



# Landscape discourses and rural transformations: insights from the Dutch Dune and Flower Bulb Region

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Accepted: 21 February 2024  
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## Abstract

Rural landscapes are facing a loss of biodiversity. To deal with this challenge, landscape governance is seen as an alternative and addition to sectoral policies and a potential way of realizing transformative change for biodiversity. To study transformative change in the Bulb Region, the Netherlands, this study uses a discursive-institutional perspective. A mixed methods approach was used including 50 interviews, participant observation and document analysis. The structuration and institutionalization of three competing landscape discourses were analyzed: a hegemonic discourse rejecting any changes in bulb farming; an emerging discourse aiming to enhance sustainability through innovation; and an unstructured discourse questioning the sustainability of bulb farming. The paper shows that the emerging sustainability discourse strengthens the hegemonic discourse by providing an action repertoire for farmers to deal with changing societal demands, while not questioning the hegemonic view on the landscape. Moreover, an institutionalized landscape discourse can be very stable if discursive (relation between naturalized landscape perspectives, identity and the articulated economic interests) and non-discursive factors (natural-spatial conditions, structure of agricultural sector, embeddedness in international trade) are strongly intertwined, leaving little room for alternative discourses. The sustainability discourse was induced by changes outside the Bulb Region (e.g., legislation), thus raising the question whether landscapes are the appropriate level to expect the initiation of transformative change. For rural transformations to come about, solely relying on policies on the landscape level is not sensible. A mix of policies at both the landscape and higher levels offers more perspective for transformative change.

**Keywords** Agriculture · Transformative change · Landscape governance · Flower bulbs · Discourses · Institutional change

## Introduction

While the focus of conservationists has historically been on pristine, natural landscapes the importance of rural areas for biodiversity is becoming more and more clear. For example, in the European Union 50% of species are dependent on agricultural habitats (European Commission 2023). At the same time, unsustainable agriculture is one of the main drivers of biodiversity loss (Benton et al. 2021). Thus, a change towards sustainable agriculture is perceived as an essential

element of transformative change, which is deemed necessary to bend the curve of biodiversity loss (Leclère et al. 2020). To understand and realize transformative change, some scientists and policy makers argue that focusing on landscapes is key, as the landscape is the level in which multi-level changes materialize and the impact on biodiversity becomes visible (Meijer et al. 2021). A landscape is not merely a delineated geographical space, but is a place formed by the interactions between social and natural-spatial conditions (Görg 2007), in which different species live and interact. Landscape governance can therefore be an addition or alternative to sectoral or national policies, which have not (yet) led to the desired changes.

When turning to landscape governance for realizing transformative change, we must understand its potential to initiate, foster and/or implement transformative changes. While the expectations for landscape-oriented approaches

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to governance are high, they do not always entail clear transformative intents (de Koning et al. 2023). This severely hampers the understanding of the contribution of these modes of governance to transformative change. Thus, the assumptions underpinning landscape governance could be critical to their (pro-active) role in transformations.

While there are many studies on agricultural discourses in general (e.g. Erjavec and Erjavec 2009; Hermans et al. 2010; McNeill 2019), there are only some studies on landscape discourses (e.g. Aliste et al. 2018; Quetier et al. 2010). Landscape discourses hold the potential power to in- or exclude certain futures, thus influencing the possibility for transformative change (Gordon et al. 2022). While this holds for other types of discourses as well, I argue that in landscape governance, the discourse on the landscape itself can be an important factor inducing or inhibiting (transformative) change. Landscape discourses entail many things, such as people's understanding of the social-ecological dynamics (e.g. is the landscape vulnerable or resilient) and functions of the landscape (de Koning et al. 2020). Especially in the case of landscape governance, any proposed changes will directly affect the actors involved, who need to be willing and able to accept these changes and fit them within their interpretation of the landscape. Thus, if landscape actors involved in governance are given responsibility for realizing rural transformations, not only the discourses on agriculture count, but also discourses on the landscape:

“Interpretations of the landscape, and indeed the landscape itself, reflect a particular approach to organizing and experiencing the visual order of geographical objects in the territory. Thus, landscape contributes to the naturalization and normalization of social relations with the established territorial order” (Nogué 2007, p.12, translated by Aliste et al. 2018).

The literature on transformative discourses is critical about the material impact they are having so far. For example, discourses that are regarded as transformative, often rather lead to reformist changes within the existing logic of the hegemonic discourse and are used to justify a variety of different policies and interventions (Blythe et al. 2018; Narayanan and Adams 2017). Moreover, “transformative discourses” are often apolitical, thus not acknowledging the role of power in transformations, both as a means and as an end (Avelino 2017; Blythe et al. 2018). However, on a positive note, Späth and Rohrer (2010) have shown that transformative discourses on a regional level can function as a ‘guiding vision’ and translate higher level discourses into concrete, locally-tailored solutions. To have a long-lasting impact that influences the perception and governance of the landscape, these discourses must become institutionalized. This paper

therefore builds on discursive institutionalism (Hajer 1995; Schmidt 2010) to study the role of landscape discourses in landscape governance and rural transformations.

As a case study I have chosen a particular landscape in the Netherlands: the Dutch Dune and Flower Bulb Region. This landscape consists of dunes, beaches, estates, and agricultural lands in which flower bulbs are produced. It represents a deviant case for understanding transformations (Flyvbjerg 2006). In contrast to other agricultural landscapes or sectors such as dairy farming, there have been no clear programs, projects, or collectives, not on a national level nor within the landscape, that have tried to transform this sector. Another distinct element is that farmers within this landscape produce flowers instead of food. Currently, many studies on rural transformations have a strong food orientation, as they are commonly referred to as “food system transformations” (e.g. Contesse et al. 2023; Kelinsky-Jones et al. 2023; Webb et al. 2020). At the same time, just as the case with bulbs and the Bulb Region (Tiktak et al. 2019), many non-food sectors are known for high pesticide use, such as cotton (Liu and Huang 2013; Williams 2020), other floriculture crops (Endalew et al. 2022; Pereira et al. 2021) and plantation forestry (Barroso et al. 2022; Rolando et al. 2016). The purpose of this paper is threefold: (1) to study the structuration and institutionalization of landscape discourses, (2) to examine the role of landscape discourses in rural transformations, (3) to critically reflect on landscapes as a suitable level for transformative change and governance. To answer these research questions, both discursive and non-discursive factors (e.g., natural spatial conditions of the landscape) are considered, thereby adding a material element to general discourse analyses.

## Theoretical framework

### Transformative change

In my research, I regard the concepts of transformations, transformative change and transitions as overlapping but complementary. Linnér and Wibeck (2019) distinguish for example between macro transformations (changes on a societal level) and particular transformations (changes in subsystems of societies, such as the food system). Their definition of particular transformations is close to the definition of transitions in transition theory by focusing on what they call “regimes” (e.g. Geels 2002; Geels and Schot 2007). Transformations come about by changes in several subsystems, or regimes. Transitions can therefore be seen as part of society-wide transformations (Visseren-Hamakers et al. 2022).

In this paper, I will use the concept of transformative change, which can include changes in subsystems

(transitions, particular transformations) and on the societal level (macro or society-wide transformations). I thereby follow the conceptualization of de Koning et al. (2023), who regard transformative change as a process happening at different administrative levels and geographical scales which leads to changes in the indirect drivers, i.e. underlying causes, of biodiversity loss. These indirect drivers can include abstract drivers such as values, but also more concrete drivers such as production systems (IPBES 2019). I complement this definition with the notion that these changes should, in the end, lead to a “fundamentally different system” (p. 105,710, Evans et al. 2023). Analyzing transformative change is difficult, as it is an all-encompassing and complex concept (Feola 2015). I chose to focus on the structuration and institutionalization of transformative landscape discourses, because I see this as an important prerequisite for transformative change in landscapes.

