLI activities which could infringe on municipal responsibilities or resources without sufficient returns, creating an emphasis on sufficient carrying capacity, guiding frameworks

and evaluation for green space CLIs. These underlying conditions motivate green space CLIs to interact strategically, focusing on building trust in their capacities and strategically emphasizing their policy worth in order to obtain resources. These findings align with the emphasis of Dorst et al. (2022) on structural conditions underlying NBS, and add nuance to the findings of Dinnie & Holstead (2018) and Celata & Coletti (2018b) who emphasize the dangers of isomorphic pressures and policy priorities: while these factors are certainly present, green space CLIs can use them to obtain resources. Both municipalities and green space CLIs recognize that any collaborations and requests for resources from one actor to another carry these mutual responsibilities within them.

The *implications* of the way these two actors interact can be summarized through four key aspects, namely the loss of control, use of strategy, importance of individuals, and complementary role of other actors. The interaction between municipalities and green space CLIs requires both to hand over control to the other: municipalities must allow green space CLIs to perform their activities without being directly involved in their objectives or implementation, and green space CLIs must allow the municipality to monitor them and set boundaries to their activities. An example is Terra Bella and its maintenance of public green space, evaluating and coordinating with the municipality but performing its tasks independently and with its own objectives in mind. Both actors understand that this mutual process of accommodation is necessary to involve the other: however, this does not make either actor a passive spectator. They strategically engage with one another to optimize the use of their resources and achieve their respective objectives. For municipalities, this requires clear requirements for green space CLIs to obtain municipal resources and frameworks to let them work independently within boundaries. For green space CLIs, this requires emphasizing their policy value to the municipality, using formalization as a route to resources, and allocating their requests efficiently, for example decreasing their frequency or contacting specialized municipal employees as done in Wageningen. The emphasis on individuals as a core resource is connected to this: municipal employees function as a bridge between the municipal system and the activities and objectives of green space CLIs. Coordinating actors hired by green space CLIs, notably CLIs with the objective to maintain public green spaces which would otherwise be a municipal responsibility, can also fulfill this role. Such individuals translate between the two organizations, use their expertise to navigate the municipal system, and build trust between the two organizations through continued contact and personal bonds. These three factors are aspects located in between dimensions of the PAA, enabling developments within their respective organizations by reflecting changes on the side of the other actor. They complement the dimensions of the PAA by providing insight in what connects them, and is therefore important for the policy arrangement as well. Lastly, when municipal responsibilities towards green space CLIs are limited due to overlap with another public actor through land ownership, the public actor responsible will step up to interact with green space CLIs in a similar manner: setting rules, providing resources, and reflexively adapting interactions to accommodate developments within the green space CLI. Even if there is little interaction with the municipality, there is a need for an actor to fill this role as a replacement in order for green space CLIs to achieve their potential as a multifunctional, locally organised community hub. This shows that even when analysing a limited amount of actors, other significant actors cannot be excluded from the analysis: thus, while this thesis aimed to examine the interaction between municipalities and green space, its broader view complemented the analysis.

To summarize, municipalities and green space CLIs interact through the reflexive provision of resources and rules, based on their mutual objectives. Municipalities do so to enable and constrain

green space CLIs, and green space CLIs do so to achieve their objectives through legitimization and obtained resources. The implications of these interactions are a loss of control and strategic interactions on both sides, and the increased importance of intermediary individuals to coordinate interaction between municipalities and green space CLIs. Additionally, while municipalities are responsible for policy frameworks, other actors connected to land and finances can take up a similar role in relation to green space CLIs to provide them with resources and frameworks to work within.

6.2 Recommendations for future research and practitioners

The findings of this research do not only highlight answers, but continuing questions as well which can inform future research. While this research has explicitly examined interaction dynamics within smaller municipalities in the Netherlands, the sample size was limited and not accompanied by case studies of larger municipalities to compare the results to. For an improved understanding of what aspects of interaction between municipalities and green space CLIs are unique to smaller municipalities, large-N research using case studies of both small and large municipalities is required, as this information is too scattered throughout current literature for systematic analysis.

Additionally, while this research set out to examine interactions between municipalities and green space CLIs, it found that other public institutions were also of importance alongside or even replacing the role of municipalities. The large variety of public institutions within the Netherlands, both in size, scale and responsibilities, creates a large variety of potential interactions with green space CLI. More research is required to understand how such public actors interact with green space CLI to combine individual agency and public accountability.

The findings of this research are not only useful within academia, but they are also relevant for practitioners working in small Dutch municipalities. The findings can be summarized as integrating multidimensionality, reliable communication and bureaucratic support into municipal procedures, and efficiently increasing municipal resources for better interaction.

