

Utrecht University
Faculty of Geosciences
Master's in Human Geography



**Utrecht
University**

Master's Thesis M. Sc.

**Affective Drivers for the Emergence of a
Geography of Discontent**

An interview-based case study on the origins and motivations behind the
discontent of the Farmers' Protests during the Dutch Nitrogen Crisis.

Submitted on 09.02.2024

Supervisor: Dongmiao Zhang

Nicolas Alcock

Student Number: 5320518

n.e.alcock@students.uu.nl

Schellenhofweg 18, 50858 Köln, Germany

+49 174 92 68 708

Abstract

This thesis examines the Dutch farmers' protests following the *Nitrogen Crisis*, focusing on the underlying motivations and origins of the farmers' discontent. Based on recent research, the protests are categorized as an emergence of a *Geography of Discontent*. Recent geographic debates on the topic highlight the necessity of shifting from a purely eco-centric perspective towards a more holistic approach to grasp the complex and multi-faceted origins of the phenomenon. In this regard, scholars advocate for the inclusion of non-material affective factors, alongside structural aspects, as potential drivers for the arise of *Geographies of Discontent*. In this context, my research investigates the impact of five affective factors (*Unsecure Future Prospects, Perceived Status and Position in Society, Influence and Participation, Identity, and Belonging*) on the underlying discontent among Dutch farmers who are affected by impending measures to reduce nitrogen emissions. My findings show the importance of all five affective factors concerning the farmers' discontent, highlighting their role as catalysts for the emergence of a Geography of Discontent, as demonstrated by the farmers' protests.

ACKNOWLEDGMENTS

I express my heartfelt and sincere gratitude to my supervisor, Dongmaio Zhang, for her enduring support, for her direct and clear communication in her guidance, for granting me the freedom in carrying out my research, and, most importantly, for her patience throughout the process.

Further I would also extend my gratitude to my interviewees for their willingness and openness to engage in discussions and share their perspectives and emotions with me. Through conversations with each of them, I gained insights into the daily lives of them as farmers that surpassed the scope of my research.

Last but not least I express my heartfelt gratitude and appreciation to my friends and family for their unwavering support throughout this process. This would not have been possible if it wasn't for your support.

Table of Contents

1.	Introduction.....	1
2	The Dutch Agriculture.....	4
2.1	From World War II to today – Modernization of the Dutch Agriculture Sector	4
2.2	The impact of modernization on the agricultural sector.....	6
2.3	The Dutch Nitrogen Crisis	7
2.3.1	Environmental impact - Ecological downsides of the modernization	7
2.3.2	The Supreme Court’s ruling and the onset of the Nitrogen Crisis.....	10
2.3.3	The Farmers’ Protests	13
3	Geography of Discontent.....	15
3.1	Definition and History of the Term	16
3.2	Political and Societal Impacts of Discontent.....	17
3.3	Non-material and Affective Causes as Drivers for Discontent.....	18
3.3.1	Unsecure Future Prospects	20
3.3.2	Perceived Status and Position in Society	21
3.3.3	Influence and Participation	22
3.3.4	Identity	22
3.3.5	Belonging.....	23
3.4	Geography of Discontent – the Dutch Farmers Protests	24
3.4.1	Unsecure Future Prospects	25
3.4.2	Perceived Status and Position in Society	25
3.4.3	Influence and Participation	26
3.4.4	Identity	27
3.4.5	Belonging.....	27
3.5	Derivation of the Research Question	28
4	Methodology	29
4.1	Research Design	29
4.2	Interview Method.....	30
4.3	Participant Group	31
4.4	Interview Design.....	34
5	Results & Discussion.....	36
5.1	Unsecure Future Prospects	36
5.2	Perceived Status and Position in Society	40
5.3	Influence and Participation	44
5.4	Identity	46
5.5	Belonging.....	50

5.6	Results summary	52
6	Conclusion and Outlook	53
7	Literature	56
8.	Appendix.....	64
8.1	Transcription Guideline	64
8.2	Interview Guide English.....	65
8.3	Interview Guide Dutch.....	67

1. Introduction

In June 2022, thousands of farmers from all over the Netherlands formed protest marches with their tractors, blocking highways and various infrastructure points across the country, dumping manure, and setting fire to hay bales alongside the highways. Several ten thousand farmers gathered for a big demonstration on June 22 in Stroe, a small village in the center of the Netherlands. They were protesting against the Dutch government's previously announced plans for the reduction of the agricultural nitrogen emissions by 50% by 2030 (NLPG 2022). In order to achieve this target a comprehensive transformation of the agricultural sector including massive reductions in livestock farming is foreseen. Especially near vulnerable Natura 2000 nature reserve areas, emission reduction targets of up to 95% are envisaged, which will inevitably lead to the closure of many farms located in the vicinity. The ensuing protests following the announcements were the temporary culmination of the so-called *Nitrogen Crisis (Stikstof Crisis)* since the Supreme Court ruling in May 2019, which declared the previous reduction measures to be insufficient and in violation of the applicable EU law. They illustrate the massive discontent and resistance of the farmers affected, who see their livelihoods and future at risk. The scale and force of the protests attracted enormous (media) attention and meant that the issue in its full scope has since emotionalized the whole of Dutch society and dominated the political debate and landscape across the country.

From a geographical perspective, the farmers' protests in the course of the *Nitrogen Crisis* can be classified as a vivid example of the emergence and spatial articulation of a *Geography of Discontent*. At the latest, since the release of the "Revenge of the places that don't matter" (Rodríguez-Pose, 2018) this term in connection with the narrative of *Left Behind Places* has rekindled the academic debate about spatial disparities and the political and social implications of economically disconnected regions. Typically, long-term economic decline of a region, the loss of prosperity and the lack of future prospects are seen as strong drivers for the development of a manifested disgruntlement and the emergence of a *Geography of Discontent*. Therefore, *Geographies of Discontent* are inherently relational as they are typically directed from peripheral or disadvantaged regions and directed towards core regions that are running ahead politically, culturally or economically (Díaz-Lanchas et al., 2021; Dijkstra et al., 2020). Whereas *Geographies of Discontent* are most prominent associated with some of the most disadvantaged *Left Behind Places* (De Ruyter et al., 2021; McCann & Ortega-Argilés, 2021), the relational underpinning of the phenomenon implies that they can just a like emerge – due to sudden disruptions and system changes that confront wealthy and well situated regions with rising levels of uncertainty about their (economic) future (De Ruyter et al., 2021). The entrenched dissatisfaction about a dreadful future poses the risk that entire affected groups and

communities lose faith in being considered and represented by democratic processes and institutions. As such, *Geographies of Discontent* can incite violent (?) and popular backlash such as demonstrations and protests on the short run and give rise to anti-establishment movements and parties on the long run (Dijkstra et al., 2020; Rodríguez-Pose, 2018; Walter, 2021). For policy makers faced with these repercussions of uneven regional development, a key question is how to deal with regional discontent and how to develop constructive solutions that meet with broad acceptance, even in complex and heated situations.

Whereas most of the literature on *Geographies of Discontent* has so far focused especially on the repercussion of uneven economic development, more recent literature has stressed that the reasons for the emergence of a *Geography of Discontent* can be manifold. Recent debates among academics stress the importance of a more nuanced understanding of the phenomena and call for holistic approaches that go beyond a straight eco-centric focus (Díaz-Lanchas et al., 2021; Dijkstra et al., 2020; McCann, 2020; McCann & Ortega-Argilés, 2021; Pike et al., 2023). It is argued that to this end, socio-cultural factors that cannot be attributed to purely structural backwardness must be taken more into account in the discourse (Díaz-Lanchas et al., 2021; Hendrickson et al., 2018; MacKinnon et al., 2022; Walter, 2021). The impact on affective dimensions must therefore be considered likewise. Sentiments e.g., as self-perceived low status and lack of appreciation in society or the loss of positive future prospects of affected individuals or communities can play a crucial role for the emergence of a *Geography of Discontent* (De Ruyter et al., 2021; Dijkstra et al., 2020; McCann & Ortega-Argilés, 2021). In the course of this, scholars are also calling for a rethinking that takes the underlying multidimensional causes into account when developing new paths of encountering the phenomenon. They criticize the limitations of conventional growth-oriented policy approaches which try to solve the problem on a structural-material dimension alone (Koetse & Bouma, 2022; MacKinnon et al., 2022; Pike et al., 2023). Furthermore, it is argued that measures that attempt to contain or even resolve a manifested dissatisfaction must go “beyond simple compensatory and/or appeasement measures” (Dijkstra et al., 2020, p. 751).

This thesis takes up this debate and looks at the farmers’ protests in the wake of the Dutch *Nitrogen Crisis*, examining in more detail the motivations behind their expressed discontent. While the topic keeps on dominating the Dutch social, political, and academic debate, approaches to resolving the escalated situation, as criticized in the academic discourse, focus mainly on economic and technological¹ solutions. The government's initiatives to provide financial assistance to farmers during the transition period or offer compensation in case of their exit have not yet resulted in a reduction of tensions. As of now, it remains uncertain whether the proposed measures will be implemented.

¹Such as nitrogen air filtration system for barns. For more information please see: (Melse & Ogink, 2005).

The aim of this research is to build a more accurate picture for the origins and motivations of the manifestation of discontent that has arisen. Drawing on the current geographic academic debate, it is argued that non-material and affective factors also play a crucial role in the complexity of the situation and need to be taken into account when looking for the right approaches to solve it. For this purpose, existing literature, also from neighboring sociological and social psychological disciplines, is used to examine the potential influence of affective factors on the development of discontent among farmers concerned. Factors such as their possible loss of belonging (Mee & Wright, 2009; Quinn & Halfacre, 2014; Sandbu, 2020; Tomaney, 2015) or (job) identity (Brand, 2015; Miscenko & Day, 2016; van Eersel, 2019) due to the threat of the transformation are examined with the objective to understand to what extent they play a significant if not dominant role behind the farmers' upheaval.

For this objective, semi-structured interviews will be conducted with 11 livestock farmers who, due to the proximity of their farms to Natura 2000 sites, have to reduce nitrogen emissions to such a high degree that the continuation of their business as before is at risk. As a result, they may be forced to cease operations and sell their businesses. It will be outlined to what extent they feel stressed on a non-material affective dimension. In doing so, this thesis seeks to contribute not only to the discourse on the *Geography of Discontent* in general, but it also seeks to provide a better understanding of the complexity and sensitivity of discontent among one of the groups most affected by the *Nitrogen Crisis* in particular.

The remainder of the thesis is structured as follows: Section 2 outlines the development of Dutch agriculture over recent decades, illustrating its transformation into one of the most productive and intensive sectors globally, along with the accompanying drawbacks. In this context, the tense situation of Dutch farmers in global competition and the consequences of nitrogen pollution for the environment are highlighted. Section 3 explains the theory of the *Geography of Discontent* and views the Dutch farmers' protests under this point of view. Derived from this, the research question of this thesis on the influence of non-material affective factors on the farmers' discontent is formulated and conceptualized. Section 4 describes the methodology and the structure of the interviews based on which the subject of the investigation is examined. In section 5, the results of the interviews will be presented, analyzed, and discussed. The final section 6 concludes the results and provides an outlook for further academic debate about the *Geography of Discontent* in general and specifically in relation to the farmers' protests in the wake of the Dutch *Nitrogen Crisis*.

2 The Dutch Agriculture

The following section looks at the development of the Dutch agricultural sector and shows how, within decades, it has become one of the most innovative, efficient, and productive sectors in the world. Reference is made here to Karel (2010), who describes this development in his standard reference work "Modernisation of the Dutch agricultural system 1950-2010". The consequences of this transformation for farmers, who are under increasing economic pressure due to the need to increase their productivity and efficiency to be competitive on global markets, are highlighted. Van der Ploeg (2018 & 2020) and Leitheiser et al. (2022) elaborate on this and show the resulting decoupling of the peasantry from its cultural and social origins in the course of the modernization and capitalization of the Dutch agriculture. Furthermore, the impacts and consequences of these developments on the ecology and environment are demonstrated, particularly through the high usage of nitrogen-based inputs. Subsequently, the events surrounding the Dutch *Nitrogen Crisis* and the resulting farmers protests are presented in this context.

2.1 From World War II to today – Modernization of the Dutch Agriculture Sector

In the past decades, the Dutch Agricultural sector has undergone a comprehensive transformation evolving to one of the most efficient and innovative in the world (Dolman et al., 2019; Leitheiser et al., 2022). After the end of World War II, the Dutch agriculture sector was dominated by small mixed farms. Most of them farmed in a traditional, manual labor-intensive way with low efficiency and outcome rates. To ensure an adequate supply of food – as the memories of the hunger winter of the war year 1944/45 still lingered² – and to increase its international competitiveness, the Dutch government pushed ahead with the modernization of the agricultural sector. Therefore, at the beginning of the second half of the 20th century, rural and land consolidation programs were introduced with the aim of developing Dutch farms. Farmers were induced to invest in the expansion, intensification, and specialization of their farms to increase their efficiency and productivity (Karel, 2010; Van Der Ploeg, 2016). Leitheiser et al. (2022) state that this modernization was “embedded into a food regime based on a neo corporatist alliance of Dutch ministries, industry, agricultural schools, and universities” (p. 705). This “Green Front” (Leitheiser et al., 2022, p. 705) promoted the modernization of the sector by providing knowledge and consultation, innovations, and capital. In addition, agricultural cooperatives and unions enabled cooperation among farmers and strengthened

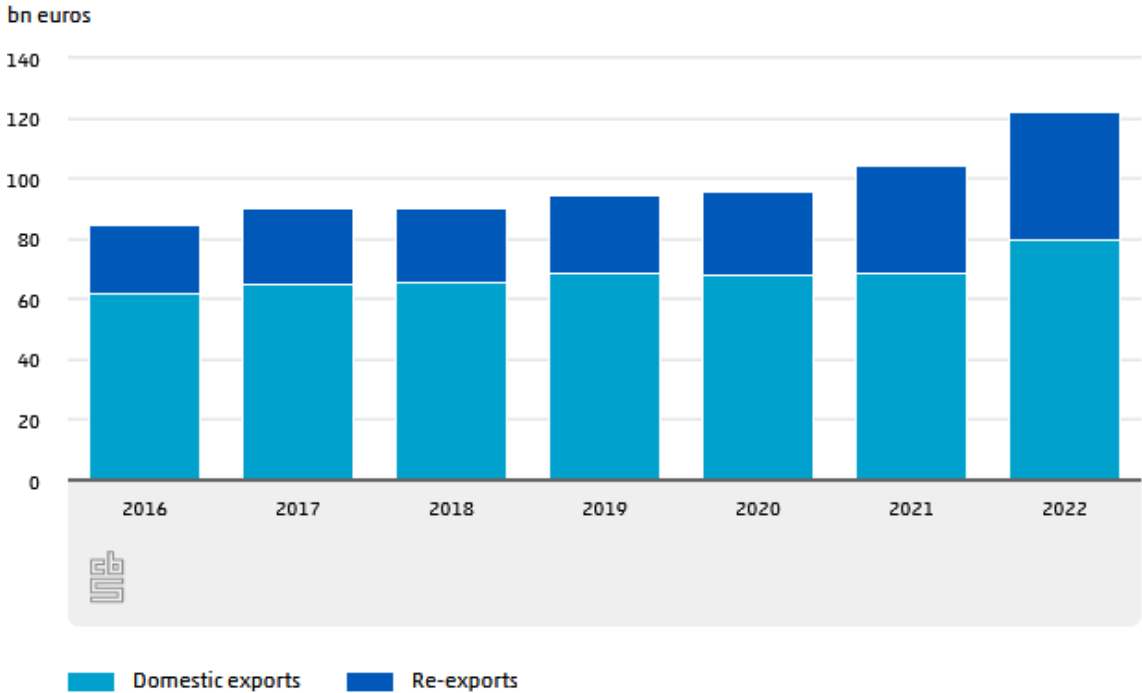
² The Dutch famine, also known as the Hunger Winter, occurred during the harsh winter of 1944-1945 in the German-occupied Netherlands towards the end of the Second World War and led to the deaths of tens of thousands of Dutch people (Lumey & Van Poppel, 1994).

their bargaining power and representation of interests. This close cooperation between the various actors combined with comprehensive state investments in infrastructure and education for farmers paved the way for a remarkable transformation and ascendance of the agricultural sector.

In economic terms, it should be noted that the modernization of the Dutch agricultural has been extremely effectful and has led to a constant growth of the sector becoming one of the most productive and efficient in the world (De Vries et al., 2023). Per unit of land it is the most productive sector in the European Union (Van Grinsven et al., 2019). Today, with an export volume of more than EUR 122,3 billion in 2022 the Netherlands is the second largest export nation for agricultural products in the world, behind only the USA. As illustrated in Figure 1, its exports have increased by more than 44% since 2016 (EUR 84.8 billion)³. The most exported goods were dairy products and eggs (EUR 11.9 billion), horticulture products (EUR 11.5 billion) and meat products (EUR 11 billion) (CBS 2023).

Figure 1

Dutch Agriculture Exports 2016 - 2022



Source: Statistics Netherlands, 2023

³ The figure of 122 million is composed of domestic exports and re-exports of processed imported goods (CBS 2023).

2.2 The impact of modernization on the agricultural sector

Under the credo of modernization, the envisaged agricultural model changed from peasant-farming – small, mostly family-owned mixed farms – to large, highly efficient specialized entrepreneurial farms with substantial consequences for the farmers (Karel, 2010; van der Ploeg, 2020). As new technologies and machinery were constantly needed to expand farms and keep up with the latest technologies, farmers had to invest continuously, resulting in high levels of indebtedness. In his resume about the Dutch agriculture situation, Professor Van der Ploeg (2016) from the Wageningen university states that the total debts of Dutch farms amount to EUR 30 billion, more than 10 to 15 times of the total income earned by these farms (p. 6).⁴ On the one hand, these developments led to growth opportunities for farmers and increased the competitiveness of the Dutch agricultural sector. At the same time, the economic pressure on farmers to keep pace with the growing demands of this accelerating market competition increased. Leitheiser et al. (2022) further state that “the modernisation paradigm and its social imaginary have been the driver of the interrelated processes of dis-embedding of food from a place and the commodification of land” (p. 705).

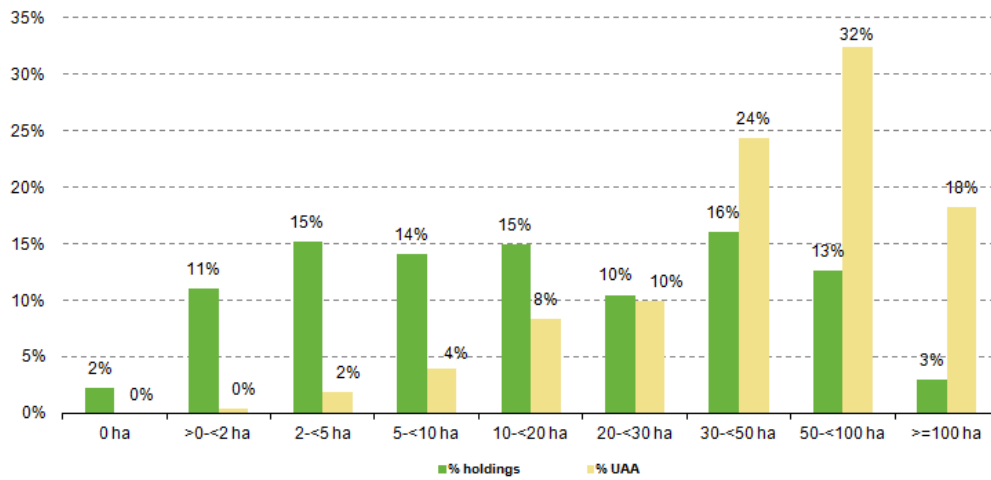
In the course of these developments, coupled with the exchange of labor for capital due to increasing technologization, there was a comprehensive decline in employment in agriculture. The number of farmers in the Netherlands decreased from 400.000 in 1945 to around 75.000 in 2010 (Karel, 2010, p. 17). This was accompanied by a decline in agricultural businesses. From 2000 to 2020 alone the number of farms decreased from 97,390 in 2000 to 52,315 in 2020. While the total number of farms shrunk by almost 50%, the utilized agricultural area (UAA) only decreased by around 8% from 197,550,427 hectares in 2000 to 181,445,084 hectares in 2020 (StatLine 2023). Abandoned farms which left the sector were often bought up by established competitors, resulting in a reduced number of farms but a growing average farm size. The share of agricultural holdings that achieved revenues of more than EUR 500,000 in one year increased from 15.4% in 2009 to 28.33% in 2019 (CBS 2020).

