WHO OWNS THE PLACE?

A case study on negative emotions evoked by renewable energy projects in the Meeden Area, Groningen

Master Thesis by Charlotte Breunis
Supervised by dr. E. Turhan
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Figure 1: Big protests signs next to the N33, close to Menterwolde, by Storm Meeden (Menterwolde.info, 2019).

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Author: Charlotte Breunis

Studentnumber: S3426025

Contact: c.s.breunis@student.rug.nl

Program: Environmental and Infrastructure Planning

Degree: Master of Science, Faculty of Spatial Sciences, University of Groningen

Supervisor: dr. E. Turhan
Faculty of Spatial Sciences
Infrastructure Planning – Basic Planning Unit

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Preface

Dear reader,

You are about to dive into my master's thesis for the Master's program in Environmental and Infrastructure Planning at the University of Groningen. Writing this thesis has been tough, but in the end, it made me proud. Throughout the challenging times, Dr. E. Turhan, my thesis supervisor, provided much-needed feedback. I also want to sincerely express my gratitude to the inhabitants who wanted to share their stories with me. Their contributions were invaluable. Also, a big thank you to the experts who took the time to be interviewed. Additionally, all the people in my close circle who have helped me stay focussed and gave constructive feedback, thank you. Alexander, Annejet, Anouk, Ben, Carin, Dik, Floor, Klaas, Mike, Ria, and Tanne, you are part of why I succeeded.

Charlotte Breunis

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Abstract

In the Meeden Area in Groningen Province, the implementation of renewable energy projects has evoked strong emotional reactions in inhabitants, revealing the complex dynamics of community support for renewable energy projects. In this thesis, I analyzed the Meeden Area case study to investigate what explains inhabitants' negative emotions in spatial transformations for renewable energy projects and how these negative emotions could be mobilized for better socio-spatial outcomes. I reviewed this case through the lens of path dependency, institutional capacity, and feminist political ecology. I used event sequence analysis and participant observation methods including, direct observations, immediate experiences, semi-structured interviews, and document and media analysis, focusing on *Provincie Groningen* for the expert perspective and *Coöperatie Eekerpolder* representing the viewpoint of local inhabitants. My analysis uncovered that inhabitants' negative emotions may be explained by a generational trauma of government involvement, the dominant role of expert technical knowledge in policy making, and the inadequacy of community involvement methods. I conclude that path dependency has created a lock-in where local communities were overruled by dominant government structures using top-down governance and their power to mobilize. Moreover, the current institutional capacity of *Provincie Groningen* is insufficient to bridge the gap in knowledge and relational resources between inhabitants and government, although involved individuals are aware of the importance of bridging this gap. To mobilize inhabitants' negative emotions, the feminist political ecology-perspective could be applied to the start of a spatial transformation to facilitate genuine participation and equality. I recommend that future planning practices and research focus not only on the technical and regulatory aspects of spatial transformations but incorporate emotional processes to prevent unnecessary harmful effects.

Keywords: Renewable energy projects, Negative emotions, Spatial transformations, Community support, Top-down planning, Equal participation, Path dependency, Institutional capacity, Feminist political ecology

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List of abbreviations

FPE	Feminist political ecology
EZK	*NL: Ministerie van Economische Zaken en Klimaat* EN: Ministry of Economic Affairs and Climate Policy
RCR	*NL: Rijkscoördinatieregeling* EN: National Coordination Scheme
POP	*NL: Provinciaal Omgevingsplan* EN: Provincial Environmental Plan
MER	*NL: Milieu Effect Rapportage* EN: Environmental Impact Report
NRD	*NL: Nota Reikwijdte en Detailniveau* EN: Note Scope and Level of Detail
IPO	*NL: Interprovinciaal Overleg* EN: Interprovincial Consultation

Chapter 1: Introduction

1.1 Societal and scientific relevance

Anger, anxiety, sadness, disappointment, and distrust, are the emotions that people in Groningen Province experienced when they felt ambushed by the siting of a wind farm right behind their houses (Vlaanderen, 2021). In recent years, negative emotional responses to spatial transformations into renewable energy landscapes in the north of the Netherlands have been in the news often (e.g., Dagblad van het Noorden, 2019; 2021b; NOS, 2015). Indeed, I have encountered these same emotions during my work for a local cooperative that optimizes the placement of a big solar farm near the village of Meeden (Coöperatie Eekerpolder, 2023a). This solar farm, *Zonnepark Eekerpolder*, is a separate development to be located within the pre-existing wind farm, *Windpark N33*. This wind farm is sited along the N33, a provincial road connecting Appingedam to Veendam. Together, the projects *Windpark N33* and *Zonnepark Eekerpolder* form the case studied in this thesis, named the Meeden Area. The project is located in the most northern province of the Netherlands, Groningen[1] (Figure 2, 3).

Figure 2: (left) Location of the Meeden Area in blue, in Groningen Province, The Netherlands.
Figure 3: (right) The Meeden Area (blue) up close including *Windpark N33* (green), *Zonnepark Eekerpolder* (red) and Meeden (yellow) (Google Earth, 2024).

The process of siting the wind farm was an emotional process for most local inhabitants, and even traumatic for some (Vlaanderen, 2021). One inhabitant described how he and his neighbors were humiliated, put on display, and pushed into a corner in an undemocratic way during the siting and development of *Windpark N33*. Friendships were destroyed and even

[1] This research refers to the governmental institution as *Provincie Groningen* and to the geographical location as the Groningen Province.

families have grown apart. Figure 4 shows a sign located in Meeden that was made by an inhabitant during the protests against the wind turbines in 2014. It translates to ‘wind farm means war’, which portrays how deeply emotional the development of the wind farm was. Protest intensified through the community groups *Tegenwind* and *Storm Meeden*, eventually resulting in the imprisonment of a Meeden inhabitant in 2021 (Dagblad van het Noorden, 2021a). Despite the heavy protests, the development of the wind farm continued.

Figure 4: A protest sign in Meeden from 2014 that translates to ‘wind farm means war!’ (Dagblad van het Noorden, 2019b).

In the last few years, after the development of *Windpark N33* was finished, *Provincie Groningen* has initiated a new development with the desire to create a solar farm underneath the wind turbines in the Meeden Area. In the process of the siting of the solar farm, the need for better participation was evident for the involved government structures, the municipalities of Midden-Groningen and Oldambt. The errors that were made during the development of *Windpark N33* should not be repeated with the development of the solar farm, *Zonnepark Eekerpolder*. The two municipalities insisted on local ownership to prevent history from being repeated. A few residents stood up and created *Coöperatie Eekerpolder*; a local cooperative representing inhabitants in the process and outcome of this solar project. Currently, this cooperative shares equal ownership of *Zonnepark Eekerpolder* with the developer Novar (Coöperatie Eekerpolder, 2023a). The Meeden Area case illustrates how inhabitants’ negative emotions may be stirred by the top-down development of renewable energy projects. The Meeden Area case has inspired me to investigate what explains inhabitants’ negative emotions in spatial transformations for renewable energy projects, and how we could understand and mobilize these emotions for better socio-spatial outcomes.

The societal relevance of this thesis lies in the profound impact of spatial transformations for renewable energy projects on local communities. Emotions experienced by inhabitants in the

Meeden Area highlight the deeply personal and often traumatic consequences of sudden changes to their environment. These emotions are not isolated incidents but rather representative of a broader trend seen in other regions as well (e.g., AD, 2024; NOS, 2016; 2024). Emotions can run high when one's surroundings are being changed in a top-down manner (Heilman, 2022; Wolsink, 2007). Moreover, inhabitants feel the need to organize themselves against top-down governance, as is evident from initiatives like *Tegenwind, Storm Meeden* and *Coöperatie Eekerpolder* that aim to assert local control and influence over renewable energy projects (Boon & Dieperink, 2014). Another societal impact of implementing renewable energy sources in a top-down manner is that it takes more time than expected. This is partly explained by the resistance of affected local residents (Wolsink, 2007). Last, losing sight of the practical context of power relations in an institutional arena is dangerous (Breukers, 2006) and will only further deepen the unequal power structures that already exist (Vos & Delabre, 2018). It is important to learn from the past to minimize the harm done during the creation of renewable energy projects. This is the goal of my thesis.

This thesis has scientific relevance as well. My research addresses a gap in the academic literature by examining the emotional responses, societal implications, and power dynamics associated with the transition to renewable energy. While previous studies have explored the technical aspects of renewable energy development, there is not enough research on the human dimensions and socio-political dynamics of the energy transition (Krupnik et al., 2022; Lieu et al., 2020). By delving into the emotional responses of an affected community, my thesis addresses a research question that has been underexplored in the literature (Schwarz, 2020). Additionally, my thesis sheds light on the practical context of power relations in implementing renewable energy projects, offering insights into the effectiveness of participatory approaches and the influence of power imbalances within governance structures.

1.2 Research objective and questions

Through a case study approach focusing on the Meeden Area in Groningen Province, my thesis aims to uncover pathways towards understanding and mobilizing negative emotions for better socio-spatial outcomes. To achieve this objective, the following main research question is posed: '*What explains inhabitants' negative emotions in spatial transformations for renewable energy projects, and how could we understand and mobilize these emotions for better socio-spatial outcomes?'*

The sub-questions that help answer the main question are:

1. What is the sequence and content of events during the development of the Meeden Area?
2. From which perspective did *Provincie Groningen* approach the development of the Meeden Area?
3. From which perspective did inhabitants approach the development of the Meeden Area?
4. How do *Provincie Groningen* and inhabitants aim to understand and mobilize negative emotions for better socio-spatial outcomes in future renewable energy projects?

Ultimately, my findings can contribute to a greater understanding of energy transition processes, providing valuable insights for policymakers, energy developers, and community stakeholders involved in similar renewable energy projects. If stakeholders obtain more understanding of the complex reality of spatial transformations into renewable energy projects, they can become better equipped to contribute to renewable energy projects.

1.3 Reading guide

Chapter 1 of my thesis offers essential context by highlighting the background and relevance of investigating emotions within renewable energy projects. Subsequently, chapter 2 delves into the theoretical framework, reviewing literature on path dependency, institutional capacity, and feminist political ecology. Following this, chapter 3 outlines the research methodology employed in this study. After that, chapter 4 presents and analyzes the research findings. Chapters 5 and 6 contextualize these findings within broader societal and scientific perspectives, fostering discussion and providing suggestions for future research. Finally, chapter 7 provides a reflective analysis of the research process.

Chapter 2: Theory

To create a better sense of the concepts that are used throughout this research, I first describe theory on renewable energy transformations and their concomitant negative emotions. Next, I will form the theoretical framework to interpret the Meeden Area case study by reviewing literature on path dependency, institutional capacity, and feminist political ecology. These three pillars help to explain how the strong negative emotions amongst inhabitants could rise during the development of an energy project. The first pillar of path dependency provides insight into the practical context of power relations, as it shows the frequent need to continue predetermined strategies although individuals might not want to. The second pillar of institutional capacity provides a framework to analyze the quality of local policy cultures in institutions, thus providing a tool to examine the capacity of the institution to deal with negative emotions. Lastly, the third pillar of feminist political ecology provides a tool that can add a new perspective to the traditionally technical character of renewable energy development processes, often leaving out the social aspect.

2.1 Conceptualizing renewable energy transformations and emotions

Renewable energy transformations are likely to have a profound impact on societies, more so than conventional fossil energy projects. A first reason is that the transition to sustainability is a systemic transformation, that is, a radical and systemic shift on deeper levels of beliefs, patterns, values, behaviors, and regimes (Temper et al., 2018). Indeed, Temper et al. (2018) add that transformations towards a sustainable future should include a transformation of the current power relations: “A radical transformation to sustainability implies one based on values and ideologies that overtly reject hegemonic economic and political practices, that aim to confront and subvert hegemonic power relations, that is multi-dimensional and intersectional, balancing ecological concerns with social, economic, cultural and democratic spheres” (Temper et al., 2018, pp. 761-762). A second reason why renewable energy transformations have profound impacts on society is that renewable energy projects require an expansive infrastructure, presenting a significant difference from traditional energy systems (Ven et al., 2021). Renewable energy infrastructure tends to occupy more land compared to fossil energy sources. As Ven et al. (2021) point out, this difference results in drastic landscape alterations. Such changes underscore the profound impact of renewable energy initiatives on the environment and land use patterns. Thus, the implementation of renewable energy projects poses challenges, including concerns about visual impacts, land use conflicts, and biodiversity conservation. A last reason for the profound impact of renewable energy projects is that locations can have a special meaning to an individual or community, referred to by Devine-Wright & Ryder (2024) as ‘place’. Therefore, the changing of ‘place’ can be emotional and requires place-based research: focussing on the unique context of the place (ibid). In sum, while renewable energy projects offer promising solutions for addressing energy needs and environmental goals, careful planning and consideration of their spatial implications are essential to understand and mobilize negative emotions and maximize the effectiveness of renewable energy projects in achieving sustainable energy transitions.

In order to mobilize inhabitants’ negative emotions for better socio-spatial outcomes, it is important to understand how negative emotions are currently viewed in the literature. Negative emotions are often associated with the absence of local public support of

individuals in spatial planning. This phenomenon is commonly referred to as NIMBY-ism, an acronym for "not-in-my-backyard," which suggests a self-centered perspective prioritizing individual well-being. However, as noted by Wolsink (2000), opposition to wind farm projects can stem from various reasons beyond pure NIMBY-ism. Some inhabitants may oppose wind energy altogether, despite the location being in their backyard or elsewhere. Moreover, individuals may initially support wind energy but change their stance due to evolving perceptions of associated risks. Last, individuals may conditionally support wind energy projects, such as advocating for minimum distances from residential areas. Although these reasons are often generalized under NIMBY-ism, the actual protests against wind farms seldom stem solely from a NIMBY perspective. Particularly, the last two reasons may be influenced by the development process of wind energy projects (ibid). Wolsink (2007) suggests that public hostility is often provoked by top-down processes, indicating the influence of hierarchical structures on public sentiment.

Inhabitants' negative emotions will often be expressed, and have a function. Public sentiments like inhabitants' negative emotions can be expressed through several tactics, some more activist than others (Sovacool et al., 2022). Less activist tactics are, for example, organizing meetings, legal actions, gaining independent assessment by experts, and voicing alternatives. More activist tactics can be rallies or protests, petitions, and suppression or violence (ibid). These tactics are often driven by negative emotions. Heilman (2022) highlights the significance of anger as both an emotional and political force, capable of instigating reform and fostering courage. Anger can also serve as a barometer of societal dissatisfaction and a catalyst for potential change. Rooted in political and economic systems, anger plays a pivotal role in protecting societal values and interests (ibid).

2.2 Path dependency

One perspective to help understand inhabitants' negative emotions in the development of renewable energy projects is path dependency. Path dependency is defined as unintended and inefficient consequences of bounded rationality, generated by institutions. Breukers (2006) argues that organizations can collectively, over time, structure behavior, decisions, and actions, thereby favoring some actors and perspectives over others. In the case of path dependency, these options for actions are constrained cognitively and normatively over time. She calls this cognitive and normative restraint 'bounded rationality'. Nabielek (2020) adds that path dependency happens slowly through time and consists of informal, cultural forces. When path dependency develops into a situation where options to enter a new path have strongly diminished due to previously made choices, a lock-in occurs. The difference between path dependency and a lock-in is that path dependency describes a development through time and that a lock-in describes a moment in time.

Path dependency is a process that may perpetuate power. Power is defined as an actor, structure, or organization in a social arena that can push their favored interest despite resistance. Schwarz (2020) has analyzed wind farm development and the power of citizens in Germany, and argues that citizens are powerless against the development of big wind farms unless they have a special position in local politics. This shows that citizens achieving far-reaching change are the exception and that experts are most important. He adds that power is dynamic and emerges as humans interact. Although this German example cannot be directly generalized, it does indicate how power might work in energy projects. Norren

has a similar view and explains that power can be “explicitly or implicitly determining actions of others, and which can go beyond institutions or individuals (so beyond structure and agency). Power is embedded not only in politics but also in socialization processes (conformity), psychology and ‘ideological boundaries of participation’ and is interwoven with knowledge systems” (2020, p.434).

The perpetuation of power due to path dependency may result in a lock-in. According to Nabielek (2020), it can become nearly impossible to enter a new path (that of favoring local contexts) due to previously made decisions. Seto et al. (2016) add to this line of thinking, by describing three intertwined types of lock-ins when talking about carbon emission reduction (Table 1). Infrastructural and technological lock-ins are characterized by long-lasting, large investments and economic factors leading to inertia. Institutional lock-ins are characterized by powerful actors that aim to reinforce a status quo that favors their interest and institutions that are by principle designed to stabilize and lock in. Behavioral lock-ins are characterized by individually calculated decisions that have unforeseen consequences for social structures. These three types of carbon lock-ins are interesting for my thesis as carbon emission reduction processes are prone to path dependency due to high costs, long infrastructure lifetimes, and their high interrelationships between the socio-economic and the technical systems, just like renewable energy projects are. Thus, my thesis uses these three types of lock-ins as a framework to explore path dependency.

Type of lock-ins	Key characteristics
Infrastructural and technological	Technological and economic forces lead to inertia
	Long lead times, large investments, sunk costs, long-lived effects
	Initial choices account for private but not social costs and benefits
	Random, unintentional events affect final outcomes
Institutional	Powerful economic, social, and political actors seek to reinforce status quo that favors their interests
	Institutions are designed to stabilize and lock in
	Beneficial and intended outcome for some actors
	Not random chance but intentional choice
Behavioral	Lock-in through individual decision making
	Single, calculated choices become a long string of non calculated and self-reinforcing habits
	Lock-in through social structure (e.g. norms and social processes)
	Interrupting habits is difficult but possible

Table 1: Analytical framework of three types of lock-ins and their key characteristics in carbon emission reduction projects (Seto et al., 2016).

To understand how institutions with power remain in power due to path dependency, it is relevant to consider concrete examples. In West Kalimantan, Indonesia, the ethnographic research of Vos & Delabre (2018) gives an example of how a long history of habits makes it

difficult to change paths in a planning process. In West Kalimantan, it has been normal throughout history that women are excluded from participation, and this is why they have started to participate in informal settings. Although women try to change the way of participation, the traditional system of only men participating in formal settings is not easily adjusted. Vos & Delabre's (2018) exploration of the gendered response to socio-economic and environmental change shows how men and women experience resistance, acceptance, and enactment differently. This is an example of how path dependency, the fact that participation has been a business of men for a long time, has resulted in a lock-in where women find it hard to create a new path to join participation.

Another example of an institution that has tried to create a new path while being stuck due to its history is TenneT. TenneT is responsible for the electricity network in the Netherlands, following its official appointment as the manager of the Dutch high-voltage transmission network by the national government in 1998 (TenneT, 2024). Ruiten et al. (2023), in their article on the process of siting of high-voltage lines in the Netherlands, talk about the 'opening up of the process' to broaden TenneT's knowledge base. TenneT aims to create a dynamic role between society and operators to create trust and a just process. However, contrary to this well-intended start, grid operators are very traditional and deeply institutionalized (ibid). This institutional arena is organized to facilitate a singular decision. Here, the knowledge of the expert grid operators outweighed the local knowledge of the non-experts, although the aim of this process was to include the non-experts. The personal preferences of experts of TenneT were legitimized due to power structures. Additionally, the process itself was, although intended to open up, closing down due to earlier formal and informal decisions by TenneT. The path dependency in this example of high voltage lines lies both in the formal and informal structures that have grown over time and are now limiting options to change course. This also, again, exemplifies how path dependency can result in a lock-in scenario. Based on the in-depth research of the TenneT-case, Ruiten et al. (2023) conclude that literature tends to be naive and ignorant about the political reality of decision making processes.

These two examples illustrate how institutions with power remain in power due to path dependency. They illustrate "the insidious way that powerful interests outside and inside a locality can impose their agendas unless there are countervailing grass-roots forces to challenge and limit their operations" (Healey et al., 2023 p.86). Healey et al. (2003) state that despite well-intended enthusiasm for new ways, old governance activities often stay in place. These old governance activities often include sectoral thinking and focusing on business as it has always been. It seems that the inheritance of governance is strong and that new ideas shut down when they encounter old structures. This corresponds with observations by Breukers (2006) and Ruiten et al. (2023) of the long-lasting dominance of rational, top-down, decision-making in the planning field where expert knowledge provides the only legitimate source of input. These 'bounded rationales' leave too little acknowledgment of other forms of knowledge and relations that do not derive from this dominant stance, like local knowledge. A concept that goes into detail about (local) knowledge and relations is institutional capacity.

2.3 Institutional capacity

Another perspective to help understand inhabitants' negative emotions in the development of renewable energy projects is the capacity of institutions. Institutions are defined as a social

set of norms and values that have developed over time into a structure that is constraining but also helps to deal with uncertainties. Breukers (2006) states that guidelines dictate the organization and code of conduct within a social group, broadly embraced by its members. These guidelines encompass both informal elements, like norms and traditions, and formal elements, such as legal statutes and regulations. Institutions significantly impact the perspectives and actions of individuals, their interactions, and the arrangements of actors within a particular setting (Ibid). De Roo et al. (2020) state that institutions are a human way to deal with uncertainties, where norms and technologies that persist over time constrain and shape human interaction. Institutionalization is the recurrence of social practices and an institution is the result of people's decisions, both intentional and unintentional. The concept of institutions applies to a group of people, an organization, a group of organizations, and sometimes even an individual, depending on the context.