### Discourses and landscapes

Dryzek (2013, p.5) defines discourses as a “a shared way of apprehending the world”. In this paper I am interested in rural landscapes and focus on discourses on the landscape and agriculture in general. According to Görg (2007), landscapes consist of a material reality and the social constructions of that material reality. The discursive/ideational and material aspects are interconnected: people, but also plants and non-human animals, physically change the landscape through their activities, which, in turn, may impact the configuration of discourses on the landscape. In the governance of the landscape, these social constructions play an important role as they define how responsibilities are distributed and collaboration should take place (see politics of scale literature, e.g. Brown and Purcell 2005; Cash et al. 2006). They thus include both substantive elements (such as the definitions of nature, agriculture and the delineation of the landscape) as well as the preferred solutions or governance approaches (Kaufmann and Wiering 2017; Liefferink 2006). In studying landscape discourses, I therefore focus on (1) the definition and delineation of a landscape, the perspectives on agriculture (in this case bulb farming) and biodiversity, (2) the problems in the landscape that the discourses identify, and (3) the solutions that the discourses propose, and which actors or organizations should be responsible for solving these problems. This study is aimed at understanding dynamics within a landscape and its governance and therefore focusses on the landscape discourses present among governance actors in the landscape. Therefore, this study does not focus on non-landscape specific discourses, such as discourses on national environmental policies. A transformative discourse, as follows from the definition in the previous section, focusses on changing both direct

and indirect drivers of the identified problems. Moreover, a transformative discourse acknowledges the different values of nature, including intrinsic, relational and instrumental values (IPBES 2022; Leventon et al. 2021).

### Institutionalization

To have (material) impact, discourses need to become institutionalized. Once institutionalized, discourses can have material consequences for the landscape. In this paper, I define institutions as “*formal or informal procedures, routines, norms and conventions embedded in the organizational structure*” (p. 938, Hall and Taylor 1996). The institutionalization of discourses occurs through two steps: discourse structuration and institutionalization (Hajer 2006). Structuration occurs when a discourse starts to determine the way a group, sector or organization perceives and understands the world. Institutionalization occurs when a discourse culminates in substantively changed or new formal or informal rules, roles, codes of conduct, norms, and symbols (Hajer 2006; Wiering and Arts 2006). After being structured, discourses can become hegemonic (Laclau and Mouffe 2014), which means that they represent the dominant way of interpreting the landscape. I consider landscape discourses as transformative if these discourses are fundamentally different from hegemonic, unsustainable discourses, by for example acknowledging and addressing indirect drivers of biodiversity loss or representing different values of nature.

### Factors influencing the institutionalization of transformative discourses

The literature on discursive institutionalism (Hajer 1995; Phillips et al. 2004; Schmidt 2008) describes different factors that may influence the structuration and institutionalization of discourses. In this research, I will study these factors empirically, focusing on (transformative) landscape discourses. As follows from landscape governance theory (Görg 2007), non-discursive factors such as materiality (e.g. the soil or biodiversity) play a role in the social constructions of the landscape, hence, also in landscape discourses. Therefore, additionally to the following discursive factors, I will also include non-discursive factors in the analysis.

The first factor concerns the characteristics of the discourse itself, including its internal coherence, its consistency or linkage with existing discourses (e.g. alignment and synergies) and the existence of opposing discourses that lead to discursive struggles (Boonstra 2004; Hajer 1995; Kaufmann and Wiering 2021; Phillips et al. 2004). Alignment with higher level discourses, especially when they are institutionalized via policies or regulations, can create very

stable discourses, and contribute to the legitimacy of the actors that reproduce these (Simoens et al., 2022a). In the case of landscape discourses, alignment with national discourses could be an important factor influencing discourse structuration and eventual institutionalization. Additionally, the action repertoire of the landscape discourse could be important. Action repertoires in a discourse provide clear answers of how the ideas can be put into practice and how barriers (such as path dependency or other institutional constraints) can be overcome. In social movement theory, action frames are seen as key to guide action of groups (Benford and Snow 2000), and I assume that this is also the case for less distinct, clearly organized groups, such as farmers or a policy domain such as Dutch agriculture. The impact of action repertoires can relate to the landscape discourse itself in terms of ‘practical usability’, but also to external discourses that provide clear transformative change pathways which can be taken up by or lead to the structuration of new landscape discourses.

Second, power relations and the position of actors can play an important role. Discourses can be so entrenched with power positions of certain actors that actors will actively reproduce these discourses to maintain these positions (Simoens et al., 2022a). However, while these status quo agents can stabilize hegemonic and unsustainable discourses, change agents can introduce new discourses. The success of actors in either inhibiting or creating change depends on their status and credibility (e.g. researchers, politicians, public figures), their resources and power (including skills, networks, finances, knowledge etc.) and the strategies that they use (e.g. coalition building, exclusion strategies and venue shopping) (Baumgartner and Jones 1993; Hajer 1995; Leipold and Winkel 2016, 2017; Simoens et al. 2022a, b; True et al. 2007). To understand how transformative discourses institutionalize, I will therefore look at whether and how (powerful) actors reproduce or introduce landscape discourses to provide legitimacy to the proposed new ways of action or current practices.

Third, changes in political or economic systems, or external “shocks” can lead to dislocation events, in which the hegemonic discourse no longer matches reality (Kaufmann et al. 2016a, b; van den Brink 2009). This also relates to the occurrence of less sudden but slower changes, for example an increasing discontent with current policies due to a lack of progression or results (Torfing 2009). This in turn opens up space for discursive struggles, and thus the structuration of new or other discourses in this context (Hajer and Versteeg 2005). However, shock events can also lead to the stabilization of hegemonic discourses, dependent on how actors (status quo or change agents) are able to exploit and frame these shock events (Boin et al. 2016; Kaufmann et al. 2016a; Rosenthal and t’ Hart 2012). Changes in or outside

of the landscape impacting the social and natural-spatial conditions, could therefore lead to the stabilization of current landscape discourses or the introduction of new ones.