Figure 2 further illustrates the result of these developments. It shows the number of holdings in Dutch agriculture in 2010 and its share to the overall utilized agricultural area (UAA). More than 40% of all businesses farm on 10 or less hectares which amounts to only about 6% of the overall UAA. This compares to large-size farms of 50 or more hectares which only account for 16% of all farms but combine a 50% share of the total UAA. Farms with more than 100 hectares account for only 3% of all farms, but for 18% of the UAA.

⁴. The factor is 10-15 since – as van der Ploeg states – the agricultural income of the farms fluctuates between EUR 2 and 3 billion per year. Loans within the family were not included in the calculation.

Figure 2

Number of Dutch Holdings and Utilized Agricultural Area (UUA) by UAA size classes in 2010



Source: Eurostat, 2013

The facts and figures presented describe the trend of recent decades, with a tendency towards larger, more intensive, specialized large-scale operations. The consequences of these developments for the environment are examined in the following section. Yet, it should also be noted that, despite the developments in modernization and entrepreneurship, the Dutch agricultural sector still has a heterogeneous landscape and consists of many different types of agricultural models (Leitheiser et al., 2022). Figure 2 also reflects this mixed field of farms in Dutch agriculture today. It underlines the analysis of van de Ploeg who describes the sector as bipolar between large-scale, highly industrialized farms on the one hand and small farms on the other hand with many different agricultural models next to conventional farming such as organic, bio-dynamic, nature-inclusive, circular, solidarity and community-based agriculture, and many more (van der Ploeg, 2020, p. 591).

2.3 The Dutch Nitrogen Crisis

2.3.1 Environmental impact - Ecological downsides of the modernization

As stated above, the basic principle of entrepreneurial farming, which is designed for continuous expansion to maintain a dominant position in global competition, led to a continuous intensification and increase in production and, consequently, in the required inputs for production. As early as the 1970s, voices were raised that the trajectory of this pursued modernization and growth paradigm of the agriculture sector was having a significant impact on the environment (Erisman, 2021; Leitheiser et al., 2022; van der Ploeg, 2020). Besides greenhouse gases such as Carbon-Dioxide (CO²) and

Methane (CH⁴), which are also produced in agriculture and contribute to global warming, it is especially the large quantities of nitrogen (N) that have a harmful impact on the environment. It occurs mainly in inputs such as chemical fertilizers or concentrated feed for animal husbandry used in modern agriculture (Erisman, 2021). Although nitrogen is an essential element for plant growth, it can be very harmful if it is present in excessive concentrations, disrupting the natural cycle and having a negative impact on terrestrial and aquatic ecosystems. High concentrations can lead to stratospheric ozone depletion, soil acidification ground- and fresh-water pollution due to eutrophication⁵, and consequently to a decline in biodiversity. Next to the indirect consequences of these effects for humans, nitrogen compounds like nitrogen oxide (NO_x) and nitrogen dioxide (NO₂) can also directly harm human health leading to higher rates of respiratory diseases, cancer and heart diseases (Berendse et al., 2021; De Vries, 2021; Galloway et al., 2003). In agriculture, it occurs particularly in livestock farming in the form of ammonia (NH₃), which is released into the environment as a component of manure. There, it is a volatile compound that quickly diffuses into the soil, air, and groundwater.

For the Netherlands, over 50% of its total nitrogen deposition are attributable to emission from the agricultural sector (RIVM 2021). With its small country size and high density of agriculture activities, the Netherlands stand out in terms of environmental impact of the nitrogen emissions of this sector. It has the second largest nitrogen balance only behind Cyprus (Eurostat, 2021). It is mainly the high livestock population and density that leads to a heavy environmental impact. The livestock density of 3.8 livestock units per hectare is more than five times higher than the European average (De Vries et al., 2023, p. 2). Within livestock farming, dairy farming has the biggest impact, accounting for 50% of the released ammonia emissions (Wemmenhove & Šebek 2021). Approximately 60% of the Dutch agricultural landscape is being used for dairy farming alone which accounts for 28% (~1.2 million ha) of the Dutch entire landmass (Hoes & Aramyan, 2022).

Although the Netherlands may be an extreme case, it is not the only country in the EU struggling with the problem of excessive nitrogen pollution. Other countries with intensive agriculture such as France, Germany, Poland, Ireland, or Belgium have been facing similar problems due to high environmental pollution (Viana, 2013; Wyer et al., 2022). As a result, the European Union has enacted several directives and laws since the 1990s such as the Nitrates Directive from 1991 the Birds and Habitats Directive from 1992 or the Water Framework Directive with the aim of limiting nitrogen emissions and thereby protecting and preserving local flora and fauna (De Vries et al., 2023, p. 2). In the Netherlands, this led to the initiation of various measures and programs to reduce nitrogen

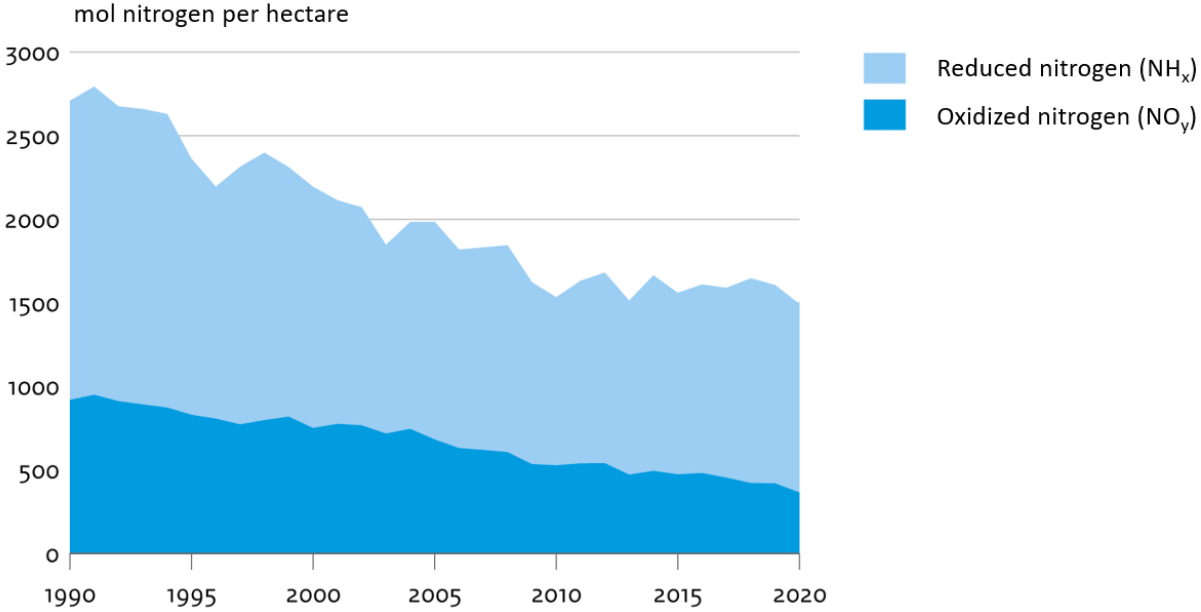
⁵ Eutrophication generally refers to the accumulation of nutrients in an ecosystem. In water bodies, this can lead to harmful disturbances of the ecosystem, as excessive growth of algae and aquatic plants occurs, resulting in the death of other plants and consequently reduced oxygen levels in the water (De Vries, 2021).

emissions. Added to this was the support of scientists, environmental organizations, non-governmental organizations and affected farmers, who campaigned for a conversion of agriculture to a more sustainable and nature-friendly way. Technological innovations such as the installation of filter systems in barns or the separation of urine and feces in manure led to a decrease in the process of formation or escape of nitrogen emissions (CLO, 2022; Koetse & Bouma, 2022; Van Zanten et al., 2017). Attempts like nature-inclusive farming tried to initiate a paradigm shift towards extensification and agricultural sustainability which avoids negative impacts on biodiversity (Leitheiser et al., 2022).

In reality, the impact of the initiatives did not lead to a substantial transformation of the agricultural sector and to no significant shift from the farmers’ business as usual (Leitheiser et al., 2022). Although a decrease in emissions from over 2500 mol/hectare in 1990 to around 1700 mol/hectare in 2010 was recorded as illustrated in Figure 3. Since 2010 they have remained at a consistently high level.

Figure 3

Dutch Nitrogen Deposition 1990-2020



Source: CLO, 2022

There are many reasons for the lack of fundamental transformation. On the one hand, as described above, many farmers find themselves in a tight competitive situation with high economic pressure and little room for experimentation or change. Furthermore, the trajectories of the *Dutch Model* have led to a situation in which intensive, high-tech agriculture is seen as normal and indispensable, with

technological innovations in response to environmental concerns that enable smooth 'business as usual' (Koetse & Bouma, 2022; Leitheiser et al., 2022). On the other hand, many powerful and influential agro-industry stakeholders such as fertilizer or animal feed producer as well as banks have been benefiting from maintaining the status quo of an intensive, export-oriented entrepreneurial agriculture (Van Der Ploeg, 2016)⁶. Leitheiser et al. (2022) therefore conclude that these developments “have created path-dependencies, lock-in and the covering up of possibilities that make a meaningful departure from the modernisation paradigm“ (p. 705).

Many voices and studies repeatedly point to the urgency of converting the Dutch agriculture from ultra-intensive, high-input models to a circular, sustainable agro-ecological food system (Horlings & Marsden, 2011; Puente-Rodríguez et al., 2022; Runhaar et al., 2017; Ten Berge et al., 2000; Vrolijk et al., 2020). They stress the harmfulness of nitrogen emissions for nature, especially for high emission rates in the proximity of Natura 2000 areas⁷ which are particularly vulnerable to high exposures. In the Netherlands there are 162 of these Natura 2000 nature reserve areas which account for approximately 10% of its land mass. In 2019, 118 of 162 Dutch Natura 2000 areas nitrogen deposits exceeded ecological risk thresholds by an average of 50% (Stokstad, 2019). For decades, however, Dutch politicians have shied away from adopting comprehensive measures and guidelines that would have led to a significant reduction in nitrogen emissions in agriculture (Karel, 2010; Leitheiser et al., 2022; van der Ploeg, 2020). Until the High Court ruling from 2019 which marked the turning point in this development as explained in the following.

2.3.2 The Supreme Court’s ruling and the onset of the Nitrogen Crisis

In May 2019, the Dutch Supreme Court upheld a lawsuit filed by an environmental organization regarding the exceedance of nitrogen emissions limits, declaring the former nitrogen emissions reduction program *Programma Aanpak Stikstof (PAS)* insufficient and in violation of EU directives. This marked the kickoff of the so-called *Nitrogen Crisis*. The *PAS* was introduced in 2015 intending to provide a regulatory framework for evaluating and issuing permits for activities that would release nitrogen into the environment. It was developed to reduce nitrogen emissions with the aim to conserve natural habitats, particularly Natura 2000 areas, while on the other side ensuring economic development. With its decision, the council of state declared the *PAS* to be insufficient to adequately protect sensitive habitats from the impacts of nitrogen deposition. As a result of the ruling, activities

⁶ Other studies have already taken a closer look at the impact of agro-industry on the sector (Horlings & Marsden, 2011; Leitheiser et al., 2022; Ten Berge et al., 2000). This is not considered in depth in this paper, but should be kept in mind for a better understanding of the farmers' initial situation,

⁷ The Natura 2000 is a European framework and network of protected nature reserve areas designated to protect threatened species and to preserve biodiversity. For more check: (European Commission(n.d.)).

and projects that emit nitrogen were threatened with suspension. Previously issued permits for operating a farm suddenly lapsed and closures were imminent. Construction work, which also involves the release of nitrogen, was halted for the time being.

In response, the Dutch government took a number of immediate measures, such as a 100 km/h speed limit on Dutch highways, to avoid widespread standstill (Ministerie van Landbouw, 2019). In June 2022, newly appointed Minister for Environment and Nitrogen⁸, Christianne van der Wal, introduced a comprehensive action plan for the nitrogen reduction for the Netherlands. For this purpose, the Netherlands has allocated EUR 24.3 billion to fund a set of measures aimed at reducing nitrogen emissions (Rijksoverheid 2022).⁹ Next to the transport and construction sector, the plans intend to reduce nitrogen emissions in the agricultural – the largest emitting sector - by 50% by 2030. Furthermore, until that date, at least 74% of the nitrogen-sensitive Natura 2000 areas must not exceed the critical deposition value (CDV) for nitrogen (Rijksoverheid 2022).¹⁰ At the time of the announcement, only 24% of all Natura 2000 sites were below this critical CDV (RIVM 2022).

Figure 4 shows the map published by minister van der Wal in June 2022 with guiding emissions reduction targets for each area in the Netherlands. While in some areas only 12% of emissions need to be cut, in close proximity to Natura 2000 areas the number is up to 95%.

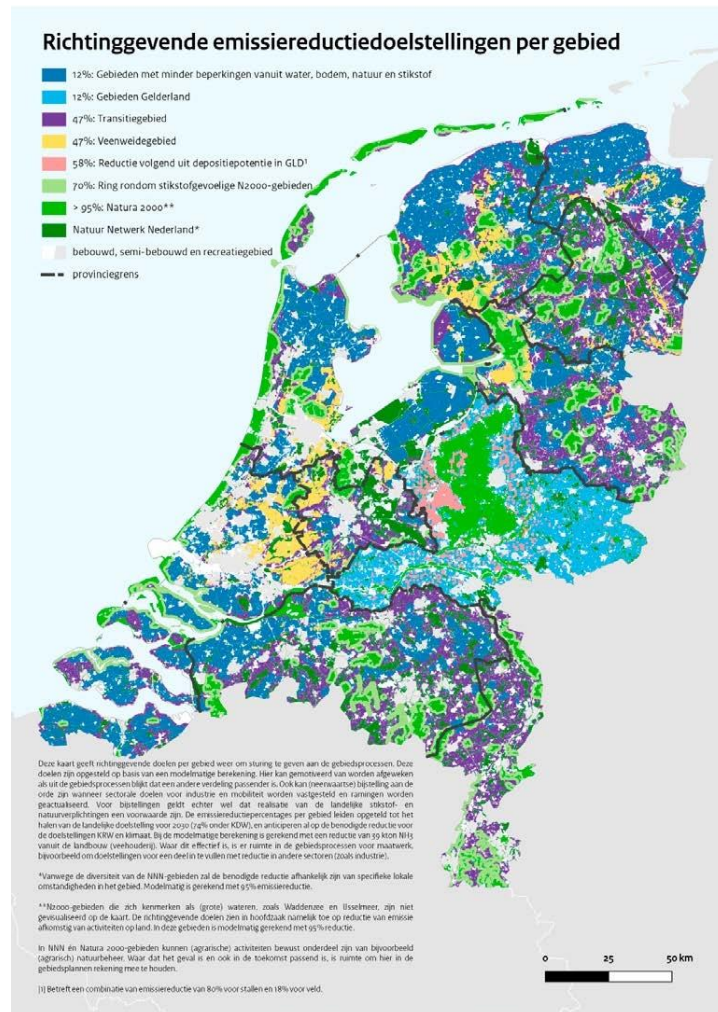
⁸ On January 10, 2022, the new government, the fourth cabinet under Prime Minister Rutte (Rutte IV), was sworn in.

⁹ For sensitive areas such as Natura 2000 sites, the CDV is between 5 and 10 kg of nitrogen per hectare, depending on the area (respective ~350 to ~700 mol per hectare) (WUR 2019).

¹⁰ For sensitive areas such as Natura 2000 sites, the CDV is between 5 and 10 kg of nitrogen per hectare, depending on the area (respective ~350 to ~700 mol per hectare) (WUR 2019).

Figure 4

Guideline for nitrogen emission reduction targets by area



Source: Rijksoverheid, 2022.

To achieve this goal a comprehensive restructuring of the agriculture sector is intended. A Large proportion of farmers are to switch to more sustainable farming methods. Circularity farming with less external nitrogenous input is envisaged, as is further investment in farm conversions including new technologies and methods for a lower release of nitrogen in the form of ammonia into nature. In addition, the plans foresee above all a far-reaching reduction in the livestock population (Remke et al., 2022; Rijksoverheid, 2022). For many farms, especially near Natura 2000 areas, this means they will have to quit their business, sell their farms, and exit the systems altogether. To this end, exit programs are being set up that will provide compensation payments to farmers with 100% to 120% of the value of their farm depending on the location of their farms and their amount of Nitrogen

emissions.¹¹ If not enough farms convert to more sustainable, lower-emission operations or voluntarily exit the system as a result of the measures, forced closure will be the ultima ratio, according to the plans (Rijksoverheid 2022).

2.3.3 The Farmers' Protests

The events around the supreme court decision in May 2019 and the subsequent announcement of the governmental plans in June 2022 resulted in an outcry and a series of protests by farmers and other affected stakeholders from the agricultural sector. The farmers argue that the stringent regulations were jeopardizing their livelihoods and future of the Dutch agricultural system (Hoes & Aramyan, 2022; Poppe, 2020). They see the planned transformation and the associated necessary restructuring of their farms as an existential threat to the exercise of their profession. In addition, there is great uncertainty about which farms would be affected by the possible closure due to their proximity to the Natura 2000 areas. Protest marches, manure dumping on roadways, blocked highways and other knotting points in the country and the march of angry farmers in front of the residence of Christianne van der Wal, Minister for Environment and Nitrogen, are some events that show the escalation of the debate since the court ruling. In addition, there was a great wave of solidarity on the part of the population – especially rural – who positioned themselves with the farmers against the plans and hoisted the Dutch flag the wrong way as a sign of their displeasure (Coates, 2023).

In addition to the immediate threat and uncertainty caused by the government's plans, the protests are also taking place on such a great scale because large sections of the farming community have long seen themselves in a socio-cultural and socio-political crisis. In June 2018 “The state of the farmer” (“*De Staat van de Boer*”), a nation-wide survey with 2,287 farmers was conducted by the “Trouw” newspaper in collaboration with the publisher *Agrio*, and the agency *Geelen Consultancy*, under the supervision of the *Wageningen University (WUR)*. It underlines the above-mentioned contemplation (Trouw, 2018). A large majority say they feel misunderstood and misjudged by the public and the media. Moreover, they see themselves as not represented by political actors and parties, who press them with ever new demands, requirements, and regulations. Around half of the questionnaires state that they struggled with sleep problems and depressive episodes because they were worried about the future of their businesses which further underlines the economic pressure they face in the current system. More than two thirds state that they feel that they work mainly for the benefits of big

¹¹ The LBV scheme foresees payments for 100%, the LBV+ scheme intended for peak polluter intends up to 120% of the farms value.

corporations such as banks or food suppliers. On the other hand, the survey's results show the farmers deep contentedness, connectedness, and identification of with their profession.¹²

Contemplating the initial situation of the farmers in prelude of the farmer's protests Van der Ploeg (2020) concludes that almost all farmers are dissatisfied with the current situation in agriculture (p. 591). The demonstrations therefore reflect this "real, deeply-rooted and widespread discontent" (p. 590) and unite a variety of different positions that oppose the government's plans. They critique various aspects, including the scope and magnitude of the proposed cost-saving measures, as well as the timeline necessary for their execution. Farmer Marijan Brouwer, owner of the farmland on which the protests in Stroe on June 22, 2022, were held, remarked: "Give us the space to innovate ourselves and produce as cleanly as possible" (Schreuder 2022). In addition, there are populist movements and parties that radically oppose the changes and generally cast doubt on scientific findings about the harmfulness of nitrogen to nature. For example, Geert Wilders leader of the far-right *Partij voor de Vrijheid (PVV)* claims: "There is no nitrogen problem in the Netherlands at all. It is a theoretical problem that is completely destroying the peasantry and the supplying companies" (Schreuder, 2022). The situation is being portrayed and exaggerated by various populist actors as a cultural conflict between urban and rural areas. The government's decisions on the nitrogen reduction targets are therefore framed as a sign of decoupling of politics to the ordinary people which is typical populist accusation (Zaslove & Meijers, 2023). They serve the image of an aloof urban political caste that has lost touch with the rural population and now threatens the existence of farmers through demands and measures that are out of touch with reality. In that regard, Sieta van Keimpema, board member of the *Farmers Defense Force (FDF)* states "The Dutch government [...] basically wanting to wipe us off the map of the Netherlands" (Schreuder, 2022). This mistrust in existing institutions is also reflected in an anti-science attitude, which is also taken up by populist actors as described above. Protest movements such as the *FDF* who position themselves radically against the planned measures by the government received a large influx. This wide-spread discontent was also reflected in the election results in the March 2023 regional elections, in which the protest party *Farmer Citizen Movement (BBB)*¹³, newly founded after the court ruling, immediately became the strongest force.