The capacity of institutions is the governance capacity to deliver improvements through local policy cultures, as described by Healey (1998). Institutional capacity is about the integratedness and connectedness of institutions and how informed their cultures are. Institutional capacity can facilitate a good spatial transformation through the quality of local policy cultures. The transformative capacity of institutions lies in the quality of local policy cultures of institutions. Therefore, institutions with a more sufficient institutional capacity can create better local policy cultures and can therefore transform places more successfully with less chance of negative emotions.

Healey (1998) distinguishes between three dimensions of institutional capacity, namely (1) ‘knowledge resource’, (2) ‘relational resource’, and (3) ‘the capacity to mobilize’. This distinction was later also described by Breukers (2006) and Radulescu et al. (2023) as ‘intellectual capital’, ‘social capital’, and ‘political capital’. The knowledge resource of institutional capacity consists of three types of knowledge: formalized, tactical, and experiential knowledge (Breukers, 2006; Healey et al., 2003). Formalized knowledge is the set of written rules and regulations that our institutions adhere to. Tactical knowledge is ingrained in culture and habits; ‘we have done it like this in the past, so we will also do it like this in the future’. Experiential knowledge is understanding out of experiences in the past. The capacity of these three types of knowledge resources depends on four attributes, namely (1a) integration of knowledge, (1b) local knowledge, (1c) reflection and evaluation, and (1d) integrators (Radulescu et al., 2023; see Table 2 for further descriptions). These four attributes will serve as the main explainers of the knowledge resource. When all four attributes are sufficiently represented, there are enough knowledge resources that can support institutional capacity.

Healey (1998) argues that consideration of the relationships between partners in a process is essential for successful transformation. These are the relational resources: the social aspects within an institutional arena (Breukers, 2006; Healey et al., 2003). The network of governance actors has some form of relational resources when a mutual understanding and problem definition are in place. This resource is about trust, shared identity, and bonds. Radulescu et al. (2023) add that this resource is about networks of relationships and mutual acquaintance and recognition. They distill four attributes for the relational resource dimension: (2a) inclusive and diverse, (2b) trust, (2c) shared language, and (2d) facilitators (see Table 2 for further descriptions). These four attributes will serve as the main explainers

of the relational resource. When all four attributes are sufficiently represented, there is enough relational resource that can support institutional capacity.

The third resource is the capacity to mobilize (Breukers, 2006 & Healey et al., 2003). This political capital is about the way that the institutional arena is used to create transformative action. Knowledge and relational resources can be used to take advantage of an opportunity when it presents itself or when a critical change agent recognizes such a moment. This dimension is about the power that gives the potential to enable spatial transformations (Radulescu et al. 2023). This potential has to be deliberately activated for the dimension to work. Without knowledge and relational resources, there is no potential to be deliberately mobilized, making knowledge and relational resources the basis of institutional capacity. Radulescu et al. (2023) state that the capacity to mobilize consists of four attributes: (3a) resources mobilization, (3b) joint ownership of process and outcomes, (3c) storylines, and (3d) change agents (see Table 2 for further descriptions). These four attributes collectively explain the capacity to mobilize. When all four attributes are adequately represented, they provide sufficient capacity to mobilize to support institutional capacity.

Dimension	Attribute	Contributing activities to increase institutional capacity
(1) Knowledge resource	(1a) Integration of knowledge	Sharing and combining knowledge from multiple fields of expertise
	(1b) Local knowledge	Utilizing knowledge, insights, experiences of local stakeholders
	(1c) Reflection and evaluation	Reflecting, adjusting and learning moments
	(1d) Integrators	Integrating heterogeneous knowledge, and development ideas of different stakeholders into a functional entity
(2) Relational resource	(2a) Inclusiveness and diversity	Including a wide array of stakeholders
	(2b) Trust	Fostering and building up trust
	(2c) Shared language	Creating a communication approach that engages a wide range of stakeholders, and a shared understanding of the problem at stake and a shared vision of the future
	(2d) Facilitators	Bringing in the process neutral actors that can build 'bridges' between the stakeholders
(3) Capacity to mobilize	(3a) Resources mobilization	Ensuring access to resources, facilities and support
	(3b) Joint ownership of process and outcomes	Collaborating and establishing shared tasks and responsibilities among stakeholders
	(3c) Storylines	Creating broad descriptions of problems and responses to ensure support of stakeholders
	(3d) Change agents	Facilitating leadership roles for pioneers thus enabling process and organisational changes

Table 2: Analytical framework for exploring institutional capacity building (Radulescu et al., 2023).

To understand how insufficient institutional capacity may contribute to less effective and efficient transformations, it is relevant to consider a concrete example. Dany et al. (2014), assessed the institutional capacity of Colombian health and water sectors in their ability to adapt to climate change. They found that both government and non-government informants perceived the institutional capacity as very constrained, especially the financial resources (which translates to the capacity to mobilize) and cooperation of stakeholders (which corresponds to the relational resource). They concluded that there is a lack of robust information integration which may contribute to less effective and efficient outcomes. Thus, for successful climate change adaptation in the Colombian health and water sectors, it is important to increase the institutional capacity.

When all attributes of the dimensions of institutional capacity are sufficiently present, successful spatial transformations can occur. However, when the attributes are not sufficiently present, spatial transformations might be less successful, and negative emotions might come up. Unfortunately, successful spatial transformations occur less often than all stakeholders would like (Breukers, 2006; Ellis, 2004; McGuirk, 2001; Phelps & Tewdwr-Jones, 2000; Ruiten et al., 2023; Wolsink, 2000). Top-down spatial transformations are less likely to be successful. Top-down spatial transformations suggest that spatial transformations are neutral. However, they are not, and neither are processes aimed at serving a universally agreed-upon public interest (Dryzek, 2005). Moreover, the notion of a singular public interest is problematic because political conflict is inherent in the execution of top-down spatial transformations because there are various and conflicting perspectives on what actually constitutes the public interest (Dryzek, 2005). Thus, inhabitant participation is often recommended as a solution. However, participatory approaches assume equal power relations which are often not realistic (Breukers, 2006). Imbalanced power relations often perpetuate “knowledge works to legitimize existing power, and so does political power come to legitimize knowledge (creation)” (Ruiten et al., 2023, p.2). Moreover, losing sight of the realistic power relations in an institutional arena will only further deepen the unequal power structures (Vos & Delabre, 2018). This implies that the ability of institutional capacity to be transformative, to create something new, will disappear when dominant power relations perpetuate a form of knowledge or relations that favors their own interests. Feminist political ecology offers a critical perspective on these structures and sheds light on the practical context of power relations.

2.4 Feminist political ecology

Feminist political ecology (FPE) originated in political ecology, which examines the relationships between the environment and society (Sultana, 2021). FPE adds a layer to political ecology by including a critical feminist perspective to interdisciplinary discourse and power analysis that politicizes environmental problems (Mulvaney, 2020). In the words of Sultana (2021), the feminist perspective entails that “commitments to equity and justice are common undercurrents [of FPE], taking critical stances on capitalism, patriarchy, globalization, extractivism, enclosures, colonialism, development, and various forms of interconnected oppressions and injustices" (p. 157). This feminist perspective focuses on more than gender differences. It highlights the power imbalance between a dominant masculine structure and an intimate and invisible structure (Agostino et al., 2023). This imbalance can arise due to intersecting inequalities like ethnicity, class, gender, religion, or geographical location (ibid). To counteract such imbalances, Agostino et al. (2023) suggest

that environmental conflicts should be perceived not just as cognitive problems, but as emotional problems too. Hence, it is important to incorporate the ethics and norms of minorities in shaping the knowledge around socio-spatial projects, thereby avoiding the reproduction of power.

Thus, it is important to employ empathy (Brown et al., 2019). Brown et al. (2019) state that one can empathize through emotional connection and by taking someone else's perspective. Empathy can provide motivation for sustainable actions, when the interplay between empathy, identity, and place is balanced (ibid). Similarly, Sultana (2022) suggests that adding a feminist perspective to the debate of political ecology will enrich the discussion and create more impact: a traditionally technical discussion could become more encompassing. Lieu et al. (2020) clarify that the mainstream energy transition sciences and practices have prioritized technical dominant experts, as the energy transition is often associated with male roles. However, a low-carbon future is not only technical but also social. By not including the more intimate structures, like the female, sciences and practice is disconnected from local realities and are confronted with power imbalances. Including a critical stance on intersecting inequalities can challenge mainstream dominant energy transition pathways. Acknowledging these power imbalances and making them explicit allows for the exploration of more sustainable and equitable pathways (ibid). By acknowledging who benefits and who loses and why, previously untold stories now have a podium. The FPE-perspective allows these untold stories of intimate structures to have a place in debates, making the debates sharper, in the hope of creating more just processes through these stories.

An example of the use of FPE is that Norren (2020) criticizes the Sustainable Development Goals (SDGs) for being based on Western modernism, excluding diverse voices from the Global South, and promoting linear growth without collectiveness. While the SDGs incorporate terms like equity, they fail to respect nature intrinsically, reflecting superiority of Western modernism over the environmental stakes emphasized by the Global South. Even though United Nation member states from the Global South have adopted the SDGs, Norren suggests that true justice and equity in the SDGs should be promoted by incorporating inter-relationships, process-thinking, and earth governance. Norren's work exemplifies FPE by critically examining power dynamics in sustainability. Thus, the FPE-perspective could provide a tool for critical reflection with plural voices and inclusive relations with the acknowledgment of previously untold stories in energy research. Nuancing debates can contribute to changing dominant, powerful policies and practices into equal processes.

2.5 Conceptual model

This chapter has looked into and reviewed literature on path dependency, institutional capacity, and feminist political ecology. It has been established that path dependency can decrease options to take on new paths, even though people do want to change ways. Path dependency can be categorized into technological, institutional, and behavioral path dependency and can intensify negative emotions in energy projects as it decreases the options to change top-down processes. Literature states that institutional capacity encompasses three dimensions: knowledge and relational resources, and the capacity to mobilize. As sufficient institutional capacity creates a sound policy culture, it leads to less negative emotions in energy projects. And lastly, feminist political ecology provides a critical perspective on dominant versus intimate structures and promotes inclusivity and a plurality

of voices in order to question legitimized power structures. Feminist political ecology can therefore lessen the negative emotions in energy projects as more different voices are heard, which makes the process more equal. All of this is visualized in the conceptual model of my thesis (Figure 5).

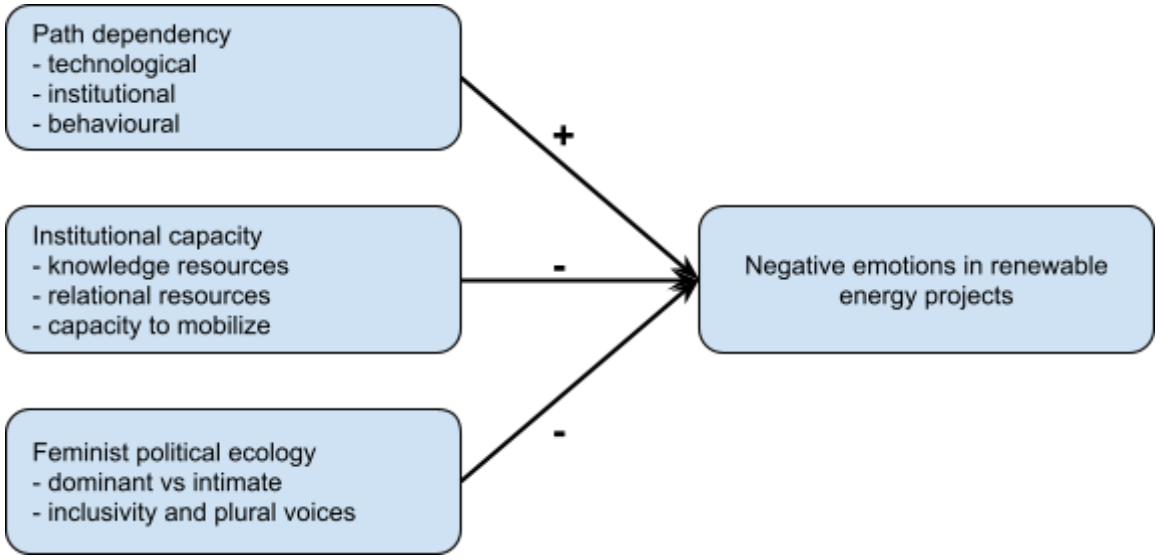


Figure 5: Conceptual model.

Chapter 3: Methodology

This chapter delves into the methodology employed in my research. Initially, it examines the research approach and design. Subsequently, I delve into the techniques used for gathering and analyzing data. Then, I address the ethical aspects present in this research, after which I finish with an introduction to the case study and the standard procedure for large energy projects in the Netherlands.

3.1 Research approach and design

To understand the planning process of the Meeden Area, a case study approach was employed. A case study involves a comprehensive examination of a social phenomenon (Feagin et al., 1991). As the study aimed to answer questions of meaning, a qualitative case study with a critical reflective aspect was the fitting approach (Fossey et al., 2002). Case study research requires a variety of data sources to achieve triangulation (Yin, 2009). Yin describes case study research as a method that enables researchers to delve into the significance of real-life situations. Furthermore, the case study approach is suitable for studying contemporary phenomena where researchers have limited control (Yin, 2009). The planning process of the Meeden Area are an example of such a phenomenon with limited control.

In this qualitative case study, I used two methods: event sequence analysis and participant observations. Event sequence analysis is the presenting of a series of data so that they can be analyzed through a visualisation. Participant observation consists of semi-structured interviews, document and media analysis, and direct observations and experiences. This triangulation of data collection methods enhances the robustness of the findings and offers the researcher deeper insights (Clifford et al., 2016). As can be seen in Figure 6, the contextualization of the case study took place through event sequence analysis, which was visualized into a timeline. This was the main data to answer sub-question 1. The data that was obtained through participant observation was thematically analyzed. This data mainly served to answer sub-questions 2, 3, and 4. However, the participant observations were also used as input for the event sequence analysis.

It is important to note that generalizing results from individual case studies must be approached cautiously. Case studies are conducted within context-specific settings, limiting their applicability to universal theories (Harvey, 1979). Nevertheless, the insights gained from this single case study could serve as a valuable example that can be used by other researchers or policymakers (Flyvbjerg, 2006). This approach proved beneficial for this particular research as it facilitated the exploration of context-specific insights into a specific subject, like the institutional capacity and path dependency of planning processes, which is essential in social research (ibid).

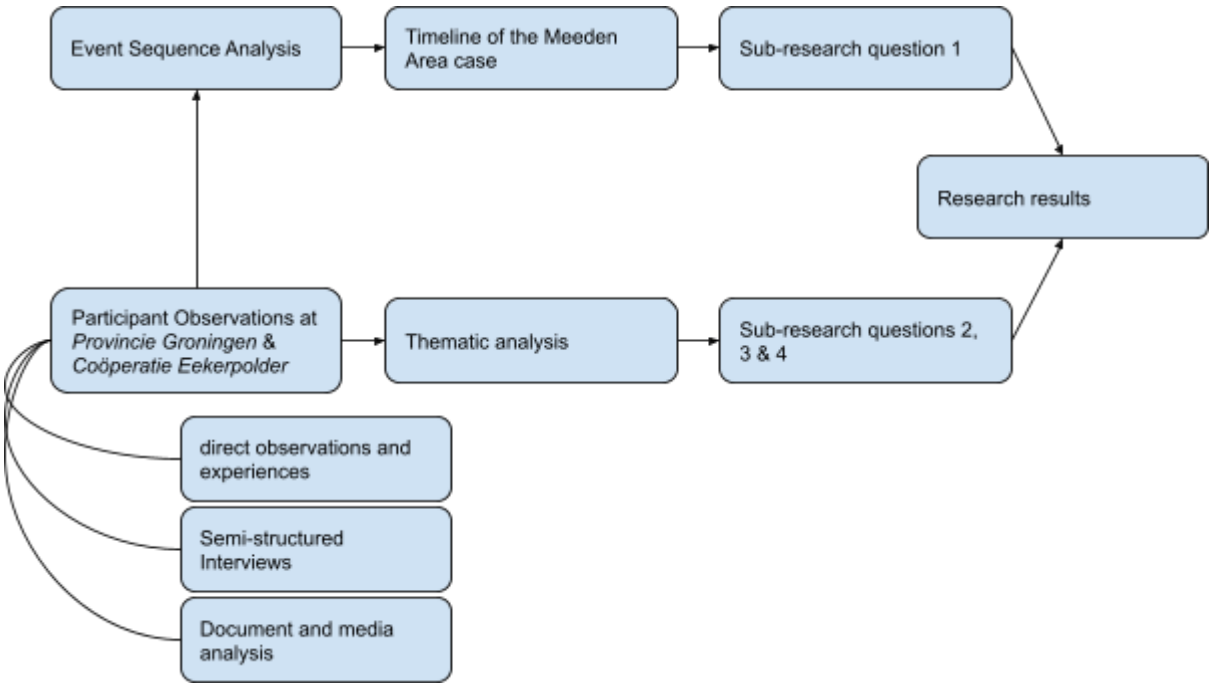


Figure 6: Overview of the research design.

3.2 Data collection methods and analysis

To be able to understand the case in depth and to make the link to the theoretical framework, the techniques for gathering and analyzing data are important. This section describes the methods that were used in this research.

3.2.1 Event sequence analysis

Sequence analysis is described as a series of data, often a time series, that is ordered in a sequence and thereby seen as a whole instead of individual points of data (Abbott & Tsay, 2000). Sequence analysis is often used in quantitative research, but Spekkink (2013) used it as a qualitative method, which fits better with this research as this is a qualitative study as well. Guo et al. (2022) made an overview of several approaches to visual analysis of event sequence data, calling them design spaces. There are four dimensions of design spaces: (1) data, (2) model, (3) visualization, and (4) interactions (Figure 7). 'Data' is about the granularity of the events that one needs to visualize. In my case, the 'sequence' option fitted best as I needed a complete record of events. In Figure 7, the chosen options for the design spaces are circled. The second design space is 'model', which is about how the data are collected and what they are used for. Here, 'sequence interference' was appropriate, as I wanted to find the relationship between the events. The third dimension is 'visualization', which determines how events are organized. For this research, a 'time-based visualization' was best, as the data were time stamps. The fourth dimension of design space is 'interactions', which is about the flexibility of the data analysis. Here, 'editing' fits best, as I wanted to be able to modify events individually.

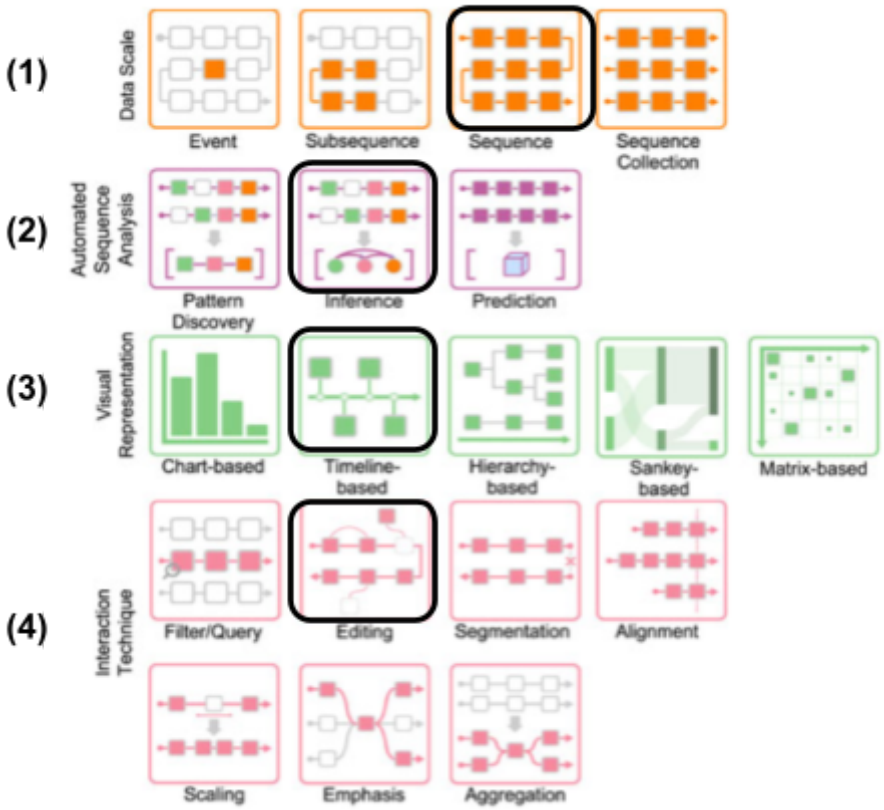


Figure 7: The design space of visual analytics techniques for event sequence data (Guo et al., 2022).

This research aimed to make sense of the process of the siting of *Windpark N33* and *Zonnepark Eekerpolder*. Important dates that have defined the development of the Meeden Area in one way or the other were gathered and chronologically visualized into a timeline, according to the visualization technique of Guo et al. (2022). This timeline contributes to a better understanding of all of the perspectives involved in the Meeden Area development.