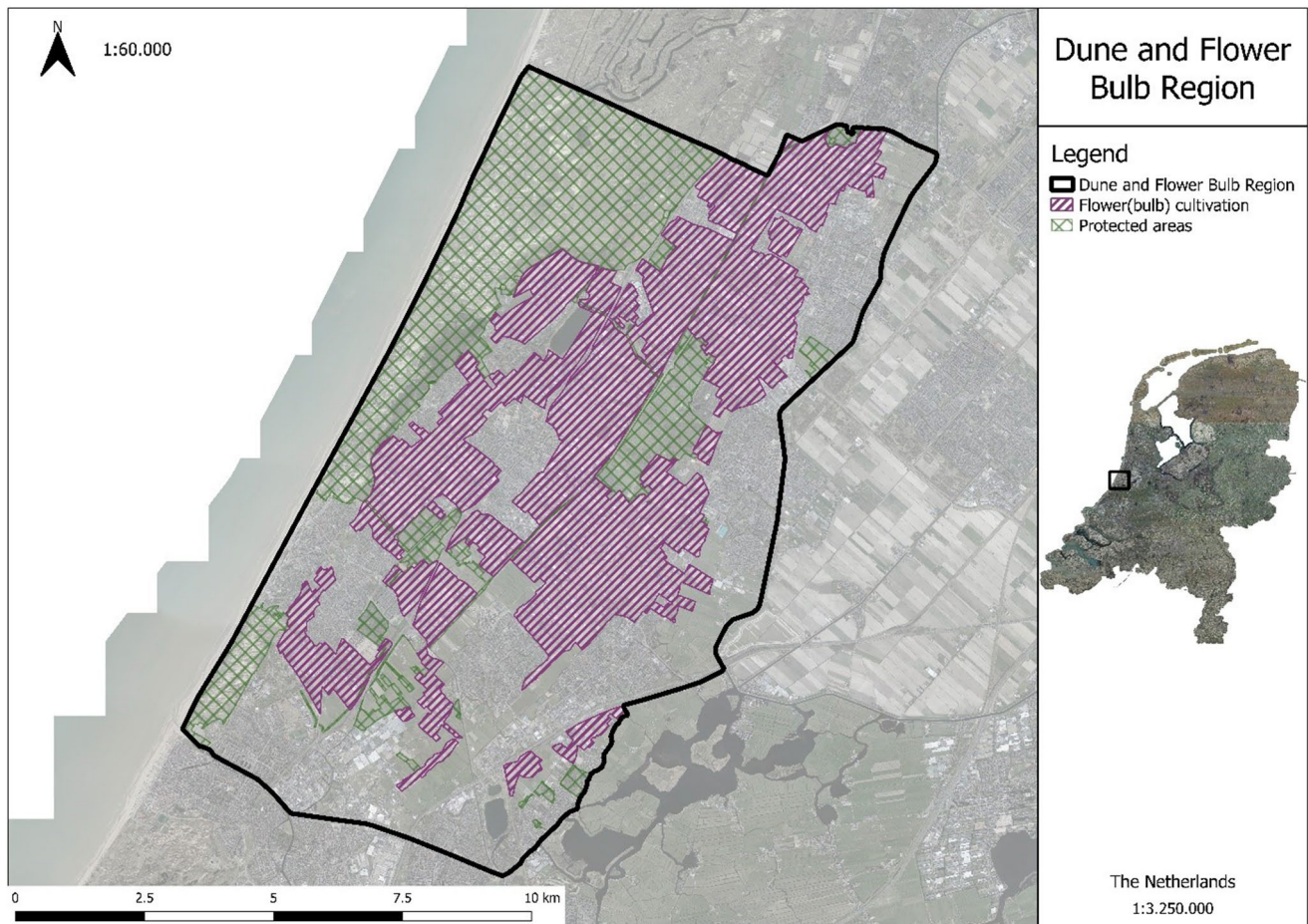
Fourth, discourse institutionalization is also influenced by the governance setting. A homogeneous governance system, in which discourses, actors, rules and resources are aligned, is more stable than a diverse and heterogeneous one (Blowers and Leroy 1996; Kaufmann et al. 2016a, b; Mahoney and Thelen 2009). Within landscapes, a strong, shared and already institutionalized discourse makes the institutionalization of alternative (transformative) landscape discourses less likely. Especially if these discourses are in line with (or influenced by) by other governance levels, for example through certain (national) rules and legislation which farmers must abide, but also contracts and market conventions with other private parties. This stability is strengthened by the process of path dependency, which concerns self-reinforcing mechanisms such as fixed costs, learning effects, coordination effects and adaptive expectations (North 1990; Wiering et al. 2018). Fixed costs can refer to investments that are already made, and which will lose their use when the course of action is changed, therefore, they provide an incentive to maintain the status quo (Wiering et al. 2018). Learning effects can relate to the fact that high prevalence of a product (e.g., pesticide), technology (e.g., tractors) or practice (e.g., plowing) will also lead to increased know-how, which will make the shift to other practices (e.g., no tillage agriculture) less likely (ibid.). Coordination effects are directly related to governance structures, for example, when nature and agriculture are governed by different ministerial departments, this will less likely lead to the development of nature-inclusive agricultural policies (ibid.) Adaptive expectations refers to expectations of the public, who are accustomed to the current path and might not see a reason for change if they have not experienced any problems (ibid.).

## Methods

### Case-study area: the Dune and Flower Bulb Region (Duin- en Bollenstreek)

The Dune and Flower Bulb Region is located between Amsterdam and Leiden in the province of Zuid-Holland, the Netherlands (see Fig. 1). Although it is squeezed between big cities, the people in the region regard themselves as a rural community, with several small villages with unique identities. In this region, flower bulbs such as tulips and daffodils are produced on fields adjacent to the coastal dunes. In total, there are 137 flower bulb companies farming on 2358,7 hectares. In 2018, net exports of bulbs in the





**Fig. 1** Map of the Dune and Flower Bulb Region. The line indicates the region borders, the diagonally lined areas indicate flower (bulb) cultivation areas, and the crossed areas indicate protected areas (e.g., Natura2000 areas)

Netherlands represented 724 million euros (Dolman et al. 2019). The flower fields attract many foreign and domestic visitors in springtime, the famous tulip garden ‘de Keukenhof’ already receives 1,4 million visitors in the two months that it is open to visitors (Bultink 2022). Though the influx of new citizens is increasing, there is still a large community of people with deep roots in the region, of which most people are connected to bulb farming. They have worked themselves in bulb farming or have family and friends doing so. Bulb farming is perceived as an important economic activity in the region, as well as part of Dutch national heritage and identity. During my field work, actors focused on the agricultural part of the region (the Bulb Region), thereby inherently defining the landscape as a rural landscape. In the remainder of the article, ‘Bulb Region’ will be used to refer to the Dune and Flower Bulb Region.

Although popular among visitors, bulb farming is an agricultural practice that can have a profound impact on the environment (Duineveld and van Assche 2011; Rossing et al. 1997; van der Salm et al. 2020) and therefore on the biodiversity of the area. Due to its non-food status, restrictions

on pesticide use are less strict (Pereira et al. 2021). Moreover, most bulbs are exported, and the phytosanitary regulations of import countries demand a zero-tolerance of pests and diseases (ibid.). Therefore, the average amount of pesticide use in Dutch bulb farming is high, on average 78 kg per hectare per year (Agrimatic 2022a). Another issue is the small size of the sector, which makes it difficult to develop sector-specific solutions (e.g., finance EU admittance procedures for green and low-risk alternatives). Grey partridge (*Perdix perdix*) is one of the iconic species of the area that have declined rapidly in the Bulb Region over the last 20 years due to increased agricultural intensification and efficiency (Van Dam 2020). Within the region, high levels of phosphate are measured in surface water, leading to lower water quality.

In the 90s, the region was designated for urban development. To provide for the increased demand for housing near large cities such as The Hague, Rotterdam and Amsterdam, a new city was designed, the ‘bulb city’ (Duineveld and Beunen, 2010; Duineveld and van Assche 2011). As a response, farmers and nature conservationists formed a

coalition to protect the bulb fields from housing development, resulting in the Geestgrond partnership. For the conservationists, this was a way to save the birds living on these fields, which they renamed as ‘bulb birds’ (bollenvogels). The resistance against the ‘bulb city’ resulted in 1996 in the ‘Pact of Teylingen’ which aimed to maintain the open and agricultural nature of the landscape (Duineveld and Beunen, 2010; Duineveld and van Assche 2011).

The ‘Pact’ became institutionalized through the Interge-meentelijke Structuurvisie (ISG). This policy is a shared policy between 5 municipalities and includes spatial planning rules prohibiting the use of suitable bulb fields for other purposes. This implies that on designated bulb fields, you are not allowed to employ other types of (farming) activities. It came into force in 2010, is executed by the Greenport Ontwikkelingsmaatschappij and is currently being evaluated (2022–2023). Additionally, they established a partnership between the municipalities and the bulb sectors, called Stichting Greenport Duin- en Bollenstreek, with the aim of supporting the agro-industrial complex of the region through knowledge development and transfers and the establishment of networks in the region. Currently, there is a strong pressure on bulb farmers to reduce pesticide use, as new EU policies demand a 50% reduction of pesticide use in 2030 (European Commission 2022)<sup>1</sup>.