¹² It should be noted that the survey "the state of the farmers" is controversial with regard to its results and their representativeness. Berend Wierenga, professor emeritus of Marketing at the Rotterdam School of Management Erasmus University, criticizes the procedure and the way the survey was conducted. Many of the questions were suggestive. Furthermore, pessimistic farmers were potentially overrepresented in the results.

Han Wiskerke, professor in Rural Sociology from the WUR, who supervised the study, on the other side stated that it was not a scientific study and never claimed to meet the high standards required for such. The results were nevertheless adequate and very useful for showing sentiments and trends in the agriculture sector. Moreover, they are a good starting point for future scientific work. He disagrees with the accusation of leading questions and sees a healthy mix of positive and negative statements that farmers could agree with (Wierenga, & Wiskerke, 2018).

¹³ The BBB received 19.19% of all votes, ahead of Prime Minister Rutte's Volkspartij voor Vrijheid en Democratie 'VVD' with 11.17%.

On July 7, 2023, the Dutch government collapsed after the coalition failed to agree on a common position regarding the migration policy. Until the end of its term, the government intends to stick to its old plans for dismantling, including transitional programs and payout schemes. However, the further development of these programs and measures in general depends heavily on the election results in November and the new government. Since 03.07.2023, there has been a new revised program in which farmers can register for the buyout of their farms. In the course of evaluation and negotiation rounds, these farmers are then made an offer for sale, which they can reject at any time. By September 2023 nearly 500 livestock farmers – 80% of them peak loader according to Van der Wal – have registered for the scheme). Yet, the success of these voluntary purchase programs is doubtful. In 2022, 750 farmers had submitted applications to the first round of the buyout scheme. In the end, however, only 20 of them actually completed the sale (2023, de Volkskrant).

So far, the issue is far from being resolved. The elections from November 22, 2023, have meant that the issue will not be pursued with any urgency for the time being. The electoral triumph of Geert Wilders' *PVV* casts doubts on the implementation of the measures (Holligan, 2023). But the uncertainty of those who might be affected by any transformation and conversion measures as well as ultimately forced closures remains. The discontent of the farmers and their supporters remains high. It is not foreseeable how the government's plans to reduce nitrogen emissions will be implemented without further escalation. In the meantime, the annual monitoring report of the National Institute for Public Health and the Environment (RIVM) on nitrogen deposition in Natura 2000, published on October 26, 2023, shows that nitrogen emissions are still too high for many of the areas, although they have decreased by around 20% since 2005. According to the report, only 28% of Natura 2000 sites will not exceed the critical nitrogen emission limits in 2021 and that at the current rate, the target of 50% by 2030 will be far from being achieved (RIVM 2023).

3 Geography of Discontent

In the following, I am examining the farmer's protest in the course of the Dutch *Nitrogen Crisis* from a geographical point of view. The protests are considered as the emergence of a *Geography of Discontent*. First, in 3.1, I will introduce the theory of *Geographies of Discontent* and further, in 3.2, I will show what consequences it can have on the social and political landscape. In 3.3, I will outline that the reasons and origins for the expressed discontent do not have to be solely based on economic factors, but that various structural-material and affective dimensions can play a role. Derived from current academic debates on the importance of affective factors as drivers for the emergence of a *Geography of Discontent*, I will examine the farmers' protests in more detail in 3.4. In this regard, I

will outline my focus on potential affective factors underlying the expressed discontent in the farmers' protest. Consequently, the research question and hypothesis of this thesis are formulated.

3.1 Definition and History of the Term

The term *Geography of Discontent* is often used to describe the emergence of a widespread, manifested discontent in structurally disadvantaged regions. Dijkstra et al. describe *Geographies of Discontent* as a result of the “unhappiness experienced by people living in a mix of stagnating and low-productivity regions – mainly rural areas and medium-sized and small cities – as a direct consequence of the limited opportunities and economic development prospects they face” (Dijkstra et al., 2020, p. 744). In the literature, the term is often associated with the concept of *Left Behind Places* as the structural disadvantages of these regions give rise to the inception of *Geographies of Discontent* (De Ruyter et al., 2021; Díaz-Lanchas et al., 2021; Dijkstra et al., 2020; Florida, 2021; Hendrickson et al., 2018). *Left Behind Places* traditionally describe mostly former industrial or rural places that have experienced a long-term economic and prosperity decline as a result of globalization, austerity, urbanization, and spatial polarization processes (Kinossian, 2019; MacKinnon et al., 2022; Pike et al., 2023; Rodríguez-Pose, 2018) + Mattison 2020). People in *Left Behind Places* often find themselves in marginalized situations as a consequence of these structurally weak areas and develop a discontent and anti-establishment sentiment because of that. The disadvantaged situation can be expressed by multiple and interrelated characteristics: Relative economic under-performance and decline which e.g. expressed in low employment rates, lower levels of educational qualification and skills, lower wages, demographic shrinkage, limited access to health and public services, education, or mobility (MacKinnon et al., 2022, p. 41). Since both phenomena, *Left behind Places* and *Geographies of Discontent*, are mutually dependent and similar in their causes, reasons, and consequences, I will summarize the literature on the two terms below.

The previous consensus that prevailed in regional development and *New Economic Geography* discourses in the past decades focused on fostering existing economic strongholds. Cities due to their agglomerations and density were marked as the centers of innovation, economic development, and drivers for prosperity of a region (Glaeser 2011). Spatial imbalances would therefore be a side effect which should be at least temporary accepted due to the agglomeration processes of these economic hubs (MacKinnon et al., 2022, p. 43). This led policymakers to focus on promoting the growth of and accessibility to these innovative and productive places rather than balancing them with structurally disadvantaged, poor or rural areas (Kline & Moretti, 2014; Rodríguez-Pose, 2018). Under this premise, a key tenet was „to move people to places where there are opportunities not opportunities

to declining area” (Rodríguez-Pose, 2018, p. 7). However, the very same logic had serious repercussions for already disadvantaged regions. After all, it was the young and well educated that migrated to more innovative and prosperous regions while others, less skilled or flexible, could often not make use of the distant opportunities. As a result, they found themselves even further marginalized. In other words, the bet that people would follow the opportunities and thus benefit equally from them by moving to structurally strong regions has not worked out. Rather, the same bet often times led to a further and entrenched manifestation of spatial disparities and a growing discontent in these regions (De Ruyter et al., 2021; Pike et al., 2023).

3.2 Political and Societal Impacts of Discontent

As a result of these growing spatial disparities and raising discontent in the periphery, structural decline and marginalization relative to core regions has developed into regional manifestation of an anti-establishment attitude with far-reaching consequences for the stability of whole political systems, including the otherwise advantaged core regions (Hendrickson et al., 2018). In addition to the material disadvantage in these marginalized areas the resulting discontent is often accompanied by a deep distrust of political representatives from which the affected groups feel ignored, abandoned, or even betrayed (McCann & Ortega-Argilés, 2021; Pike et al., 2023; Rodríguez-Pose, 2018). De Ruyter et al. (2021) state that the affected groups “see the economy and the rules that govern it as having been rigged for the benefit of others, especially the political, corporate and financial elites that set the rules” (p. 382). In consequence, they turn away from institutions and democratic processes, fostering anti-establishment attitudes which eventually, propels the rise of populist parties (MacKinnon et al., 2022; Overman, 2019; Pike et al., 2023). Rodríguez-Pose summarizes this very fat succinctly: “those having witnessed long-periods of decline, migration and brain drain, those that have seen better times and remember them with nostalgia, those that have been repeatedly told that the future lays elsewhere, have used the ballot box as their weapon” (Rodríguez-Pose, 2018, p. 21). Their sentiments are being echoed by regional or national populist movements and parties that promise to restore the stable economic situation, prosperity and recognition of an imagined and distorted past (De Ruyter et al., 2021; Dijkstra et al., 2020). The pattern of the narrative that underpins the affective dimensions of *Geographies of Discontent* is often similar: Acting politicians and governments, influenced by special interests of certain groups, have lost touch with ordinary people and act diametrically opposed to their livelihoods and concerns. According to Dijkstra et al. (2020) “populist or anti-system parties pitch the ‘people’ against supposedly self-interested and sometime aloof ‘elites’. In defining the ‘people’ and ‘elites’, populist

parties create a dichotomy of ‘us’ against ‘them’” (p. 740). Election decisions such as Brexit in June 2016 or the vote for Donald Trump in the U.S. presidential elections in November 2016 are only some of the most prominent examples of the consequence of an arisen *Geography of Discontent* in certain disadvantaged places (Díaz-Lanchas et al., 2021; Dijkstra et al., 2020; Furlong, 2019). But also, more recent instances, like the emergence of right-wing populist parties such as the "Alternative for Germany" in Germany (Leibert & Haunstein, 2018) or "Fratelli d'Italia" in Italy (Di Matteo & Mariotti, 2021), underscore the contemporary relevance of this phenomenon. The votes by those feeling left behind expressed an action, as Rodríguez-Pose (2018) succinctly phrases it, “to rebel against the feeling of being left behind; against the feeling of lacking opportunities and future prospects” (p. 190).

At the latest since the rise of populism, due to the influx of discontent people from the *Left Behind Places*, it has become evident that the problems of spatial disparities are not confined solely to peripheral regions. It has become apparent that its repercussions have also permeated core regions posing a threat to democratic values, institutions, and systems.

3.3 Non-material and Affective Causes as Drivers for Discontent

The discussion among academics and politicians about how to deal with the issues of *Left Behind Places* and the resulting *Geographies of Discontent* and their consequences is ongoing. Recent debates among academics on the topic call not only for a detailed historization of the rise of *Left Behind Places* (Pike et al., 2023), but also for an opening of the debate on the origins and causes of the phenomena (MacKinnon et al., 2024). Indeed, many scholars emphasize the need for a new conception and a wider understanding of the issue “to overcome limitations of conventional growth-oriented economic thinking” (MacKinnon et al., 2022, p. 40). It is therefore stressed that the causes and reasons for the development of a *Geography of Discontent* are often manifold and cannot be pinned down to structural, straightforward economic dimensions alone (Díaz-Lanchas et al., 2021; Dijkstra et al., 2020; Hendrickson et al., 2018; MacKinnon et al., 2022; McCann & Ortega-Argilés, 2021). The long-term structural decline of a region and therefore the lasting disadvantaged socio-economic position by its residents can be crucial for the emergence of a *Geography of Discontent*. However, it is not a necessary criterion for the formation of *Geographies of Discontent*. Rather, regional discontent is typically based on an interplay between structural and non-material, affective factors (MacKinnon et al., 2022; McCann, 2020; Rodríguez-Pose, 2018). Similar to being factually disadvantaged across various structural factors (e.g. employment prospects, infrastructure supply, wealth, and social mobility), the rightful or perceived collective sense of relative disadvantage

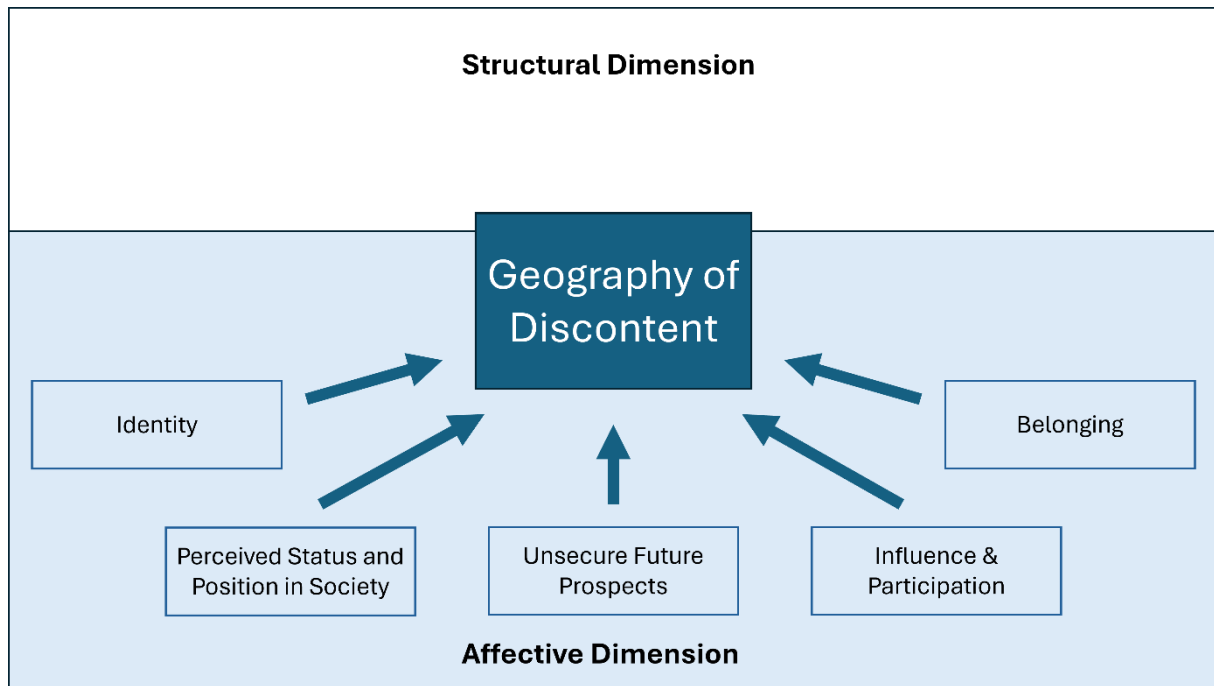
compared to another group or place can serve as a crucial catalyst for *Geographies of Discontent*. In this context, it is crucial for governments and policymakers to acknowledge the complexity of the phenomena and its multifaceted and interconnected nature, rather than exclusively concentrating on eco-centric approaches and solutions (Kinossian, 2019; MacKinnon et al., 2022; McCann & Ortega-Argilés, 2021).

Many studies stress accordingly that the importance of social, cultural, and affective factors as drivers for a *Geography of Discontent* should not be underestimated. It is argued that an individual's perceived situation and their comparison with their social environment can strongly influence their satisfaction even if they are not immediately affected by structural disadvantages (De Ruyter et al., 2021; Dijkstra et al., 2020; McCann & Ortega-Argilés, 2021; Tups et al., 2023). Moreover, theories and models from other disciplines such as the social sciences, sociology, or social psychology are consulted to expand the scope of possible factors. Concepts like "identity" (Brand, 2015; Dijkstra et al., 2020; Klandermans et al., 2002; Miscenko & Day, 2016; van Eersel, 2019) and "belonging" (Berendse et al., 2021; MacKinnon et al., 2022, 2022; Mee & Wright, 2009; Tomaney, 2015) are listed as further aspects of possible causes of the development of severe discontent and frustration (MacKinnon et al., 2022; van Eersel, 2019).

Below, I will offer an overview of the current literature concerning potential non-material and affective factors and explain how they can function as drivers of a *Geography of Discontent*. Within this context I will explore the following five key factors, illustrated in Figure 5 that can function as affective drivers of *Geographies of Discontent*: *Perceived Status and Position in Society*, *Influence and Participation*, *Unsecure Future Prospects*, *Identity* and *Belonging*. Drawing on the literature, I will explain how these aspects are potential triggers or catalysts for the emergence of a *Geography of Discontent*. These factors will later guide the operationalization of my case study to explore what affective aspects could underly the causes and origins of the farmers' discontent expressed in the Dutch farmers' protest.

Figure 5

Affective Factors as Drivers for a Geography of Discontent



Source: Author's own elaboration

3.3.1 Unsecure Future Prospects

Unsecure future prospects can have a strong impact for the generation of discontent. Uncertainty about the future can trigger psychological stress and anxiety and thus significantly affect the perceived stability and general well-being of an individual (Cohen et al., 1983; Diener et al., 1999; Greco & Roger, 2003). Aligned with the previously mentioned point of influence and participation, uncertain futures may result in the perceived absence of control over one's own destiny (Ellison, 2021). Disruptions which threaten comprehensively the status quo can lead to uncertain prospects for the future and can be strong drivers for the generation of discontent. This also applies to people who may benefit from the status quo but who are afraid of their own (economic) decent (De Ruyter et al., 2021; Díaz-Lanchas et al., 2021; Mattinson 2020). Therefore, it does not necessarily require a disadvantaged or bad situation in the present, i.e. a form of left-behindness, for resentment or frustration to arise. It is rather the perceived situation and outlook of one's future situation than can trigger insecurity, anxiety, and discontent (De Ruyter et al., 2021). Apart from contemplating the future, reflecting on the past can also evoke discomfort and dissatisfaction. Contrasting the perceived better times of the past – marked by greater prosperity, fewer restrictions, and higher economic security – that are now lost, may foster discontent (De Ruyter et al., 2021; Dijkstra et al., 2020).

3.3.2 Perceived Status and Position in Society

The perception of one's own status and position in society can have an important effect for the development of discontent and therefore for the rise of a *Geography of Discontent*. In this context, the comparison with the broader society is crucial. Structural or objective factors may not necessarily be pivotal in this regard. Rather, it depends on a community's own understanding of its perceived status and value in society (Dijkstra et al., 2020; Rodríguez-Pose, 2018). If groups or individuals feel disadvantaged compared to the rest of society, this can be a strong driver for discontent. McCann und Ortega-Argilés argue that situations “where local communities feel that their value to society is undervalued, under-represented and their needs are insufficiently prioritized and resourced, can give rise to a ‘geography of discontent’” (2021, p. 546). De Ruyter et al. further state that the feeling of being excluded from the benefits of the current economic and social system while others visibly benefit, can be a strong trigger for dissatisfaction and a motivator for action (De Ruyter et al., 2021, p. 382).

It should be noted that a *Geography of Discontent* does not simply occur because of the previously explained factors but requires regional agency to transform regionally existing discontent into a *Geography of Discontent* that is clearly articulated *against* and visible *beyond* a disadvantaged region. Tups et al. (2023) state that in order to let the expression of a dissatisfaction arise a place-based agency by the affected groups is needed in which their discontent with the current situation is expressed and attention is generated on their own cause (p. 2). McCann & Ortega-Argilés that it is therefore not always those who are worst off who succeed to virally express their discontent. In fact, many of the most affected in structurally weak areas have been in a highly marginalized situation for a long time and lack the needed capacities next to the confidence in the influence of their own actions on improving their futures to create the needed drive for protest (Dijkstra et al., 2020; McCann & Ortega-Argilés, 2021). In contrast, it is “those who perceive that their economic value and progression routes, social status, social value and dignity of their work have been diminished by national and international trends” (McCann und Ortega-Argilés, 2021, p. 546).

The decisive factors here are the will to counteract negative developments and the belief in one's own influence to shape a positive version of the future (Tups et al., 2023). This can be done by voting to rebel at the ballot box (Rodríguez Pose, 2018, p. 21) or also in more open and attention-gaining forms such as public demonstrations with prominent examples such as the French *Yellow Vest* movement (BBC, 2018), the *People's Convoy* in Canada and the US (Murphy, 2022).

3.3.3 Influence and Participation

Furthermore, the absence of influence, participation and self-determination in one's own destiny and future can be strong drivers for the rise of discontent. To be "in control" and not being dependent on external decisions is very important for peoples' sentiments of recognition, and self-efficacy and their satisfaction with their own situation (Dijkstra et al., 2020; MacKinnon et al., 2022; Ulbig, 2008). The real or perceived disengagement and exclusion from decision-making processes that significantly impacts one's own situation can therefore be a very strong trigger for dissatisfaction (MacKinnon et al., 2022; McCann & Ortega-Argilés, 2021). This scenario frequently applies to individuals residing in disadvantaged or peripheral areas. They are often marginalized in decisions that impact them or have limited opportunities to exert influence on them. Kinossian (2019) therefore states that the divide between marginalized and core regions is not only be economic terms but is also produced by "planning and budgeting practices, political and economic dependencies, and limited decision-making power, which make poor regions peripheral vis-à-vis centers and also *peripheralized* by the very structure of the center/periphery relations" (p. 63). The impact of a disadvantaged situation and the perceived opportunities to influence it can play an important role in future expectations and thus have a performative effect. It can lead to the assumption that one's own fate is at the mercy of the actions of those in power and authority (Díaz-Lanchas et al., 2021; Hendrickson et al., 2018; MacKinnon et al., 2022). This aspect is also widely taken up by populist narratives as stated above. Many populist parties and movements propagate to "take back control" (McCann & Ortega-Argilés, 2021, p. 552) or also to reinvent an authoritarian law-and-order rule that can bring back an ostensibly better past (Biard, 2019; Samet, 2023).