3.2.2 Participant observations

This research has made use of participant observations. Gans (1999) describes participant observation as an umbrella methodology that encompasses several forms of participation and observation. Gathering data with this method can be done in several ways: direct observations, immediate experiences, documents or other communication, casual conversation, and interviews (Jorgensen, 1989; Nyantakyi-Frimpong, 2021). I have divided these into three categories: direct observations and experiences, interviews, and document and media analysis (Figure 8).

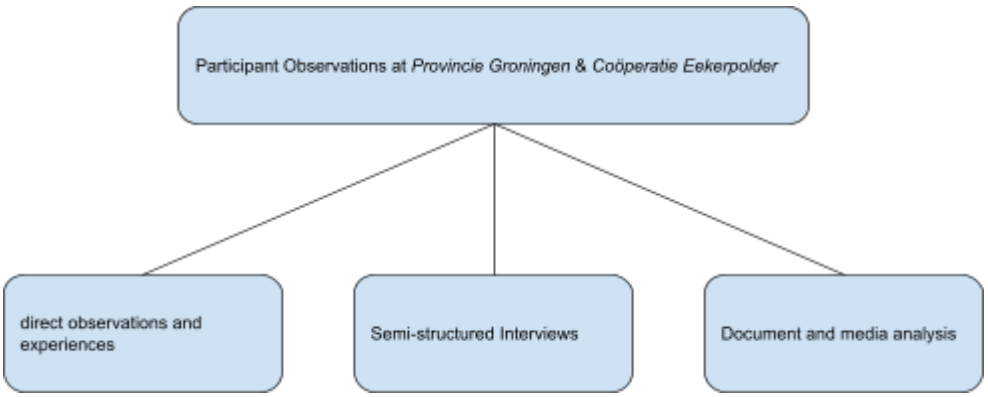


Figure 8: Participant observation divided into three sub-methods.

Participant observation can elaborate, explain and even debunk the short-sighted newspaper articles that are often written about renewable energy projects (Gans, 1999). Participant observation provides empirical data about often stereotyped or little-known, out-of-the-mainstream populations by not only telling the researcher about their actions but also *showing* what they are actually doing (Gans, 1999). Thus, this method provided an opportunity to better understand the process around policy decision making. Jorgensen (1989) agrees with Gans that this method is useful when a phenomenon is obscured from view. It is useful for noticing patterns, relationships between people and organizations, processes, and sociocultural contexts. As I already had a way into both *Provincie Groningen* and *Coöperatie Eekerpolder*, due to an internship and a job, I could do more than merely read about policy decisions and confine myself to the outcome. I wanted to be present at the discussions that preceed them and see the decisions unfold. This gave me a sense of the work culture of experts (*Provincie Groningen*) and the perceptions of inhabitants (*Coöperatie Eekerpolder*). Devine-Wright & Ryder (2024) add that when doing research on a marginalized group of people, it is important to not further imbalance the asymmetry of power relationships in that community by the researcher's presence. They advise the researcher to be place-based reflexive (see section 7.2 for my positionality in this research), have direct and extended engagement, mixed methods, and power-sharing. This can be achieved by engaging long-term with the community, also after finishing the research which I will do by continuing to work with *Coöperatie Eekerpolder*.

The most important thing in participant observation is to keep notes as it clarifies thinking and analyzing. The way that the researcher should take notes depends on personal preference. Jorgensen (1989) states that it is inevitable that sometimes data are not recorded properly and that the researcher should take this data from memory. In both organizations, I have made notes in a notebook and on my computer. I have analyzed this data through a thematic analysis. Terry et al. (2017) define stages of thematic analysis in qualitative research. First, the researcher has to familiarize themselves with the data after which they can generate codes. Then, they can construct and review potential themes. Lastly, the themes are defined and named and the report can be made. Hahonou (2019) adds that there are two kinds of participant observations, one being obtrusiveness and engaging in activities and the second is more of a ‘fly on the wall’ kind. He argues that obtrusiveness can deepen the research as the researcher is also embedded in the emotions of the participants, obtaining empathy for both sides of a story which is a relevant strategy to study bureaucracies. In this research, the participant observation at *Provincie Groningen*

was more related to the 'fly on the wall' technique, while the participant observation at *Coöperatie Eekerpolder* was more of the obtrusiveness kind. In both cases, I would have liked to have participated in an obtrusive way, so I could have compared the two organizations better. However, I was not allowed to do this at *Provincie Groningen*.

Direct observations and experiences were conducted at *Provincie Groningen* and *Coöperatie Eekerpolder. Provincie Groningen* was selected to be observed, as such a government institution is known to consist of expert knowledge and to have a powerful position in policy decision making in spatial planning. The participant observation at *Provincie Groningen* took place from the 13 November 2023 until 19 June 2024[2], which is 31 weeks. Two days a week, mostly on Tuesday and Wednesday, I was present at the office of *Provincie Groningen*. During this time, I joined several meetings, had casual conversations and interviews with employees, and joined their lunches and company activities. While doing the participant observation at *Provincie Groningen* I was allowed to attend meetings about energy projects, including its infrastructure, communication strategy, and long-term planning. Also, the weekly meetings with team *Regie op Ruimte* (Control over Space) were informative, since these meetings combined fields of knowledge surrounding spatial planning, often related to energy. Table 3 shows the meetings that I have attended and the topics and participants of that meeting. During this participant observation, I made sure to make notes.

Date	Topic / meeting name	Participants	Observed in Organisation
Weekly since 13 November 2023 (until 28 June 2024)	Multi-team *Regie op Ruimte* ('Control over Space')	Experts in: spatial planning, environmental vision, economy, energy, environment, atelier, program management, housing, and liveability	*Provincie Groningen*
14 November 2023 & 09 January 2024 & 27 March 2024	pMIEK (provincial Multi-year Infrastructure Energy and Climate Program)	Experts on spatial planning, energy and external experts in project management	
23 November 2023	Electricity network and other autonomous developments	Water authority Noorderzijlvest, TenneT, Municipalities of Groningen and Westerkwartier, experts of *Provincie Groningen* and EZK	
20 December 2023	Provinciale Staten (Provincial council)	Elected persons to govern the Province of Groningen	
26 March 2024	Weekstart Energie (Weekstart Energy)	Experts in energy and spatial planning of *Provincie Groningen*	
10 April 2024	Communication strategy 380kv Vierverlaten - ens	Environment manager, communication manager and policy employee spatial planning	

Table 3: Meetings attended at *Provincie Groningen*.

[2] Throughout this thesis, dates in tekst are written as ´19 June 2024´, which corresponds to ´19.06.2024´ in references.

To be able to see the story of the Meeden Area from different viewpoints, inhabitants were also observed. The choice to do this at *Coöperatie Eekerpolder* was a beneficial choice as this organization encompasses different organizations. Some people who were inhabitants of Meeden during the time of the development of the wind farm, were also members of community organizations *Tegenwind* or *Storm Meeden* and are currently also members of *Coöperatie Eekerpolder*. By observing the *Coöperatie Eekerpolder*, all of these organizations and participants were accessible. Additionally, I have worked for *Coöperatie Eekerpolder* since the 27 March 2023, and will continue to do so after this research has ended, making the organization uniquely accessible. This gave a total of 65 weeks until the 28 June 2024 for the participant observation. I have spent one to two days a week at *Coöperatie Eekerpolder* in several teams and meetings. During this participant observation, I have made notes of all relevant information in the context of the research from the 13 November 2023 onwards. At *Coöperatie Eekerpolder*, I have attended several meetings which can be found in Table 4. Only at meetings that I could not attend due to nondisclosure agreements, mostly on finances and contracting, I was not present. I did attend all of the other meetings.

Date	Topic	Participants	Observed in Organization
Montly since April 2023	Board meeting	Board of *Coöperatie Eekerpolder* and varying active members	*Coöperatie Eekerpolder*
Twice a month since September 2023	Werkgroep Communicatie (working group communication)	Five to eight active inhabitants with affinity for communication	
Twice a month since September 2023	Werkgroep Landschappelijke Inpassing (working group spatial planning)	Two to four active inhabitants with affinity for spatial planning	
Twice a month since September 2023	Werkgroep Jongeren (working group youth)	Two to four active inhabitants with affinity for participation with youth	
Weekly since September 2023	Samen Dag (day together)	All young people in the cooperative	

Table 4: Meetings attended at *Coöperatie Eekerpolder*.

A part of the participant observations is five semi-structured interviews, which I have conducted with experts from *Provincie Groningen* and inhabitants who are a member of *Coöperatie Eekerpolder* (Table 5). During the interviews with both the experts and the inhabitants, I have used the same interview guide (Appendix 2), although I did adapt the names of the organization to the interview subject at the time. The questions of the interview were based on literature and specifically targeted towards the answering of sub-questions 2, 3, and 4. Additionally, the interviews went into detail on the sequence of events of the Meeden Area case. After signing the consent form (Appendix 1), I recorded the interviews with audio recording software. The first two questions were asked in order to explore the position of the interviewee and the sequence of events according to this interviewee. Subsequently, I went into the subject of institutional capacity by asking about all dimensions and attributes discussed in the theory (Table 2). The interview ended by asking if there was anything else they would like to add. Afterward, based on the audio recordings, I have made notes about all relevant parts of the interviews and included them in the results chapter.

Although I had formulated questions beforehand, I have approached the interviews as a conversation, more than as a question-answer, where I used the questions as a guide for the conversation also known as a semi-structured interviewing technique. This type of interview is a flexible method of qualitative data collection widely employed in the social sciences (Knott et al., 2022). Interviews let people share their own thoughts and feelings about the world and can facilitate a nuanced social exchange where participants engage in dialogue by posing and responding to questions (ibid).

Interviewee ID	Date	Role	Organisation(s)
Expert 1	09 April 2024	Civil servant	*Provincie Groningen*
Expert 2	23 April 2024	Civil servant	
Inhabitant 1	14 March 2024	Chairman	Part of at least two of the following organizations: 1. *Coöperatie Eekerpolder* 2. *Tegenwind* 3. *Storm Meeden*
Inhabitant 2	16 April 2024	Board member	
Inhabitant 3	16 April 2024	Member	

Table 5: Anonymized details of interviewees.

Several forms of documents and media were analyzed, among which were news articles and policy documents. This secondary data analysis is a creative way to use existing, accessible documents to answer a research question (Tight, 2019). The news articles can be found in the reference list, at the end of this research. Among them is the documentary about the view of the inhabitants about the process of the development of *Windpark N33* in the Meeden Area. The documentary about the wind farm speaks to how inhabitants react to energy landscapes and why *Coöperatie Eekerpolder* was initiated in the first place. In addition, policy documents were included in the data. Examples of two policy documents are *Structuurvisie Windenergie op land* (Structural Vision of Wind Energy on Land) by the Dutch national government and the *Provinciaal omgevingsplan 2000* (Provincial Environmental Plan 2000) by *Provincie Groningen* (Ministerie van infrastructuur en milieu, 2014; *Provincie Groningen*, 2000). Like the interviews, analyzing policy documents is a method under the umbrella of participant observations. Therefore, documents were selected continuously throughout the process of observation.

3.3 Ethical considerations

Considering ethical issues in research is crucial as it enhances the credibility of the study and safeguards the rights of participants (Clifford et al., 2016). To uphold these principles, all groups that were observed were provided with a consent form, outlining the study's objectives and data usage (Appendix 1). It was emphasized that participants have the option to cease their participation at any time without needing to provide a reason. Additionally, it stated that the participants will remain anonymous and were to be only distinguished through an ID code that represents them. Only the researcher was in possession of the corresponding names to the ID code. During the research project, all acquired data were saved in a locked file system that only I had access to. Another important ethical consideration is that *Coöperatie Eekerpolder* is not only the group of people that I have done participant observation with, but this Coöperation is also (part of) my job. Similarly, I had a

position as a trainee at *Provincie Groningen,* which could have limited the freedom of my writing in this thesis as the subject can be perceived as politically sensitive. This could have led to a conflict of interest. I have stayed focused to avoid this conflict, and especially the triangulation of methods was helpful as conclusions were made based on multiple sources to increase credibility.

3.4 Setting the stage: case study context

First, it is crucial to introduce the case study by contextualizing it in its location. After that, I outlay the policy framework of the standard procedure employed by Dutch levels of government in developing energy projects. It is the basis of the process of energy project development and serves as the background for the process studied in this research.

3.4.1 Location of the Meeden Area

When drawing lines between Zuidbroek, Scheemda, and Veendam in Groningen Province, a triangle appears. This triangle was the geographical location of the case study of this research and was called the Meeden Area (Figure 9, 10).

Figure 9: (left) The triangle of Zuidbroek, Scheemda and Veendam in Groningen Province, north in The Netherlands (Google Earth, 2024).

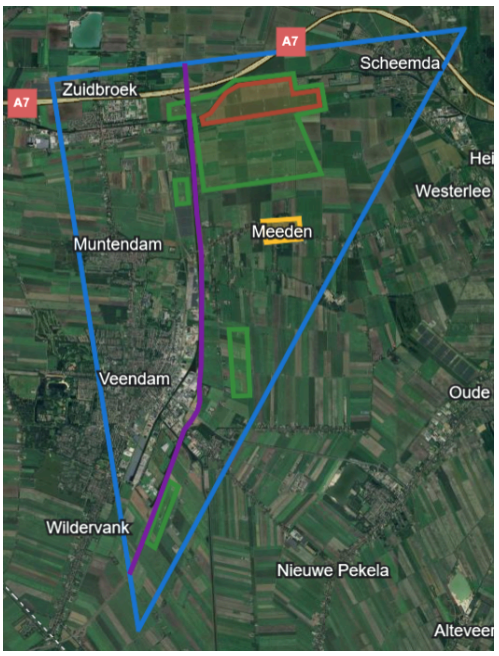


Figure 10: (right) This triangle (blue) is the case study of this research and is called the Meeden Area, with Meeden indicated in yellow (Google Earth, 2024).

Figure 11: (below) *Windpark N33* (green), *Zonnepark Eekerpolder* (red), the N33 (purple), and the Village of Meeden (yellow) in the Meeden Area (blue) (Google Earth, 2024).

Within this triangle, *Windpark N33* (an already-developed wind farm) and *Zonnepark Eekerpolder* (a yet-to-be-developed solar farm) are located. Figure 11 shows these renewable projects within the triangle, where *Windpark N33* is shown in green and *Zonnepark Eekerpolder* is shown in red. *Winpark N33* is sited in four separate groups, alongside the N33 and in the Eekerpolder, and north

and south of Meeden. People in the villages of Zuidbroek, Scheemda, and Meeden, bordering the Eekerpolder, will not be able to see the solar farm as it is surrounded by dikes (of the Winschoterdiep and the train track), but *Windpark N33* is clearly visible. Also, the village of Meeden is shown in yellow, which lies between the renewable energy projects.

Zonnepark Eekerpolder lies in the Eekerpolder, a plot of land surrounded by the A7 in the North -a national road connecting Groningen with Germany (the N33 in the west -a provincial road connecting Appingedam to Veendam) (Figure 11) and train tracks in the south, (connecting Hoogezand to Winschoten). The Meeden Area currently lies in three municipalities: Midden-Groningen (northwest), Oldambt (northeast), and Veendam (south). The Municipality of Midden-Groningen was reclassified in 2018 from municipalities Hoogezand-Sappemeer, Slochteren, and Menterwolde into municipality Midden-Groningen (Figure 12, 13) (Allecijfers, 2024). This means that during the development of *Windpark N33*, this change in government structure happened. Figure 14 shows the stakeholders of the Meeden Area case. They are divided into four categories: governments, wind entrepreneurs, community organizations, and civil servants.

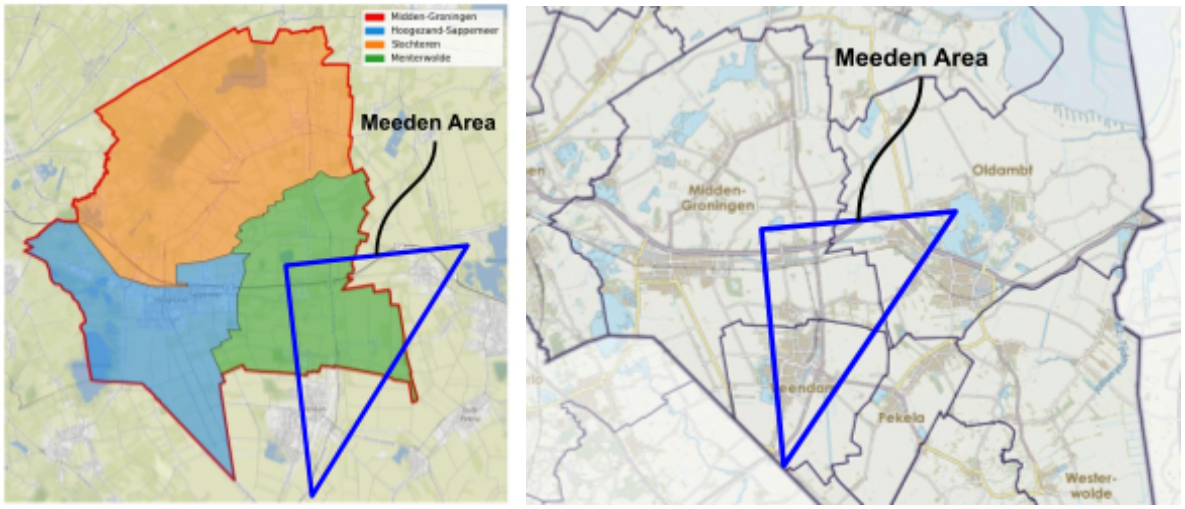


Figure 12: (left) Reclassification of the municipalities of Hoogezand-Sappemeer (blue), Slochteren (orange), and Menterwolde (green), into Midden-Groningen (Allecijfers, 2024), including the Meeden Area in the blue triangle.
Figure 13: (right) The municipality of Midden-Groningen (west), Veendam (south) and Oldambt (east) (Wikipedia, 2024), including the Meeden Area in blue.

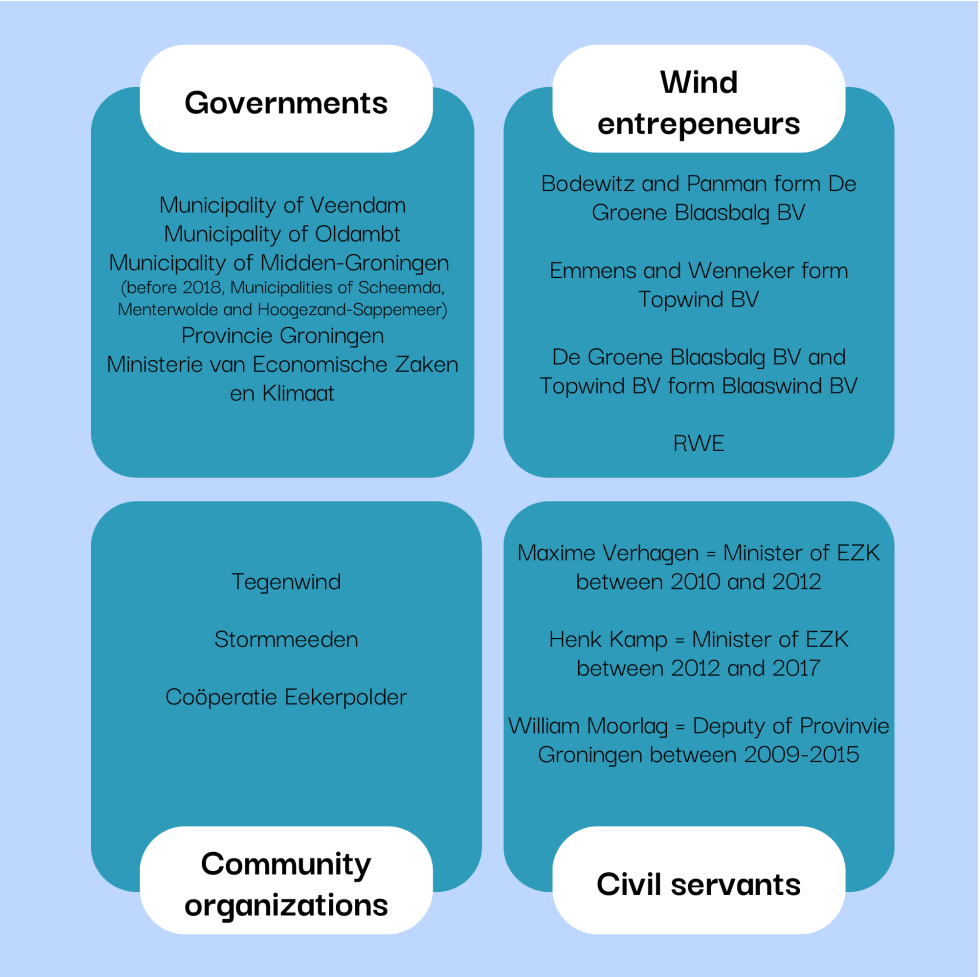


Figure 14: Stakeholders of the Meeden Area case.