Multidimensionality is a key aspect of green space CLI, both in their variety of internal objectives and the variety of forms in which they can appear. This challenges municipal procedures, as systemic barriers such as dividing lines between departments and specialised knowledge of municipal employees can limit the extent to which the full potential of green space CLI is understood and activated. Two ways in which multidimensionality can be integrated into municipal systems without drastically affecting existing policies and procedures are a multidimensional intake point and increased communication between departments. A front office where citizen initiatives can enter the municipal system provides a formalized boundary spanning entry point for citizen initiatives to be guided through the municipal system and understood through a municipal lens. A practical example is the Initiatievenloket in Culemborg, which performs these functions using extensive knowledge of departments and an informal atmosphere focusing on possibilities rather than obstacles. A more informal way of increasing multidimensionality within municipal systems is allowing free, informal communication between municipal departments about green space CLIs and their needs. This already occurs informally between municipal employees of different departments, but is currently only driven by individuals directly in contact with the green space CLIs. By creating an environment where such communication amongst employees is encouraged, there is a lower threshold to seek advice and share information which can facilitate processes related to green space CLIs which are not limited to a single department.

Reliable communication is also beneficial to both municipal procedures and green space CLIs. The emphasis placed by green space CLIs on the importance of their municipal contact in securing resources, providing information and helping them to navigate the municipal system shows how vital these internal human resources of municipalities are. The presence of such an individual stimulates their ability to achieve their goals, and consequently municipal policy goals as well; however, when this contact person leaves their position or communications are infrequently maintained, relations with the green space CLI are damaged. The request of municipalities placed upon green space CLIs that they have enough local support to carry the initiative even if the initiator withdraws is one that must be considered of their own capacity as well: is there a steady point of contact and a broader support network within the municipality in case this point of contact unexpectedly disappears?

Municipal support for the various bureaucratic duties of CLIs, either arising from their status as foundation or various agreements made with resource providers, is also a valuable resource, especially to increase diversity and efficient human resource use among green space CLIs. The various legal frameworks and policies which are applicable to green space CLIs to increase accountability for the municipal resources they use can create much paperwork for boards of volunteers who might not have the skills to do so. Currently, support is informally provided by individual municipal employees for 'their' CLIs, but an organized mechanism for such support would provide broader support to start and sustain CLIs. This is especially relevant for diversity as people with less skills can feel intimidated or unqualified to put their idea into action, limiting green space CLI organizers to people with enough time and bureaucratic experience to implement them.

Aside from systemic improvements, municipalities can also increase their most important resource: human resources. A higher number of employees increases the amount of time which can be spent on supporting green space CLIs in their initiation and activities, and increases the space for reflexivity which can bridge the gap between municipalities and green space CLIs. Municipalities have limited resources, as acknowledged in both the literature and this research, but provinces can provide support. There are subsidy arrangements for civic participation and local climate adaptation which can be used for green space CLIs, as multidimensional as they are: it does not have to infringe upon already limited municipal budgets, but asking for support where necessary is a lesson that municipalities can take from green space CLIs. After all, successful interaction is based on trust, including knowing when to rely on someone else.

7. References

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8. Appendices

Appendix A: Interview guide

Introductory email

In the introductory email, the researcher introduces themselves and their research. The choice of case study and subsequent link to the interviewee is outlined. Information on ethics and use of information is also provided.

Based on the interviewee's position and information expected to be gained from the interview (exploratory, confirming data, in-depth questions on low-yielding dimensions) the questions are tailor-made and sent to the interviewee at least 2 days before the interview is planned.

Interview questions (English)

Core questions for green space CLIs

How are duties divided between the municipality and the initiative in the arrangement?
- do other organizations take up or support duties?
- how is this division of labour decided upon?
- is this division of duties to your satisfaction?

What support does the municipality offer, with what requirements?
- I did not hear anything about [land/utilities/tools/skills/funding type], how is this arranged?
- are specific resources provided for specific aspects of the initiative?
- CLI: what support do you need, independent of what the municipality offers, and how do you fulfil this need?

How flexible is the current arrangement with the municipality?
- how has this arrangement been created specifically for this initiative?
- are there any lines you cannot bend or avoid?
- if there was a desire from either side to change the specifics of the arrangements, what steps would have to be followed?

What kind of challenges did the initiative face over time?
- were there disagreements or difficulties with capacity between the municipality and the initiative?
- what factor often seems to underlie these challenges?
- which learning processes did you see?

How is the evaluation of the results and the collaboration arranged?
- what does the municipality look for when evaluating?
- how are the evaluation results used?

In-depth questions for green space CLIs

Are their discussions between the municipality and the initiative concerning certain aspects of the initiative or the arrangement?

What successes were there throughout the collaboration?

How did the arrangement develop over time?

What goals does the initiative aim to achieve?
- does the initiative also have any [physical/social/economic/policy] goals?
- what goals align with [other party]?