Taken together, the absence of influence and participation in decision-making processes, which shape the circumstances or prospects of individuals or groups, can significantly contribute to the emergence of a *Geography of Discontent*.

3.3.4 Identity

Moreover, individuals experiencing an impact on their identity may develop substantial discontent and resistance towards the factors contributing to this disruption. It can therefore function as crucial driver for the arise of a *Geography of Discontent*. There are a large number of works dedicated to the topic of identity, both in general and theoretical terms, exploring the result of individual and social actions, as well as specifically focusing on certain identity-forming roles or activities. An in-depth examination of the various concepts is not undertaken in this paper. Instead, the definition of Stryker and Burke's identity theory (2000) is used, which combines several streams and concepts to one overarching model. It defines identity as the result of the interplay of internal cognitive processes

(cognitive identity) and social interactions based on internalized role expectations in relationship networks (structural identity) (Stryker & Burke, 2000, p. 285)¹⁴. The results of these two levels constantly influence each other. The interaction and the role in the social scope have an influence on one's own concept of oneself and, conversely, this process and the decisions of self-conceptualization influence one's own behavior in social networks. Miscenko & Day (2016) operate on this structural level and consider the identity-forming influence of an individual's activities, foremost occupation, and profession. Identification with one's profession can therefore play a decisive role in an individual's identity and as an internalized part of their self-concept (p. 217). In addition to the actual activity, the role and significance that the employee has in society or in the company or organization also plays an important role in an individual's self-definition, self-worthiness, and self-congruence. The strength of identification with a social group has a significant influence on the extent to which belonging to this group is part of one's own self-concept (Klandermans et al., 2002).

Conversely, a disruption that leads to a loss of one's social role or category, whether in a professional or another social network context, can lead to a shake-up of self-perception and identity, and even to an identity crisis. The stronger the identification with the entity, e.g. the job, the greater the pain and the disruption to the self-concept when it is lost. (Papa & Lancaster, 2016; van Eersel, 2019). On the one hand, again on a cognitive level, through a shattering of the previously internalized self-attribution for one's own ego concept. On the other hand, on the social level, in which the role in the social, organizational, or societal structure changes or disappears and thus leads to a change and realignment in social positioning (Mee & Wright, 2009; Miscenko & Day, 2016). Collectively, situations that impact and challenge individuals in their identity can serve as powerful drivers for the emergence of a *Geography of Discontent*.

3.3.5 Belonging

Furthermore, the factor of belonging can have an important effect on the development of a *Geography of Discontent*. Belonging is thereby defined as a form of local and social anchoring and affiliation and can therefore play a role both on a social and on spatial level (Mee & Wright, 2009; Sandbu, 2020; Tomaney, 2015). Pollini (2005) speaks in this context of "socio-territoriality belonging" (p. 501). On the one hand, it functions as the connection to a certain delimited physical terrain or (home)place and the emotional attachment to this place. In that matter Tomaney (2015) states that "places become 'sites for performing identities' where people 'attach their own biographies to their "chosen" residential location'" (p. 2). On the other side, it means the membership of a social

¹⁴ For more see Stryker & Burke "The Past, Present, and Future of an Identity Theory" (2000).

environment within that delimited area and the affiliation to this environment. Therefore, to quote Tomaney et al. (2015) again, belonging is a function of “constitutive relationships of attachment, loyalty, solidarity and sense of affinity which frame the processes by which a person becomes included in a socioterritorial collective and identified with it” (p. 508). Mee & Wright (2009) further state that “belonging connects matter to place through various practices of boundary-making and inhabitation” (p. 772). This kind of attribution of meaning to one's own socio-territorial space and one's own assignment to it, combined with the demarcation from other places, can therefore “represent a performative dimension for the identity and distinctiveness of the individual” (Tomaney et al., 2015, p. 2).

Being torn out of this socio-territorial context can therefore lead to social, cultural, and spatial uprooting. This can range from reactions such as stress and psychological strain to a traumatic experience (Collier & Connolly, 2023; Mee & Wright, 2009; Sandbu, 2020). MacKinnon et al. (2022) state that this aspect is a largely overlooked aspect in political discourse but is highly relevant to understand and consider place-specific reactions to disruption and crisis (p. 46). If groups or parts of the population lose their sense of belonging and cultural and social anchoring, this can be a strong driver for discontent and a loss of faith in the current system and consequently a turning away from it (McCann & Ortega-Argilés, 2021; Sandbu, 2020).

In conclusion, as summarized from existing literature, it is not only elements on a structural dimension that can lead to a rise of dissatisfaction among affected individuals or groups. As shown, non-material and affective factors can further play a role in the emergence of *Geography of Discontent*. Although the aspect of the multi-dimensionality of the phenomena and the various factors of different material and non-material dimensions are widely discussed in recent literature, there is a lack of empirical studies and example from practice in this matter (MacKinnon et al., 2022). This thesis starts at this point and examines the farmers' protests in the Netherlands in the wake of the *Nitrogen Crisis*. For this purpose, the events surrounding the protests will be looked at in more detail below and examined and classified accordingly.

3.4 Geography of Discontent – the Dutch Farmers Protests

In the following, I will examine and categorize the Dutch farmers' protests in the course of the *Nitrogen Crisis* from the perspective of a *Geography of Discontent*. I will therefore consider the aspects presented in section 3.3 on a non-material, affective level as possible causes for the emergence of the protests. The research question of this thesis is formulated on this basis.

Taking into account the factors delineated in the theory, the Dutch farmer protest in response to the Dutch government's nitrogen reduction plan can be categorized as a prominent illustration of the formation of a *Geography of Discontent*. Looking at the factors presented above, both structural economic and non-material affective dimensions are possible causes and reasons for the development and extent of the protests. In the following, I will therefore examine the protests in more detail. Next to the economic dimension, I will explicitly discuss the five affective factors outlined above (*Unsecure Future Prospects, Perceived Status and Position in Society, Influence and Participation, Identity and Belonging*) and demonstrate the extent to which farmers are impacted in each aspect.

3.4.1 Unsecure Future Prospects

The ruling by the Dutch Supreme Court in 2019 and the government's subsequent plans from 2022 to comprehensively reduce nitrogen emissions represents a systemic disruption for the agricultural system and has led to substantial uncertainty for many affected farmers. The upcoming measures to reduce nitrogen emissions pose a perceived/potential threat to the (economic) future of their farms. Hardly any farm is unaffected by the above measures and changes¹⁵. For many, the emission reduction targets will require substantial investments to convert their farms and / or serious changes in the way they practice their profession (Puente-Rodríguez et al., 2022; Remke et al., 2022; Stokstad, 2019). Many will have to switch from conventional agriculture to a form of circular agriculture, where few inputs from outside are used to produce food (Koetse & Bouma, 2022; Vrolijk et al., 2020). In addition, depending on their location, many farmers will have to reduce their livestock numbers across the board, which will affect their productivity and turnover. Apart from the financial uncertainty regarding future restructuring measures, many farmers are already feeling the consequences of the ruling directly. Since the ruling, it has become much more difficult for farmers to obtain funding for new projects. Banks are increasingly reluctant to finance new projects as the future of many farms is unclear (Tullis, 2023). The uncertainty among farmers is also exacerbated by the fact that until the time of the government's dissolution it was unclear which farms and farmers would face which consequences.

3.4.2 Perceived Status and Position in Society

As outlined in section 2, the expressed discontent among the farmers does not come from a long-lasting disadvantaged situation per se. The agricultural sector has recorded considerable growth rates

¹⁵ See nitrogen reduction map from June 2022 (Rijksoverheid, 2022).

in recent years and decades and has far-reaching political power and influence throughout the country. Yet, not all farmers have benefited equally from the trajectory of modernization. On the one hand, many are under high economic pressure from competition and have high financial burdens and loans. On the other hand, many perceive that their situation is not only economically strained but also in terms of their social value in society. As highlighted in section 2, many feel misrepresented and unrecognized for their work by large sections of society, the media, and politicians. This perception might have a strong influence on their general well-being as farmers, and therefore a strong determinant for their satisfaction. According to Janker et al. (2021), a lack of social recognition among farmers has an impact on their satisfaction and well-being. They state that “a negative image of farming and conflicting self-versus public perceptions [...] create distress for farmers” (p. 118).

3.4.3 Influence and Participation

Furthermore, even before the *Nitrogen Crisis*, many Dutch farmers felt restricted in the exercise of their profession by numerous laws and regulations (Leitheiser et al., 2022; van der Ploeg, 2020). It can be assumed that the announced measures will be seen as another disruptive and imposed requirement. Janker et al. (2021) also note that, in addition to financial constraints, the supposed unpredictability of agricultural policy and bureaucratic constraints are significant stress factors for farmers (p. 118). Regarding the Dutch farmers’ protests Leitheiser et al. (2022) state that their discontent “is likely exacerbated by hierarchical and bureaucratic regulatory schemes that have constrained farmer’s ability for manoeuvring and experimenting with alternative sustainable practices” (p. 707). The perception of a lack of influence and co-determination in the process can also be a strong driving force for protests. Many studies have already dealt with the importance of factors such as autonomy, control and self-determination for farmers (Burton, 2004; Janker et al., 2021; Stock & Forney, 2014; Vesala & Vesala, 2010). External influences and interference in the exercise of their profession can have a major impact on the farmers' self-image and therefore have a great influence on their satisfaction (Dessein & Nevens, 2007). In this respect, the protests also reveal the spatial aspect that often characterizes the *Geography of Discontent*. Urban policymakers and scientists emphasize the urgency of reducing nitrogen emissions, while rural farmers, affected by these plans and measures, perceive their autonomy and self-determination as threatened. Conversely, the discontent that arises in the peripheral regions due to these measures is thus carried powerfully and loudly from the places affected to the centers of political decision-making. For Dutch farmers, the perceived lack of influence and co-determination in the situation can also be a strong driving force behind their dissatisfaction and protest actions.

3.4.4 Identity

Based on the literature, it can be further assumed that the announced measures and the outlook of their consequences also affect farmers on an affective-emotional level. There are numerous research studies that highlight the special nature of farmers' attachment to their profession and show how much they identify as farmers (Bryant, 1999; Klandermans et al., 2002; Peel et al., 2016; Stock & Forney, 2014). Källstrom and Ljung (2005), for example, point out that "farming is as much a way of life as it is a business" (p. 376). According to Allison (1996, as cited in Burton, 2004), for farmers farming is "the meaning of life. Farmers want to farm. It gives them their identity and their sense of achievement" (p.196) and Growth and Curtis (2017) state that working as a farmer is 'in their blood', which underlines the strong connection farmers have with their professional identity (p. 366).

Situations like the government's proposed nitrogen reduction measures may deeply threaten farmers' identities and self-perceptions, especially for those living near Natura 2000 sites who may be forced to cease their farming activities. This underscores the profound impact such policies can have on the affected farmers' sense of identity and their connection to their profession. Andrej Zaslove, associate professor at the Dutch Radboud University and a specialist on populism, categorizes the farmers' protests in this way and also sees the farmers as affected on these dimensions. In an interview with the online magazine Politico, he states that the protests "taps into broader issues of identity" of the farmers, making the protest a wedge issue. "It's about [how] the farmers really see their identity being challenged. It's kind of a way of life" (Gijs & Brzeziński, 2022).

3.4.5 Belonging

Furthermore, the farmers' belonging and attachment to their farm and land is emphasized in many researches (Cheshire et al., 2013; Hildenbrand & Hennon, 2005; Quinn & Halfacre, 2014). Their socio-territorial affiliation to their farm, nature and social environment is very pronounced. In this context, Convery et al. (2005) speak of "lifescape", which describes the "complexity of the spatial, emotional and ethical dimensions of the relationship between landscape, livestock, agriculture and rural communities" (99). Cheshire et al. (2013) states that farmers are "being rooted in the land, and thus [are] embodying a deep, embedded and/ or autochthonous attachment to place" (p. 64). The farmers' identification with and attachment to their farms is also due to their origins and family tradition. Quinn & Halfacre (2014) express that "land is more than a place to grow crops; farms are locations with history, symbolic meaning, and repositories of emotion" (p. 118) and thus Riley & Harvey (2007) state that the landscape is an entity "in which farmers understand the work of previous generations, who inscribed their own meaning and identity on to the landscape" (Riley &

Harvey, 2007, p. 402). Källstrom and Ljung (2005) emphasize that many farmers feel „obliged to steward what they have inherited from their parents, and which they want to preserve for the next generation“ (p.379).

In light of the governmental measures potentially leading to farm closures, particularly near Natura 2000 sites, it's likely that affected farmers will experience a profound disruption in their sense of belonging. The possibility of being removed from their social, territorial, and professional environment could be deeply unsettling for the farmers concerned and an important reason for the development of discontent. Additionally, the disruption of family traditions and the potential loss of ancestral heritage could serve as potent catalysts for discontent and motivate action against such scenarios.

3.5 Derivation of the Research Question

The protests against the measures planned by the Dutch government demonstrate the force and extent of the manifested discontent of the affected stakeholders. Actions such as the farmers' protest marches with their tractors to The Hague, blocking roads and spraying slurry in front of the government building, created extremely powerful images and generated an enormous amount of (media) attention. The march of angry farmers in front of the house of the Dutch Minister for Nature and Nitrogen, Christianne van der Wals, show the transgressive and violent behavior of some who feel threatened in their existence. The magnitude of the protests underscores the farmers' and their allies' determination to oppose the measures. It also shows the high level of mobilization that the acting players have created for their causes. This is also reflected in the election results of the regional elections in March 2023, in which the newly founded protest party BBB immediately became the strongest force.

So far, a solution to the problem still seems a long way off. Several studies have already examined the protests, exploring their potential causes and potential solutions. However, many approaches focus mostly on answers at a structural level, such as technological solutions for lower-emission stables (Conti et al., 2021; Moore et al., 2018; Van Der Heyden et al., 2020), potential lower-nitrogen inputs (Lessmann et al., 2023; Pigoli et al., 2021; Puente-Rodríguez et al., 2022) or the (financial) feasibility of switching to more sustainable agricultural practices (Morais et al., 2021; Pigoli et al., 2021). Even though the elections and an upcoming new government mean that it is unclear to what extent the old government's cost-cutting measures will continue to be pursued, the situation remains unclear, and the nitrogen problem unresolved. In view of the situation that has arisen and the ongoing

protests by farmers, the so-far measures taken by the government to date do not appear to have contributed to a de-escalation of the situation. Hence, there still appears to be a deficiency in understanding the motives and reasons behind the discontent and frustration underlying the protests. A more detailed analysis of the possibly multidimensional nature of farmers' discontent is still pending.

Within this thesis, I will therefore delve into the farmers' protests as a manifestation of a *Geography of Discontent*, investigating their causes and underlying factors. Departing from dimensions outlined in existing literature, I suggest that the roots of their dissatisfaction are not solely structural aspects. Instead, I assume that they encompass various non-material affective factors contributing to the development of extensive and comprehensive discontent.

To this end, I will examine the following **research question**:

What are the underlying factors contributing to the emergence of the Geography of Discontent evident in the Dutch farmers' protests subsequent the Nitrogen Crisis?

The **hypothesis** to be tested is formulated in this context:

Non-material affective factors considerably contributed to the farmers' discontent and therefore for the emergence of a Geography of Discontent demonstrated in the farmers' protests.

4 Methodology

The subsequent section outlines the scientific approach employed in this thesis. I will thereby provide an overview of the type of research that has been applied, the research design, the selection of participants, and the procedure of data collection. The structure and implementation of the methodology was primarily based on the "Qualitative Research in Human Geography" guidelines by Iain Hay.

4.1 Research Design

The aim of this study is to examine the Dutch farmers' sentiments on their current situation in regards of the *Nitrogen Crisis* and the announced emission reduction plans from the Dutch

government in June 2022. Therefore, the research question and the hypothesis to be tested by the study were formulated in 3.4.2. In order to accomplish this, I opted to pursue a qualitative research study through conducting qualitative interviews. Employing qualitative research in the form of interviews enables researchers to acquire a thorough and comprehensive understanding of a given issue (Jamshed, 2014). According to Hay (2001) qualitative interviews provide tools for gathering detailed information about human behavior, attitudes, and motivations. Since the aim of my research is to explore the underlying motivations and causes contributing to the emergence of the *Geography of Discontent* evident in the farmers' protests, this methodology is deemed suitable. The qualitative approach also presents a significant advantage over quantitative methods like surveys, as it enables to respond to the interviewee's statements during the interviews and delve deeper into relevant topics as they arise. Therefore, despite its predetermined structure with a clear focus on specific topics, this format still enables an exploratory approach to understanding farmers' opinions.

Hence, I undertook a case study involving interviews with a particular group of farmers: Livestock farmers located in or near Natura 2000 areas. These farmers face heightened risk of farm closure under the government's nitrogen reduction plan. Therefore, as outlined in my hypothesis, I assume that affective non-material factors play a role in the discontent of the farmers facing impending government measures that could threaten their future, contributing to the emergence of the *Geography of Discontent*. Derived from my theory part, I am thus examining the factors: *Unsecure Future Prospects, Perceived Status and Position in Society, Influence and Participation, Identity and Belonging*.

4.2 Interview Method

To assess the significance of these aspects for the interviewed farmers, I conducted semi-structured interviews, employing an interview guide for data collection¹⁶. For my purpose, semi-structured interviews provide two significant advantages over other structured and unstructured interview formats. In contrast to unstructured interviews, semi-structured interviews provide a high level of structure and guidance through their interview guidelines and predefined questions (Hay, 2001). It facilitates the interview process to stay in line with certain pre-defined topics and simplifies referencing them if the conversation digressed. Moreover, by asking each respondent the same set of predefined questions, it also ensures enhanced comparability of their answers. Additionally, employing an interview guide with pre-defined questions ensures improved replicability, as this structured approach facilitates conducting the interviews again (Hay 2001). In contrast to structured

¹⁶ The interview guide can be found in the appendix

interviews, the semi-structured format permits more exploration during the interview. Despite having predefined structure and topics, interviewees can freely express their opinions and elaborate on topics that are relevant to their concerns. As an interviewer, you can also address responses and delve deeper into topics through follow-up questions (Hay 2001). Regarding the farmers, besides my planned exploration of potential non-material factors underlying their discontent with the situation, it enables me to uncover additional aspects that were not previously contemplated.

The interviews were conducted between November 11, 2023, and November 22, 2023. This implies that the interviews occurred before the elections on November 22, 2023, reflecting the pre-election situation. As a result, any outcomes or alterations in the political environment or regarding the measures were not considered.

4.3 Participant Group

For the data collection, I conducted 11 interviews with farmers whose farms were located directly in or in the vicinity of five different Natura 2000 areas from three different provinces (Utrecht Province, Noord-Holland, and Gelderland). By selecting various provinces and Natura 2000 areas, my objective was to gain a comprehensive understanding of the farmers' perspectives, ensuring a representative view of the situation of Dutch farmers located near Natura 2000 areas. This approach helped prevent the capture of solely local opinions that might mutually influence each other. Figures 5 and 6 show the locations of the interviewees' farms. Six out of 11 interviews were conducted in the Province of Utrecht¹⁷, and five interviews in the province of Gelderland¹⁸ (Ministerie von Landbouw, Natuur en Voedselkwaliteit, 2022)¹⁹. The study's primary focus was not to highlight potential spatial differences in farmers' motivations, but rather to depict as representative a population of farmers from these areas as possible. However, spatial differences in farmers' feelings and motives for their discontent could form the basis for further studies.