3.4.2 Rijkscoördinatieregeling

In 1998, the national government revisited the electricity law and newly stated that all energy projects above 100MW would fall under the coordination of the national government. This is when the Rijkscoördinatieregeling (or *RCR*: the National Coordination Scheme) came into existence. This was relevant for this case study, as *Windpark N33* was developed under the RCR (RVO, 2019a). The RCR always follows the same six steps (Figure 15). According to the energy law, the national government, specifically the Ministerie van Economische Zaken en Klimaat (EZK, or Ministry of Economic Affairs and Climate Policy), has the authority to decide on projects under the RCR. While some practical details may vary per project, the six steps remain standard. This process generally takes about eight years to complete. During these eight years, there are two official opportunities for everyone, both individuals and (governmental) organisations, to submit official opinions. Once the six steps are completed and the decision is finalized, everyone can submit an official objection. These objections are reviewed by several committees and can eventually reach the *Raad van State* (Council of State).

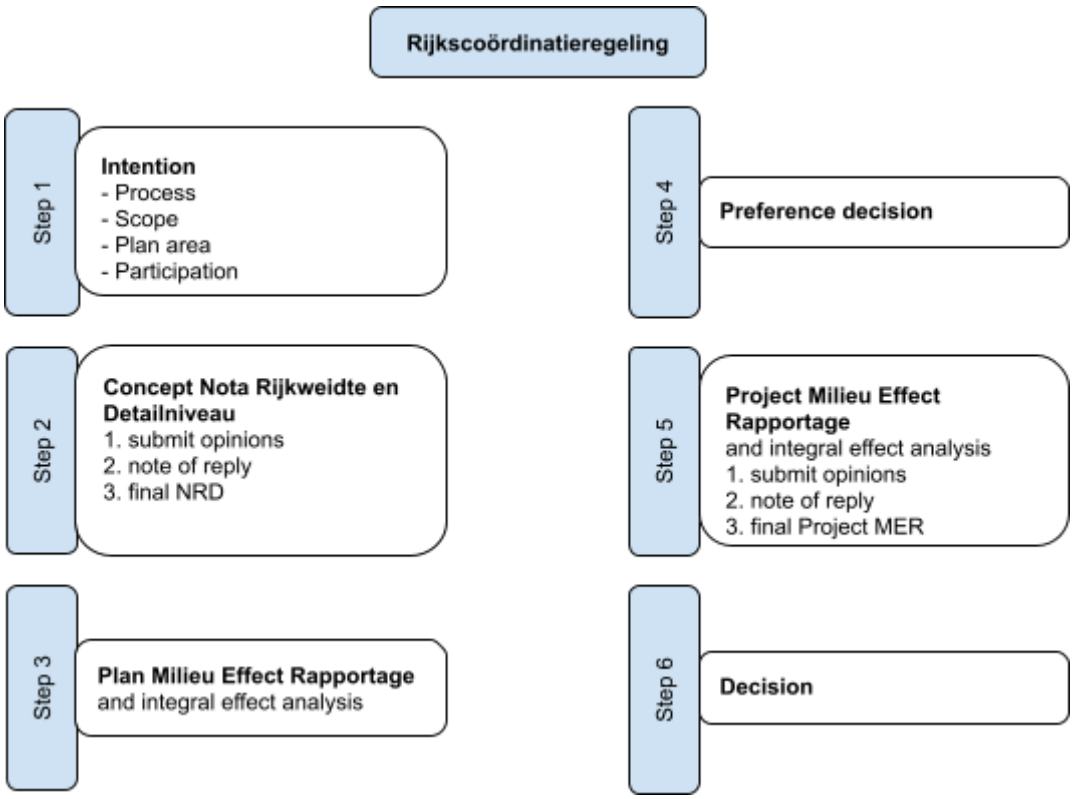


Figure 15: The standard policy process of large energy infrastructure projects on a national level in The Netherlands (RVO, 2019a).

Step 1 of the RCR aims to create a vision, gather information, and distribute it to interested parties. This document outlines the project's initial contours, including the process, scope, area coverage, and public participation plan. Step 2 involves developing concrete plans in a Concept *Nota Reikwijdte en Detailniveau* (NRD, or concept note scope and level of detail), allowing public input for the first time. All levels of government and inhabitants can respond, and the responsible government must address all officially submitted opinions in a note of reply. Legally substantiated opinions will influence decision making, while unsubstantiated ones will be declared irrelevant. Relevant adjustments are made, finalizing the NRD. By step 3, the project plans have been narrowed from about 20 versions to 2, and the Plan Milieu Effect Rapportage (MER, or Environmental Impact Report) assesses environmental standards like effects on water and soil. In step 4, the responsible government selects one variation based on previous steps. This preferred variation is tested through the Project MER in step 5, including another round of public opinion submissions and a note of reply. Finally, in step 6, the responsible government irrevocably decides on the entire project plan.

Chapter 4: Results

This chapter describes the results of this study. The first section shows the timeline of events in the Meeden Area. Thereafter, findings are presented about the perspectives of both *Provincie Groningen* and its inhabitants through *Coöperatie Eekerpolder*, obtained by the observations made during participation in these organizations. Last, current trends in mobilizing inhabitants' negative emotions for better socio-spatial outcomes are discussed.

4.1 The timeline of events in the Meeden Area

The events in the development of the renewable energy projects in the Meeden Area can be organized into three periods, covering 1990 to the present. These chronologically ordered periods describe the first initiatives and the rising of the first conflicts (up till 2008), after which a second episode of perseverance on the side of the government and protests on the side of the inhabitants followed (2009-2014). In the third period (2015-2024), opposition became intense and, finally, escalated. This third period is characterized by a mix of developments: whilst some inhabitants very fiercely opposed the wind farm even leading to some escalating protests, other inhabitants took a different direction and participated in the making of plans for a locally owned solar farm. In the meanwhile, the decision to build *Windpark N33* became irrevocable and the wind farm was built from 2019 onwards. Figures 16, 18 & 20 visualize all the relevant events in a timeline.

4.1.1 New initiatives & emerging conflicts (1990 - 2008)

Until the year 2000, the use of the Meeden Area was limited to agricultural and living activities. In the 1990s, the first small wind turbines were built in Groningen Province. Both farmers and private individuals wished to add to the energy transition by building small wind turbines on their own land. These wind turbines were scattered in the open landscape of the Groningen Province. As the feeling of urgency for renewable energy projects grew, *Provincie Groningen* wanted to create concentration areas for these wind turbines so they could be integrated into the landscape in a more desirable way. These concentration areas were designated in the Provinciaal Omgevingsplan 2000 (POP, or Provincial Environmental Plan) (Provincie Groningen, 2000), of which two updates appeared in 2006 and 2009, both reconfirming the POP2000 with regard to renewable energy. Over time the ambition of *Provincie Groningen* to contribute to the production of renewable energy grew from 50 MW in 1991 to 855,5 MW in 2012 (Table 6, rows 1 and 5 in 'Ambiton Provincie Groningen') to comply with Dutch national ambitions.

Row	Ambition *Provincie Groningen*	MW through the years	Source
1	1991	50	Gedeputeerde Staten (2002)
2	2001	165 (by 2010)	Gedeputeerde Staten (2002)
3	2009	750 (by 2019)	Provincie Groningen (2009)
4	2011	750 (by 2015)	Ministerie van Economische Zaken en Klimaat (2012)
5	2012	855,5	Ministerie van Economische Zaken en Klimaat (2012)

Row	*Windpark N33*	MW through the years	Source
6	2000	Not yet predictable	Provincie Groningen, 2000
7	2004	45	Blaasbalg B.V. & Topwind B.V. (2004)
8	2005	45-50	Gedeputeerde Staten (2005)
9	2010	150	Ministerie van Economische zaken en Klimaat, 2019
10	2012	120 (or more)	Provincie Groningen (2009)
11	2017	150,5 (end result)	Windpark N33 (2024c)

Table 6: The ambition of *Provincie Groningen* and the development of *Windpark N33* in MW.

The area around the N33 was one of three designated concentration areas for a wind farm. POP2000 stated that the N33 wind farm is yet to be planned and that Provincie Groningen "actively supports wind energy as long as it does not compromise nature and landscape" (Provincie Groningen, 2000, p.66). The POP2000 defined a large-scale farm as "more than 10MW" (Provincie Groningen, 2000, p.66) and indicated that the capacity of the wind farm next to the N33 "is not yet predictable" (Provincie Groningen, 2000, p.66). At the start, wind energy generation was considered to be an industrial activity that should be located on industrial sites (Provincie Groningen, 2000). The area along the N33 was, amongst other areas, intended for industry (ibid).

Because of the *Bestuursovereenkomst Landelijke Ontwikkeling Windenergie* (Administrative Agreement for National Wind Energy Development) promoting large scale wind farms (Ministerie van Economische Zaken en Klimaat, 2001), and the indicated locations in the POP2000, making land available for building wind turbines became a very attractive business case for farmers. This resulted in wind entrepreneurs Bodewitz and Panman of De Groene Blaasbalg BV and Emmens and Wenneker of Topwind BV starting to collect contracts with farmers, reaching a total number of 17 farmers by 2002 (Blaasbalg B.V. & Topwind B.V., 2004). These contracts obligated farmers to collaborate with these entrepreneurs in the future in case a wind farm would be developed on their land. In return, the farmers received a sum of money for signing these contracts (Inhabitant 1, 14.03.2024). In the meanwhile, the municipality of Veendam made clear not to be happy with a wind farm around N33 and the municipality of Menterwolde was not outspoken yet (Gedeputeerde Staten, 2002). In 2003, the four wind entrepreneurs started investigating if the wind farm along the N33 would be possible, although the municipality of Veendam still opposed this wind farm (Gedeputeerde Staten, 2003). In 2004, the wind entrepeneurs declared towards *Provincie Groningen* that they would be happy and able to build the wind farm (Blaasbalg B.V. & Topwind B.V., 2004). They also asked for a quick start with the MER procedures and stated that the wind farm would produce around 45 MW (ibid). *Provincie Groningen,* acting according to POP2000, advised the wind entrepeneurs to work together on one plan for the wind farm (Gedeputeerde Staten, 2005), which resulted in Blaaswind BV in 2008. In 2008 Blaaswind BV strongly urged *Provincie Groningen* to make the wind farm next to the N33 happen. *Provincie Groningen* replied that the procedure of this wind farm could start during the publishing of POP2009 (Gedeputeerde Staten, 2008a), thereby disregarding the wishes of the municipalities concerned.

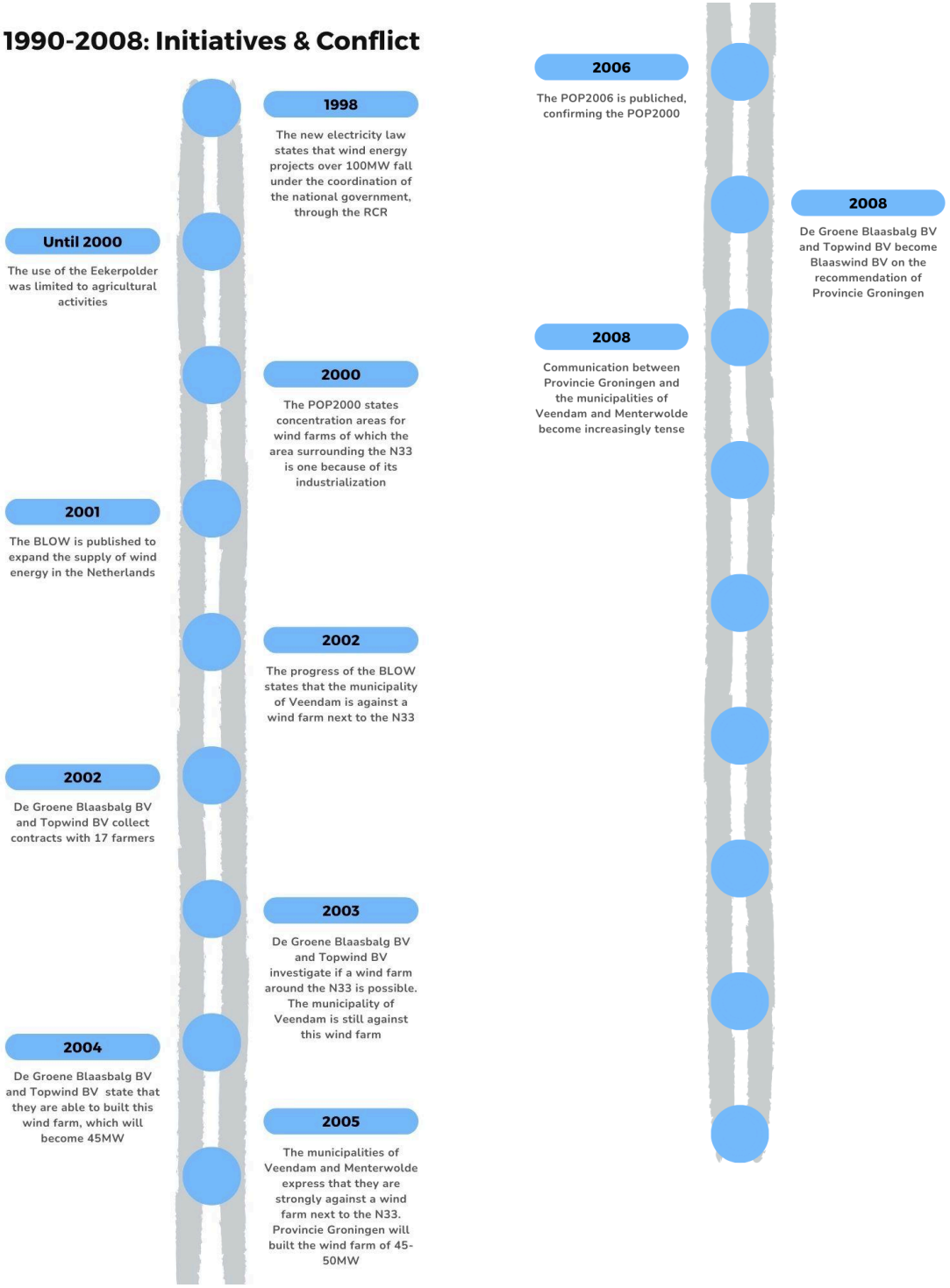


Figure 16: Initiatives & Conflicts (1990 - 2008).

Between 2005 and 2008, tensions between *Provincie Groningen* and the municipalities of Veendam and Menterwolde grew. In 2005, both the municipality of Veendam and that of Menterwolde strongly opposed a wind farm next to the N33 (Gedeputeerde Staten, 2005). Their arguments against the wind farm were mainly concerned with the location of the wind farm next to residential areas. The municipalities also came up with other alternatives, one of which is a wind farm in the municipality of Pekela. This alternative was explicitly communicated to *Provincie Groningen* by the municipality of Pekela (Gemeente Veendam,

2008). However, in 2005, *Provincie Groningen* simply declared they would work with the municipalities and wind entrepreneurs to establish a 45-50 MW wind farm along N33 (Gedeputeerde Staten, 2005). By 2008, communications became increasingly tense. The national government requested the *Interprovinciaal Overleg* (IPO, or Interprovincial Consultation) to report on the commitment of municipalities and provinces to wind energy. *Gedeputeerde Staten* (Provincial Executives) informed the IPO of "obstacles" in Groningen (probably hinting at the opposition of municipalities) but assured that "these could be resolved" (Gedeputeerde Staten, 2008b, p.1) and committed itself to facilitating three wind farms, including one along the N33 (ibid). *Gedeputeerde Staten* even stated "to consider the use of certain perseverance tools if necessary" (Gedeputeerde Staten, 2008b, p.2), thus referring to the RCR (*Rijkscoördinatieregeling,* or National Coordination Scheme). In return, Menterwolde and Veendam expressed disappointment and anger to *Gedeputeerde Staten*, emphasizing their concerns and urging reconsideration of the path taken (Gemeente Veendam, 2008; Gemeente Menterwolde, 2008). They highlighted extensive prior discussions and correspondence and pointed out that they felt ignored and unfairly labeled as unwilling, as the alternatives they had suggested were dismissed without substantive argumentation. They called for further discussion. The following quote from the municipality of Menterwolde illustrates that tensions were running high with *Provincie Groningen*:

> *"The threat to use the perseverance tools, the pressure on the government to delegate coordination for major projects to the province, and the concealment of the alternatives that are jointly put forward by the region lead to the conclusion that your letter to the IPO paints a very one-sided picture of the situation. This is not a case of municipalities that do not want anything, but of municipalities that think along and come up with better solutions. Then, administrative consultation is appropriate, instead of perseverance." (Gemeente Menterwolde, 2008 p.2).*

As a response, *Gedeputeerde Staten* wrote a very brief note:

> *"I have taken note of your position regarding the wind farm along the N33 and your position regarding a wind farm near Pekela. Your positions were taken into account in the discussions in the Provincial Council at the end of 2008 about locations for wind farms in the new POP. The locations for wind farms have not been changed. The Provincial Council is expected to adopt the POP in June 2009." (Gedeputeerde Staten, 2009).*

4.1.2 Perseverance & protests (2009 - 2014)

In 2009, the third POP was published, which marked the start of the second period of events distinguished in this thesis (Figure 17). The national government, represented by EZK, got more directly involved. The inhabitants of the Meeden area got really alarmed and started to organize themselves in protest groups like *Tegenwind* and *Storm Meeden*. *Tegenwind* expressed its dissent through formal procedures, but was unsuccessful, which led *Storm Meeden* to adopt a protesting strategy that rejected the system of the RCR in its totality.

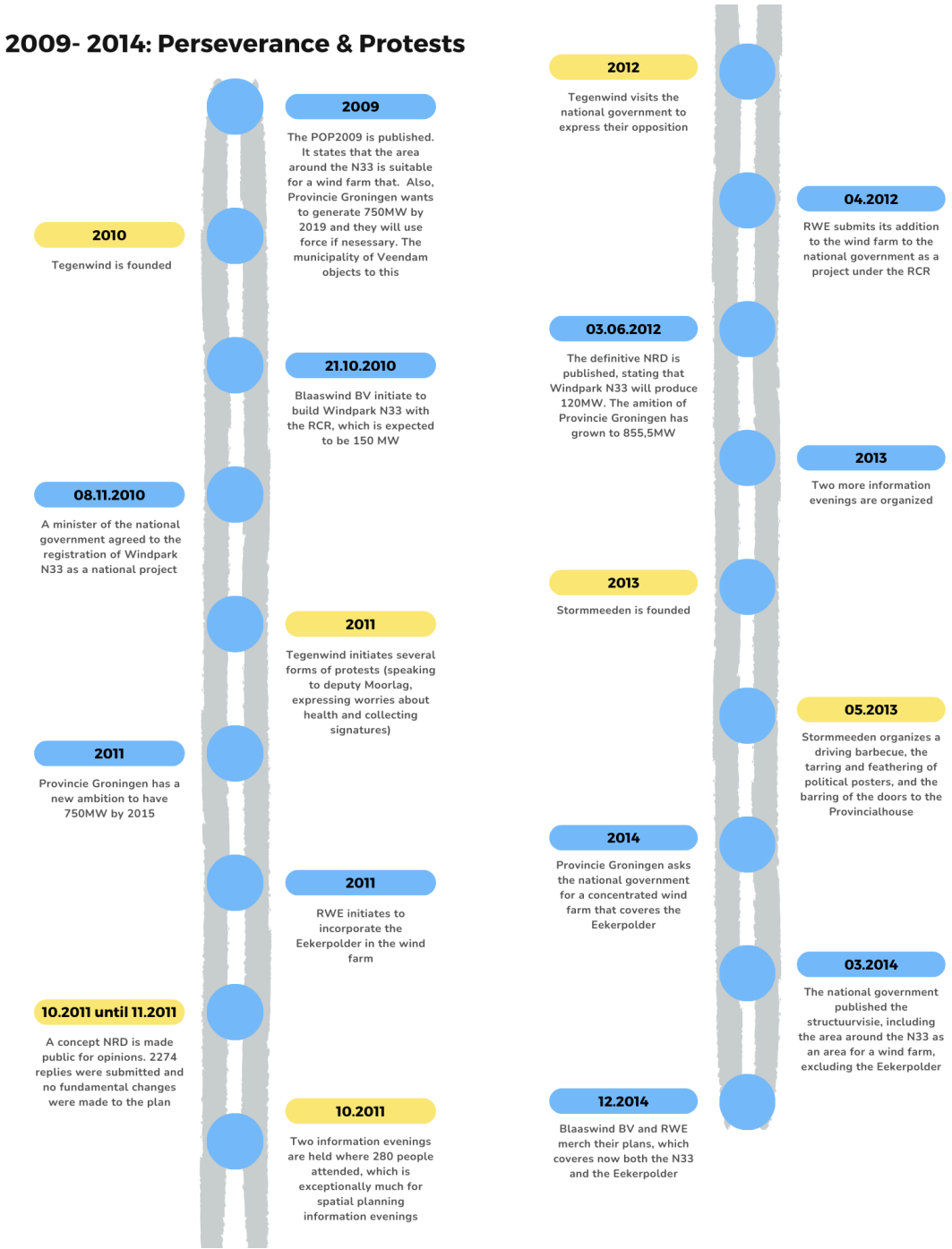


Figure 17: Perseverance & protests (2009-2014). In yellow the actions of inhabitants and in blue the actions of governments and wind entrepreneurs.