What support does the initiative receive and what requirements are attached to this support?

How is the collaboration with the municipality/with the initiative?

What actors other than the municipality play a significant role for the functioning of the initiative?

Questions for government employees

What are the advantages and disadvantages of civic participation in public green spaces?

Which challenges are present within the collaboration?
- do these challenges include policy-based aspects?

Which resources are offered by the municipality?
- subsidy
- aid in requesting subsidy
- knowledge
- expert manpower
- material
- use of land / water / electricity

Which resources are used by community-led initiatives?

To which requirements is the use of such resources bound?

What policy is relevant for civic participation in public green spaces?
- is this affected by policy from the province / the state / other public actors?
- do you notice a positive or negative effect of policy?

What future role does the municipality envision for civic participation in public green spaces, and what is her own role within this?

What aspects do you see more regularly among succesful projects?

What aspects does the municipality like to see in community-led initiatives?

What goals does the municipality strive for in relation to its public green spaces?

Which organizations are present regularly in relation to community-led initiatives?

Does the municipality have standard procedures for community-led initiatives for green spaces?

What are the effects of civic participation around public green spaces?

Interview questions (Dutch)

Kernvragen voor lokale groeninitiatieven

Hoe zijn de taken verdeeld binnen de overeenkomst?
- welke taken worden door andere organisaties opgenomen of ondersteund?
- hoe wordt de taakverdeling gemaakt?
- is deze taakverdeling naar jullie tevredenheid?

Welke hulpmiddelen biedt de gemeente, tegen welke voorwaarden?
- ik hoorde niks over [land/watergebruik/gereedschap/cursussen/geld], hoe is dat geregeld?
- worden er hulpmiddelen gegeven voor specifieke aspecten van het initiatief?
- CLI: wat voor hulpmiddelen hebben jullie nodig, onafhankelijk van wat de gemeente aanbiedt, en hoe voorzien jullie hierin?

Hoe flexibel is de huidige overeenkomst?
- hoe is deze overeenkomst op het initiatief afgestemd?
- welke harde eisen of lijnen staan er?
- als er een wens was om de overeenkomst te wijzigen, welke stappen zouden er doorlopen moeten worden?

Wat voor uitdagingen zijn er door de tijd heen geweest?
- waren er kwesties waar jullie het oneens over waren of problemen met capaciteit?
- was er een gedeelde factor tussen deze uitdagingen?
- welke leerprocessen zagen jullie ontstaan?

Hoe werkt de evaluatie van de overeenkomst en het gedane werk?
- waar richt de gemeente zich op bij de evaluatie?
- hoe worden de resultaten van de evaluatie gebruikt?

Verdiepende vragen voor lokale groeninitiatieven

Waar streeft het initiatief naar?
- zijn er ook enige [fysieke/sociale/economische/bredere beleids]doelen?
- waar hecht [andere partij] het meeste waarde aan?

Welke hulpmiddelen ontvangt het initiatief, tegen welke voorwaarden?

Zijn er discussies over bepaalde aspecten van het overeenkomst of het initiatief in het algemeen?

Hoe heeft de overeenkomst zich door de tijd heen ontwikkeld?

Hoe is de samenwerking met de gemeente/met het initiatief?

Welke successen zijn er door de tijd heen geweest?

Welke organisaties spelen een belangrijke rol voor het initiatief?

Vragen voor ambtenaren

Wat zijn de voor- en nadelen van burgerparticipatie in de groene ruimte?

Welke uitdagingen zijn er binnen de samenwerking?
- horen hier ook beleidsfactoren bij?

Welke hulpmiddelen worden er aangeboden door de gemeente?
- subsidie
- aanvraaghulp subsidie
- kennis
- professionals
- materiaal
- gebruik van land / water / elektriciteit

Welke hulpmiddelen worden er afgenomen door burgerinitiatieven?

Welke voorwaarden liggen er aan zulke hulpmiddelen?

Welk beleid is er relevant voor burgerparticipatie in de groene ruimte?
- wordt dit beïnvloed door de provincie / het rijk / Staatsbosbeheer?
- merken jullie dat bepaald stimulerend / afwijzend beleid effect heeft?

Welke toekomst ziet de gemeente voor burgerparticipatie in het groen, en wat is haar eigen rol daarin?

Wat zijn factoren die jullie vaak terugzien in succesvolle projecten?

Wat voor eigenschappen ziet de gemeente graag bij initiatieven?

Wat zijn de doelen van de gemeente met haar groene ruimte?

Welke organisaties ziet de gemeente vaak opduiken bij burgerinitiatieven?

Heeft de gemeente standaardprocedures bij burgerinitiatieven in het groen?

Wat zijn de effecten van burgerparticipatie in de groene ruimte?