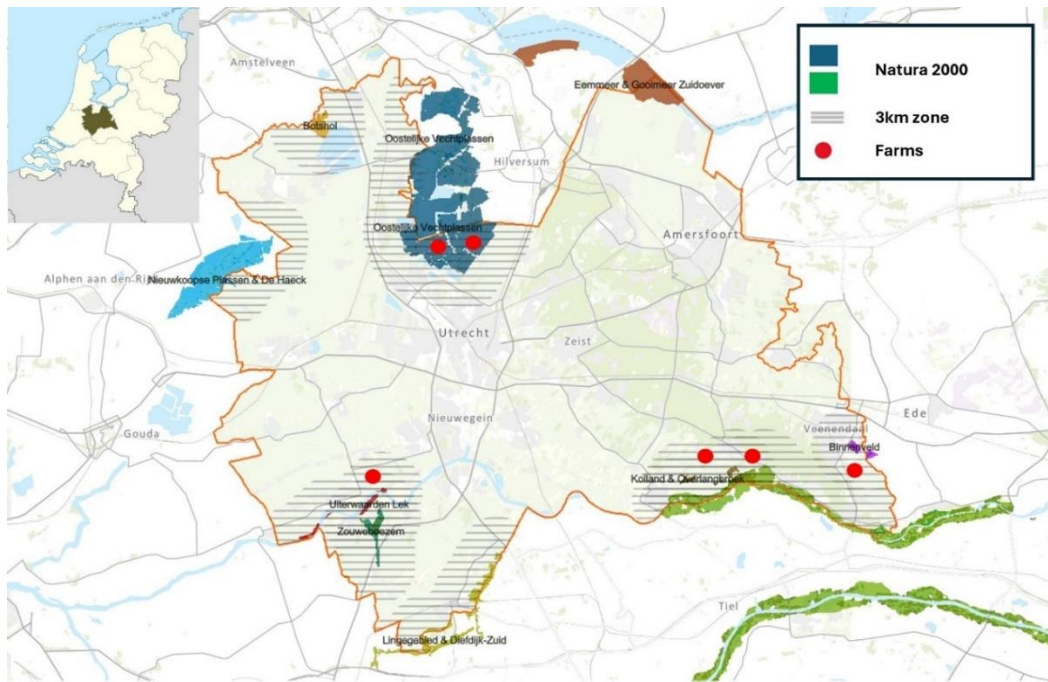
¹⁷ The six interviews in the province of Utrecht, two were conducted in the in Natura 2000 site 'Oostelijke Vechtplassen', one near 'Zouweboezem', two near 'Kolland & Overlangbroek' and three near 'Rijntakken'. (Provincie Utrecht, 2023b)

¹⁸ The 5 interviews in the province of Gelderland were conducted in or near the Natura 2000 site "Veluwe" (Provincie Gelderland, 2021).

¹⁹ The jurisdiction over some of the Natura 2000 areas are shared between bordering provinces. For example, for the province of Utrecht, some of its Natura 2000 areas are at the border to the neighboring provinces of Noord-Holland or Gelderland. For more information please see: Ministerie von Landbouw, Natuur en Voedselkwaliteit. (2022).

Figure 6

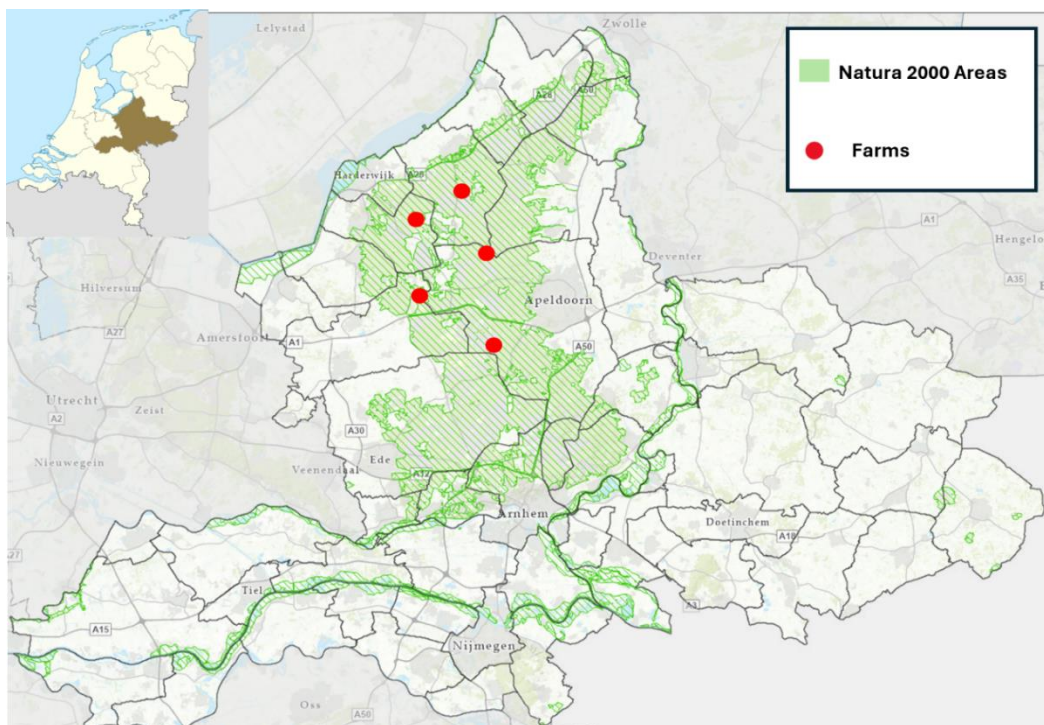
Interviews conducted in the province of Utrecht



Source: Author's own elaboration, partly adapted from: Provincie Utrecht, 2023b.

Figure 7

Interviews conducted in the province of Gelderland



Source: Author's own elaboration, partly adapted from: Provincie Gelderland, 2021.

To conduct the interviews, I visited farms near the Natura 2000 sites. This process was carried out randomly and without prior notification. From my standpoint, initiating initial contact with the farmers face-to-face made the process easier, as it aimed to *break the ice*, foster conversation, and help farmers feel comfortable discussing potentially sensitive topics with me. Additionally, this approach aimed to surmount the language barrier. Many farmers I contacted were only Dutch speaking whereas I – as a German native – was only able to talk to them in English or German. It is therefore reasonable to assume that my use of English in inquiries and the prospect of conducting interviews in English might have served as an exclusionary criterion for many farmers who might otherwise have been willing to participate. Consequently, it can be inferred that this factor has contributed and influenced the composition of my participant group and its representativeness.

In total, 89 livestock farmers were approached for an interview. An interview was conducted in 11 cases with 14 farmers (9 single farmers, 2 farming couples, 1 time father and daughter). Table 1 gives an overview over the interview participants giving information about their age, their farm type, livestock number and size of their farm. Despite farm 9 which was rented, all farms were family-owned farms. Six farms were dairy farms, three farms produced calf meat, one was a goat-milk farm, and one was a mixed farm with pigs as their main livestock. The latter two and farm 9 were organic farms (mixed pig farm 50%). The farm size varied from small scale farms (farm 9 and 10) to large-scale farms (farm 2 and 11)²⁰. The average age of farmers approx. 48 years²¹. With the exception of Farmers 9a and 9b, all interviewed farmers actively participated in the protests and joined various demonstrations with their tractors. While participants were randomly selected, efforts were made to attain a reasonably balanced age distribution. Nonetheless, it's important to clarify that the selection of farmers in my study is not representative of the entirety of the farming community in the Netherlands.

²⁰ The estimation of the farm size and scale was based on: Eurostat, 2013.

²¹ In the two cases where there was more than one farmer, they were counted separately in the calculation.

Table 1*Interview Participants*

Interview	Famers	Age	Farm Type	Livestock	Hectares
1	a) Father	59	Dairy farm	250	119
	b) Daughter	27			
2	Male Farmer	44	Dairy farm	530	400
3	Male Farmer	36	Dairy farm	145	80
4	Male Farmer	59	Dairy farm	195	55
5	Male Farmer	59	Calves (Meat farm)	900	8
6	a) Male Farmer	35	Goat (milk) farm	800	12
	b) Female Farmer	35			
7	Male Farmer	55	Mixed farm, mainly pigs	185	60
8	Male Farmer	63	Calves (Meat farm)	1000	1.2
9	a) Female Farmer	52	Dairy farm	110	54
	b) Male Farmer	54			
10	Male Farmer	60	Dairy farm	88	38
11	Male Farmer	47	Calves (Meat farm)	2130	8

4.4 Interview Design

During the interviews, the participating farmers I asked nine primary questions relating to their situation during the *Nitrogen Crisis* and the resulting farmer protests²². The questions were referring to pre-defined topics, which were – as described above – derived from the literature as possible structural and affective factors for the emergence of a *Geography of Discontent*. Depending on the answer and the course of the interview, I then asked secondary questions and followed up on the respective topics for more in-depth information regarding their opinions, assessments, and sentiments. Table 2 shows an overview of the topics and the respective questions. While certain questions targeted specific topics, others were explored more indirectly through secondary inquiries or emerged naturally during the interview process. However, in many instances, I simply replied directly to what the farmers had expressed.

²² The pre-defined questions can be found in the interview guide in the appendix.

Table 2*Interview Questions and Categories*

Dimension	Factor	Questions
Structural	Economic Situation	Q1, Q2, Q5
	Unsecure Future Prospects	Q1, Q2, Q8, Q9
	Perceived Status & Position in Society	overall
Non-material & Affective	Influence & Participation	Q1 & Q7, Q8, Q9
	Identity	Q3, Q4, Q5
	Belonging	Q3, Q4, Q5
Agency	Activity in Protests	Q6

Although I intended to obtain specific information about each factor, I had to ensure that the nature of the questions did not lead the farmers interviewed to expect certain answers or steer them in a certain direction. To address this issue, I initiated with broader questions and further explored whenever any of the interviewees mentioned one of the five factors. Additionally, I structured the questions in a manner that encouraged farmers to provide explanations rather than simple "yes" or "no" responses. First, some questions about general information were asked, such as farm size, livestock, and farmer demographics. Consequently, I initiated the discussion by addressing the *Nitrogen Crisis*, the subsequent governmental plans, and proposed goals for reducing nitrogen emissions on farms within Natura 2000 areas. This was followed by questions from the interview guide on how the farmers were affected by the situation while also providing them the flexibility to guide the conversation towards areas more relevant to their concerns.

7 out of the 11 interviews were conducted entirely in English, occasionally with the aid of translation apps to enhance communication and comprehension. In 4 instances (interviews 2, 3, 4, 8), the interviews were conducted by providing the farmers with a printed version of the interview guide in Dutch, resulting in responses entirely (interviews 2, 4) or partly (interviews 3, 8) in Dutch²³. The interview length varied between 21:57 (interview 4) and 1:04:23 (interview 6), while the average interview length was 38:14. As a native German speaker with limited fluency in Dutch, I was able to follow the majority of the discussions of those interviews, and to some extent, pose follow-up questions on their responses. Information about the interview recording and transcription guide can

²³ In some of the other interviews the interview guide was likewise utilized as assistance for clearer comprehension of the questions.

be found in the appendix. The transcribed interviews are available separately in a document attached to this thesis.

In the subsequent section, I will disclose the findings obtained from analyzing the interviews regarding the above-mentioned factors. Additionally, the implications and derivations of the outcomes will be discussed.

5 Results & Discussion

In this section, I present the results of my analysis of the 11 interviews. My research indicates that the 5 affective factors outlined in my theory substantially contribute to the farmers' discontent, serving as important catalysts in the emergence of the *Geography of Discontent* evident in the farmers' protests. In the following subchapters, I will present and discuss the respective effects of the examined affective factors. Section 5.1 shows the analysis regarding the factor of *Unsecure Future Prospects*, section 5.2 outlines the factor of *Perceived Status and Position in Society*. Section 5.3 illustrates the examinations of *Influence and Participation*. Section 5.4 demonstrates the results for the factor *Identity* and lastly the findings for the aspect of *Belonging* are shown in section 5.5.

5.1 Unsecure Future Prospects

The subsequent section of the analysis delves into the repercussions of the court ruling and the disclosure of the government's measures on farmers' future prospects. As outlined in the previous sections, the proposed nitrogen reduction measures pose a perceived threat to farmers' ability to sustain their farms and therefore creating considerable uncertainty among those affected. The analysis of the interviews confirms current uncertainty, which also extends to their future prospects. Examining the assessments and concerns of the farmers, two groups become apparent among the interviewees. The first group comprises farmers who either intend to continue farming for an extended period (F2, F3, F6, F9, F11) and those who plan to retire soon and transfer their farms to their successors (F1, F7, F10). The second group comprises farmers who plan to retire in the next few years and do not have a successor prepared to take over their farm (F4, F5, F8).

For farmers from the first group, the Supreme Court's decision and the government's planned measures to reduce nitrogen emissions have resulted in significant uncertainty regarding the future of their farms. Most of them indicate that if substantial reduction targets were enforced, they would need to decrease their livestock numbers to a degree where profitable farming would no longer be

viable (F2, F3, F6, F7, F9, F10). Farmer 2 thus asserts regarding his situation that the fixed costs of his agricultural business do not allow a significant downsizing:

“But if I keep fewer cows now then my revenues go down. But my costs remain the same all the time, so to speak. And that's just not possible. It's very easy. You miss that piece of milk money. But just for those cows, I have less feed costs. But all other costs remain the same. You understand that that's not possible. Farmers can't just keep fewer cows” (F2 – 16:49).

In addition to the operational costs of their farms, many also have to service loans that they have taken out for prior investments (F3, F6, F9). Therefore, their farms are tailored to a specific scale and livestock, which is necessary for repaying the financing obtained from the bank. For instance, farmer 6a expresses his shock at the High Court ruling, as he had recently invested in a new barn set to be financed over the next 30 years (50:00). He states that he struggled to sleep due to the uncertainty of the situation and the impending consequences. Moreover, farmers 3, 6 and 9 state that downsizing would require additional investments in their farms, as their existing infrastructure is tailored to accommodate their current scale of operation and livestock numbers. Therefore, farmer 9 indicates that should they decrease their livestock, they would need to invest in a new milk tank, as the current one would be too large for their reduced farm size (55:20).

Furthermore, the lack of clarity regarding the extent and dimension of the impact from the government's plans represents the most significant stressor. All farmers express their discontent over the absence of clear announcements or information from national or provincial governments. Many highlight that for nearly four years since the 2019 High Court ruling this situation has been a persisted burdening factor (F1, F2, F3, F6, F9). They stress that even though the necessity of reducing emissions and its urgency had been emphasized by that time, farmers still lacked a clear plan or indication regarding how and to what extent they were required to transition their farms. Farmer 1b comments on this:

“For me, we've been talking about this for like three or four years. But only the measurement for the peak polluter is now active. But if you talk to people from the province or others there is nothing clearer than before. So, we're in the same position as when we started” (F1b – 8:06).

Some farmers are taking a pragmatic approach to the situation and are trying not to deal with potentially severe scenarios and instead continue operating their farms (F1, F6, F9), while others unmistakably perceive the situation as highly stressful (F2, F3, F11). Farmer 1b expresses her

sentiment in this regard, wishing for clarity even if it means they would have to stop. Such a resolution would, at the very least, put an end to the uncertainty surrounding the future.

In this context, all farmers express their frustration and the challenging conditions to plan for the future due to uncertainty of the situation. Some state that they are shying away from (larger) projects and investments due to the unclear situation (F2, F3, F10). They are reluctant to take on new projects as they fear bad investments and losses if the implementation of the government's measures has drastic consequences on their daily business. Many highlight that this is an unsustainable situation causing them significant stress (F2, F3, F6, F10, F11). According to farmers 3, 6, 9, and 10, being a farmer entails continual investment to ensure the smooth operation of the farm, making it impossible to halt investment altogether. Farmer 3 expresses his opinion on this circumstance:

"You have to go to the bank sometimes for money. And you must make a plan for 10 years. But how can I make a plan? Because if you do not continue with your business then you are standing still. And you cannot stand still, you have to keep going and go on" (F3 – 5:21).

Farmer 2 highlights the need for maintenance or potentially building a new house, along with considerations for a new barn. However, given the uncertainty and lack of clarity regarding the future of his farming operation, pursuing such a project is currently impossible for him, a fact that he finds "*paralyzing*" (F2 – 5:21). In addition to the personal reluctance to make larger investments due to the current uncertainty, farmers also encounter difficulties in financing new projects. Several farmers report that securing loans from banks has become even more challenging since the High Court ruling (F2, F3, F6, F9, F11). It can be therefore stated that the uncertainty about the future of the affected farms also has an impact on the decisions of banks, which factor this uncertainty into their risk assessment for lending. This highlights that the current uncertain circumstances surrounding farmers and their future prospects are directly affecting them economically. At this juncture, the interaction between the structural-economic and non-material affective dimensions, which mutually influence each other and impact farmers, also becomes evident.

With regard to the government's exit program to voluntarily stop farming and sell the farms, all farmers in this first group have a negative attitude. For none of the farmers in this group this is an option that they want to take up. On the one hand, because the exiting via the government exit program includes a future ban on working as farmer within the EU. This appears to be a clear exclusion criterion for all the farmers as it affects them in their occupational identity as farmers. This aspect will be further outlined later in this analysis in part 5.4. Farmers 2, 3, 6, and 10 further state that if they were to sell their farm on the market, they would receive not insignificantly less, but would not be banned from working for life. Farmer 2 e.g. states:

“Yes, well if the government offers help with quitting. So, you get 100% or 120% for us. Here for us it is 100%, not 120 but 100. Yes, but if I put the farm for sale here today, I get that 100% also. But there I have no professional ban. Because if the government pays you, then we are not allowed to continue farming in Europe” (F2 – 7:13).

Many farmers also assert that if they sell their farms via the buyout scheme, they would first have to pay half of it back to the state in taxes. In addition, they would still have to repay the loans to the banks, so that in the end there would hardly be anything left for them as a reserve. Farmer 6a states:

“Oh, you have a little bit of money. And they act like it's all, we're all going to be millionaires. But no, we all bring all the money to the bank, and then our guilt is done. And then maybe we have like I don't know how much” (F6a – 32:14).

For the farmers in this first group, who are not planning to stop farming in the near future due to their age, it is clear that the government's exit program is not a satisfactory scenario for them and does therefore not contribute to reducing their perceived uncertainty of the future.

In terms of their perspective on long-term future prospects, some farmers hold a pessimistic view (F2, F3). Farmer 2 merely hopes for increased clarity and predictability from the government but holds little optimism that this will occur (F2 - 18:24). Farmer 11 emphasizes that the outcome of the current election greatly influences his level of optimism or pessimism regarding the future (34:05). Despite experiencing uncertainty, some farmers also articulate positive visions for the future: Farmer 6 states that they plan to build a new barn and expand their business with their own farm shop (58:56). Farmer 7 (16:33) and 9 (53:06) express their intention to further develop their farm towards organic farming and circularity.

In contrast to the profound uncertainty felt by farmers in the first group, those in the second group (F4, F5, F8), who are planning for retirement within the next few years without a successor for their farms, do not harbor significant uncertainty about their future. For these farmers, the government's measures and planned savings targets do not present a significant threat, as they are unlikely to encounter any reduction measures until their self-selected exit. Instead, they see the government's exit programs as a favorable opportunity for exiting the system and for selling their farms at a reasonable price. Moreover, these farmers either have minimal or no outstanding loans from banks, resulting in comparatively less financial pressure compared to their counterparts in the other group. However, all farmers of this group perceive themselves as fortunate in this scenario, expressing deep empathy and solidarity for their colleagues who are potentially facing more substantial consequences. They find the situation in which Dutch farmers find themselves intolerable and are

very dissatisfied with the way their colleagues are treated. Farmers 4 states that for farmers who want to continue they need a perspective, “a dot on the horizon”, to orient themselves and plan accordingly.

To summarize, the situation in terms of the *Nitrogen Crisis* affects the interviewed farmers to a varying degree regarding the uncertainty about their future. Farmers nearing retirement, without successors for their farms, face less impact from potential implementation of reduction measures. Conversely, those intending to continue farming for the next years or who are planning to pass on their farms to a successor express considerable concern about the uncertainty surrounding their future prospects.

They are very concerned about the economic future of their farms if the government's plans to reduce nitrogen emissions are implemented. The majority of farmers in this group express concerns regarding two key factors: the farm's ability to remain profitable following potential reductions, and the repayment of loans to the banks. The government exit scheme is not an option for any of them as it would lead to the end of their occupation as farmers on the one hand and would not bring them enough financial compensation on the other. It was shown that this uncertainty about their future led to stress-reactions and impacts on their well-being. As derived from the literature, such status and reactions can be strong drivers for the development of frustration and discontent (Cohen et al., 1983; Diener et al., 1999) and therefore a trigger for the appearance of a *Geography of Discontent*.