## Data collection and analysis

In this study I chose an interpretive approach (Yanow and Schwartz-Shea 2006) to study discursive developments and interactions, following the methodological principles of Argumentative Discourse Analysis (Hajer 2006). The study was performed within the context of a living lab, in which a group of scientists (ecologists, agronomists and social scientists) together with stakeholders try to conduct

transdisciplinary research on biodiversity restoration in rural landscapes. Therefore, the data was gathered in an iterative way and from a variety of sources, resulting in a mixed-methods approach. All source data was Dutch and was analyzed in its original form. For the use of quotes, sentences have been translated to English by the author.

Because of the transdisciplinary approach of the living lab, throughout the research, 23 exploratory, unstructured interviews were conducted with farmers, policy makers, farming advocacy organizations, cultural heritage groups and research institutes. In these interviews the different stakeholders were explored, as well as initiatives for biodiversity and sustainable agriculture, visions on the landscape and the recent history. These interviews were not recorded, but notes were taken. Apart from providing first insights into the region, these unstructured interviews contributed to the establishment of a rapport with stakeholders (Brinkmann 2020; Russel Bernard 2011; Swain and Spire 2020).

Based on the first exploratory interviews, 28 in-depth, semi-structured interviews were planned which were all recorded and transcribed. Participants were selected based on their affiliation with the governance of the landscape, and/or involvement in biodiversity restoration or bulb farming. Like the exploratory interviews, the in-depth interviews focused on agriculture, biodiversity and landscape. Moreover, participant observation in 23 formal meetings directed at farmers and/or citizens in the region was conducted. These meetings included for example spatial planning consultation evenings, farmer gatherings and presentations about nature-inclusive farming or landscape element restoration. This allowed me to study discursive interactions in practice. Also, it provided a better understanding of possible landscape discourses articulated by people that did not have a more formal role in landscape governance. Lastly, as part of the living lab, two evenings about biodiversity and sustainable bulb farming were organized by the research team, followed by a workshop for farmers. Table 1 represents a short overview of interview respondents, for a complete overview of in-depth and exploratory interviews and observed meetings, see Table A and B in the appendix. In the results, I use pseudonyms (letter + number) to refer to respondents (see Table 1). To triangulate the interview and participant observation data and study institutionalization of the discourses, I selected nine documents discussing bulb farming, the Bulb Region and biodiversity, of which seven were mentioned during the interviews, and two were mentioned during observed meetings (see Table C in appendix).

To study the different landscape discourses, I analyzed the transcripts, interview and observation notes and documents using Atlas.ti. The initial coding was done deductively and focused on three main themes: (1) the definition of the landscape, sustainable agriculture, and biodiversity,

**Table 1** Overview of respondents

Organization type	Pseudonym	Number of respondents of in-depth and exploratory interviews
Agricultural company	A	2
Cultural heritage groups	C	5
Farm (bulb)	BF	6
Farm (other)	OF	6
Farming advocacy organization	FA	5
Government	G	14
Nature organization	N	10
Research institutes	R	2
Total		50

<sup>1</sup> The proposed regulation has been rejected by the European Parliament on the 22th of November (2023).

(2) the problems that actors identify and (3) the type of solutions they propose (including task and responsibilities and theory of changes behind the proposed solutions) (see Table E in appendix). Based on this initial analysis, I looked at recurrent themes in the data, which resulted in three distinct discourses. This analysis was followed by an evaluation of the transformative character of the discourses based on the type of drivers of biodiversity loss they include in their problem definition and/or proposed solutions. The analysis of the different factors influencing structuration and institutionalization is based on the interviews and observation notes.

After the abovementioned analysis, I wanted to study the similarities between (elements) of the landscape discourses and national discourses. In consultation with experts on Dutch rural policies and based on their representation of powerful actors in Dutch agriculture (e.g., ministry or farmers advocacy organization) or their representation of alternative visions (e.g., coalition of “good farmers”), I have chosen eleven documents representing different discourses on agriculture in the Netherlands (see Table D in appendix).

## Results

### Discourses on the landscape

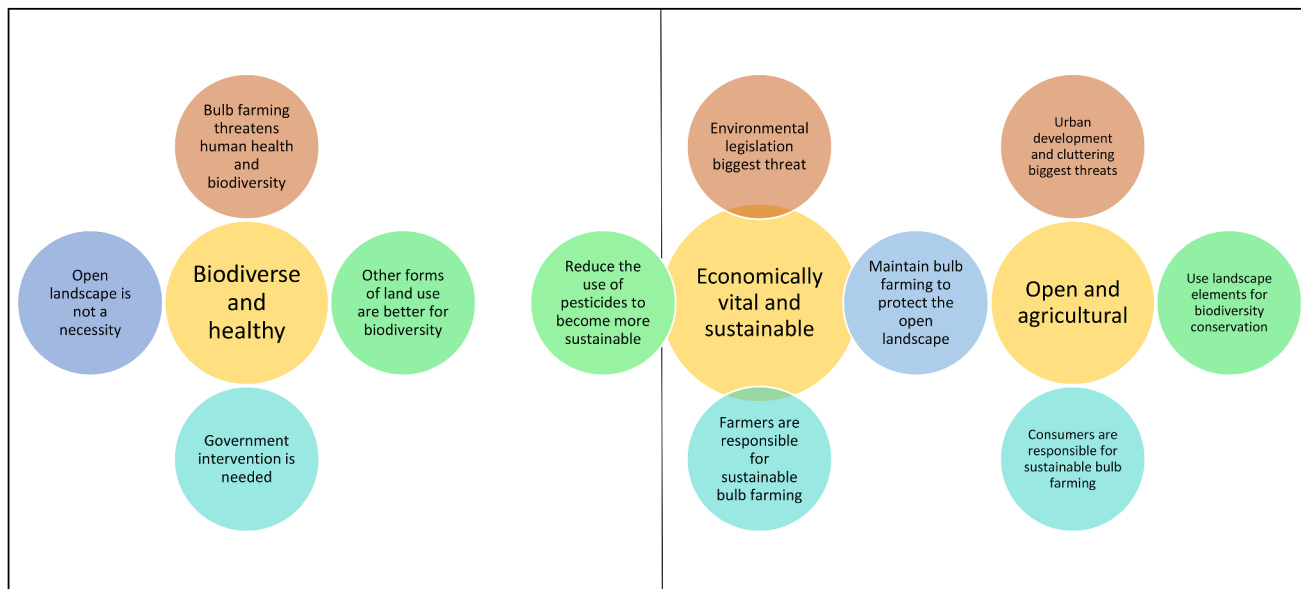
This section describes the three different landscape discourses, focusing on the differences in landscape definition,

problems identified, solutions proposed and their institutionalization (for a visual overview, see Fig. 2). For an overview of the different respondents and documents representative for the different discourses, see Table F in the appendix. As the description of the case study shows, there has been a bulb city discourse in the past. However, the bulb city discourse is not found any more as a discourse in its own right, reproduced in governance, but it is an issue being addressed by the three landscape discourses found in this study.