In 2009, the electricity law of 1998 was revised and now stated that all energy projects of national importance including wind energy projects generating more than 100 MW, would fall under the RCR. This meant that the national government would have decision power over these energy projects (Ministerie van infrastructuur en milieu, 2014). POP2009 stated the ambition to generate 750 MW of renewable energy at three locations in Groningen Province, one of which is the area around the N33, by 2019 (Provincie Groningen, 2009). With the locations specified in the spatial planning regulation, other locations now were excluded. In 2009, *Windpark N33* was still only planned to be located around the N33 (Figure 18). The

POP2009 also states “that it is crucial to avoid any delays, so if municipalities do not fully cooperate, enforcement power will be used” (p.173), hinting at the use of the RCR. The submittance of an official opinion of the municipality of Veendam and Menterwolde in 2011 stating that the development of *Windpark N33* was not supported by the municipality and its inhabitants could not change this (Ministerie van Economische Zaken en Klimaat, 2012).

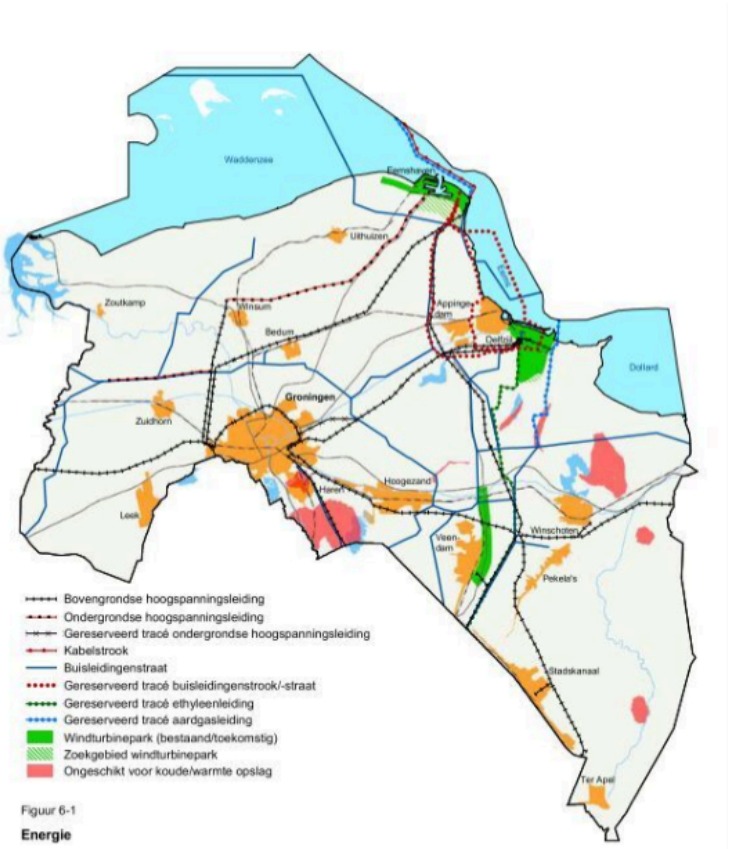


Figure 18: Map that shows three wind farm locations. *Windpark N33* is still only sited around the N33 (Provincie Groningen, 2009).

Based on the POP2000, 2006, and 2009, and the wish of *Provincie Groningen* to enforce the RCR, wind entrepreneurs aimed for larger and more concentrated wind farms (≥100 MW) because dealing with the national government as a partner was seen as a lot easier than dealing with local governments that want to protect the landscape and environment. Moreover, larger concentrated projects produce bigger profits. Therefore, the wind entrepreneurs started to make plans for wind farms of 100 MW or more - meaning that the plans also would need more geographical space. In 2010, Blaaswind BV reported *Windpark N33* as a national project under the RCR, which was accepted on 8 November by EZK (Ministerie van Economische zaken en Landbouw en Innovatie, 2010). *Windpark N33* now was planned to be 150 MW (Ministerie van Economische zaken en Klimaat, 2019). From 2011 onwards, *Provincie Groningen* (since the elections in 1991 dominated by PvdA, a left-wing progressive political party) wished to speed up the development of wind farms on land, voicing the aim to reach 750 MW in 2015 (Ministerie van Economische Zaken en Klimaat, 2012). The NRD procedure (*Nota Reikwijdte en Detailniveau*, or concept note scope and level of detail) was completed in 2011 and 2012. Although the concept NRD provoked 2274 official opinions submitted, no fundamental changes to the NRD were made (Ministerie van Economische Zaken en Klimaat, 2012). *Provincie Groningen* voiced an

official opinion, stating that if the noise of the wind farm would exceed the standards according to the plan and project-MER (*Milieu Effect Rapportage,* or Environmental Impact Report), *Provincie Groningen* was willing to abandon the wish for a wind farm of 120 MW (Gedeputeerde Staten, 2011b). However, the planned wind farm appeared to not exceed the standards. On 3 June 2012, the NRD of the initial RCR project was finalized, stating that *Windpark N33* would produce 120 MW with 15 to 40 turbines around the N33 (ibid). The definitive NRD also stated that the ambition of *Provincie Groningen*, in collaboration with other provinces and the national government, for renewable energy was now 855,5 MW. These additional ambitions of *Provincie Groningen*, and the already ambitious wind energy agenda, could be due to the progressive majority of parties in *Provinciale Staten* at that time.

During the NRD procedure, the plans for the wind farm expanded in 2011 with the wind entrepreneur RWE who initiated to incorporate the Eekerpolder in the wind farm. In April of 2012, RWE submitted a request to the national government to build a wind farm in the Eekerpolder (RWE Innogy Windpower Netherlands B.V., 2011). This submission started a separate RCR process in, but would later be merged with the project that is the focus of this study (RWE Innogy Windpower Netherlands B.V., no date). *Provincie Groningen* supported the initiative in 2014 by asking the national government for a concentrated wind farm in the Eekerpolder instead of a fragmentation in the landscape (Minister van Economische Zaken, 2014). Increasing the amount of MW of the wind farm was in line with the increasing ambitions of *Provincie Groningen* regarding wind energy. The national government responded positively to this option (ibid). In December 2014, Blaaswind BV and RWE merged their plans for one large wind farm, which was the wind farm that was built in the end. This was conform the *Structuurvisie windenergie op land 2014* (a structural plan for wind energy onshore), repeating POP2000, stating that the Eekerpolder and the N33 area were suitable for a concentrated wind farm (Ministry of Infrastructure and Environment, 2014). As a consequence, the intention to build a wind farm now existed officially on two governmental levels. There were 151 opinions officially submitted as a reaction to the *Structuurvisie*, of which the majority came from Groningen and Drenthe. Most of the inhabitants presented serious concerns about the changes that the construction of large wind turbines would have on their living environment (ibid).

It is important to note that, although the plans for *Windpark N33* were clear already in 2008, inhabitants were not notified until 2011. In 2010, inhabitants started to take a closer look. The municipalities of Veendam and Menterwolde had not been in favor of the *Windpark N33*, so earlier on, the inhabitants felt at ease as it felt like their interests were being protected. However, when the national level started to get involved, the inhabitants in the area became nervous. Especially the inhabitants of the village of Meeden were very worried as the wind farm would be built in their ‘back garden’. This is when the citizen foundation platform *Tegenwind* (headwind, or literally translated as ‘against wind’) was formed by the village council[3] of Meeden. *Tegenwind* acted as a specialized committee of the village council, aiming to investigate the political processes that were happening around the development of *Windpark N33*. Inhabitants state that *Tegenwind* aimed to be neutral and non-activist (Inhabitant 3, 16.04.2024), although the name suggests otherwise and they later supported

[3] The village of Meeden is part of the municipality of Midden-Groningen (used to be the municipality of Menterwolde). The village council therefore is not a formal governmental body, like it used to be in earlier times, but is a socially and culturally important council for the population of Meeden.

the activists group of *Storm Meeden*. *Tegenwind* took several initiatives to investigate the procedures and to communicate their worries and alternatives to the provincial and national level. In 2011, they spoke to provincial deputy Moorlag about the lack of public support but were redirected to the national government, as this was - according to the RCR - the authorized authority (Gedeputeerde Staten, 2011a). Also for *Tegenwind's* worries about health complaints, *Provincie Groningen* redirected *Tegenwind* to the national government (Gedeputeerde Staten, 2012). Therefore, *Tegenwind* collected about 3000 signatures to protest against the development and sent them to the national government. In 2012 and again in 2015 *Tegenwind* traveled to The Hague to express the local discontent to parliamentarians and share ideas for alternatives. Notably, the inhabitants were only officially informed about the developments of *Windpark N33* in October of 2011, when there were two information evenings that 280 people attended (Ministerie van Economische Zaken en Klimaat, 2019). The information evenings were organized by the national government with *Provincie Groningen* also being present. The number of 280 attendees is exceptionally high for an information evening on spatial planning in a rather sparsely populated area. In 2013, two more information evenings were organized in Veendam en Menterwolde. Citizens were informed and they repeatedly expressed their discontent (Vlaanderen, 2021). Tensions rose and anger grew during this time. *Tegenwind* and other inhabitants followed the procedures neatly but did not make any progress. They tried to open up the conversation and be part of the process but did not succeed. Therefore they got into contact with *Provincie Groningen* to seek support. *Provincie Groningen* listened but had to react within their limited authority: it was EZK leading the game. This all fuelled feelings of frustration and made inhabitants lose confidence in governments - they felt like being “up against a wall” (Inhabitant 3, 16.04.2024). Therefore, around 2013, *Storm Meeden* was founded. This was a group of inhabitants of Meeden, who sought another way of acting than *Tegenwind*, which they predicted would be more effective. *Storm Meeden* reacted in a more emotional way, hoping to speak human-to-human.

> *“We apparently won't achieve anything by staying kind. So what's another way to get through? Let’s get more on the emotional side as the net starts to tighten around us. Let’s start talking from our hearts” (Inhabitant 2, 16.04.2024).*

In 2013, *Storm Meeden* organized a driving barbecue to protest against the wind farm over the N33 (RTVNoord, 2013), slowing down traffic and thereby demanding attention. Other ‘playful actions’, as *Storm Meeden* called them, were big information signs next to the N33 (Figure 1), the tarring and feathering of political party posters (Inhabitant 2, 16.04.2024), and barring the doors of the *Provinciehuis (Provincial house)* (Storm Meeden, 2014) (Figure 19).

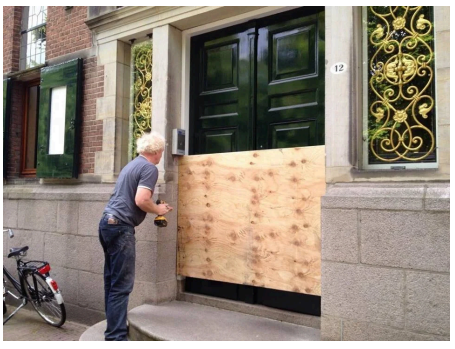


Figure 19: *Storm Meeden* bars the doors of the *Provinciehuis* (Storm Meeden, 2014).

4.1.3 Irrevocable decision & ideas for a solar farm (2015 - present)

The third episode of events starts from 2015 (Figure 20). *Windpark N33* was propelled forward by the national government. Inhabitants' demonstrations and protests got utterly intense and yet, at the same time, a new initiative came to light: a local group started to plea

for a solar farm instead of a wind farm. Ultimately, objections to *Windpark N33* went unheeded, resulting in the coexistence of both the wind farm and the solar farm. This situation spurred the citizen initiative known as *Coöperatie Eekerpolder*.

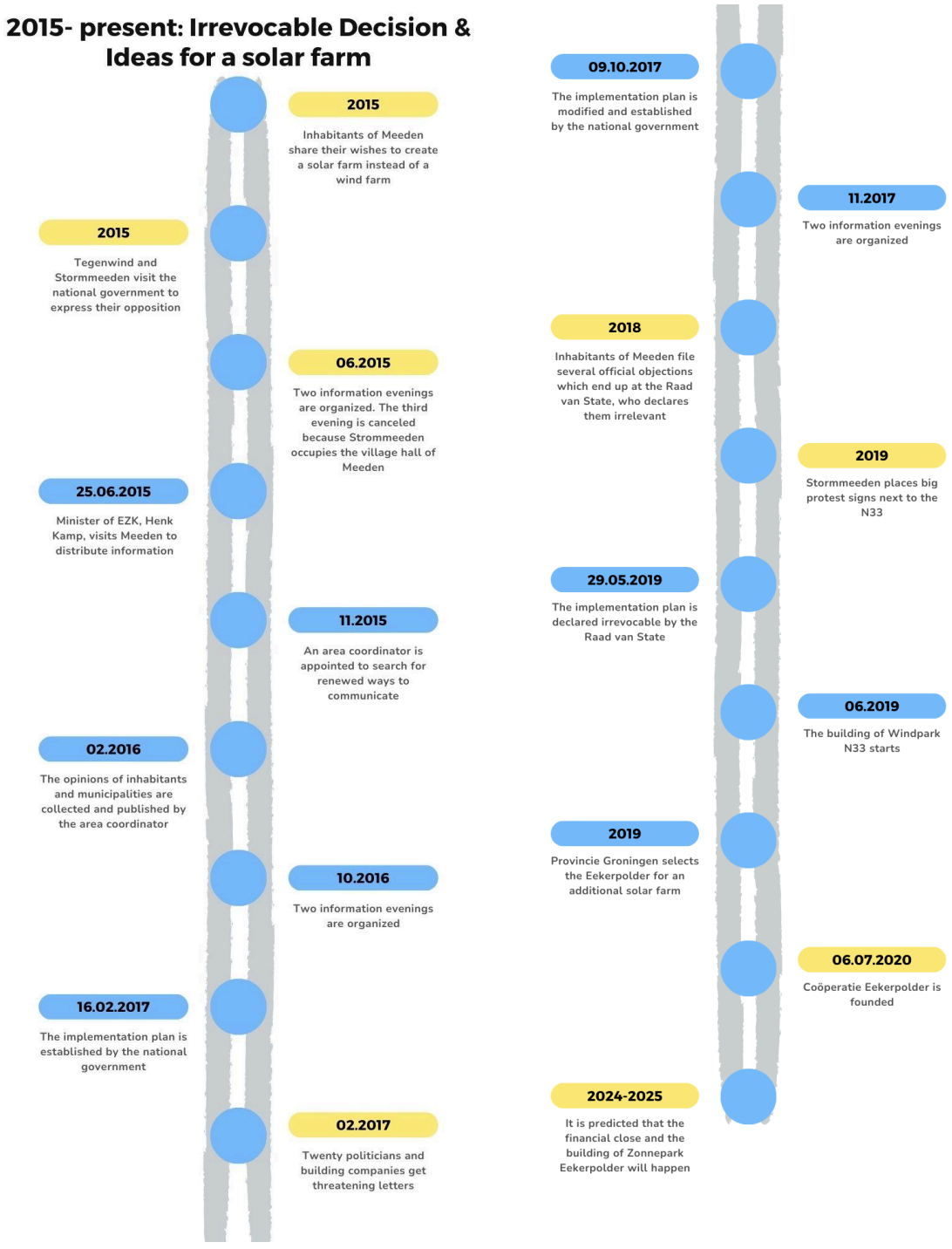


Figure 20: Irrevocable decision & ideas for a solar farm (2015-2024). In yellow the actions of inhabitants and in blue the actions of governments and wind entrepreneurs.

In June 2015, two information evenings were held with 115 participants (Ministerie van Economische Zaken en Klimaat, 2019). Also in 2015, the protests of *Storm Meeden* became more intense, with a peak in 2018 when protesters put cans with metal bars in the fields of farmers who invested in wind turbines (Figure 21). The third information evening had to be

canceled as inhabitants occupied the village hall of Meeden (Figure 22). This meant that the national government and *Provincie Groningen* could not give their information as was obligatory by the RCR (Vlaanderen, 2021). As a reaction to this, Minister of EZK, Henk Kamp, came to Groningen to inform inhabitants personally of the plans for the wind farm, according to inhabitants with the evident aim to be officially approved by the *Raad van State* later on (Inhabitants 1, 14.03.2024; Inhabitants 2 & 3, 16.04.2024).

Figure 21: Cans with metal bars were found in the fields of farmers investing in wind turbines (Dagblad van het Noorden, 2018b).
Figure 22: Occupation of the village hall of Meeden by Storm Meeden (Dagblad van het Noorden, 2018).

In an attempt of the national government to keep up a civilized conversation, an area coordinator was appointed to collect the opinions of the inhabitants in November 2015. In February 2016, the opinions of the inhabitants were published in the report *Windpark N33*, *Verkenning naar participatie, communicatie en compensatie* (KAW, 2016). The following quote from the national government describes the conclusions of the report (ibid) concisely:

> *"The conversations show that there is anger and indignation about the arrival of the wind farm and the way the decision-making has gone so far. There is also concern about social cohesion in the community as a result of the arrival of the wind farm. At the same time, there is a great sense of responsibility to contribute to a solution and to participate in discussions about further development around the wind farm." (RVO, 2019c).*

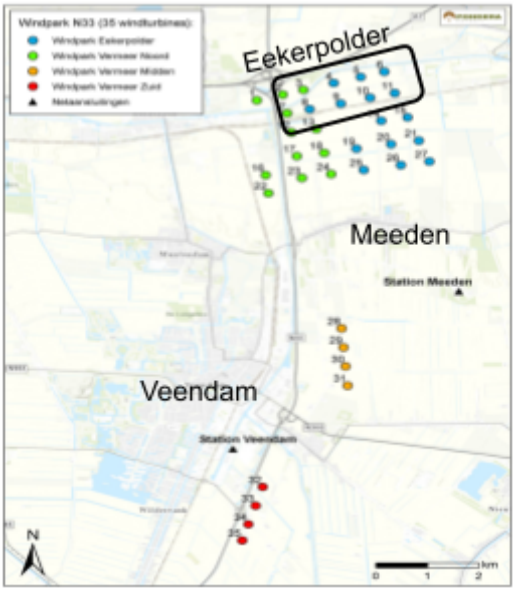
The 'concern about social cohesion' refers to the impact of *Windpark N33* on the community of the Meeden Area. People who were friends or good neighbors lost their relationships due to differences of opinion about *Windpark N33*. For example, friends for many years who went on holiday with their motorcycles together stopped talking during these heated discussions because one was a farmer and the other was not.

Conversations between governments and inhabitants, however, did not improve after the area manager's report. In October 2016, two additional information evenings were held for inhabitants, after which on the 16 February 2017, the implementation plan was established by the national government, for it to be modified and finalized on the 9 October 2017 (RVO, 2019b). This was the last official step of the RCR (see Figure 15 in Chapter 3). All people and organizations could now submit official objections, of which the highest form is with the *Raad van State*. Indeed, inhabitants filed an official objection which ended up with *Raad van State*, who declared it irrelevant. With inhabitants now becoming desperate, twenty

politicians and several companies that were related to the building of the wind farm got threatening letters (Vlaanderen, 2021), which shows the extent of the societal disturbance. For some of the protesting inhabitants this was crossing a red line and they abandoned *Storm Meeden*. In November of 2017, two more information markets for inhabitants were held (Ministerie van Economische Zaken en Klimaat, 2019). On the 29 May 2019, the implementation plan of *Windpark N33* was declared irrevocable by the *Raad van State* (RVO, 2019b). Despite the protests of inhabitants of the Meeden Area against the wind farm, the building of the wind farm started in the early summer of 2019 (Figure 23) (Windpark N33, 2024a).

Figure 23: *Windpark N33* is being built (De Groene Amsterdammer, 2020).

During the building of *Windpark N33*, another development arose. Already back in 2015, a group of inhabitants shared their preference to have a solar farm instead of a wind farm, but all objections to *Windpark N33* and the proposed alternative were declared irrelevant. Yet, in 2019, *Provincie Groningen* selected the same plot of land for a solar farm, resulting in the coexistence of the wind farm and the solar farm (*Zonnepark Eekerpolder*) (Figures 24, 25). Now, the plan that was supposed to be the *alternative* for the wind farm was *added* to the wind farm. Some inhabitants angrily quit the fight, while others now demanded a place at the planning and negotiating table. This resulted in the founding of *Coöperatie Eekerpolder* on the 6 July 2020. *Coöperatie Eekerpolder* has two main goals: increasing spatial quality including biodiversity, and allowing funds to flow back into local society. In order to secure control, the cooperative negotiated for inhabitants to have a 50% share in the project. They negotiated with all involved partners: the municipalities of Oldambt and Midden-Groningen and developer Novar (Novar, 2024). Currently, the cooperative does indeed own 50% of the shares in the solar project and Novar owns the other 50%. The cooperative is negotiating with Novar about the financial close, after which building will start. It is expected that around the end of 2024 or the beginning of 2025, the financial close will be reached.