As outlined in the theory, my results indicate that the emergence of a *Geography of Discontent* does not necessarily require a long-term structural disadvantage (De Ruyter et al., 2021). Instead, a comprehensive threat of the status quo can serve as a significant catalyst for discontent, irrespective of the prior (economic) circumstances of those involved. My observations show that the impending implementation of the government's measures is a major threat to the existing order and conditions of the agricultural landscape quo and affects farmers regardless of their initial economic situation. Both smaller farms, as in the case of farmers 9 and 10, and large-scale farms such as for farmers 2 and 11, are affected by the uncertainty about to what extent they will be impacted by the government's measures. And all of them express their sentiments of discontent about that particular circumstance.

5.2 Perceived Status and Position in Society

The subsequent segment of my interview analysis delves into the farmers' perceived status and societal position. My intention was to ascertain the farmers' views and sentiments without specifically guiding them towards that topic. Based on my interview examinations, I deduce that

farmers experience a deficiency in recognition, appreciation, and representation mostly from politics but also partly from parts of society.

Most farmers exhibit a negative attitude towards politics. In this regard, for most farmers (F2, F3, F4, F5, F6, F10, F11), the government in The Hague is the focus of their dissatisfaction. Many also express their discontent with the EU, which is perceived ultimately responsible for both the Natura 2000 areas and the nitrogen emission regulations (F1, F4, F5, F10, F11). Regarding the provincial governments some farmers exhibit less discontentment. Farmers 4, 7, 10, and 11 report having a better relation to these politicians and administrations, feeling more understood and involved by them. For instance, farmer 7 highlights a local agency established by the provincial government that assists and advises farmers on transitioning their farms to a lower-emission model.

For the national government in The Hague, numerous farmers express minimal confidence that it is representing and prioritizing their needs. It can be ascertained that many farmers have the impression that politicians lack understanding and appreciation for their concerns (F1, F2, F3, F5, F6, F10, F11). Despite politicians' assurances that they are committed to their interests, farmers observe actions that contradict these claims (F1, F3, F8). Farmer 11 therefore expresses deep bitterness over not receiving the desired recognition for his work. Instead, he feels that the government constantly criticizes his efforts (17:05). Many farmers criticize politicians in The Hague for lacking a connection to the farmers and for enacting regulations and laws without a thorough understanding of the realities of the rural communities (F1, F2, F3, F4, F6, F8, F11). Despite their familiarity with local conditions, farmers feel excluded from the decision-making process. This aspect will be explored further in the subsequent chapter on Influence & Participation.

Some farmers further show deep mistrust towards the government in The Hague, accusing them of not being honest about the nitrogen issue (F3, F8, F10, F11). Farmers 3 and 11 accuse the government of deception. They claim that the government would use nitrogen emissions as a pretext to ensure that as many farmers as possible have to stop farming. Farmer 11 states that instead of nature conservation, they believe the government's aim is to get rid of as many farmers as possible to acquire their land, as farmer 11 voices:

“The government should have just been honest with us and just said: ‘Well, we, within certain areas we just want to have space for house building and for nature’ [...]. And they shouldn't have fiddled with numbers and with calculation models” (F11 – 47:32).

It can be stated that the farmers' perception of being treated dishonestly by politicians is a major contributing factor for their dissatisfaction.

All the farmers interviewed conveyed the feeling of being unfairly treated. Many see themselves as the main victims of the entire situation surrounding the *Nitrogen Crisis* (F2, F3, F4, F6, F9, F11). They feel the responsibility for reducing emissions disproportionately, in contrast to other sectors such as large industrial companies or airports, which from their perspective can carry on as usual. Farmer 10 therefore states:

“I think it's ridiculous. There is something going on in the whole world. But they only put the focus on this moment on the agriculture side and not on planes or big industries and only the farmers get the bills to pay for the nitrogen reduction and not back airplanes and ships and Tata Steel” (F10 – 05:09).

Farmers 3, 6 and 9 also perceive the situation as unjust using the argument that the increasing number of cars on the road would also lead to a rise in nitrogen emissions. Farmer 3 highlights his perspective that it would be more convenient for politicians to target agricultural nitrogen emissions because they are more readily measurable since every cow is being registered (16:56). Unlike in the industrial sector, where the precise measurement of emissions is less thorough. The absence of unity among farmers in dealing with the government is identified as a problem by farmer 10 (5:58), noting that large corporations like Shell possess considerably more financial resources and lobbying power, thereby exerting greater influence over governmental decisions. Farmer 9 also feels that farmers are quickly singled out as the easy target:

“If there is some need to change the first thing, they call it agricultural” (F9b – 22:10).

Based on some farmers' statements, it can be deduced that many do not view the issue of excessive nitrogen emissions in agriculture as significant as it is depicted in public discourse. Farmers 1, 3, 6 and 9 express their confusion regarding the assertion that the nitrogen issue poses a significant problem for them. They argue that, based on their observations, the nitrogen levels in their local area or in the nearby Natura 2000 site are not excessively high. Farmer 1 articulates:

“So, Nitrogen is only a problem for quite a few vegetation types in in Natura 2000 areas. And I read somewhere 85% of our nature to 2000 is in good shape and only a few 14 or 15% is bad” (F1a – 08:59).

Farmer 9a voices that it would be easier for her to support the measures if she was convinced that they were useful for environmental protection (19:59). She also states that there are different points of view on the subject of nitrogen pollution:

“Not all science people are thinking the same and are telling the same about the problem and how to solve it. I think that is the most difficult part” (F9a – 24:44).

Some farmers voice that they miss acknowledgement from society (F3, F6, F8, F10). In this context, the absence of a connection between farmers and (largely urban) citizens is emphasized as a significant concern. The farmers criticize that people in the cities have lost connection to life in the countryside. Farmer 3, for instance, asserts that there is a growing gap between (urban) society and farmers, resulting in a lack of understanding of farming practices and food production. Nevertheless, he also reflects on his role as a livestock farmer, acknowledging the need to improve communication about their work and daily lives (21:23). Farmer 6 voices that he is portrayed unfairly, especially from citizens from urban areas:

“Farmers are only climate criminals, or nitrogen criminals. So that's how people look at us. Or that's the feeling we have a little bit” (F6a – 22:29).

Farmer 10 notes a lack of appreciation for the quality and value of food and criticizes the fact that many consumers are simply replacing natural products from farms with factory products. In his opinion there is a difference between urban people and people from his area who tend to be more empathetic, more appreciative and are valuing his efforts as a farmer (24:18).

In conclusion: Examining the farmers' responses underscores their discontent with the missing recognition, acknowledgment, and appreciation they receive from politics. As McCann and Ortega-Argilés (2021) have highlighted, such a sentiment of feeling undervalued and under-presented can be a strong driver for discontent. Many feel a strong dissatisfaction, particularly towards the governments of The Hague but also the EU. Some statements reflect a deep mistrust in the existing political system, that the government is acting with false calculations and motives. As De Ruyter et al., (2021) have highlighted, this distrust can serve as a significant catalyst for the emergence of a *Geography of Discontent*.

The foreseen plans by the government are widely perceived as a great injustice as the farmers see themselves bearing the burden of resolving the nitrogen issue. In my opinion, De Ruyter's (2021) statement of developing discontent when being excluded from benefits within a system while others do benefit, applies here inversely. Instead of not receiving benefits while others do, they must suffer the consequences while others do not. Many farmers perceive themselves as the main victims of the government's emission reduction measures. From their perspective, they believe they have to make the largest contribution to reduce emissions, while other sectors such as industry or traffic are hardly affected in comparison. In my view, this sentiment constitutes a pivotal factor contributing to the extensive discontent that has given rise to the *Geography of Discontent* displayed in the farmers' protests. In addition, some farmers also express that they are missing acknowledgment from their

fellow citizens, predominantly from urban areas, which also contributes to the farmers' negative perception of their standing. According to Jancker et al.'s argument (2021), the lack of recognition and appreciation for farmers' work from society negatively affects their well-being. Therefore, this sensed absence of acknowledgment which emerged in the interviews represents another potential driver of the discontent seen in the farmers' protests.

5.3 Influence and Participation

The following section illustrates how the interviewed farmers perceive their influence and involvement in decision-making processes in the wake of the *Nitrogen Crisis*. My findings indicate that the farmers perceive significant constraints on their autonomy due to impending measures. They criticize their exclusion from decision-making processes and the absence of collaborative efforts toward finding mutual solutions.

Many farmers perceive the government's measures, especially the possible closure of many farms and the end of their practice as farmers, as a major encroachment on their self-determination (F1, F2, F3, F4, F9, F10, F11). They show great incomprehension about the fact that they potentially have to stop farming, depending on the implementation of the planned measures. Farmer 9a states that she wants to have the autonomy to determine if and when such a decision will be made:

“I want to make the decision by myself and not by the government. So, I think I don't feel okay. Because of course, when I say: Oh, so this isn't enough. I don't like it anymore. Or there are other things why you don't want to run a farm. Then you make a decision by yourself. [...] So, you became a farmer to make your own decisions, and now someone else is making the decision for you. So that's, for me that is not a good feeling” (F9a – 16:42).

Farmer 11 conveys his outrage at the possibility of the government shutting down his farm. He emphasizes the extensive effort he and previous generations have invested to build up the farm, accentuating his resolve not to allow anyone to take it away from him:

“If the government says: All the farmers must stop, then there is a great one. The dead of the gladiolus. And we fight like never before” (F11 – 42:05).

Furthermore, several farmers pronounce the prolonged sense of constraints and restriction in their professional activities by numerous rules and regulations (F3, F4, F8, F11). As described earlier in section 5.3, many farmers feel that politicians are imposing regulations and laws on them without

understanding the local realities of the farmers. In addition to the large number of rules, some farmers (F1, F5, F9, F10) criticize the lack of reliability of the politician's decisions. Farmer 1a states that you never know what's coming next (18:22) and Farmer 10 argues:

"Also last year, we had this measurement, this year is this, next year will be that. It's never enough" (F10 - 33:21).

Many criticize that the farmers were not included in decision-making processes regarding the excessive nitrogen emissions (F1, F3, F4, F5, F6, F9). Farmer 1 and farmer 9 state that they had participated in meetings with authorities and organizations on behalf of nature conservation. Yet, according to farmer 1 these gatherings often ended without substantial outcome due to the multitude of positions represented (45:07). In certain cases where compromise solutions were reached, there was no assurance that these would be adhered to and not overturned again by the government (F9 – 29:27).

This lack of involvement is a significant source of frustration for many farmers, especially as many express a willingness to change and act. However, almost all farmers emphasize their desire to participation and cooperation in the decision-making process, in which they are consulted (F1, F2, F3, F4, F6, F7, F8, F9, F10). They claim to exert influence or have a voice concerning their operational environment. Farmer 2 asserts that, in his view, the current escalated situation could have been avoided if the farmers had been included in a joint plan to address the nitrogen problem (13:07). Farmer 3 expresses his anger at the government's decision to publish the map indicating saving targets for the individual regions without prior notice. In his opinion, the local municipalities should have been appraised and involved so that they could have worked out regional solutions together with the farmers (23:15). Farmers 4 and 9a stress the importance of engaging with farmers and providing support and assistance for possible new approaches and solutions rather than encumbering them with new regulations. This would rather lead to their disengagement. Farmer 4 therefore pledges:

"You can also go to: What problem do you have in your place? How can we help your business? Can we help you do something different? Transform? Maybe some less cattle, some more nature creation. There has to be a revenue model connected to that. And you get a lot more people involved with that. But now you just get more and more distance with respect to what is in The Hague and us." (F4 – 12:54).

Farmers 6 and 9 explicitly state that they would like to get involved and take action for nature conservation and nitrogen reduction but are unable to do so due to the uncertainty and unclear regulations. Farmers 9a and 9b state that they proactively approached the regional authorities to

plant certain herbs that remove nitrogen from the air and store it in the soil as a measure against the high nitrogen pollution (F9a - 47:48). Instead of being supported, however, she was rejected because this would violate existing regulations. Her reaction to this is:

“Yeah, that is frustrating. Because we want to do, we want to move and we want to do things to change, but there's not a lot of possible ways” (F9a 48:50).

Moreover, alongside the desire for participatory decision-making, numerous farmers stress the absence of a shared vision for the future of the agriculture sector. They advocate for a collective elaboration of a future destination. Such would provide the farmers with a clear objective to pursue and align with. Farmer 6 remarks that from his point of view the current absence of such a vision contributes substantially to the discontent among many farmers:

“I think that's the vision of all farmers. They're not unwilling but they don't see the perspective. And that is what drives people crazy sometimes” (F6a 7:47).

To conclude: As stated in 3.3.2, the actual or perceived lack of involvement from decision-making processes can serve as a potent driver for profound discontent (MacKinnon et al., 2022; McCann & Ortega-Argilés, 2021). The results of my interview analysis reveal that farmers are deeply frustrated that decisions are being made about their circumstances without their input or consideration. This situation represents a significant affront to their self-perception as farmers who highly value autonomy as pointed out by many studies presented (Burton, 2004; Janker et al., 2021; Stock & Forney, 2014; Vesala & Vesala, 2010). Hence, it can be inferred that this factor significantly contributes to the emergence of the *Geography of Discontent* observed in the farmers' protest. Leitheiser's (2022, p. 707) findings that farmers frequently perceive constraints from regulations and environmental protection measures, which further amplify their discontent, were also corroborated in the interviews.

5.4 Identity

The next part of the interview analysis examines the aspect of farmers' identity and how it is influenced by the impending government plans. As derived from the literature in Part 3, farmers exhibit a strong sense of identification and attachment to their profession. My findings confirm this connection. The farmers' responses highlight the significance of identity and identification with their profession as farmers. It becomes apparent that exiting the profession would deeply affect their sense of identity and self-perception.

Many farmers describe that they feel themselves as farmers. Being a farmer is perceived as a significant part of themselves, shaping their character and identity. Most of the interviewed farmers emphasize this aspect (F2, F3, F5, F6, F7, F10, F11). For many, the profession and existence as a farmer are an inherent part of themselves and their self-concept. Statements like *"My life is farming"* (F2 – 8:48), *"My dream is to be a farmer"* (F3 – 7:42), *"You are born like a farmer. It is always inside of you [...] it's a living"* (F10 -31:47), or *"I am a farmer, in my heart"* (F11 – 15:22) underline this aspect. Farmer 7 states that he could not imagine doing something else in his life (5:00).

Satisfaction and joy in the farmers' work are recurring themes. Most farmers appreciate and relish being farmers, finding fulfillment in their occupation, and cannot envision doing anything else. Farmers 2, 5, 6, 7, 10, 11 emphasize that they farm for satisfaction rather than for monetary reasons. Farmer 7 therefore states to the question if he could imagine doing something else than farming:

"I don't. I think that I'm not happy then. Work fun is very important for me. Not the money. You need of course money to live but work fun is very important" (F7 -17:09).

The association with their present occupation as livestock farmers is also highly significant for some. Farmers 6, 10, and 11 further state that they cannot imagine being anything else. Farmer 6 responds to the question whether he could also imagine switching to another form of agriculture:

"For me that's really difficult. Do I want to do other things? No, in my heart I am saying no, this is what I want. [...] If they say you grow apples and pears, then I quit [...]. I don't know what but then I quit with this." (F6a – 29:49).

His wife adds to that: *"In his heart he is a livestock farmer"* (F6b – 30:21). Farmer 7 elaborates that livestock farming will always be important and inevitable for a function agricultural system (15:50). Therefore, from his point of view, the absence of animals in farming is illogical since they play a vital role in facilitating the functionality of a farm within a well-operating circular economy.

Further, pride is a very strong and pronounced factor among many farmers (F2, F3, F5, F7, F10, F11). They state that they are proud of being farmers and of producing locally sourced, high-quality food. Some further express pride in being part of Dutch agriculture, renowned as one of the best in the world in terms of innovation and productivity (F3, F5, F11). Farmer 3 therefore remarks:

"We deliver a good product, maybe the best product in all of Europe. Because we are very good at selling milk, dairy, cheese, porridge, you name it. Very good and also very efficient with guaranteed top quality"(F3 – 16:56).

As mentioned in the preceding Section 5.1 regarding unsecure future prospects, the assessment of the government's exit scheme divides the farmers into two distinct groups: The first group with farmers either willing to proceed farming (F2, F3, F6, F9, F11) or who are planning to pass their farms to their successor when retiring (F1, F7, F10). The other group contains farmers who are planning to stop farming and retire in the next couple of years and who don't have a successor to proceed with their farms view the scheme as a viable option.

Farmers of the first group categorically reject the option of selling their farms via the government's exit scheme. This is due not only to the financial and economic aspects described in 5.2, but also because of their strong attachment to and identification with the profession. Selling the farm through the government's LBV/LBV+ scheme would result in farmers being unable to work as farmers within the EU in the future, making it an unfeasible choice for any of them. Therefore, none of the farmers see selling their farms under this scheme as a viable option. Farmer 2 e.g. is determined about that:

"Yes, and I do want to continue farming, so it's just unnegotiable. We're not going to do that"
(F2 – 7:46).

Farmer 6 states that from his point of view selling your farm by the exit scheme is only a viable option for people who were intending or considering stopping farming anyways. For everybody else who wants to stay a farmer and continue farming that would be no option.

"When you don't want to stop then they can pay 200%." (F6a – 32:52).

Many farmers express that the thought of quitting because of external reasons is inconceivable for them (F2, F3, F10, F11). The prospect of having to stop as part of the government's plans evokes strong emotions for some individuals. (F3 – 7:42, F11 – 17:05). Farmer 11 becomes deeply incensed by this matter and articulates:

"Yes. If the government says: All the farmers must stop, then there is a great one. The dead of the gladiolus. And we fight like never before [..]it's my lifework. And my father's lifework"
(F11 – 42:05).

The exit scheme is also not an option for farmers 1a, 7 and 10 who want to retire in the next few years but have children who want to take over and continue the business. These farmers state that it is very important to them that this happens and that the children will continue to run the farms in the family tradition. This aspect will be further examined in section 5.5 about the matter of belonging.

For farmers of the second group (F4, F5, F8), the scenario is different. These farmers foresee retirement in the near future due to advancing age, with no potential successors within the family. They consider the government's exit program a favorable option. They either express interest in participating or are already in negotiations with officials. These farmers state that the program presents them with a valuable opportunity to sell their farms at a favorable price. It can be stated that this group of farmers does not perceive that their identity is under attack or threatened by the government's planned measures. Yet, all farmers in this group also state that it would be different if they had a successor in the family who would take over the business. Farmer 4 articulates:

“Suppose we have succession. If the kids would also want to do cow milking. Then we wouldn't like it, so to speak. Then it would be very intense” (F4 – 5:54).

Farmer 5 also conveys his sadness about discontinuing farming and preparing to sell his farm soon, as none of his children will inherit and carry on the family business (3:25).

In summary: The analysis of my findings indicates for the interviewees, their role as a farmer constitutes an inherent aspect of their identity. They exhibit a profound connection to their profession and take pride in their role as farmers. My results reveal that the farmers interviewed perceive varying levels of threats to their identity due to the government's impending measures. In this regard, two distinct groups became apparent from this analysis: The first group contains those farmers who are either intending to persist with farming in the immediate future or wishing to pass on their farms to successors soon.

As shown in the theory, the more profound the identification with the entity, such as the job, the greater the distress and upheaval to the self-concept upon its loss (Papa & Lancaster, 2016; van Eersel, 2019). Given the farmers' strong identification with their profession, it can be inferred that the threat to their identity is a pivotal factor contributing to the emergence of the *Geography of Discontent* evident in the farmers' protests. For the farmers interviewed from this group, the idea of being forced to stop from the outside is highly emotionalizing and deeply affecting their self-image and their concept as farmers. For many, ceasing farming and exiting via the government's scheme was not up for discussion. Their responses are consistent with those from previous research, which highlighted the special nature of the connection and strong identification of farmers with their professions (Klandermans et al., 2002; Peel et al., 2016; Stock & Forney, 2014).

The second group is aiming to retire shortly without a successor to carry on their farms. Regarding this group, it is apparent that they view the government's program favorably, perceiving financial benefits from it. These farmers do not perceive this scenario as a threat to their identity. They have likely been dealing with the reality that nobody in the family will take over the farm after them for

some time. Consequently, the notion of relinquishing farming and departing from their family tradition probably does not arise suddenly for these farmers. It can be assumed that it is more tolerable for them to accept their children's decision not to continue the farm voluntarily rather than it being externally mandated by the government. However, these farmers also state that it would be completely different for them if they had a successor within the family.