### An open and agricultural landscape

**Landscape definition** The first discourse is the currently hegemonic *open and agricultural* landscape discourse, in which bulb production is regarded as protecting the landscape. Bulb fields *are* the Bulb Region, “*without bulbs there will be no landscape*” (bulb farmer, observation notes). The essence of the landscape is its openness, and bulb farming ensures this openness:

“You should consider that from a landscape perspective, sectors like horticulture, livestock, arable farming, and bulb farmers are the stewards of the open landscape. You can throw all of that overboard, but what do you get then? In that case you need a really good spatial concept to maintain the openness of your landscape.” (N6).



### Structuration

**Fig. 2** Overview of the three discourses on a continuum from structured towards institutionalization. Yellow=name of the discourse, red=main threat to the landscape, dark blue=perspective on open

### Institutionalization

landscape, light blue=responsibility for desired changes (related to sustainability and biodiversity), green=proposed ways forward to improve biodiversity in the landscape



Therefore, different actors (including farmers, civil servants, nature organizations employees and cultural heritage groups), believe that to protect the landscape bulb farmers should be able to continue with their current practices. The open landscape is prioritized, even though some actors acknowledge problems regarding the use of pesticides. Moreover, these actors stress that there have already been major improvements within the sector in terms of sustainability. Another central element is the connection between landscape and economy, which comes back in regional policy documents (Greenport Duin- en Bollenstreek 2016) but also in national policies (VROM et al., 2004) in which the landscape is defined as a Greenport, which are areas which the government perceives as important “*from an international economic perspective*”(p. 16, VROM et al., 2004). Regarding biodiversity, nature organizations within this discourse use a collaborative strategy and focus on strengthening biodiversity related to the cultural landscape of bulb farming, such as bulb birds, via measures that do not impact conventional farm operations (e.g., hedges). Actors representing this discourse are passionate about conserving these species within the current landscape configuration and focus on the relational value of nature.

**Problems** Following from the landscape definition, the main threats to the landscape are urban development and ‘cluttering’. The fear for urbanization is present since the plans in the 90s to develop a bulb city, and even though that has not happened due to regional resistance, the fear is renewed due to the current housing crisis in the Netherlands, and new policies to build new houses in all provinces. While the spatial policy of the Intergemeentelijke Structuurvisie (ISG) developed out of this discourse, people are currently critical about it, because part of the policy includes building detached, expensive houses to finance the removal of old sheds or buildings (Rekenkamercommissie Teylingen 2020). According to the people within this discourse, this policy currently contributes to the ‘cluttering’ of the landscape.

**Solutions** When asked about sustainable bulb farming, market demand is referred to as the prerequisite for sustainable bulb farming and consumers are thus blamed for the inability of bulb farmers to become sustainable. In line with neo-liberal discourses, the idea is that farmers just follow market demand (Erjavec and Erjavec 2009). When discussing this with farmers during the workshop, the market appeared to be seen as something unchangeable, ‘natural’,

which cannot be steered. Governmental intervention in bulb farming is undesirable and should be kept at a minimum:

“I have created the boundaries [of sustainability programs of the Greenport]. Then I have stated: if there is anything I can do, please invite us. So, I try to steer as little as possible. Especially if that would only be counterproductive” (G7).

**Institutionalization** The discourse described here has been structured in the 90s and is dominant among powerful actors, such as civil servants and politicians. Although it is currently criticizing elements of the ISG policy, its main elements are still strongly institutionalized via the ISG policy and the partnership between farmers and conservationists (Geestgrond). Moreover, during recent actor meetings about the evaluation of the ISG policy and the new Dutch National Program for Rural Areas (NPLG) (April 2023), this discourse was voiced by many actors that were present and will probably have a strong influence on these policies. The next discourse was also represented during these meetings, but less dominantly so.

### An economically vital and sustainable landscape

**Landscape definition** The *economically vital and sustainable* landscape discourse is an emergent discourse that has a strong overlap with the hegemonic discourse in terms of its landscape definition. However, it is less focused on the aesthetics or cultural history of the landscape, but more so on the economic value of the landscape. It stresses that “*bulb fields are an important economic motor for the municipality*” (p. 29, Gemeente Hillegom 2021) and “*an important pillar of the Dutch economy*” (p. 3, KAVB et al., 2018).

Biodiversity is more often mentioned in this discourse than in the previous one. “*Biodiversity is under pressure*” (p. 5, KAVB et al., 2018) is something all actors within this discourse acknowledge. At the same time, biodiversity is seen as intertwined with bulb farming, as “*innovation and entrepreneurship protect biodiversity around a strong agricultural sector*” (p. 5, Gemeente Hillegom et al. 2016). Thus, biodiversity and bulb farming can go hand in hand, according to farmers (KAVB et al., 2018) and municipalities (Gemeente Hillegom et al. 2016; Gemeente Lisse 2022; Gemeente Noordwijk 2018; Gemeente Teylingen 2023). However, biodiversity is mainly discussed from an instrumental point of view, weighing its potential benefits (e.g., functional agrobiodiversity or social license to produce) and drawbacks (e.g., increase in pests or the required changes in farm operations to conserve biodiversity).



**Problems** Apart from being concerned about urban development and cluttering, the main concern of these actors is the increasing pressure from government regulations, retail, and consumers to farm more sustainable. According to the sector, entrepreneurs are getting stuck between stricter environmental regulations from national and EU policies and phytosanitary requirements from import countries (KAVB et al., 2018). In a way, these circumstances are treated as given, and the farmers within this discourse see it as their role as entrepreneur to deal with this through innovation. This is also endorsed by municipal policies, which talk about “*innovative work*”, “*new technologies*” (p. 5, 23, Gemeente Lisse 2022) and upscaling, intensification and restructuring (Gemeente Hillegom 2021). The farmers themselves mainly talk about “*cleaner farming*” (workshop), which they define as a decrease in the use of pesticides.

**Solutions** The farmers within this discourse seem dedicated to becoming cleaner, via which they can also contribute to biodiversity. However, not via converting to other types of farming, such as organic farming, but via integrated pest management, which was defined during a local bulb farming event as “*a minimal dependence on chemical substances*” by changing several aspects of bulb farming, including breeding more resilient plants, using more organic types of manure, and using so-called “*green*” substances for pest management (pesticides on an organic basis). In this scenario, pesticide use will be reduced, but not down to zero. Farmers and researchers (e.g., R2) do not believe that abolishing pesticides is feasible. Nonetheless, a group of young farmers is developing a demonstration field in collaboration with Living Lab researchers in which they will experiment with organic bulb farming. According to the young farmers, the lack of a market is the main obstacle, which is confirmed by many others:

“If people think that they can expand this [organic bulb] market, you hope that the number of consumers choosing for organic bulbs also increases. But that is not going to happen, and that is of the course the reason, or an important reason, why bulb farmers do not simply switch to organic farming.” (A1).

So, while the market in general is seen as spurring change, due to the increasing interest for sustainability, it is not expected that the market will demand a transition to organic farming. While some farmers state to be intrinsically motivated to become sustainable, others merely follow market demand. Currently, the goal of the sector is to reduce 50% of pesticide use in 2030 following the goals of the EU Green Deal (European Commission 2022), but

these farmers expect that to maintain their “*social license to produce*” (quote from workshop) they need to reduce 95% in the end:

“They [bulb farmers] just see that, okay, I want to work in a responsible fashion, and I can’t go on just like that, I have a floriculture product that will not be accepted anymore by society.” (BF1).

A theme that seems to become popular within this discourse, is a focus on a healthy soil. During discussion nights and presentations from researchers, farmers often have questions with regard of the soil. The sector itself is also focusing on soils, by developing a soil academy and supporting farmers with soil coaches (p. 11, KAVB et al., 2018). According to one of the municipalities, healthy soil management should be part of “*sustainable innovation in the bulb sector*” (p. 16, Gemeente Teylingen 2023). Farmers want to invest in their soils, because “*a healthy soil is crucial, without a healthy soil there are no healthy bulbs*” (A1). While not explicitly, this seems to be a shift towards other ways of thinking about farming (such as organic or regenerative farming), in which the living soil is seen as a central element of the farm (Bless et al. 2023).