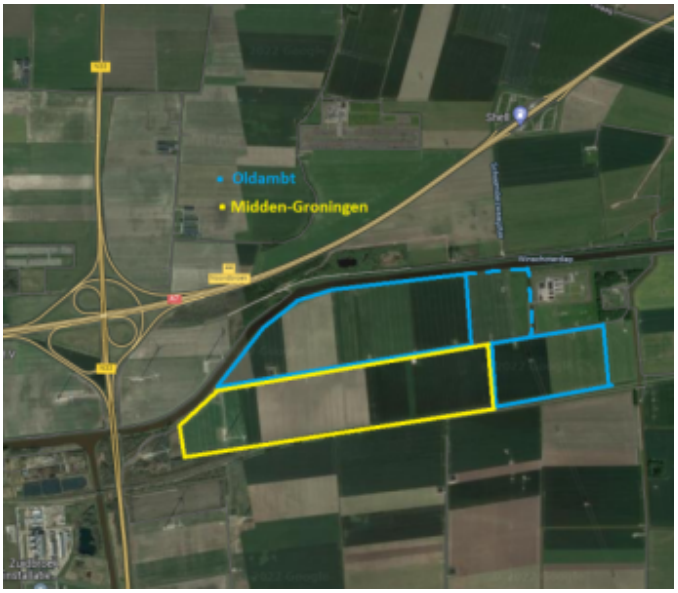


Figure 24: (left) Location of windmills of Windpark N33, including the Eekerpolder (Windpark N33, 2024b).
Figure 25: (right) Location of Zonnepark Eekerpolder (Coöperatie Eekerpolder, 2024a).

4.2 Perspective of *Provincie Groningen*

This part of the results explores the perspective of *Provincie Groningen*: its role, position, and viewpoints. The first section describes the two most notable themes that emerged from the data: the important role of experts´ technical knowledge and, secondly, the relationship between the provincial and national government. This section includes observations done at *Provincie Groningen*, including two interviews.

4.2.1 Experts' technical knowledge

During my time at *Provincie Groningen*, I noticed a trend where the expert's technical knowledge was dominant over other kinds of knowledge, including non-expert knowledge. A quote from one of the interviews illustrates this:

> *"Organizing is often done on the hard side first. That's a fact. Hard expertise is the starting point: space, finances, and mobility." (Expert 1, 09.04.2024).*

I also noticed this trend during a meeting about the electricity network by *Provincie Groningen*. In this meeting (23.11.2023) with several influential organizations, it became evident to me that technological aspects were the basis of the conversation. During the 1.5-hour meeting, experts discussed their intention to foster broad prosperity in the interest of the community at large for only about 2 minutes. All other time was diverted to the experts' technical knowledge.

In the interview, Expert 1 said that for a long time, *Provincie Groningen* has been "a somewhat closed bastion" that formulated policy and rolled it out over society (09.04.2024). The civil servants of *Provincie Groningen* are used to internal processes, making sure they do their homework properly before presenting it to a larger audience. When broadening the scope of knowledge, the inhabitant is an obvious stakeholder, but it seems hard for *Provincie*

Groningen to really include inhabitants. Expert 1 declared that only within a formal legal framework non-experts can participate:

> *"In principle we start from the expert and the legal frameworks. That is the legitimacy of our actions. If there is no legal basis for questions or demands, that's where it stops." (Expert 1, 09.04.2024).*

When asked in what way knowledge of inhabitants is involved, Expert 1 stated that the representatives in the *Provinciale Staten* are elected to represent the inhabitants, thereby ensuring local influence (09.04.2024). And, the expert added, it is simply not possible to always please everyone, interests are too diverse for that. Expert 2 expresses similar views and adds that *Provincie Groningen* is part of the democratic system of The Netherlands, which means that what happens here is because of the electoral choices of inhabitants. Expert 2 thinks that inhabitants and experts do not speak the same language as they live in different worlds and contexts: inhabitants in their living environment and experts in their policy environment. Both experts expressed that they acknowledge the importance of the views of the inhabitants. At the same time, they realize the difficulty of integrating this into provincial policy.

Although Provincie Groningen has taken initiatives to integrate technical knowledge with other types of expert knowledge, the interviewed Experts are skeptical. In recent years, Provincie Groningen has organized the option for multi-teams within Provincie Groningen where several relevant fields of expertise come together to discuss a theme or project. The team Regie op Ruimte is such a multi-team and is an intersectoral inclusion of spatial planning, environmental vision, economy, energy, environment, atelier, program management, housing, and liveability. The weekly meetings of this team are meant for agenda-setting and prioritizing. The team also discusses effective lobbying for the position of Groningers at the national level. Expert 1 noticed that one needs a great deal of perseverance and energy for a multi-team to be formed and maintained. Expert 2 is also rather skeptical and thinks that the level of willingness to integrate knowledge differs per person, "and an organizational change does little to help" (Expert 2, 23.04.2024).

4.2.2 The relationship between the provincial and national government

Often in meetings, when discussing large energy infrastructure projects, the relation between *Provincie Groningen* and organizations of the national government was mentioned, signaling that there is quite some friction in this relationship. In a conversation between a communication specialist and a spatial planning specialist of *Provincie Groningen*, EZK was described as "arrogant", when they explicitly assert their power:

> *"EZK decides, and that is also how they behave; 'you can think about it what you want but…'" (Expert of Provincie Groningen during a communication strategy meeting, 10.04.2024).*

During a meeting of the multi-team *Regie op Ruimte*, civil servants often mentioned the difficult communication with EZK, including getting different signals every time and a lack of clarity. The overall structure that appeared was one of top-down power from EZK to the province, generating frustration and fatigue. Expert 1 mentions that *Provincie Groningen* is

sometimes overruled by the national government although it is often more subtle and expressed in partnerships as a bargaining battle:

> *"The national government has a lot of influence. But a local authority such as the province also has its own legal position. This can sometimes cause tensions in the cooperation between central government and local authorities" (Expert 1, 09.04.2024).*

Experts 1 and 2 agree that also during the development of the *Windpark N33*, EZK had a top-down attitude. According to Expert 2, in 2013 *Provincie Groningen* wanted to take back authority during the start of the development of *Windpark N33*, but the national government did not accept it. *Provincie Groningen* had to consent to an advisory role in the development of the wind farm (Expert 2, 23.04.2024). The province did resist but was overpowered.

> *"Minister Kamp showed a firm perseverance power" (Expert 1, 09.04.2024).*

Expert 2 states that the national government draws up a plan and will execute it, calling Minister Kamp "a hardliner" (23.04.2024). In meetings of the multi-team *Regie op Ruimte*, it was often mentioned that *Provincie Groningen* should be louder than other provinces, as their representation in the parliament is small at the national level and the province is geographically far away from The Hague. In one of these meetings, it was discussed that *Provincie Groningen* needs to be able to keep a good position in the national government. Provincial civil servants feel like they should play along with the national civil servants but also guard their operational freedom or 'wiggle room' to not become enclosed between government levels, since the national government has decision power. This shows how *Provincie Groningen* does a balancing act in an attempt to support the interests of the inhabitants of Groningen.

In another meeting on energy infrastructure (09.01.2024) it became clear to me that there is one more influential national stakeholder at the playing field: TenneT. In this meeting, there was discussion about how TenneT does not always communicate with *Provincie Groningen* about their plans. *Provincie Groningen* feels strongly that they should be planning future developments together. In this meeting, the amount of power of TenneT was questioned. TenneT holds the executive power of the national electricity grid and should be led by ministries of the national government. However, as civil servants during the meeting mentioned, TenneT presents itself like they have decision power and the ministries take limited responsibility. This leaves the civil servants of *Provincie Groningen* in a difficult position, as they are unclear on where to voice their dissatisfaction about the way TenneT acts in energy developments.

4.3 Perspective of inhabitants

This part of the results describes the data concerning the inhabitants in the Meeden Area. It delves into three themes that emerged from the data, incorporating observations of the cooperative, interviews with inhabitants, and the documentary '*Tegenwind: het verdriet van de Veenkoloniën*'[4] (Vlaanderen, 2021). The three themes are: the long history of emotions, ticking the boxes of participation, and concerns about health and property.

[4] In English: Headwind: The Sorrow of the Peat Colonies. More literally translated to 'against wind'.

4.3.1 A long history of emotions

One recurring point of agreement between inhabitants is that history plays a big role in the emotional responses of inhabitants to the siting and construction of *Windpark N33*. In the documentary, one of the inhabitants explains that the development of *Windpark N33* remind them of the old days, when local *herenboeren*[5] had all the money and power, and imposed their will upon workers. The line between history and the present is very thin, making it easy to compare the past pain of parents and grandparents with the pain inhabitants experience today. "People with money and land decide what our life looks like", as one inhabitant puts it (Vlaanderen, 2021). There is unmistakably a striking resemblance between the past and the present. Farmers who allow the wind farms to be placed on their land earn a lot of money. Less wealthy inhabitants are left without influence *and* have to (literally) face the consequences. Another inhabitant expressed the depth of these emotions:

> *"In the past, the herenboeren exploited our ancestors and now we are being exploited again." (Vlaanderen, 2021).*

In the interviews, the inhabitants underline that this history of *herenboeren* cuts very deep. The workers of that time did not have a say in what happened and earned very little. This generational trauma continues into today's inhabitants, with the farmers who are there today:

> *"It's really bad. There are people who are now saying again: look, there you have those farmers again, they have the power to put wind turbines on their land and they are making money like gold." (Inhabitant 3, 16.04.2024).*

Experts in *Provincie Groningen* also see this history. One of them mentioned this same history to be an issue in today's developments (Communication strategy, 10.04.2024). Feelings of distrust from inhabitants towards governments are quite common in the region and have their impact, even on today's collaborations. Due to this long history of distrust, there will probably always be strong emotional responses when developing new spatial plans for the area, as expressed during the Communication strategy meeting by a participant:

> *"The distrust towards any form of government is big in Groningen" (Communication strategy meeting, 10.04.2024).*

The intergenerational trauma is maintained by the gap that inhabitants feel between them and the government. Different governmental levels are perceived as one big powerful institution, and generations of inhabitants have felt left behind by 'the government'. In the interviews, one of the inhabitants gave an example of how he felt the distance between him and the government of *Provincie Groningen*. He has asked some civil servants about the procedures and decisions surrounding the development of *Windpark N33*, and did not feel welcome at all. He felt "a gap" between him and the civil servants as if it was not a human-to-human conversation:

[5] Throughout the east of Groningen, you can see farms with grand front houses resembling castles. These were the homes of the wealthy gentlemen farmers (Herenboeren) from over a century ago, who amassed great wealth from growing grain. While their servants saw little of this prosperity, the farmers themselves enjoyed it to the fullest.

> *“They pulled a kind of mask over their body, and their body language was tight, decisive, they knew exactly what to say and what not to say. A kind of speaking puppets, very distant.” (Inhabitant 3, 16.04.2024).*

Other inhabitants have felt the same way when attempting to build a shared language to bridge the gap with the policy environment of the civil servants. They noticed that civil servants tended to stick to formal answers and what they knew was the correct procedure.

4.3.2 Ticking the boxes of participation

Another trend that emerged from the data is that inhabitants feel that “participation” has only been a matter of “ticking the boxes” (Inhabitants 2 & 3, 16.04.2024; Vlaanderen, 2021). There have been no noticeable effects from all of the input by municipalities and residents, making inhabitants even more distrustful towards governments. It gave them the feeling that they truly did not matter enough. Due to the RCR, local participation was already minimized. However, there were a few necessary steps that needed to be taken, including the provision of information and going into dialogue with inhabitants. In the inhabitants' point of view, it all was merely symbolic, as there were no consequences involved:

> *“It's actually a matter of ticking boxes for the initiators. They must meet certain requirements, otherwise their plans would be rejected by the Raad van State. We discovered that whether the dialogue achieved anything was irrelevant.” (Vlaanderen, 2021).*

In the interviews, one of the inhabitants states that all the work and time he has put into participation seemed to be for nothing, as *Provincie Groningen* already had their plans worked out. Another inhabitant says that only being informed about the development is not real participation. “And yes, everyone could officially submit an opinion, but they were all rejected, so why submit it at all?” (Inhabitant 3,16.04.2024). The inhabitants indicate their feelings as frustration. They noticed that "if you do not have a policy backing you up, you are already behind and will probably not catch up" (Vlaanderen, 2021). And even *with* local policy behind you, the case would probably have been lost because of the RCR, which gives the national government the right to decide. In a conversation recorded secretly by inhabitants, a civil servant of the national government said that the RCR exists in order to push the interest of the national government - and was fired for this confession:

> *“The RCR has come into existence to push things through against people's wishes. The fact that there is no public support is actually proof that the RCR is necessary” (Vlaanderen, 2021).*

One of the provincial experts acknowledges this by stating that the intentions of the national government "were to do the minimally required amount of participation for it to be legally acceptable" (Expert 2, 23.04.2024). The national government considered their participation as sufficient as they organized the information evenings, although not doing anything with the results of these evenings. As mentioned earlier, the alternatives that were offered by both the municipalities and the inhabitants were declared irrelevant. The village of Meeden was aware of the fact that sacrifices are necessary for the energy transition, but even their

simple proposal to put the wind farm two kilometers away from the village, instead of one kilometer, was dismissed without discussion (Inhabitant 3, 16.04.2024).

> *“The alternatives were all categorically swept off the table” (Vlaanderen, 2021).*

Later on, it became clear that EZK had listened quite well to the alternatives: the Meeden Area ended up with both the initial project *and* an additional solar farm, a solar farm originally intended as an alternative to the wind farm. Over all, the inhabitants felt humiliated by their government, feeling insignificant and invisible. One of the provincial experts seemed aware of this and noted that inhabitants tended to ask themselves if the province ever has been on their side and were skeptical about the answer to this question. One of the inhabitants was far beyond skepsis and had lost all trust in the democratic system after the participation process of *Windpark N33*:

> *“I didn't vote for a few years after this. I felt like such a loser walking to the desk to cast my vote. It’s all a real puppet show.” (Inhabitant 2, 16.04.2024).*

After all, the perception of many inhabitants is that 'power and money' firmly stood together, working their way towards the most desirable outcome, without keeping an eye on the interests of inhabitants. The reason to add the Eekerpolder to the wind project was twofold, according to the inhabitants: (1) local farmers favored this development as they were going to make good money by offering their land to the project; and (2) *Provincie Groningen* had an agreement with EZK to build enough wind farms to adhere to the national standards (Provincie Groningen, 2009). With the addition of the Eekerpolder, the *Windpark N33* could generate enough energy to meet the requirements.

> *"It was a one-two punch between Provincie Groningen and the national government, to get as much renewable energy as possible as fast as possible." (Inhabitant 3, 16.04.2024).*

4.3.3 Concerns about health and property

The third theme emerging from the data is the fear of unforeseen consequences of the realization of *Windpark N33.* This mostly concerned health problems, which are observed at other big wind farms around the world. However, up to date, there is no scientific proof (nor even enough research done) of health problems by wind turbines. This unfamiliarity with the consequences of a wind farm only increased the fear of inhabitants. While experts predicted that they would be all right, inhabitants were not convinced and believed that the experts could only guess that it would be all right.

> *“There was no research from other villages or of unconscious effects of low-frequency noise from those wind turbines this close to the residents.” (Inhabitant 2, 16.04.2024)*

Especially the low-frequency noise was a cause for worry, as stories went around that the noise would subconsciously and continuously increase levels of stress. Also, the repeatedly cast shadow of the large wind turbines over the nearest houses would have this stressful effect. *Tegenwind* asked *Provincie Groningen* to conduct research on these health risks, but they were redirected to the national government, the authorized authority (Gedeputeerde

Staten, 30.10.2012). Additionally, the decreased aesthetics of the environment together with the lowering of house prices were a point of concern. With a large wind farm right behind inhabitants' houses, the price of the property was predicted to go down. Especially at night, when all wind turbines shine red lights for flight safety, "it would become like a theme park", as one of the inhabitants puts it (Inhabitant 2, 16.04.2024).

After the wind farm was constructed, many of the feared health effects are actually experienced by inhabitants. Inhabitant 1 says that he often jumps out of bed in the middle of the night covered in sweat because the low-frequency sound of the wind turbines makes him think that the cement mixer is turned on and he has to get to work. Inhabitant 3 observes a flight reflex within himself when he wakes up every night at 3 am. He has difficulties getting back to sleep and states that he loses a few hours of sleep every night, feeling increasingly tired during the day.

> *"I'm bothered by those vibrations. I have to actively calm myself down again, which is very difficult. When you lie down again you have a very strange feeling because you have adrenaline that you cannot use, but your body still says: 'you have to run, because a whole horde of elephants is coming, you have to make a move now!'" (Inhabitant 3, 16.04.2024)*

Since the national government nor the provincial government appeared to be willing to do research on health issues connected to the *Windpark N33*, *Tegenwind* is collecting all health complaints related to the wind farm, in the hope that someday they will have proof that siting a wind farm this close to inhabitants is inhumane (Inhabitant 3, 16.04.2024*)*. For the inhabitants, there is already proof enough that this is true.

4.4 A slow shift

This section describes data illustrating the slow shift that seems to be happening within *Provincie Groningen* as well as the shift in how inhabitants get to organize themselves. New structures of participation with more equally divided power are actively explored, potentially resulting in a better experience for the inhabitants. This might give an indication of how negative emotions could be mobilized in future socio-spatial developments.

4.4.1 A slow shift in attitudes at *Provincie Groningen*

I have observed a shift from excluding to including stakeholders during new developments when considering the relationship between the provincial and national level. On the 19 March 2024, a meeting was held between *Provincie Groningen*, TenneT, and EZK. However, I was not allowed to attend this meeting. A provincial civil servant explained to me that the power dynamics between these organizations are changing, creating an awkward meeting. The civil servant further explained that TenneT and EZK could not keep the monopoly on decision-making anymore. Before, EZK and TenneT took all the control. Slowly, *Provincie Groningen* is convincing TenneT and EZK that only in collaboration, sound decisions can be made. I further observed this slow shift in the meeting *Weekstart Energie* (Weekstart Energy) on 26.03.2024 where it was discussed how an expert of *Provincie Groningen* discussed the process of building the wind turbines in the Meeden area with a civil servant of the national government, including the 'top-down' behavior of the ministry and the minister in person, and the emotional consequences that followed. The civil servant replied that they understood that

this must have been difficult. Furthermore, during a meeting of *Regie op Ruimte* (24.04.2024) it became clear that *Provincie Groningen* prioritizes local prosperity. It was evident that it can be difficult to balance the different interests on different scales of the government (Expert 2, 23.04.2024). In this case, the national government wanted to transport offshore energy to the national electricity net, using the land area of Groningen Province. However, *Provincie Groningen* stood up for its inhabitants' interests, pointing out that Groningen Province has the most cases of energy poverty in The Netherlands, so putting up new energy infrastructure in Groningen for the national interest - again - might be hard for inhabitants to understand and accept.

A similar pattern that is visible within *Provincie Groningen* is that there is a shift happening from inward to outward governance. In the expert interviews this was explained as a consequence of societal pressure, with participation of local inhabitants since 2024 also formalized in the *Omgevingswet* (environmental law). Due to the increased assertiveness of inhabitants, who organize themselves, actively use social media and imaging, and no longer passively accept facts but express a critical attitude, governments realize that they have to use participatory strategies. According to the experts in the interviews, this leads to area managers working with inhabitants, although this way of working is not always present in every organization. They remarked that coping with local sentiments will never be perfect:

> *"In an ideal situation, an area process goes perfectly and we dance around a wind turbine together, but in practice that is never the case." (Expert 2, 23.04.2024).*

Improvement is also aimed for in communication, as all of the civil servants at *Provincie Groningen* participated in a course on accessible writing, to close the gap between *Provincie Groningen* and its inhabitants. The two interviewed experts, however, differed in their view on how effective this will be. Another example of how efforts are being made to close the gap, is the invitation on behalf of the management team of *Provincie Groningen* to all staff to join the dialogue on culture change from an inward to an outward view (23.04.2024). This learning curve seems also visible in the political part of *Provincie Groningen*. In a meeting of provincial representatives (*Provinciale Staten*) in December 2023, some political parties announced that they prefer to wait with supporting local energy initiatives for the new provincial policy on solar farms and batteries in order to not make the same mistakes that were made before, like skipping participation (20.12.2023). In the interviews, Expert 1 remarked that in this respect the lack of formalized evaluation moments is not helpful to increase insights into effective participation (09.04.2024).

4.4.2 Increased local ownership

In developing *Windpark N33,* inhabitants were barely included. Therefore, in the next development inhabitants aimed for a different approach. The solar farm in the Eekerpolder is not subject to the RCR, which means that municipalities are in control. They wish their inhabitants to have the chance to decide and take control. This takes form in *Coöperatie Eekerpolder*, where inhabitants work together to optimize the project. The inhabitant interviews demonstrate that this has not been easy, as the cooperative mostly works with volunteers who specialize in other professions than solar farm development. External advisors are necessary and make the cooperative reliant on other than local resources. Still, the feeling of local ownership is strongly felt:

> *“I think it's a miracle that we've been able to get this far, everyone just does it a little bit on the side. No one has this experience.” (Inhabitant 2, 16.04.2024).*

Finding new members for the cooperative is difficult, as actively participating in a working group is demanding. This heightens the threshold to participate. There is a need for people who are interested and skilled in many areas, which are not easily found in the sparsely populated area of Meeden. Although the cooperative is a fairly new organization with little time to invest, some basic structures have emerged. Slowly but steadily, the cooperative gains professionalism by working in groups, where inhabitants work together on a theme: finance, communication, spatial integration, youth, energy, and board & organization. Additionally, once a month strategic board meetings take place (Coöperatie Eekerpolder, 2023b). These meetings are the backbone of the organization. Although the separate teams for separate themes do not seem integrated, a lot of informal overlap happens, especially through members. All six working groups have people that also man other working groups, making the cross-over from one group to the other rather easy. However convenient, this also creates a situation where some individuals know almost everything and tend to make the decisions, sometimes also on topics on which they are not (fully) authorized to do so.