5.5 Belonging

The concept of identity is closely intertwined with the notion of belonging. Several responses from the farmers delve into aspects that can be categorized under both domains. For instance, the significance of family tradition is profoundly linked with their personal identity as farmers and also with their ties to their own farms and socio-territorial surroundings. The bond with their profession, carried on by previous generations, holds significant importance for many farmers and likely serves as another potent force in shaping their identity. This is emphasized by most of the farmers interviewed (F2, F3, F5, F6, F7, F8, F10, F11). Some state that being a farmer is inherent and incorporated into their family. *"It is in our genes"* (F7 – 12:59), or *"I think the most is being a farmer. That's in their DNA"* (F8 -10:52). Consequently, the farmers' responses reflect a profound connection and valuing to the legacy established by previous generations and inherited by them.

The significance of heritage and tradition is also tied to a profound attachment to the farmers' farms. They incorporate the history and tradition and lifetime achievements of previous generations. Many farmers therefore have the desire to continue what their ancestors have built up (F1, F2, F6, F7, F10, F11). They see this as a privilege, but also as their responsibility. Farmer 6a & 6b conclude on the tradition and also on the heritage of his farm:

"And also, because it's a family farm. We have been here for generations" (F6b – 31:31).

"Yeah, my grandfather farmed here, my father. We have made a really great effort to get all this done to realize our plans" (F6a – 31:35).

Furthermore, for most of the farmers who have a (potential) successor in the family, it is extremely important to preserve their farms for future generations and pass it on to them. Farmer 7 underscores the profound connection to his farm rooted in its history. He further expresses his dedication to its continuation, prioritizing it over monetary considerations.

"No. What is more money? We have lived here from 1600 and we build it.[..] Yeah. We will stay and we will go on. For my son. For the next generation" (F7 – 6:44).

For many farmers, the strong connection to their farm and its tangible history is a key reason why they would not be willing to relocate to another area to farm. Most of the farmers interviewed expressed their reluctance to leave and sell their farms and to go somewhere else due to the deep connection to them as described above. For farmers who do not have a successor and thus represent the final generation in their families to pursue farming, maintaining their ancestral farms remains crucial, as they still appear deeply attached to them (F4, F5, F8). This symbolically charged spatial connection to their farms is also reflected in some statements filled with pathos, such as made by farmer 11:

“No, no. This is my place. I was born here. I die here” (F11 – 23:44).

Farmer 3 underscores the importance of having his entire family and social circle nearby, which he would not be willing to give up. Farmer 9b highlights the challenges of relocation from a business perspective. He notes that he would have to rebuild his professional network of customers, suppliers and more. Farmer 9a further elaborated that she would not be willing to depart from the farm due to the substantial investments she and her husband made in it.

In summary: The examination of the farmers' responses in the interviews reveals a profound sentiment of belonging they hold towards their farms and the surrounding environment, indicating a strong socio-territorial connection. As highlighted in previous research by Mee & Wright (2009) and Tomaney (2015), the spatial and social rootedness to a place holds significant importance for individuals. My findings are in line with Ceshire et al (2013) that this sentiment of belonging is particularly evident among farmers and their attachment towards their farms. Many interviewed farmers underscored the importance of their bond with their farms and expressed a strong wish to preserve it. The significance of tradition is recurrently emphasized by the farmers, aligning with findings in the literature (Källström & Ljung, 2005). Preserving the legacy of their ancestors and passing it down to future generations holds value for most farmers.

Hence, is reasonable to assume that farmers confronted with the potential closure of their farms perceive a threat to their sense of belonging and attachment to their farm. It can be deduced that potential forced exits resulting from nitrogen reduction measures would disrupt this connection, likely causing substantial discontent, as demonstrated by the emergence of the *Geography of Discontent* evident in the farmers' protests.

5.6 Results summary

Based on the analysis of my interviews, it became evident that the group of farmers interviewed perceives a significant impact from the government's proposed measures and their potential repercussions across several affective dimensions. As demonstrated in the theory, the influence of these factors can be pivotal for the emergence of a *Geography of Discontent*. By analyzing the interviews, I discovered that the five examined affective factors (*Unsecure Future Prospects, Perceived Status and Position in Society, Influence and Participation, Identity and Belonging*) play a significant role in the widespread dissatisfaction among farmers, acting as important catalysts for the emergence of a *Geography of Discontent*, as manifested in the farmers' protests.

Therefore, the initial hypothesis:

Non-material affective factors considerably contributed to the farmers' discontent and therefore for the emergence of a Geography of Discontent demonstrated in the farmers' protests.

can be confirmed.

The analysis of the interviews distinctly indicates that concerns regarding the future of their farms contribute significantly to a sense of uncertainty and stress among numerous farmers. However, the impact varies among the farmers observed in the study group for the aspects of *Unsecure Future Prospects* and *Identity*. Those who do not intend to cease farming in the near future, and those who are intending to transition their operations to a successor, experience considerable distress regarding the future of their farm. In addition, my findings reveal that these farmers perceive a threat to their identity as farmers, as government interventions could potentially force an involuntary end to their agricultural activities. For farmers intending to retire within the next few years due to age and lacking a successor, the situation differs. According to my analysis, these farmers do not experience significant uncertainty, as the exit scheme offers them a viable option for selling their business. Moreover, it became evident that they do not feel notably challenged in their identity as farmers by the impending government measures.

Regarding the significance of belonging and their affiliation to their socio-territorial environment, the farmers do not show any distinction. It emerges that for all farmers, the symbolism and history behind their farms is very pronounced for them. As emphasized, the possibility of losing this bond and the sense of belonging to their place can serve as a significant catalyst for the emergence of dissatisfaction. Regardless of their situation, all farmers feel excluded from decision-making processes in politics and marginalized in their proposed solutions for the nitrogen issue. The

perceived absence of influence and involvement emerges as a shared concern among them, notably contributing to the farmers' discontent. It was found that all farmers feel disconnected and unrepresented by politics, sensing a widening gap between their realities and the decisions made by policymakers, which causes significant frustration. Furthermore, some farmers also perceive a lack of acknowledgment from fellow citizens, particularly those from urban areas, which also adds to their dissatisfaction with their situation.

6 Conclusion and Outlook

This thesis contributes to the discussion on the causes and motives behind the emergence of *Geographies of Discontent*. While the literature underscores that numerous interrelated aspects can influence their development, in practice, measures often prioritize structural economic factors (De Ruyter et al., 2021; MacKinnon et al., 2022; McCann & Ortega-Argilés, 2021). Nevertheless, as outlined, for a more comprehensive understanding of the phenomenon, it is imperative to expand the scope of possible reasons and also include non-material factors in the consideration.

At this juncture, my research delved into the causes and motivations behind the arisen discontent of Dutch farmers in the wake of the *Nitrogen Crisis*. Through the examination of my interviews, I was able to find that affective factors significantly contribute to the development of farmers' widespread dissatisfaction, serving as relevant drivers for the emergence of a *Geography of Discontent* expressed in the protests. The proposed government measures pose a significant disruption and a considerable threat to the current status quo in the Dutch agricultural sector. Especially for farmers near Natura 2000 areas, they represent an existential challenge to the continuation of their farms, irrespective of their structural circumstances. For this reason, I wanted to gain a comprehensive understanding of the sentiments and concerns of the farmers affected by this potential comprehensive disruption.

In this context, it is important to emphasize that this study dealt with a small sample of affected farmers within a broader population. While this subset offers valuable insights into the emotional state of a group profoundly affected, it is not sufficiently representative to draw definitive conclusions about the overall situation of Dutch farmers. For a more comprehensive analysis, it is advisable to expand such an investigation both in scope and depth. To that effect, the impacts of structural factors such as the economic situation were deliberately not looked at in this thesis, as it was not the focus of this study. However, the varied responses from the two illustrated groups of farmers concerning the factors of *Unsecure Future Prospects* and *Identity* raise further questions regarding the interplay of structural and affective factors. To what degree might the government offer, of purchasing farms

from willing sellers and thereby affecting them economically, potentially serve as a mitigating measure against the emergence and spread of discontent? Or is it ineffective, since it may affect the perceived security of this group of farmers regarding their future prospects, yet it fails to alleviate significant discontent in other areas? It would be interesting to see if the results can be confirmed through further in-depth analysis and what conclusions can be drawn from this.

Furthermore, as outlined, there are considerable disparities among the farming community in the Netherlands concerning their structural context. At a few points, this became evident in the course of my research. During certain phases of the interview process, distinctions in farmers' responses were apparent based on the size of their farms. For example, some farmers owning larger and more capital-intensive farms mentioned planning to install air filtration systems in their barns as a nitrogen reduction measure. In contrast, farmers with smaller farms reported that they could not afford such investments on their own. For future research aiming to delve deeper into the farmers' discontent and its underlying causes, it would be beneficial to consider the structural economic situation of the farmers. In this regard, it would be advantageous to contemplate the integration of quantitative methods alongside qualitative investigation, as undertaken in this study, to further expand the analysis with data. Thus, it could be investigated to what degree the structural situation of the affected farmers impacts the intensity and expression of the individual affective factors, and whether there is any correlation between different aspects.

Furthermore, this study did not explore spatial variations in farmers' sentiments and motivations regarding their discontent. A more in-depth examination with a focus on spatial differences, such as by province or Natura 2000 areas, presents an opportunity for future investigations.

Considering the noticeable obstacles posed by the language barrier during my interactions with farmers and the execution of interviews, from my perspective it would be beneficial to conduct any future or expanded iterations of this study entirely in Dutch to overcome this challenge.

My research underscores the pressing importance of taking a holistic approach towards phenomena of *Geographies of Discontent*, like farmers' protests, and their underlying motives and causes. In light of recent farmer protests, like those seen in late 2023 / early 2024 in Germany, France, or Spain, it's evident that these protests and the associated discontent are not a specific Dutch incident but are occurring across numerous European countries presently. For a better understanding of their causes, it would be valuable to investigate the reasons and motivations of farmers in this context, considering not only structural aspects but also affective factors. Examples such as the recent farmers' protests in Germany (Connolly, 2024), where a small reduction in (environmentally harmful) subsidies sparked widespread protests and blockades, imply that the underlying causes may extend beyond purely

economic factors. In order to maintain social cohesion, it is essential for politicians and decision-makers to grasp these phenomena and their underlying roots and causes in their entirety in order to find prolific solutions. This also applies to future transformations. If certain individuals or groups feel that they are not adequately engaged, involved, and emotionally connected, there is a risk of losing their support for the necessary transformation. Additionally, there is a risk that, due to their dissatisfaction with perceived neglect in existing democratic processes, they may turn to populist anti-establishment movements and parties as has occurred in many prominent cases in recent history.

7 Literature

- BBC News. (2018, December 6). France fuel protests: Who are the “gilets jaunes” (yellow vests)?. *BBC News*. <https://www.bbc.com/news/world-europe-46424267>
- Berendse, F., Geerts, R. H. E. M., Elberse, W. Th., Bezemer, T. M., Goedhart, P. W., Xue, W., Noordijk, E., Ter Braak, C. J. F., & Korevaar, H. (2021). A matter of time: Recovery of plant species diversity in wild plant communities at declining nitrogen deposition. *Diversity and Distributions*, 27(7), 1180–1193. <https://doi.org/10.1111/ddi.13266>
- Biard, B. (2019). The influence of radical right populist parties on law and order policy-making. *Policy Studies*, 40(1), 40–57. <https://doi.org/10.1080/01442872.2018.1533110>
- Brand, J. E. (2015). The Far-Reaching Impact of Job Loss and Unemployment. *Annual Review of Sociology*, 41(1), 359–375. <https://doi.org/10.1146/annurev-soc-071913-043237>
- Bryant, L. (1999). The Detraditionalization of Occupational Identities in Farming in South Australia. *Sociologia Ruralis*, 39(2), 236–261. <https://doi.org/10.1111/1467-9523.00104>
- Burton, R. J. F. (2004). Seeing Through the ‘Good Farmer’s’ Eyes: Towards Developing an Understanding of the Social Symbolic Value of ‘Productivist’ Behaviour. *Sociologia Ruralis*, 44(2), 195–215. <https://doi.org/10.1111/j.1467-9523.2004.00270.x>
- CBS (2020, May 7). *De landbouw in de Nederlandse economie. 3.4 Landbouwbedrijven naar economische omvangsklasse (standaardopbrengst)*. <https://www.cbs.nl/nl-nl/longread/de-nederlandse-economie/2020/de-landbouw-in-de-nederlandse-economie?onepage=true#c-3--De-primaire-landbouw>
- CBS (2023, January 24). *Agricultural exports hit record value due to price hikes*. <https://www.cbs.nl/en-gb/news/2023/04/agricultural-exports-hit-record-value-due-to-price-hikes>
- Cheshire, L., Meurk, C., & Woods, M. (2013). Decoupling farm, farming and place: Recombinant attachments of globally engaged family farmers. *Journal of Rural Studies*, 30, 64–74. <https://doi.org/10.1016/j.jrurstud.2012.11.005>
- Coates, B. (2023, April 4). Why Dutch farmers turned their flag upside down. *The New York Times*. <https://www.nytimes.com/2023/04/03/opinion/why-dutch-farmers-turned-their-flag-upside-down.html>
- CLO (Compendium Voor De Leefomgeving). (2022, June 8). *Stikstofdepositie, 1990-2020*. <https://www.clo.nl/indicatoren/nl018919-stikstofdepositie-1990-2020>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A Global Measure of Perceived Stress. *Journal of Health and Social Behavior*, 24(4), 385. <https://doi.org/10.2307/2136404>
- Collier, P., & Connolly, J. J. (2023). Time shifts: Place, belonging, and future orientation in pandemic everyday life. *History of the Human Sciences*, 36(2), 105–127. <https://doi.org/10.1177/09526951221139377>
- Connolly, K. (2024, January 15). Thousands of tractors block Berlin as farmers protest over fuel subsidy cuts. *The Guardian*. <https://www.theguardian.com/world/2024/jan/15/thousands-tractors-block-berlin-farmers-protest-fuel-subsidy-cuts>

- Conti, C., Tullo, E., Bacenetti, J., & Guarino, M. (2021). Evaluation of a Wet Acid Scrubber and Dry Filter Abatement Technologies in Pig Barns by Dynamic Olfactometry. *Applied Sciences*, *11*(7), 3219. <https://doi.org/10.3390/app11073219>
- De Ruyter, A., Martin, R., & Tyler, P. (2021). Geographies of discontent: Sources, manifestations and consequences. *Cambridge Journal of Regions, Economy and Society*, *14*(3), 381–393. <https://doi.org/10.1093/cjres/rsab025>
- De Vries, W. (2021). Impacts of nitrogen emissions on ecosystems and human health: A mini review. *Current Opinion in Environmental Science & Health*, *21*, 100249. <https://doi.org/10.1016/j.coesh.2021.100249>
- De Vries, W., Kros, J., Voogd, J. C., & Ros, G. H. (2023). Integrated assessment of agricultural practices on large scale losses of ammonia, greenhouse gases, nutrients and heavy metals to air and water. *Science of The Total Environment*, *857*, 159220. <https://doi.org/10.1016/j.scitotenv.2022.159220>
- Dessein, J., & Nevens, F. (2007). ‘I’m Sad To Be Glad’. An Analysis of Farmers’ Pride in Flanders. *Sociologia Ruralis*, *47*(3), 273–292. <https://doi.org/10.1111/j.1467-9523.2007.00437.x>
- Díaz-Lanchas, J., Sojka, A., & Di Pietro, F. (2021). Of losers and laggards: The interplay of material conditions and individual perceptions in the shaping of EU discontent. *Cambridge Journal of Regions, Economy and Society*, *14*(3), 395–415. <https://doi.org/10.1093/cjres/rsab022>
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological bulletin*, *125*(2), 276.
- Dijkstra, L., Poelman, H., & Rodríguez-Pose, A. (2020). The geography of EU discontent. *Regional Studies*, *54*(6), 737–753. <https://doi.org/10.1080/00343404.2019.1654603>
- Dolman, M., Jukema, G., & Ramaekers, P. (2019). *De Nederlandse landbouwexport 2018 in breder perspectief*. Wageningen Economic Research. <https://doi.org/10.18174/468099>
- EEA (European Environment Agency). (2023, December 19). *Natura 2000 Viewer*. <https://natura2000.eea.europa.eu/>
- Eisikovits, R., & Borman, K. (2005). *Learning To Understand Sense of Place in a World of Mobility: An Educational-Ethnographic Approach*.
- Ellison, S. H. (2021). Ethnography in Uncertain Times. *Geopolitics*, *26*(1), 45–69. <https://doi.org/10.1080/14650045.2019.1654461>
- Erisman, J. W. (2021). How ammonia feeds and pollutes the world. *Science*, *374*(6568), 685–686. <https://doi.org/10.1126/science.abm3492>
- European Commission. (2022). *CAP at a glance*. Agriculture.ec.europa.eu. https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en
- European Commission. (2023, May 5). *State aid: Commission approves € 1.47 billion Dutch scheme to reduce nitrogen deposition on nature conservation areas*. https://ec.europa.eu/commission/presscorner/detail/es/ip_23_2507
- European Commission (n.d.). *Natura 2000*. Environment. https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000_en
- Eurostat (2013, January 25). *Number of holdings and Utilised Agriculture Area (UAA) by UAA size classes Netherlands 2010*. <https://ec.europa.eu/eurostat/statistics->

[explained/index.php?title=File:Figure 1 Number of holdings and Utilised Agriculture Area \(UAA\) by UAA size classes Netherlands 2010.PNG](#)

- Eurostat (2021, March 21). *Agri-environmental indicator - gross nitrogen balance*. <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Agri-environmental indicator - gross nitrogen balance#Analysis at EU level>
- Florida, R. (2021). Discontent and its geographies. *Cambridge Journal of Regions, Economy and Society*, 14(3), 619–624. <https://doi.org/10.1093/cjres/rsab014>
- Furlong, J. (2019). The changing electoral geography of England and Wales: Varieties of “left-behindedness.” *Political Geography*, 75, 102061. <https://doi.org/10.1016/j.polgeo.2019.102061>
- Galloway, J. N., Aber, J. D., Erisman, J. W., Seitzinger, S. P., Howarth, R. W., Cowling, E. B., & Cosby, B. J. (2003). The Nitrogen Cascade. *BioScience*, 53(4), 341. [https://doi.org/10.1641/0006-3568\(2003\)053\[0341:TNC\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2003)053[0341:TNC]2.0.CO;2)
- Glaeser, E. (2011). *Triumph of the city: How urban spaces make us human*. Pan Macmillan.
- Greco, V., & Roger, D. (2003). Uncertainty, stress, and health. *Personality and Individual Differences*, 34(6), 1057–1068. [https://doi.org/10.1016/S0191-8869\(02\)00091-0](https://doi.org/10.1016/S0191-8869(02)00091-0)
- Groth, T. M., & Curtis, A. (2017). Mapping Farmer Identity: Why, how, and what does it tell us? *Australian Geographer*, 48(3), 365–383. <https://doi.org/10.1080/00049182.2016.1265881>
- Gus, C., & Brzeziński, B. (2022, July 29). Europe’s right wing piggybacks on Dutch farmer protests. *POLITICO*. <https://www.politico.eu/article/europe-right-wing-piggybacks-netherlands-farmer-protests/>
- Hay, I. (2000). *Qualitative research methods in human geography*.
- Holligan, B. P. K. & A. (2023, November 23). Dutch election: Anti-Islam populist Geert Wilders wins dramatic victory. *BBC News*. <https://www.bbc.com/news/world-europe-67504272>
- Hendrickson, C., Muro, M., & Galston, W. A. (2018). *STRATEGIES FOR LEFT-BEHIND PLACES*.
- Hildenbrand, B., & Hennon, C. B. (2005). Above All, Farming Means Family Farming: Context for Introducing the Articles in This Special Issue. *Journal of Comparative Family Studies*, 36(3), 357–366. <https://doi.org/10.3138/jcfs.36.3.357>
- Hoes, A.-C., & Aramyan, L. (2022). Blind Spot for Pioneering Farmers? Reflections on Dutch Dairy Sustainability Transition. *Sustainability*, 14(17), 10959. <https://doi.org/10.3390/su141710959>
- Horlings, L. G., & Marsden, T. K. (2011). Towards the real green revolution? Exploring the conceptual dimensions of a new ecological modernisation of agriculture that could ‘feed the world.’ *Global Environmental Change*, 21(2), 441–452. <https://doi.org/10.1016/j.gloenvcha.2011.01.004>
- Horlings, L., & Hinssen, J. P. (2014). Sustainable innovation in intensive animal husbandry; policy and public protests towards a mega-farm in the Netherlands. *ESSACHESS—Journal for Communication Studies*, 7(1 (13)), 125-145.
- Jamshed, S. (2014). Qualitative research method-interviewing and observation. *Journal of Basic and Clinical Pharmacy*, 5(4), 87. <https://doi.org/10.4103/0976-0105.141942>