Regarding the governance of the landscape, farmers stress the importance of independence and entrepreneurship. They want to take their own responsibility and thereby avoid government intervention in the region and on a national level. This is also part of the local political culture, where the municipalities stress the tradition of entrepreneurship (e.g. p. 17, Gemeente Hillegom 2021). Thereby, the farmers clearly relate to neo-liberal discourses on agriculture in which farmers are seen as entrepreneurs, just as in the previous discourse (Erjavec and Erjavec 2009). While some farmers admit that change has generally come due to governmental intervention (e.g., BF3), it is at the same time seen as “*enough*” (BF3, BF6). Thus, to become economically vital and sustainable, “*all actors have to contribute to a better business model which enables the farmer to make sustainable choices*” (p. 10, KAVB et al., 2018). While stressing independence, most farmers also want more collaboration among farmers to stimulate knowledge exchange and thereby enhance innovation.

**Institutionalization** Next to farmers, researchers, nature organizations, civil servants and employees of agricultural companies and farming advocacy organizations are also part of this discourse. Thus, powerful actors within the landscape, but also outside of the landscape (in the sector and value chain). This discourse has been structured through several meetings and initiatives about sustainable bulb farming, such as meetings by the Greenport partnership, the

association of bulb growers and the collaboration between bulb growers and researchers. During the establishment of the Greenport partnership sustainability was not a prominent theme yet but it became a strong focus of the partnership during the last years. Other signs of institutionalization are the current efforts to create a regional sustainability certificate and the demonstration field of young bulb farmers. Moreover, some of the municipalities have now taken up goals regarding pesticide reduction, such as Noordwijk en Hillegom. However, there are no concrete actions formulated, and it seems that municipalities do not (perceive to) have power to steer changes in the bulb sector as they do not make agricultural policies and do not own bulb fields. In general, this discourse seems to be slowly replacing the *open and agricultural* discourse.

## A biodiverse and healthy landscape

**Landscape definition** The *biodiverse and healthy* landscape discourse is an unstructured discourse, in which the current status of the landscape and conventional bulb farming is criticized. However, there is a lot of variation on what a desirable Bulb Region should look like, which explains why it has not yet structured yet. Some actors encourage ‘nature-inclusive’ or organic bulb farming without any pesticides to maintain the open landscape, others prefer sustainable food production or nature inclusive housing projects, which are also perceived as benefitting biodiversity, and do not specifically see the landscape as open and agricultural.

Biodiversity is prioritized in this discourse, not necessarily from an instrumental point of view, but rather for its intrinsic and relational value, and it is questioned whether the perceived link between bulb farming and biodiversity is legitimate:

“The nice thing is, if you push back a species [yellow wagtail] to a location which is the only place where it can survive, because all the other places where it normally could live have disappeared, you can say “it is a species that specifically lives between the bulbs”. Which is not the case at all. It used to live in any place. And now it is a good reason to maintain the bulb fields, because it is the only place where the yellow wagtail still lives.” (N5).

**Problems** Apart from biodiversity loss, some actors also see human health as an important issue in the landscape. During the past year, there has been growing attention to the negative impacts of pesticides on human health, and bulb farming has been mentioned specifically in the Dutch media as an agricultural sector that uses high amounts of

pesticides. Nonetheless, this is not a prominent theme in the Bulb Region, in contrary to other landscapes in which bulbs are produced (see for example Bollenboos 2023). One of the respondents believes people within the Bulb Region are aware of the negative impacts, but that the economy is prioritized, especially on the farm level:

“But yes, I think there was a documentary at Zembra [Dutch television program] about its [bulb farming] relation with Parkinson’s disease... I think that they [bulb farmers] are aware of it. But yes, if you have to earn your living with it...” (G4).

**Solutions** While some propose other forms of land use, proponents of keeping bulb farming think that this is only possible with either strict regulations (G4) or support from the province (G9). Others do not believe that organic or nature-inclusive bulb farming is possible. It is impossible either because of the market, or because it is biologically unfeasible, as bulb production involves the use of cultivars that are very susceptible to pests.

**Institutionalization** An important barrier for the realization of the diverse landscape visions within this discourse, is the ISG policy. Due to this policy, it is not possible to develop other forms of land uses on land that is defined as viable bulb land, which concerns most land outside of the villages. This does not only protect the agricultural landscape from urbanization but also hinders the development of other types of agriculture, such as community supported agriculture.

This discourse contains a lot of variation, with as common denominator a critique on the idea that conventional bulb farming is sustainable and should be prioritized in the spatial planning of the landscape. It is not represented by any official document, was not discussed during official meetings, and was only found in interviews. Hence, this discourse has not yet been structured, let alone been institutionalized.

## Explaining discourse stability

In the first section of the results, I have described the different landscape discourses and evaluated their transformative character. In this section I will explain the dominance of non-transformative discourses and the barriers for the structuration of transformative discourses using the four factors described in the theoretical framework: discourse characteristics; position of actors; dislocation events; and governance setting.

## Discourse characteristics

There are three factors relating to the characteristics of the two dominant discourses that can explain their stability: their overlap, their naturalization and a lack of opposing discourses.

The two dominant discourses, the *open and agricultural* and *economically vital and sustainable* discourse, are partially overlapping. They identify the same enemies (urbanization, stricter environmental legislation) and rely on the magic of the market or actions of individual farmers and, thus, not discussing any systemic changes. The fact that the *economically vital and sustainable* discourse seems to be slowly replacing the *open and agricultural* discourse, could be explained by the fact that *economically vital and sustainable* provides an action repertoire for dealing with the strong pressure from state and society to change current agricultural practices, which is a big challenge for bulb farmers.

Both discourses seem to have been ‘naturalized’, which happens when a discourse “*comes to be seen as natural, and legitimate because it is simply the way of conducting oneself*” (p. 91, Fairclough 2001). This is reflected in the fact that questioning the export orientation of bulb farming or the place of bulb farming in the landscape is seen as unthinkable. Moreover, the strong connection between regional and national identity and economic aspects contributes to the coherence of the discourses, and their perceived neutrality. Pictures of tulips and tulip fields can be found in any representation of the Netherlands, and bulb farming is seen as an important regional and national economic activity. Thus, apart from internal coherence, the strong relation with naturalized discourses on a national level strengthens the discourse as well.

The strength of these discourses is also determined by the absence of an opposing discourse, as the *biodiverse and healthy* discourse is not structured at all. Moreover, its action repertoire is rather abstract and mainly directed at actors outside of the landscape, such as the province and the national government. When looking at national discourses on agriculture, and especially sustainability or transformative discourses, they do not seem to align, be relevant or provide an action repertoire for the Bulb Region. Generally, discourses on the national level are about healthy food, nitrogen emissions or animal welfare. Apart from one document, none of the consulted documents discussed bulb farming at all. Thus, there are no national (transformative) discourses which seems to threaten the dominant discourses. In fact, national discourses on integrated agriculture strongly align with the *economically vital and sustainable* discourse, especially in terms of the type of solutions. Through technological developments, it is believed, current characteristics of

farm operations can be maintained (e.g., large-scale, export oriented).