Although the cooperative has been growing, there are difficulties when approaching government organizations. Some inhabitants seem to be able to make a distinction between the different levels of government, but the majority seems to perceive 'the government' as one uniformal organization. Inhabitant 3 does make this distinction, specifying that the responses of civil servants on different levels can be different. In working with civil servants at municipalities, it often is possible to communicate on a level of understanding. However, the higher up in government levels, the more top-down the communication becomes - whereas inhabitants expect 'to be met halfway'. Finding a shared language continues to be a great challenge (Inhabitant 3, 16.04.2024).

The interview with Inhabitants 2 and 3 (16.04.2024) further clarified that ‘meeting halfway’ is not only about communication, it is also needed in other parts of the collaboration between inhabitants and governments. These Inhabitants explained that the municipality of Midden-Groningen, through supportive of local ownership, took the inhabitants by surprise in obligating *Coöperatie Eekerpolder* to pay the rental fee for the solar farm (€ 500.000) before the deal with developer Novar came to the financial close (which is usually the time that loans are released). By doing so, the municipality forced the cooperative to borrow the money from another organization, endangering its financial situation. Inhabitant 2 and 3 (16.04.2024) indicated that several members left *Coöperatie Eekerpolder* at that point, afraid that it would impact their individual financial situations. Additionally, indignation rose about the fact that a group of volunteers had to come up with this huge amount of money. Inhabitants felt demotivated again, as it seems that politicians do not *really* want people to actively participate in spatial projects, whatever their policies might state. So, also in developing the solar farm, many obstacles were met along the way. Inhabitants 2 and 3 (16.04.2024) indicate that this fosters frustration, delay and the bringing on of even more work. The lack of support from politicians and governments, mainly in legal and financial respect, made them lose hope. They cannot imagine that anybody would choose to participate as they did and do:

> *“If I had known in advance what was going to happen and that it would take this long and require so much, I would not have gotten in.” (Inhabitant 2, 16.04.2024).*

Even though the process of developing the solar field is perceived as slow and ineffective, it seems more successful compared to the development of the wind farm. There seems to be a common feeling of acceptance because the solar farm will be out of sight and covered with at least 20% green space. This is important because many people are attached to the green and flat landscape as it is. And despite everything, Inhabitant 3 states that the development of the solar farm gives him fulfillment, whereas the wind farm still gives him nightmares, although they both provide renewable energy. This is because the development of the solar farm is done in collaboration with the inhabitants instead of imposed top-down.

Chapter 5: Discussion

This chapter analyses the findings presented in the preceding chapter. Its primary aim is to interpret the data and establish connections between data and theory (Chapter 2). This chapter is structured according to the three pillars used in the theory: path dependency, institutional capacity, and FPE. Finally, a discussion of my positionality is presented.

5.1 Path dependency

Path dependency was defined as the set of the unintended and inefficient consequences of bounded rationality, generated by institutions (see Chapter 2). It can be divided into technological, institutional, and behavioral path dependency.

5.1.1 Technological path dependency: the trap of efficiency

The large investments required for wind farm projects irrevocably place stakeholders on a path leading to maximum efficiency. A wind farm with more, higher, and more concentrated wind turbines with a long life span generates more profit and is more cost-effective. Wind engineers involved in the development use their expertise to increase efficiency. The broader implications of the project in terms of the effect on the community are not part of their expertise or financial interests. In the Meeden Area, this process began after the publishing of the POP2000 and during the first step of the RCR, when an intention document was shared, urging wind engineers to make a move before others did it. Only in the second step, which followed years after the first step, inhabitants were informed. However, unfortunately for the opposition, wind engineers had already secured their place in the project by contracting local farmers and letting *Provincie Groningen* know they would like to develop the wind farm. The data show that this argument is so strong to policymakers and government levels spending public money that the space for feedback by inhabitants is severely limited. This corresponds with the theory of technological path dependency, in that technological lock-ins are characterized by long-lasting, large investments and economic factors. This has led to a decades-long predetermined path where wind turbines are placed according to the financial and efficient interests of wind engineers.

5.1.2 Institutional path dependency: the limits of democracy

The lack of opportunity for revisiting democratically created policy is evident from the Meeden Area case. Policies like the POP2000 are created in a context for specific reasons. But in a changing world, policies can remain the same for decades. Whether the policy is still relevant in a context that has changed years later is not a discussion point. For instance, POP2000 proposed that wind farms should be built near industrial zones, but when it turned out that the Meeden Area would not contain industry, the proposed wind farm still was developed. This shows that policy will remain on the table, unable to be ignored, unless it is democratically rejected. Signals of discontent can be ignored – as was evident throughout the whole timeline of the Meeden Area case. Within the democratic system, there is no easy way of changing policy, because it is officially accepted by elected citizens. Indeed, civil servants of *Provincie Groningen* legitimized their activities with this democratic foundation, even if it was outdated or did not fit within the specific context. Policymaking does not keep up with reality.

Another limitation of democracy is that elected individuals have to adhere to the political and administrative reality. Society expects the production of policy, and representatives only have limited space between other levels of government to influence policy. In order to make progress, they have to comply with existing policies and structures. The system is democratic, but within the administrative system, it is impossible to always translate the demands of the inhabitants into policy. For instance, the democratically approved POP2000 designated the N33 as a concentration zone for wind energy production. Even though inhabitants disagreed, this designation was repeated in the POP2006 because it was already democratically accepted. Furthermore, the *Structuurvisie* of the national government copied the same concentration area that *Provincie Groningen* appointed. This shows that when policy is written and democratically accepted, it will be influential no matter the changing contexts. The theory states that institutional lock-ins are characterized by powerful actors that aim to reinforce a status quo that favors their interest and institutions that are by principle designed to stabilize and lock in. Although I have not seen individuals who aim to reinforce their favored status quo, my research indeed shows that institutions automatically lock in. When speaking to individuals, they want the best for their inhabitants and province, but the administrative reality blocks this wish.

5.1.3 Behavioral path dependency: emotion and pragmatism

In the Meeden Area, distrust among residents towards government has deep roots, dating back to the influence of wealthy landowners from the past. These feelings persist strongly today as inhabitants still place the wrongdoings of the past in the current context, which results in a cycle of distrust. This feeling of distrust is worsened by the pragmatic manner in which experts behave in conversations. Without clear legal protections or foundations, experts often ignore residents' concerns, shutting down conversations before they can even start. This pragmatic stance is frustrating for inhabitants who just want to be heard.

Those in power are automatically tied to the complex administrative reality. As their job is to make policy, governments and civil servants seem reluctant to complicate processes by including the opinions of all stakeholders. This behavior reinforces their authority and breaks down the trust in governments. For instance, the RCR offers limited opportunities for locals to participate, and even when they do, their input is often dismissed as irrelevant by the decision of the makers of the RCR policy. During information evenings, the dialogue between politicians and inhabitants often revealed concerns, other points of view and alternative solutions. However, the authorities decided that the outcome of the dialogue was irrelevant, leaving the inhabitants with no real power. So, the course of the project did not change, even though the inhabitants did not agree with the decision. This cycle of reinstating power dynamics leaves residents feeling marginalized and powerless while it seems like power keeps to be legitimized. The theory states that behavioral lock-ins are characterized by individually calculated decisions that have unforeseen consequences for social structures. The data and theory match in that the pragmatism of individual experts indeed stimulates a widespread sense of distrust among inhabitants.

5.2 Institutional capacity

Institutional capacity is defined as the government’s capacity to deliver improvements through local policy cultures (see Chapter 2). This can be divided into three dimensions with four attributes each. Knowledge resources constitute the integration of knowledge, local

knowledge, and reflection and evaluation. Relational resources constitute inclusiveness and diversity, trust, and shared language. The capacity to mobilize constitute resources mobilization, joint ownership of process and outcomes, and storylines.

5.2.1 Knowledge resources: technical before local knowledge

The data suggest a contradiction in the integratedness of knowledge. On the one hand, there are official ways in which different fields of expertise are combined into one team, for example, the multi-team of *Provincie Groningen*. On the other hand, it became evident that often the technical aspects were dominant over the social expertise. It appears that the local knowledge integration, which everyone agrees should happen, is difficult to bring into practice. Mostly due to the different realities that experts and inhabitants live in, where experts look at energy projects through policy and inhabitants experience it through their living environments. In the Meeden Area, there evidently was a gap between the policy environment and the living environment. Both sides were unable to sufficiently emphasize with the other. Inhabitants simply did not possess the knowledge about complex governance procedures. The civil servants followed the procedures of their governments, and could not understand the perspective of the reality that the inhabitants live in. To bring these worlds together is a great challenge. This could be due the absence of an integrator, who would integrate knowledge and develop ideas of different stakeholders into a functional entity. Theory on knowledge resources state that the presence of an integrator is one of the four attributes of this resource and strengthens the institutional capacity of an organization.

Additionally, I have observed a prevailing tendency within *Provincie Groningen* to prioritize expert technical knowledge over other forms of knowledge. This bias potentially overlooks valuable insights and perspectives from the community, contributing to a sense of marginalization and disempowerment among inhabitants. Addressing this imbalance where experts are more valued than inhabitants necessitates a more inclusive approach that recognizes and respects diverse forms of knowledge. This includes the emotions that inhabitants have as they are part of the complex reality of local knowledge. Also on the national level, technical knowledge clearly came before local knowledge. Only at the end of 2015, an area coordinator was appointed to investigate the tensions between the stakeholders in the development of *Windpark N33*, although these ‘tensions’ had already been rising for five years. The local emotions, ideas, and alternatives were not included in the process and only after five years did the national government investigate in what way further conversations were possible, although not wanting to talk about the location, amount, or kind of wind turbines that were planned. The inhabitants perceived this as too little too late.

Although there is a shift where inhabitants receive more power, this shift brings new problems. With shared ownership, groups of inhabitants are expected to have the knowledge and structures to participate in energy projects. As this is often not the case, the power relations stay imbalanced. Although a slow learning curve can be observed at *Provincie Groningen*, it is not institutionalized. There are no official evaluation or reflection moments – only the wish to not make the same mistakes twice. It seems that theory on knowledge resources can adequately explain the negative emotions in the Meeden Area case. The theory states that when all four attributes are sufficiently represented, there are enough knowledge resources that can support institutional capacity, making the institution capable of

providing a good policy culture. Data suggest that due to the limited integration of knowledge and the absence of local knowledge and evaluation, the institutional capacity of *Provincie Groningen* was insufficient during the development of *Windpark N33*.

5.2.2 Relational resources: distrust

The relations between stakeholders in the development of Meeden Area proved to be complex. Generally, a clear pattern of the exclusion of inhabitants from discussions and planning of the project emerges from the data. There is great distrust towards policymakers and politicians. The way in which participation has been attempted, has led to more distrust among inhabitants, as no real effects were noticeable. There is a shift towards increased participation, but this shift is not intrinsically motivated but instead a reactionary development. Experts describe how increased activism, online presence, assertiveness, criticism, and mobilization of inhabitants have left them no choice but to increasingly incorporate their views. One of the consequences of the increased activities of inhabitants is the shared ownership of the solar farm, which municipalities also lobbied for. The fee of 500.000 euros was a great shock to the inhabitants. It becomes clear that there is a discrepancy between the laws and policies that representatives make and the governance that results from these laws and policies. The fee greatly damaged the trust of the involved inhabitants, further problematizing the relationships. The historical distrust that has evolved during the time of the gentlemen's farmers also fosters this distrust.

From both the inhabitant and the civil servant side of the project, a misunderstanding became apparent. The data reveal a notable discrepancy between the experiences of inhabitants and the official narratives of the government. The stakeholders are not able to have discussions in a shared language. This difference in language greatly problematizes the process of decision-making and the quality of the project. This disparity underscores the importance of relational resources in understanding and addressing a common problem during the complexities of the development of big energy projects. As theory suggests, a facilitator can bring in neutral actors that can build 'bridges' between the stakeholders. This has been tried with the area coordinator in 2015, but failed. Moreover, the tendency of inhabitants to perceive the government as a singular entity, rather than distinguishing between civil servants at different levels, shows the need for enhanced relational resources within the governance network. In addition, the interviewed civil servants frequently mentioned the complicated relationship between the provincial level and national government level, highlighting the critical role of relational resources within governance dynamics.

The growing distrust of inhabitants towards their governments became evident in the contrasting approaches of *Tegenwind* and *Storm Meeden*. Initially, *Tegenwind* sought to engage constructively with the process by attempting to understand the relationships and procedures involved. However, when residents continued to feel that their governments were untrustworthy, *Storm Meeden* emerged, adopting a stance in opposition to the authorities. *Storm Meeden's* approach incorporated emotional appeals in their protests as a last resort before resorting to legal action. Theory on relational resources clarifies what went wrong in the Meeden Area case. The theory states that when all four attributes are sufficiently represented, there are enough relational resources to support institutional capacity, enabling the institution to provide a good policy culture. However, the data suggest that due to limited

inclusiveness, diversity, and trust, as well as the absence of a shared language, the institutional capacity of *Provincie Groningen* was insufficient to constructively incorporate inhabitants' negative emotions during the development of *Windpark N33.*

5.2.3 The capacity to mobilize: powerplay

The development of the Meeden Area was driven by broader concerns: national interest and the need for a fast renewable energy transition. The residents of the Meeden Area as well as policy-makers indicated that the residents were simply unlucky to live there. Inhabitants' perspective, however, was one of marginalization and feeling abandoned by the government. This development of *Windpark N33* clearly lacked joint ownership and failed to secure the support of all stakeholders. The process was particularly flawed, as it explicitly excluded local stakeholders, and the decision to build the wind farm was made before the residents were informed about the project. The critical change agent in this situation was Henk Kamp, the Minister of EZK, who had the authority to determine the outcome. He ensured that his preferences prevailed despite the protests. The establishment of the RCR in 2009 provided him with the necessary authority. The RCR empowered the minister to make decisions, and he used the national government's narrative of energy transition in the national interest to justify this spatial transformation.

The theory states that the capacity to mobilize is about the way that the institutional arena is used to create transformative action and the power that gives the potential to enable spatial transformations. It argues that without knowledge and relational resources, there is no potential for deliberate mobilization. However, the results indicate that *Windpark N33* was developed despite limited knowledge and relational resources. This suggests that the theory was inadequate for this case study and that the concept of the capacity to mobilize needs to be more context-specific. It appears that having a certain degree of power over the potential for spatial transformations is sufficient for its mobilization.

5.3 Feminist political ecology

Throughout the data that emerged from this study, power dynamics between stakeholders and governments surfaced. Within the perspective of FPE, these power dynamics should be questioned and its legitimacy critically assessed (see Chapter 2). This section reviews dominant versus intimate structures and inclusivity and plural voices.

5.3.1 Dominant versus intimate structures: different interests

The development of the Meeden Area knows more dominant versus more intimate structures, with the government, wind entrepreneurs, and farmers on the more dominant side, and local inhabitants on the intimate side. However, the invisibility of an intimate structure does not make it unimportant when assessing the implications of socio-spatial developments. In the case of the Meeden Area, the democratic procedures have been run through properly and officially, legitimizing the technical perspectives and interests of the dominant structures. However, the data show great discontent among inhabitants. It seems that democratic procedures have failed because the negative emotions of inhabitants did not receive a place in the procedures. Although in the perspective of experts of *Provincie Groningen* representative democracy is sufficient for socio-spatial transformations, inhabitants desire participatory democracy. From a FPE-perspective, this gives reason to

reflect on the limits of the majority-opinion and the adequacy of democratic decision-making in the case of socio-spatial transformations. The Groningen Province as a whole was in favor of the wind farm, but the municipalities and inhabitants were fiercely against the chosen location of the wind farm. Thus, the decisive factor in this decision-making process was the dominant government structure that had the authority.

During the development of the Meeden Area, the national government took authority through the RCR. The national government has chosen to continuously ignore the intimate structure of the local community. The discontent with this process was so great that the intimate structure, personified by *Storm Meeden*, rejected the dominant structure. This became visible when *Storm Meeden* occupied the village hall. This was a new kind of protest where *Storm Meeden* placed themselves outside of the official system because they rejected the system in its totality. Apparently, people felt so excluded from the system, that they attacked the system itself because then the box of participation could not be checked. Here again, the dominant structure overruled the intimate one when Minister Henk Kamp from EZK came to Groningen Province to deliver the information himself, again, just to check a box according to the interviewed inhabitants.

Not only inhabitants felt themselves overruled by dominant structures, also the experts from *Provincie Groningen* indicate that they felt 'sandwiched', or caught between different levels of government. On the one hand, the national government exerted top-down pressure through energy ambition agreements and decision-making authority during the RCR. On the other hand, municipalities applied pressure by expressing their position against the wind farm continuously and aligning with their inhabitants during protests. Experts suggest that this situation has left *Provincie Groningen* with limited capacity to improve matters, leaning into a certain passivity while results show the active letting go of control over the development of *Windpark N33.* However, the data including government letters suggest that *Provincie Groningen* has continuously agreed with the national governments' wind energy ambitions. Indeed, residents believe that *Provincie Groningen* should have better advocated for them. This case illustrates that the FPE-perspective can be used by institutions who feel marginalized, even though they actually may have the power to make changes.

5.3.2 Inclusivity and plural voices: how equal is equal?

The FPE-perspective strives for equal processes by genuinely including different people and voices. This corresponds with the wish of inhabitants to be seen and heard to an equal extent as technical expertise is valued. However, it appears that participation has been reduced to a symbolic gesture, where the mere acknowledgment of residents' voices lacks tangible outcomes. In the case of the *Windpark N33* development process, participation was treated as an end goal rather than a means to reach a community-wide consensus. An example of this are the information evenings. These evenings were organized to distribute information, rather than to genuinely incorporate the knowledge, ideas, and alternatives of inhabitants, let alone include emotions into the development process. Also after rather shocking events, like the distribution of threatening letters, an information evening was organized. Merely giving information about the developments of the project contrasts with the severity of the total societal disarray. This portrays an all-encompassing, top-down approach that has left inhabitants feeling profoundly disrespected.

In contrast, two more recent developments indicate attempts to equalize socio-spatial developments within the Meeden Area. The shared ownership model of the solar farm explores participation through equitable project ownership. While theoretically fair and egalitarian, data suggest that despite this structure being more fulfilling for residents compared to the top-down approach of the wind farm, residents still encounter numerous challenges. Even within this equitable framework, bureaucratic procedures remain a barrier, highlighting the continued relevance of power dynamics in practical contexts. Merely having equal ownership does not address the entrenched pragmatism of government officials or the lengthy bureaucratic processes, that is, the prevalence of dominant structures. Moreover, it fails to bridge the knowledge gap between experts and residents, thereby questioning the true equality of this structure.

Another recent development is the observable shift from inward- to outward-looking perspectives within *Provincie Groningen*. This evolving mindset signals a growing awareness of broader societal dynamics and a desire for greater engagement with local communities. Additionally, residents express a need for financial and legal support, indicating a gradual convergence of the two parties. However, for the residents of Meeden, this convergence comes too late as they already feel alienated from the Dutch democratic system. It becomes clear that the plurality of voices and the inclusiveness of relations that FPE stands for, were not applied in the development of *Windpark N33*. Inhabitants were very frustrated with the process, exactly because of these absences. The theory of FPE promotes genuinely equal and inclusive relations and a plurality of voices. Although in the development of *Zonnepark Eekerpolder,* this has been tried, administrative barriers and the knowledge gap have not been resolved. Therefore, although the FPE-perspective does have a positive influence on the development of renewable energy projects because inhabitants feel more fulfillment, it was not fully implemented and a complete solution is not yet reached. In the current administrative system and practical context of power relations, true inclusion needs more effort.

Chapter 6: Conclusions

This thesis aimed to contribute to a greater understanding of energy transition processes. It did so by obtaining insights into the sequence of events that happen during the development of renewable energy projects and the emotional challenges surrounding them. Through an examination of the perspectives of experts and inhabitants, the study seeks to uncover a pathway that understands and mobilizes negative emotions. Additionally, this study discussed current trends of inhabitant inclusion and equality among the involved stakeholders, in order to understand and mobilize negative emotions. These aims are to be achieved by answering the following main question:

What explains inhabitants' negative emotions in spatial transformations for renewable energy projects, and how could we understand and mobilize these emotions for better socio-spatial outcomes?'

The sub-questions that guided the research included examining the sequence and content of events in the development of the Meeden Area, understanding how *Provincie Groningen* approached this development, and exploring the inhabitants' perspective on it. Additionally, the research aimed to understand how both *Provincie Groningen* and the inhabitants plan to address and utilize negative emotions to achieve better socio-spatial outcomes in future renewable energy projects.