- Janker, J., Vesala, H. T., & Vesala, K. M. (2021). Exploring the link between farmers' entrepreneurial identities and work wellbeing. *Journal of Rural Studies*, 83, 117–126. <https://doi.org/10.1016/j.jrurstud.2021.02.014>
- Karel, E. (2010). Modernization of the Dutch agriculture system 1950–2010. *Paper for the International Rural History Conference 2010*.
- Kinossian, N. (2019). *Agents of change in peripheral regions*.
- Klandermans, B., Sabucedo, J. M., Rodriguez, M., & De Weerd, M. (2002). Identity Processes in Collective Action Participation: Farmers' Identity and Farmers' Protest in the Netherlands and Spain. *Political Psychology*, 23(2), 235–251. <https://doi.org/10.1111/0162-895X.00280>
- Kline, P., & Moretti, E. (2014). People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs. *Annual Review of Economics*, 6(1), 629–662. <https://doi.org/10.1146/annurev-economics-080213-041024>
- Koetse, M. J., & Bouma, J. A. (2022). Incentivizing a regime change in Dutch agriculture. *Environmental Innovation and Societal Transitions*, 44, 265–282. <https://doi.org/10.1016/j.eist.2022.08.001>
- Leitheiser, S., Horlings, I., Franklin, A., & Trell, E. (2022). Regeneration at a distance from the state: From radical imaginaries to alternative practices in Dutch farming. *Sociologia Ruralis*, 62(4), 699–725. <https://doi.org/10.1111/soru.12403>
- Lessmann, M., Kanellopoulos, A., Kros, J., Orsi, F., & Bakker, M. (2023). Maximizing agricultural reuse of recycled nutrients: A spatially explicit assessment of environmental consequences and costs. *Journal of Environmental Management*, 332, 117378. <https://doi.org/10.1016/j.jenvman.2023.117378>
- Lumey, L. H., & Van Poppel, F. W. (1994). The Dutch famine of 1944–45: mortality and morbidity in past and present generations. *Social history of medicine*, 7(2), 229–246. <https://doi.org/10.1093/shm/7.2.229>
- MacKinnon, D., Béal, V., & Leibert, T. (2024). Rethinking 'left-behind' places in a context of rising spatial inequalities and political discontent. *Regional Studies*, 1–6. <https://doi.org/10.1080/00343404.2023.2291581>
- MacKinnon, D., Kempton, L., O'Brien, P., Ormerod, E., Pike, A., & Tomaney, J. (2022). Reframing urban and regional 'development' for 'left behind' places. *Cambridge Journal of Regions, Economy and Society*, 15(1), 39–56. <https://doi.org/10.1093/cjres/rsab034>
- McCann, P. (2020). Perceptions of regional inequality and the geography of discontent: Insights from the UK. *Regional Studies*, 54(2), 256–267. <https://doi.org/10.1080/00343404.2019.1619928>
- McCann, P., & Ortega-Argilés, R. (2021). The UK 'geography of discontent': Narratives, Brexit and inter-regional 'levelling up.' *Cambridge Journal of Regions, Economy and Society*, 14(3), 545–564. <https://doi.org/10.1093/cjres/rsab017>
- Mattinson, D. (2020). *Beyond the Red Wall: Why Labour Lost, How the Conservatives Won and What Will Happen Next?*. Biteback publishing.
- Mee, K., & Wright, S. (2009). Geographies of Belonging. *Environment and Planning A: Economy and Space*, 41(4), 772–779. <https://doi.org/10.1068/a41364>

- Melse, R. W., & Ogink, N. W. M. (2005). Air scrubbing techniques for ammonia and odor reduction at livestock operations: Review of on-farm research in the Netherlands. *Transactions of the ASAE*, 48(6), 2303–2313. <https://doi.org/10.13031/2013.20094>
- Ministerie van Landbouw, N. en V. (2019, December 3). *Kamerbrief 2 december 2019: invoering snelheidsverlaging - Kamerstuk - Levend Landschap*.
- Ministerie van Landbouw, Natuur en Voedselkwaliteit. (2022). *Programma Stikstofreductie en Natuurverbetering 2022-2035*. <https://open.overheid.nl/documenten/ronl-ce9cacdc2f43a287fda6ed95e3d2d2f0a95e277f/pdf>
- Miscenko, D., & Day, D. V. (2016). Identity and identification at work. *Organizational Psychology Review*, 6(3), 215–247. <https://doi.org/10.1177/2041386615584009>
- Moore, P. A., Li, H., Burns, R., Miles, D., Maguire, R., Ogejo, J., Reiter, M. S., Buser, M. D., & Trabue, S. (2018). Development and Testing of the ARS Air Scrubber: A Device for Reducing Ammonia Emissions from Animal Rearing Facilities. *Frontiers in Sustainable Food Systems*, 2, 23. <https://doi.org/10.3389/fsufs.2018.00023>
- Morais, T. G., Teixeira, R. F. M., Lauk, C., Theurl, M. C., Winiwarter, W., Mayer, A., Kaufmann, L., Haberl, H., Domingos, T., & Erb, K.-H. (2021). Agroecological measures and circular economy strategies to ensure sufficient nitrogen for sustainable farming. *Global Environmental Change*, 69, 102313. <https://doi.org/10.1016/j.gloenvcha.2021.102313>
- Murphy, B. J. (2022, January 29). Freedom Convoy: Why Canadian truckers are protesting in Ottawa. *BBC News*. <https://www.bbc.com/news/world-us-canada-60164561>
- Overman, H. G. (2019). *Election Analysis*.
- Papa, A., & Lancaster, N. (2016). Identity continuity and loss after death, divorce, and job loss. *Self and Identity*, 15(1), 47–61. <https://doi.org/10.1080/15298868.2015.1079551>
- Peel, D., Berry, H. L., & Schirmer, J. (2016). Farm exit intention and wellbeing: A study of Australian farmers. *Journal of Rural Studies*, 47, 41–51. <https://doi.org/10.1016/j.jrurstud.2016.07.006>
- Pigoli, A., Zilio, M., Tambone, F., Mazzini, S., Schepis, M., Meers, E., Schoumans, O., Giordano, A., & Adani, F. (2021). Thermophilic anaerobic digestion as suitable bioprocess producing organic and chemical renewable fertilizers: A full-scale approach. *Waste Management*, 124, 356–367. <https://doi.org/10.1016/j.wasman.2021.02.028>
- Pike, A., Béal, V., Cauchi-Duval, N., Franklin, R., Kinossian, N., Lang, T., Leibert, T., MacKinnon, D., Rousseau, M., Royer, J., Servillo, L., Tomaney, J., & Velthuis, S. (2023). 'Left behind places': A geographical etymology. *Regional Studies*, 1–13. <https://doi.org/10.1080/00343404.2023.2167972>
- Pollini, G. (2005). Elements of a Theory of Place Attachment and Socio-Territorial Belonging. *International Review of Sociology*, 15(3), 497–515. <https://doi.org/10.1080/03906700500272483>
- Poppe, K. J. (2020). *A reflection on the Dutch Food System*.
- Provincie Gelderland. (2021). *Natura 2000 Viewer*. <https://www.natura2000.nl/gebieden/gelderland>
- Provincie Gelderland. (n.d.). *Gelderse stikstofaanpak*. <https://www.gelderland.nl/themas/stikstof/gelderse-stikstofaanpak>
- Provincie Utrecht. (2023a). *Koersnotitie Utrechts Programma Landelijk Gebied*. <https://www.stateninformatie.provincie-utrecht.nl/documenten/DEF-PU23-025-koersnotitie.pdf>

- Provincie Utrecht. (2023b). *Natura 2000*. <https://www.provincie-utrecht.nl/onderwerpen/natuur/natura-2000>
- Puente-Rodríguez, D., van Laar, H., & Veraart, M. (2022). A Circularity Evaluation of New Feed Categories in The Netherlands—Squaring the Circle: A Review. *Sustainability*, *14*(4), 2352. <https://doi.org/10.3390/su14042352>
- Quinn, C. E., & Halfacre, A. C. (2014). Place Matters: An Investigation of Farmers' Attachment to Their Land. *Human Ecology Review*, *20*(02). <https://doi.org/10.22459/HER.20.02.2014.06>
- Remkes, J. W., Van Dijk, J. J., Van Dijk E., Freriks, A., Gerbrandy, G. J., Maij, W. H., ... & Vet, L. E. M. (2020). *Niet alles kan overal: Eindadvies over structurele aanpak op lange termijn*. Adviescollege Stikstofproblematiek.
- Rijksoverheid (2022, June 10). *Startnotitie Nationaal Programma Landelijk Gebied*. <https://www.rijksoverheid.nl/documenten/rapporten/2022/06/10/startnotitie-nplg-10-juni-2022>
- Riley, M., & Harvey, D. (2007). Oral histories, farm practice and uncovering meaning in the countryside. *Social & Cultural Geography*, *8*(3), 391–415. <https://doi.org/10.1080/14649360701488823>
- RIVM (Rijksinstituut voor Volksgezondheid en Milieu). (2022, October 22). *Monitor stikstofdepositie in Natura 2000-gebieden 2022. Uitgangssituatie voor de Wet Stikstofreductie en Natuurverbetering*. <https://www.rivm.nl/publicaties/monitor-stikstofdepositie-in-natura-2000-gebieden-2022>
- RIVM (Rijksinstituut voor Volksgezondheid en Milieu). (2023, October 26). *RIVM Monitor stikstofdepositie in Natura 2000-gebieden 2023. Monitoring van de Wet stikstofreductie en natuurverbetering*. Ministerie van Volksgezondheid, Welzijn en Sport. <https://www.rivm.nl/publicaties/monitor-stikstofdepositie-in-natura-2000-gebieden-2023>
- Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society*, *11*(1), 189–209. <https://doi.org/10.1093/cjres/rsx024>
- Runhaar, H. A. C., Melman, Th. C. P., Boonstra, F. G., Erisman, J. W., Horlings, L. G., De Snoo, G. R., Termeer, C. J. A. M., Wassen, M. J., Westerink, J., & Arts, B. J. M. (2017). Promoting nature conservation by Dutch farmers: A governance perspective. *International Journal of Agricultural Sustainability*, *15*(3), 264–281. <https://doi.org/10.1080/14735903.2016.1232015>
- Samet, R. (2023). The will to security: Law, order, and the shifting terrain of popular struggles. *Environment and Planning C: Politics and Space*, 239965442311542. <https://doi.org/10.1177/23996544231154214>
- Sandbu, M. (2020). *The economics of Belonging*.
- Schreuder, A. (2022, June 22). 'Als we hier veel te veel stikstof uitstoten, hoe komt het dan dat het hier zo mooi groen en gezond is?' NRC. <https://www.nrc.nl/nieuws/2022/06/22/als-we-hier-veel-te-veel-stikstof-uitstoten-hoe-komt-het-dan-dat-het-hier-zo-mooi-groen-en-gezond-is-a4134405>
- Seine, F. (2023, September 8). 500 livestock farmers want to negotiate a buyout: the first step has been taken. *De Volkskrant*. <https://www.volkskrant.nl/nieuws-achtergrond/500-veehouders-willen-onderhandelen-over-uitkoop-eerste-stap-is-gezet~bd4afd7b/>
- StatLine (2023, November 30). *Agriculture; crops, livestock and land use by general farm type, region*. CBS. <https://opendata.cbs.nl/#/CBS/en/dataset/80783eng/table?ts=1681459773460>

- Stock, P. V., & Forney, J. (2014). Farmer autonomy and the farming self. *Journal of Rural Studies*, 36, 160–171. <https://doi.org/10.1016/j.jrurstud.2014.07.004>
- Stokstad, E. (2019). Nitrogen crisis threatens Dutch environment—And economy. *Science*, 366(6470), 1180–1181. <https://doi.org/10.1126/science.366.6470.1180>
- Stryker, S., & Burke, P. J. (2000). The Past, Present, and Future of an Identity Theory. *Social Psychology Quarterly*, 63(4), 284. <https://doi.org/10.2307/2695840>
- Ten Berge, H. F. M., Van Ittersum, M. K., Rossing, W. A. H., Van De Ven, G. W. J., & Schans, J. (2000). Farming options for The Netherlands explored by multi-objective modelling. *European Journal of Agronomy*, 13(2–3), 263–277. [https://doi.org/10.1016/S1161-0301\(00\)00078-2](https://doi.org/10.1016/S1161-0301(00)00078-2)
- Tomaney, J. (2015). Region and place II: Belonging. *Progress in Human Geography*, 39(4), 507–516. <https://doi.org/10.1177/0309132514539210>
- Tullis, P. (2023, November 16). Nitrogen wars: the Dutch farmers’ revolt that turned a nation upside-down. *The Guardian*. <https://www.theguardian.com/environment/2023/nov/16/nitrogen-wars-the-dutch-farmers-revolt-that-turned-a-nation-upside-down>
- Tups, G., Sakala, E. N., & Dannenberg, P. (2023). Hope and path development in ‘left-behind’ places – a Southern perspective. *Regional Studies*, 1–18. <https://doi.org/10.1080/00343404.2023.2235396>
- Ulbig, S. G. (2008). Voice is Not Enough. *Public Opinion Quarterly*, 72(3), 523–539. <https://doi.org/10.1093/poq/nfn030>
- Van Der Heyden, C., Solon, K., Demeyer, P., & Volcke, E. I. P. (2020). Model-based evaluation of ammonia removal in biological air scrubbers. *Biosystems Engineering*, 191, 85–95. <https://doi.org/10.1016/j.biosystemseng.2019.12.011>
- Van Der Ploeg, J. D. (2016). *The importance of peasant agriculture: A neglected truth*. Wageningen University & Research. <https://doi.org/10.18174/403213>
- van der Ploeg, J. D. (2020). Farmers’ upheaval, climate crisis and populism. *The Journal of Peasant Studies*, 47(3), 589–605. <https://doi.org/10.1080/03066150.2020.1725490>
- van Eersel, J. (2019). *Working through job loss*:
- Van Grinsven, H. J. M., Van Eerdt, M. M., Westhoek, H., & Kruitwagen, S. (2019). Benchmarking Eco-Efficiency and Footprints of Dutch Agriculture in European Context and Implications for Policies for Climate and Environment. *Frontiers in Sustainable Food Systems*, 3, 13. <https://doi.org/10.3389/fsufs.2019.00013>
- Van Zanten, M. C., Wichink Kruit, R. J., Hoogerbrugge, R., Van Der Swaluw, E., & Van Pul, W. A. J. (2017). Trends in ammonia measurements in the Netherlands over the period 1993–2014. *Atmospheric Environment*, 148, 352–360. <https://doi.org/10.1016/j.atmosenv.2016.11.007>
- Vesala, H. T., & Vesala, K. M. (2010). Entrepreneurs and producers: Identities of Finnish farmers in 2001 and 2006. *Journal of Rural Studies*, 26(1), 21–30. <https://doi.org/10.1016/j.jrurstud.2009.06.001>
- Viana, M. (Ed.). (2013). *Urban Air Quality in Europe* (Vol. 26). Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-642-38451-6>
- Vrolijk, H., Reijs, J., & Dijkshoorn-Dekker, M. (2020). *Towards sustainable and circular farming in the Netherlands*.

- Walter, S. (2021). The Backlash Against Globalization. *Annual Review of Political Science*, 24(1), 421–442. <https://doi.org/10.1146/annurev-polisci-041719-102405>
- Wemmenhove, H., & Šebek, L. (2021). *Praktijkimplementatie voerspoor melkvee:(voer) managementmaatregelen om de methaan-en ammoniakemissie te reduceren: ervaringen van koeien en kansen bedrijven in 2020 (groep, zonder methaanmetingen in 2020)* (No. 1280). Wageningen Livestock Research.
- Wierenga, B., & Wiskerke, H. (2018, June 30). Does 'The State of the Farmer' give an accurate picture? *Trouw*. <https://www.trouw.nl/nieuws/geeft-de-staat-van-de-boer-een-juist-beeld~bb830c81/>
- WUR Wageningen University & Research. (2019, December 10). *Nitrogen*. <https://www.wur.nl/en/dossiers/file/nitrogen.htm>
- Wyer, K. E., Kelleghan, D. B., Blanes-Vidal, V., Schauburger, G., & Curran, T. P. (2022). Ammonia emissions from agriculture and their contribution to fine particulate matter: A review of implications for human health. *Journal of Environmental Management*, 323, 116285. <https://doi.org/10.1016/j.jenvman.2022.116285>
- Zaslave, A., & Meijers, M. (2023). Populist Democrats? Unpacking the Relationship Between Populist and Democratic Attitudes at the Citizen Level. *Political Studies*.

8. Appendix

8.1 Transcription Guideline

Before Transcribing

1. The interviews were recorded using the software Otter.ai
2. For transcribing, the English interviews were processed using the software.
3. As for the Dutch interviews, the software sonix.ai was used to transcribe the Dutch dialogue into English.
4. In addition, the translation of the Dutch parts was cross-checked by native Dutch speakers.

While Transcribing

1. The Interview Files being with: Interview number, date, location, and length of interview.
2. The interviewed were pseudonymized based on the interview number.
3. The time of the statement in the interview was stated before the statement.
4. References to the identity of the interviewees were removed.
5. Place names or references were retained.
6. Inserted comments are marked with [].
7. Grammatical errors were corrected.
8. Word spellings were adjusted to conform with standard English language spelling rules.
9. Repetitions of individual words were removed.
10. Verbatims were removed.
11. Interruptions were marked with "...".
12. Strong emotions were captured.

8.2 Interview Guide English

Your farm's location is **near one of the Natura 2000 areas** in the Netherlands. These areas are to be especially affected by the government plans for nitrogen reduction. Farms at this location shall reduce up to 95% of their nitrogen emissions.

1. How / To what extent would the government's plans and reduction targets affect you and your situation and business on your farm?
-

2. The government offers financial assistance for buyouts for farmers who are voluntarily quitting their jobs and farms. Would that be an option for you?
-

3. What would it mean to you if you were told that you have to close your farm?
 - Would it be an option for you to quit being a farmer and do something other for profession?
-

4. Would it be an option for you to sell your farm and e.g., buy another farm somewhere else where the reduction targets are less?
-

5. The government also offers financial assistance for the transformation of your farm to a lower-emitting form? Would it be an option for you to quit being a livestock farmer?
-

6. Have you been active in the protests?
-

7. In the whole process so far, what do you think could have been done differently to avoid an escalated situation like this right now?

8. How do you think of the future? Do you think you have any influence on what will happen and be decided regarding nitrogen emissions measures?

9. In a few days, there is going to be the election for a new national parliament.

- What do you want, wish or demand from them?

8.3 Interview Guide Dutch

Uw bedrijf ligt in de buurt van een van de Natura 2000-gebieden in Nederland. Deze gebieden worden extra getroffen door de overheidsplannen voor stikstofreductie. Boerderijen op deze locatie moeten tot 95% van hun stikstofuitstoot verminderen.

1. Hoe / In welke mate zouden de plannen en reductiedoelstellingen van de overheid van invloed zijn op jou en je situatie en bedrijf op je boerderij?
-

2. De overheid biedt financiële hulp bij uitkoop voor boeren die vrijwillig hun baan en boerderij opgeven. Zou dat een optie zijn voor jou?
-

3. Wat zou het voor jou betekenen als je te horen kreeg dat je je boerderij moet sluiten?
 - Zou het een optie voor je zijn om te stoppen als boer en iets anders als beroep te gaan doen?
-

4. Zou het een optie voor je zijn om je boerderij te verkopen en bijvoorbeeld elders een andere boerderij te kopen waar de reductiedoelstellingen minder zijn?
-

5. Biedt de overheid ook financiële steun aan om je bedrijf om te vormen naar een minder vervuilende vorm? Zou het voor jou een optie zijn om te stoppen als veehouder?
-

6. Ben je actief geweest in de protesten?

7. Frage: In het hele proces tot nu toe. Wat had er volgens jou anders gedaan kunnen worden om een escalatie zoals nu te voorkomen?

8. Hoe denkt u over de **toekomst**?

9. Over een paar dagen zijn er verkiezingen voor een nieuw nationaal parlement.

- Wat wil, wens of eis je van hen?