## Position of actors

When looking at the status, credibility, resources and power of actors, the dominant discourses are supported by the most powerful actors, such as municipal councilmen, employees of agricultural companies, researchers, and chairmen of all kinds of regional and national farmer organizations. Together, they hold a great deal of influence in the bulb sector, as they determine policy agendas, scientific agendas as well as the agendas of both formal and informal farmer gatherings. Whether deliberate or not, they seem to employ certain discursive strategies by building coalitions on a landscape level, for example with nature conservationists, and excluding organic farming, both as a concept and quite literally by not inviting organic bulb farmers when discussing sustainable bulb farming.

Taking a farmer’s perspective, the structure of the landscape and bulb sector makes it difficult for them to deviate from conventional practices. The Bulb Region has originally consisted of many small-scale, specialized farms. Today, there are still many different landowners and bulb farmers, and due to the sensitivity of bulbs for certain pests and the specialization of bulb farmers in certain species and varieties, they lease land from each other regularly. Therefore, farmers cannot radically change their practices, as this will conflict with visions and practices from farmers from which or to which they lease (their) land. Even on their own farms, farmers experience peer pressure from neighboring farmers to keep their land ‘clean’, devoid of ‘weeds’. Thus, the dominance of the discourse directly influences the room for maneuver of farmers.

One of the main problems of the opposing discourse seems to be its lack of powerful actors. They are volunteers, none-bulb farmers, or civil servants without decision-making power. Moreover, these actors generally are not rooted in the landscape or known in the sector. Regional identity is very important in rural landscapes and is constituted through discourses (Paasi 2013). Within these discourses, the relation of the landscape to “other” landscapes plays an important role. In this case, the dominant discourses defines the landscape as open and agricultural, thus opposing every change that affects the openness of the landscape or its agricultural businesses. This focus on rurality is probably driven by the threat of the provincial government (located in the city of The Hague) pushing for urbanization. Thus, people who moved from the city into the Bulb Region, might not have the (perceived) legitimacy to challenge the current system and practices.

However, the Bulb Region does seem to be influenced from outside. On a national level conservationists working on rural biodiversity (Deltaplan Biodiversiteitsherstel) deliberately talk about healthy soils instead of biodiversity, to bridge the gap between farmers and conservationists. Within the Bulb Region, and especially within the *economically vital and sustainable* discourse, “healthy soils” seems to catch on. In the demonstration field of young bulb farmers, a healthy soil is now the starting point for all experiments. Thus, this seems to be a deliberate and successful strategy to get farmers on board for biodiversity. Instead of weakening the dominant discourse, this strategy seems to ensure the uptake of new elements within the discourse.

### Dislocation events

Between the 90s when the *open and agricultural* discourse emerged, and today, two dislocation events can be identified, although they could better be described as developments rather than events: the Dutch housing crisis and increasingly strict environmental legislation instigated by the European Union. Both on a national level as well as on the landscape level, there is an increased sense of urgency regarding building new houses, and the Bulb Region is one of the areas where there is still space close to large cities. While pesticides are not a big theme on the Dutch agricultural agenda, they are discussed on the European Union level, for example via the Green Deal and the proposed pesticide regulation (European Commission 2022). Both events are substantive threats to the desired landscape but do not seem to impact the legitimacy of the dominant discourses. The housing crisis actually strengthens the *open and agricultural* discourse because it reconfirms its *raison d'être*, while the pesticide discussion strengthens the urge for change as present in the *economically vital and sustainable* discourse. While there are citizen-led protests in other bulb farming regions in the Netherlands, the environmental justice discussion is not present in the Bulb Region, and farmers get seldom complaints from citizens about their pesticide use.

### Governance setting

The governance setting in the Bulb Region is very homogeneous in terms of discourses. The *open and agricultural* discourse is so strongly institutionalized, that the rules and resources in the area are all geared towards this goal, although some resources (like municipal financing of the Greenport) are now also used for the principles of the *economically vital and sustainable* discourse. Especially the fact that spatial planning rules embody the core of the *open and agricultural* discourse by having a fixed number of hectares dedicated to bulb farming makes this discourse

so stable. There is just no legal basis for any other activity than bulb farming. When looking at the broader, international governance setting in which the Bulb Region is situated, zero-tolerance phytosanitary requirements from import countries forces the export orientated bulb sector to continue using pesticides, thus, reinforcing the need for innovation, as advocated by the *economically vital and sustainable* discourse.

Within the landscape, there are clear signs of path dependency. First, by being a valuable crop, the farms have turned into large-scale, intensive farms. Due to their investments in, for example, machinery, but also planting material, farmers are reluctant to experiment with pesticide reduction or abolition, thus, these are fixed costs inhibiting change. Second, as most bulb farmers are educated or trained within the intensive bulb farming sector there no farmers with knowledge of alternative practices. Bulb farmers are also quite dependent on suppliers for advice. Especially smaller farmers cannot afford to pay for independent advice or research (A2). These suppliers have in some cases expressed the desire to contribute to pesticide-use reduction, in line with the *economically vital and sustainable* discourse, but it is not yet clear how these are translated in practical advice given to individual farmers (A1). Third, regarding bulb farming as a spatial and economic issue (instead of relating to nature and health as well) is ingrained in the governance of the landscape. Within municipalities, bulb farming falls within spatial planning or economics. Lastly, even though there has been attention to sustainability issues on national television, bulb farming is still not widely perceived as unsustainable and the demand for bulbs has not decreased, even though the Netherlands is currently facing high rates of inflation (Agrimatie 2022b).

## Discussion

### The transformative character of landscape discourses

This study set out to analyze the institutionalization of landscape discourses and its implications for rural transformations. Therefore, it is important to assess the transformative character of the three discourses. The *open and agricultural* discourse does not wish for any substantive changes at all and could be regarded as a discourse that creates stability and maintains the status quo. Thus, this discourse inhibits change, even though it acknowledges the relational and to some extent intrinsic value of nature and promotes the conservation of biodiversity. The *economically vital and sustainable* discourse is aimed at becoming economically vital and sustainable, but within the current practice of conventional bulb farming, so not involving systemic changes or



trying to change external factors or indirect drivers such as market demand or (international) regulations. Biodiversity is not a big theme, but rather a side effect of sustainability. Moreover, some farmers that are part of this discourse do not feel an intrinsic motivation for changing but are rather following market demand. The *biodiverse and healthy* discourse is potentially transformative and prioritizes biodiversity but is not yet structured or let alone institutionalized in the region. It was found during interviews but not during public occasions (such as consultation evenings) and therefore has little impact on policies and practices.

When comparing a transition perspective (e.g. Geels 2002; Geels and Schot 2007) with a transformative change perspective, different conclusions can be drawn. The *economically vital and sustainable* discourse represents and contributes to a transition towards more sustainable bulb farming. In fact, the Bulb Region knows many initiatives that strive for sustainability, while maintaining the current status quo, both in social and in natural-spatial terms. But from a transformative change perspective, biodiversity restoration might demand a shift away from (more) technology, or from the activity itself. Putting the activity (or sector) at central stage, might therefore inhibit an analysis of what kind of change is necessary to restore biodiversity on a landscape level, which shows the importance of taking a landscape perspective when studying transformative change for biodiversity.