6.1 Key findings

First, the key findings of the four sub-questions are presented, followed by an answer to the main research question. The sequence of events in the Meeden Area is characterised by three subsequent phases. First (1990-2008), there was a time of new initiatives and arising conflict: *Provincie Groningen* published the POP2000, which prompted wind entrepreneurs to initiate the building of wind farms next to the N33. This resulted in conflict amongst *Provincie Groningen* and the municipalities of Veendam and Menterwolde, as their disapproval of the wind farm was ignored. In the second phase (2009-2014), both sides of the conflict drew more stakeholders. On the one hand, the interests of *Provincie Groningen* were supported by interference from the national government through the RCR. On the other hand, the inhabitants of the municipalities organised themselves in protest groups: first *Tegenwind*, then *Storm Meeden*. The first expressed its dissent through formal procedures, but was unsuccesful, which led *Storm Meeden* to adopt a protesting strategy that rejected the system of the RCR in its totality. Therefore the second phase is described by perseverance and protest. The third and last phase (2015-present) is one of irrevocable decisionmaking and ideas for a solar farm. The wind farm was irrevocably pushed forward by the national authorities, even though inhabitants opted for building a solar farm instead of a wind farm. In the end, their disapproval of *Windpark N33* remained ignored, and they ended up with both the wind farm and the solar farm. This sparked the citizen of Meeden to initiate *Coöperatie Eekerpolder*. The founding of all three citizen initiatives were a response to both the generational trauma of feeling left behind and the recent traumas of not feeling taken seriously in the development of the wind farms. In conclusion, the findings underscore the importance of addressing historical legacies, as they could be headed to a lock-in as the consequence of path dependency.

Second, in the perspective of *Provincie Groningen*, the civil servants have repeatedly stressed that they are not an organisation who works against the population, or against anyone. In their perspective, they serve democratically chosen parties and work indirectly for the interests of local inhabitants. However, the representative democracy portrayed here is not the same as the participatory democracy that the inhabitants desire. It seems that civil servants shield themselves and their policy decisions behind representative democracy, which is easier than implementing a proper participatory democracy. Additionally, it has become clear that whereas the *Provincie Groningen* conveys to the public that they are highly concerned with local needs, in practice they seem to prioritze technical and legal knowledge over local and affective ones. Even though civil servants all agree that the wishes of local inhabitants have to be heard, this listening is often not realized in the bureaucratic process. *Provincie Groningens* perspective focusses mainly on policymaking, not on experiences of living environments. This may be unsurprising considering that *Provincie Groningen* appears to be 'sandwiched' between different kinds of government. While local forces (municipalities, inhabitants, and protest groups) expressed pressure against the wind farm, *Provincie Groningen* operates under a great amount of top-down power from the national government. Energy ambition agreements and RCR-decision prescribe any perspective *Provincie Groningen* is allowed to take. However passive this might seem, results suggest a certain opportunism in meeting the wind energy ambitions despite local opposition by letting the RCR take control. Institutional path dependency and the limits of democratic decision making result in slow and administration-bound development of any project, also the Meeden Area case. It has been suggested that this situation leaves *Provincie Groningen* with limited capacity to improve the situation; with limited options to expand their technical perspective to one of local voices, even though they want to. And they do: the study highlights a growing awareness of societal dynamics and *Provincie Groningens* desire to engage with local communities. However, as this is a slow process, this FPE-like switch in perspective has come too late for the Meeden Area.

Third, the perspective of inhabitants has become increasingly important throughout the years, as inhabitants have gotten involved with spatial developments and the authorities surrounding them. However, it has been shown that the necessary relational resources for successful communication with these authorities have not yet been found. The focus of *Provincie Groningen* on policy, technological aspects and legal procedures differs to such an extent from the themes the inhabitant's experience as important, that the two parties appear to speak in different languages when it comes to planning the same environment. This difference in language is a great frustration for the inhabitants, and problematizes the decision-making and quality of the project. The public frustration rises in an existent atmosphere of distrust. Wrongdoings to the residents of Meeden in the past, combined with the current context of being unheard in their wishes against the wind farm, creates a sense of alienation from their democratic authorities and distrust in the results of top-down projects. In the perspective of inhabitants, *Provincie Groningen* did not support them. Inhabitants cannot see into the complex administrative reality that authorities deal with, which adds to the sense of alienation and powerlessness. Hereby, inhabitants feel marginalized, while it seems like institutions that are already in power are religitimized. This is exemplified by the hosted information evenings from the national government to the residents, where the plan was merely presented as a stated fact, and not actually open for discussion. Nevertheless, inhabitants found several ways to express their dissent. Countering dominant processes, residents formed protest groups from their intimate sphere: *Tegenwind* and *Storm Meeden*.

Tegenwind tried to speak the authorities' language in their protest, by working within the system (e.g. by submitting official objections and arranging conversations with authorities). However, *Storm Meeden* took a more radical perspective, and countered the authorities not by speaking in their language but by speaking from "their heart"; by a rejection of the dominant structures in the form of, for example, the village hall occupation. Unfortunately, it does not seem like these protest groups could dominate the process. The next bottom-up initiative would be *Coöperatie Eekerpolder*, which was more successful in the perspective of the inhabitants. Because *Coöperatie Eekerpolder* enabled the public to have a legal voice in *Zonnepark Eekerpolder*, they experienced more satisfaction than with the wind farm. However, this is only a small step, as the entrenched pragmatism of the government officials remains. Even though *Coöperatie Eekerpolder* is described as having "equal ownership", the residents still perceive the government authorities as way more dominant in shaping the solar project. In conclusion, the FPE-perspective expressed in the equal ownership in *Zonnepark Eekerpolder* has provoked less negative emotions than the top-down and closed process of *Windpark N33.* However, also the equality in the process of the solar farm has not been equal enough, leaving room for a better implementation of the FPE-perspective.

Considering these three main findings, this study has shown that both *Provincie Groningen* and her inhabitants wish to understand and mobilize negative emotions. Both wish for a more cooperative and peaceful process, which would generate less negative emotions and more mutual satisfaction. As described, both parties have already made steps towards this goal. On the one hand, *Provincie Groningen* is observably shifting their focus of communication to stakeholders outside their own institution. This enables broader engagement with local communities. On the other hand, the formation of *Coöperatie Eekerpolder* has created a solid base for inhabitants to engage in the legal processes surrounding *Zonnepark Eekerpolder*. This allows them to find and use their voice. However, it has been observed that these aims do not yet yield the desired result. Even though the inclusive relations and plurality of voices that FPE strives for are being more and more implemented, reality today shows that administrative barriers and knowledge gaps still persist in the Meeden Area. Also the possibility of a powerplay under the RCR is concerning. These administrative barriers are a concrete manifestation of path dependency. *Provincie Groningen* is bound to top-down legislations, imposed by arrangements such as the RCR. These legislations take many years to form and are not easily discarded due to the nature of the democratic system that gave rise to them. When *Provincie Groningen* tried to understand and mobilize negative emotions from inhabitants during the Meeden Area case, it started this attempt too late: as the project was already formed from above, there was no real opportunity to incorporate the inhabitants wishes in the project. This suggests a lock-in, where both *Provincie Groningen* and inhabitants want to change ways, but are not able to.

So, what explains inhabitants' negative emotions in spatial transformations for renewable energy projects, and how could we understand and mobilize these emotions in future projects? Inhabitants' negative emotions regarding spatial transformations for renewable energy projects can be explained by historical neglect, systemic inertia, and a lack of genuine participatory processes. The path dependency of overlooking emotions and social needs has created a lock-in were local communities stay an intimate structure who are overruled by the dominant structures through top-down processes and a power to mobilize. This neglect has created a situation where administrative processes lag significantly behind societal needs, with the focus on addressing emotional responses coming too late. This

neglect, combined with a top-down planning system and a language and knowledge gap between technical experts and local communities, fosters distrust, alianation and frustration. Technical knowledge often dominates the discourse, sidelining local knowledge and emotional concerns, showing insufficient institutional capacity. Individuals are aware of the importance of bridging this gap. Tokenistic participation approaches are perceived as "ticking boxes" which exacerbates feelings of powerlessness and distrust among residents. The administrative reality is far removed from the social reality of communities. However, ignoring emotions will not make them disappear; they are an intrinsic part of the human experience. It is unrealistic to expect inhabitants to suppress their emotions or to ask experts to radically change their systems in a short time frame. However, fostering a culture of mutual listening and respecting the legitimacy of both emotional and technical perspectives is a realistic and necessary step.

To understand an mobilize negative emotions in future projects, it is essential to integrate participatory processes according to the FPE-perspective from the outset that can provide genuine participation and equality. This means allowing more time for thorough community engagement and ensuring that participatory mechanisms are not just symbolic but genuinely influential in shaping outcomes. Bridging the gap between technical expertise and local knowledge requires treating all stakeholders as equals, cultivating trust, and creating inclusive networks. Furthermore, governments need to move beyond mere legal compliance, question existing systems and power structures, and respect inhabitants' perspectives even without a legal mandate. This human-centric approach, grounded in equality and genuine engagement, is key to achieving sustainable and socially acceptable renewable energy projects. It will take time to break through the path dependencies of the administrative reality, but continued efforts to place FPE-perspectives in the start of processes will eventually create new, equal ways of developing large energy projects.

6.2 Recommendations

Next, recommendations for future research and practical implications are discussed. Continuation of this research should include a larger amount of samples to observe, as more data would strengthen the argument. Emotions are highly context-specific and personal, so additional qualitative research on the Meeden Area is recommended. The development of *Zonnepark Eekerpolder* is ongoing, leaving room for follow-up research. Future research in technical energy infrastructure projects should prioritize exploring the social dynamics inherent in these spatial planning developments, as the technical cannot be separated from the social. Investigating the emotions of local inhabitants is crucial. Further case studies should examine how these emotions interact with existing policy structures and governance frameworks, making comparisons possible with this research. Comparative case studies with other top-down developed wind farms would provide valuable insights into the effectiveness of different community engagement and participation approaches. Additionally, examining large-scale local ownership developments compared to traditional governance would offer a comprehensive understanding of the implications of community involvement in energy projects. Such comparative analyses could illuminate best practices and highlight areas for improvement in fostering inclusive renewable energy developments. In short, planning theory should incorporate the emotional responses of local communities as a core component of spatial planning, particularly in renewable energy projects.

Understanding the nuanced emotional responses of communities towards such projects is crucial for effective policy formulation and governance in planning practice. This research provides valuable insights for policymakers, energy developers, and community stakeholders involved in similar renewable energy projects. Greater understanding of the complex reality of spatial transformations into renewable energy projects can better equip stakeholders to contribute effectively. This thesis aimed to inform decision-making and planning processes to support more sustainable and socially acceptable energy transitions. The study raises critical questions about the efficiency of existing participatory frameworks and calls for a reassessment of strategies aimed at fostering genuine community involvement. It prompts reflection on whether a more proactive and inclusive model could yield more meaningful outcomes. Adding an integrator or area manager to government institutions right from the start, for example, would help bridge the gap between experts and inhabitants. Additionally, the challenges associated with shared ownership highlight the complexities of collaborative decision-making processes, underscoring the need for transparent and equitable governance structures. To break the path dependency and truly harness the potential of the FPE-perspective, it should be implemented from the outset rather than at the end of projects. This approach would facilitate genuine participation and equality, although more time is needed to embed it properly into the administrative reality. In short, planning practices should address path dependency by emphasizing early and genuine community involvement to prevent lock-ins, by applying the FPE-perspective from the beginning of projects to ensure that participatory processes are fully embedded in the planning and execution stages. Incorporating feedback loops and regular evaluation points throughout the project lifecycle will be helpful as well as adding an integrator to projects. By addressing these recommendations, both planning theory and practice can evolve to better meet the challenges of integrating technical and emotional dimensions in renewable energy projects.

Chapter 7: Reflections

In this final chapter, I have reflected on the research, including a personal evaluation. This chapter aims to examine what aspects were successful and what could have been approached differently in hindsight. Thereby, it explores the limitations and validity of this research.

7.1 Critical reflection on the research

Initially, when deciding to utilize participant observations for data collection, my intention did not include conducting formal interviews. Instead, I have aimed for more informal conversations with both experts and residents. However, as the research progressed, it became evident to me that conducting interviews would offer a more valid means of data collection as I would be able to properly record the interviews this way. It provided me with the opportunity to literally quote people, which strengthened the results. This realization prompted me to explicitly include interviews in the methodology. Time constraints posed challenges in conducting these interviews, particularly as the thesis draft deadline approached. Looking back, I recognize the importance of conducting more interviews to ensure a comprehensive perspective. Nevertheless, I believe that the inclusion of other data sources, such as direct observations and experiences and document and media analyses, provided a robust foundation for the study.

Similarly, it proved to be more difficult than I thought to find supporting evidence for the claims that experts and inhabitants made. Some required documents were highly detailed and thus difficult to locate. For instance, I encountered difficulty in obtaining a specific letter exchanged between governmental entities regarding the placement of authority during the development of *Windpark N33*. These documents stem from non-digital times, which makes them difficult to find in the digital archives of *Provincie Groningen*. Moreover, archival transitions complicated the issue, resulting in the misplacement of document codes. Therefore, It took a long time to find the documents I was looking for. In hindsight, I should have sought assistance earlier in the process, as that might have helped me conduct more targeted searches, and obtain more comprehensive information.

Despite these challenges, I believe I have effectively presented the multifaceted nature of the issue. Discrepancies between the narratives of residents and experts highlighted the complexity of the topic. I have noticed that the chosen subject, emotions in energy projects, and *Windpark N33* specifically, is a politically sensitive issue. I think I have succeeded in maintaining objectivity in my analysis, acknowledging the perspectives of all stakeholders.

7.2 My positionality in this research

The influence of identity on the understanding of data is described as ‘hermeneutic complexity’ (Nyantakyi-Frimpong, 2021). Being explicit about one’s identity as a researcher and the possible complications or enrichments it might cause, is significant for qualitative case studies. An example of this is that Nyantakyi-Frimpong, as a man, researched women’s experiences in the household concerning climate change and its effects on food security. A fieldwork assistant could get more qualitative data due to her identity as a female, because the researched women were more prone to talking to her than to her male colleague (ibid).

Although in my case, being a female mattered less, my geographical origin might have made a difference in the way I decided about methodology, how I gathered data, and how I analyzed this data. As I was born and raised in the city of Groningen, I did not feel hurt by my surroundings changing drastically due to the energy transition and the siting of solar and wind farms. Additionally, I am studying at the University of Groningen and the contrast that my positionality creates with some of the inhabitants I interviewed, might have caused friction. With the expert interviewees from *Provincie Groningen*, I suspected little complications due to my gender, although I would like to suggest that it could have been unnatural for me to empathize with the dominant, masculine culture of the energy transitions governance institutions. This way, my female, theoretically educated, urban identity could have stood in the way of uncovering the untold, mostly invisible data. Contrary to these constraints, my identity could have also enriched my research. As I mentioned before, I work for *Coöperatie Eekerpolder* and I have seen and heard the emotions surrounding the siting of the wind and solar farm for over a year. Although it takes several years to thoroughly get to know a place and its people (Sillitoe & Bicker, 2004), it provided me with more background stories than the 'normal' amount of time would give me for master thesis data collection.

7.3 Personal evaluation

I started relatively early with the first steps of this research, securing an internship at *Provincie Groningen* and identifying my thesis topic before the summer of 2023. This initial spark is also what kept me going through the tough times. I take my position as a spatial planner quite seriously and feel an intrinsic motivation to make the world better than I found it. When I heard the deeply emotional stories of people who feel left behind because of renewable energy projects, I sincerely wondered where it came from. A few years ago, I would have simply dismissed these emotions as NIMBYism, thinking that the development of renewable energy projects was most important and should be completed, no matter what. In my eyes, this was the only way to save the world and its people of certain death within my lifetime. Currently, my perspective has evolved in that renewable energy is indeed very important, but not at all costs, for example the health and happiness of people directly involved.

The process of writing this thesis was a struggle, to say the least. Although I received quite good scores for the other courses of the masters, this research project turned out to be a big challenge. I have worked hard for all courses, but during the thesis, hard work alone was insufficient; I had to push myself further and seek assistance in structuring my thoughts and adhering to academic conventions. However, finding support proved challenging due to the busy schedules of supervisor and other professionals involved. My dyslexia also may have contributed to the difficulty in translating my ideas into academic sentences.

This research was the last part of my education at the Faculty of Spatial Sciences, where I gained valuable insights into spatial planning principles. I find myself especially interested in climate justice and the energy transition located in a holistic world of complex interactions of which most are social. In this research, I have tried to not negate the complexity of the issue, while keeping it compact and comprehensible. I know there is much more to be said about the institutional structures, emotions, and project timelines of the Meeden Area case. I will have to continue my plea for equality in the climate debate in other ways, after this thesis.

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Appendix

1. Consent form

Verklaring van geïnformeerde toestemming voor participatieve observatie

Naam onderzoeker: Charlotte Breunis | Onder leiding van Ethemcan Turhan

Deze masterscriptie onderzoekt het proces van het bouwen van zonne- en windvelden in de *provincie Groningen* en specifiek de machtsverhoudingen die zich hierin verweven. Het doel van het onderzoek is om de impact van de emotionele kant van het veranderen van landschappen in renewable energie landschappen duidelijker te maken bij beleidsmakers en ontwikkelaars. Hierin staat het verschil in macht centraal. Door kwalitatief onderzoek te doen ga ik op zoek naar de diepere betekenis en oorzaak van dit onderwerp. Dit doe ik door middel van literatuuronderzoek, event sequence analysis en participatieve observaties. Dit heeft betrekking op de organisaties *Provincie Groningen* en de *Coöperatie Eekerpolder*.

Uw organisatie is uitgekozen voor participatieve observaties.

Er is bij mij bekend dat:

a. ik altijd vrij ben om te vragen naar de gemaakte observaties en dat deze dan ook aangeleverd worden;
b. ik altijd vrij ben om aan te geven dat er iets niet meegenomen mag worden in de observatiedata;
c. ik altijd vrij ben om te vragen naar de methoden die gebruikt worden en dat deze dan ook aangeleverd worden;
d. observaties in uw gehele organisatie kunnen plaatsvinden, met uw toestemming;
e. dit onderzoek subjectieve, individuele observaties bevat;
f. de eventuele weigering van medewerking geen negatieve gevolgen heeft voor mij;
g. mijn deelname aan de observaties geheel anoniem zal zijn door het vervangen van mijn identiteit door een code;
h. de verzamelde observaties of mijn identiteit niet worden gedeeld met derden;
i. dit onderzoek geheel in lijn is met de ethische voorwaarden van de Rijksuniversiteit Groningen (zie https://www.rug.nl/about-ug/policy-andstrategy/research-ethics/?lang=en)

Zou u alstublieft toestemming willen geven dat:

1. U geïnformeerd bent over het doel van dit onderzoek;
2. U akkoord bent dat u wordt geobserveerd en dat de verworven observaties anoniem worden verwerkt;
3. U toestemming geeft dat observaties gebruikt kunnen worden als input voor het onderzoek en dat dit onderzoek eventueel gepubliceerd kan worden.

Datum _____

Handtekening _____

Als u vindt dat u tijdens deze observaties onjuist bent behandeld, dan kunt u contact opnemen met mijn thesisbegeleider, Dr. Ethemcan Turhan (e.turhan@rug.nl), Assistant Professor van Milieuplanning bij Rijksuniversiteit Groningen.

2. Interview guide

Introductie
Hallo, ik ben Charlotte Breunis en ik studeer momenteel voor mijn masterdiploma in planologie aan de Rijksuniversiteit Groningen. Het afsluitende onderdeel van mijn studie is het schrijven van een afstudeeronderzoek, waarvoor wij nu met elkaar in gesprek zijn. Ik wil je bij voorbaat bedanken voor je tijd en hulp bij mijn onderzoek. In dit onderzoek kijk ik naar de negatieve emoties van mensen door de ontwikkeling van energieprojecten en hoe deze eventueel voorkomen kunnen worden.

Voordat we van start gaan, wil ik graag nogmaals vragen of u ermee instemt dat dit interview wordt opgenomen.
~ opname beginnen ~
Tijdens het gesprek kunt u mij op elk moment onderbreken als u vragen of opmerkingen heeft, of als u het gesprek wilt beëindigen. Heeft u nog vragen voordat we beginnen?

Vragen
1. Wat was uw rol bij de ontwikkeling in het wind- / zonneproject?
    a. Hoe was je betrokken bij het wind /zonneproject?
2. Er waren veel protesten bij de ontwikkeling van het windproject. Hoe heb je dat beleefd? En nu is er een coöperatie voor de zon, hoe zie je dat?
3. Was Provincie Groningen / inwoners, als organisatie, bekwaam genoeg om om te gaan met het windproject?
4. Had Provincie Groningen / inwoners een goede integratie van kennis tussen verschillende kennisvelden?
5. Welke partijen waren er allemaal betrokken bij het wind- / zonneproject?
    a. was dat genoeg?
6. Heeft Provincie Groningen goed gebruikgemaakt van lokale kennis en ervaringen?
7. Bestond er vertrouwen tussen die partijen?
8. Spraken deze betrokkenen dezelfde taal?
9. Was er een gedeelde definitie van het probleem?
10. Hebben jullie het proces geëvalueerd of erop gereflecteerd?
11. Wil je nog iets anders vertellen of kwijt?

Einde
Dank u wel voor uw tijd en voor het beantwoorden van mijn vragen. Is er nog een aspect waar u graag verder op zou willen ingaan? Of heeft u misschien andere vragen of opmerkingen? Mocht u later nog vragen of opmerkingen hebben over het interview zelf of over uw deelname aan het onderzoek, dan kunt u altijd contact met mij opnemen. Nogmaals hartelijk dank!