### The stability of landscape discourses

Though not transformative, the dominant discourses determine the developments in the Bulb Region. Their strength lies in their intricate weaving of landscape preferences, economy, and regional identity. Following the logic of the discourses, criticizing or discussing the sustainability of the bulb sector might be a risk not worth taking, as actors do not want to lose the open landscape. Reminding people of the past plans for a bulb city and connecting this to the current shortage of housing in the Netherlands, seems a powerful strategy to strengthen the idea that the bulb sector must be maintained to prevent urbanization processes. Additionally, many actors have direct economic interest in the sector, which makes it less likely that they would support alternative or opposing discourses. Another factor that stabilizes the dominant landscape discourses is the singularity of the sector. Therefore, many sustainability issues on a national level, such as the nitrogen crisis or the increasing demand for healthy food, do not impact the landscape and landscape discourses, which might be a finding that is also applicable to other non-food agricultural sectors. Because of the absence of opposing discourses, even shock events do not have a big impact, as actors belonging to the dominant discourses

have ample time, space and legitimacy to frame the event in accordance to their discourse and thereby strengthening it, a process which was also found in other cases (Driessen and De Gier 1999; Kaufmann et al. 2016a).

Another explanation of the stability of the dominant discourses, is that landscape discourses inherently entail a form of naturalization (Fairclough 2001) of the landscape (Nogué 2007). The landscape, in its current form, is perceived as ‘the landscape’. Instead of seen as something dynamic, it is perceived as something static. The current landscape is how it ‘ought to be’. And in the case of the Bulb Region, the opposing discourse does not provide a coherent different perspective on the landscape. In Chile, landscapes were reforested on a large scale for timber production, and the development of these plantations was accompanied by new storylines on the landscape. These landscapes are now perceived as natural by its inhabitants, who are mostly unaware that these landscapes were only recently (60s) turned into forested areas (Aliste et al. 2018). These static perceptions of landscapes are particularly challenging for transformative change, as some forms of land uses might contribute to biodiversity loss and might therefore not fit into a sustainable, nature-inclusive society.

An important question is therefore how landscape discourses can be deliberately influenced. What my case shows in this regard, is that certain elements of overarching and potentially transformative discourses can serve as boundary concepts (Opdam et al., 2015; Star, 2010; Westerink et al., 2017), such as a healthy soil, and can thereby be incorporated in landscape discourses and be translated into action (such as the experiments of young bulb farmers). But by aligning partly with the hegemonic discourse, it strengthens certain parts of it, and might even further inhibit the structuration of alternative and transformative discourses. This is a clear case of what Hajer (1995) refers to as the ‘discursive dilemma’. The *biodiverse and healthy* discourse is a transformative alternative, which is not becoming structured at all, while the *economically vital and sustainable* discourse is only marginally different from the *open and agricultural* and thereby might only contribute to incremental change. However, some authors actually prefer gradualist approaches, which are based on the change of ‘familiar initiatives’ (Levin et al. 2012; Linnér and Wibeck 2019), and stress that these incremental changes can contribute to transformative change, as long as they are geared towards this (Patterson et al. 2017). Their main critique on radical changes is that this is unrealistic, as wicked problems do not have simple solutions, and circumstances might change throughout the course of action (Levin et al. 2012; Patterson et al. 2017; Weick 1984).

The discursive changes in the Bulb Region during the shift from the *open and agricultural* and *economically vital*

*and sustainable* might thus not involve radical change but do represent a step forward on a moderate scale. As this shift has mainly occurred due to external pressure, the role of the landscape itself in (discursive) change has been minimal. The *open and agricultural* discourse legitimized and naturalized the place of bulb farming in the landscape, while the *economically vital and sustainable* provides an action repertoire to continue bulb farming under external pressure. Thus, while external forces can lead to incremental change in strongly institutionalized discourses, this adaptation process makes it more difficult to challenge the discourse and therefore to instigate fundamental, transformative changes on a landscape level, at least on the short term.

### Implications for rural transformations

The fact that that strongly institutionalized landscape discourses can be incredibly stable is positive when these discourses prioritize biodiversity, but negative if not. Especially in countries where a lot of responsibility is put on local governments, such as the Netherlands, which is a “*decentralized unitary state*” in which everything should be decentralized “*if possible*” (Rijksoverheid 2023), non-transformative landscape discourses can severely hamper the realization of rural transformations for biodiversity. Stability comes not only from the discourse characteristics, but also from non-discursive factors, such as the natural-spatial conditions of the land in combination with the type of agriculture (need for large scale crop rotation), international rules and regulations (phytosanitary requirements of import countries) and the structure of the agricultural sector (high value crop, but too small a sector to develop specific pest solutions).

While discursive institutionalism mainly focusses on discursive explanations for institutional change and stability, it is the interaction between discursive and non-discursive factors that creates institutional stability on a landscape level. While previous studies on path dependency in Dutch agriculture showed how material, cognitive, technological, cultural, financial and regulative factors limits the possibilities for farmers and agriculture in general to change, they did not include the discursive element enhancing the overall stability created by these factors (Schuurbijs et al. 2019; Vink and Boezeman 2018). A landscape discourse can play an important role by connecting all these factors in one narrative around what the landscape is and ought to be, thereby contributing to a situation with little possibility for change. This finding aligns with research on discursive lock-ins, that shows that while rarely studied, dominant discourses play an important role in stabilizing socio-technical systems via unchallenged values and assumptions, discursive agency

and cooptation of emergent or new narratives (Simoens et al., 2022a, b).

For rural transformations to occur in landscapes in which this seems to be undesired or impossible, all dimensions of the system need to be addressed, including landscape discourses. However, as the example of “a healthy soil” shows, the discursive dilemma makes deliberate steering towards the structuration and institutionalization of transformative landscape discourses difficult. Moreover, many drivers of institutional stability and change in landscapes are outside of the landscape and cannot be influenced by the actors within the landscape. Thus, while acknowledging landscape specifics is important, it might not be the favorable to put all responsibility for societal transformations on landscapes. Not only because landscape actors do not have the capacity to address all relevant indirect drivers, but also because the interests of citizens might conflict with the interests of society. Several studies on pesticides show that especially farmers, although most affected, resist a decrease in pesticide use (Mansfield et al. 2023). For transformative change, other governance levels need to be engaged as well. The development of the *economically vital and sustainable* discourse seems to be induced by EU and national level sustainability policies, which oblige farmers to change, and have therefore spurred a different view on farming. A combination of top-down policies setting the boundaries and goals and landscape governance for implementing the goals via tailored solutions might thus be the best way forward when landscapes are in a closed, stable setting in which there are little alternative ideas. In that case, the landscape should be equipped with sufficient resources and jurisdiction.

### Conclusion

This study shows that transformative discourses for biodiversity can be difficult to structure and institutionalize in landscapes dominated by a stable landscape discourse. The stability of landscape discourses cannot only be explained by the characteristics of the discourses themselves, but by the intricate relation between landscape discourses and non-discursive characteristics of the landscape (such as natural-spatial conditions, structure of agricultural sector and embeddedness in international trade). Changes in landscape discourses mainly come from external forces, such as the introduction of boundary concepts via national discourses, stricter sustainability legislation and pressure from market and society. To enable rural transformations for biodiversity, landscape governance alone might therefore not suffice, and could be complemented with national level goal or boundary setting.

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s10460-024-10559-2>.

**Acknowledgements** First, I want to thank all respondents who took the time to participate in this research. Second, I want to thank Hugo Langezaal for the construction of the map and for co-organizing the biodiversity measures workshop. Third, I want to thank Cassandra van Altena, Wiesje Korf en Hedi Westerduin for sharing notes and data. Lastly, I want to thank Maria Kaufmann, Daan Boezeman and Ingrid Visseren-Hamakers for providing feedback on different draft versions of this paper.

**Funding** This study is part of the research project “Met Boeren, Bewoners, Bezoekers en Beleidsmakers werken aan een Betere Biodiversiteit in de Bollenstreek” and was funded by the “Living labs voor het herstel van het landelijk gebied” program (NWA.1331.19.007) as part of the Dutch National Research Agenda.

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