Resistance to Wind Power Development in Norway: Exploring Power, Knowledge Production and Injustice at Fosen and Frøya.

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Abstract

In the process of transforming and adapting society to climate change, building wind power parks is integral to the Norwegian strategy for a green transition. Over the last years, growing resistance to wind power development in Norway has occurred, the protesters are questioning the industry's green reputation. Conflicts of green transformation have long been recognized as containing vital elements of societal-nature conflict, which might come off as contradictory when the rising temperature caused by CO2 emissions is changing the weather and conditions globally. The thesis uses a qualitative case methodology to explore why the resistance to wind power in Norway occurs from a political, ecological perspective, looking at the perceptions of justice regarding the conflict among local activists, indigenous reindeer herders, and environmentalists at Fosen and Frøya, Trøndelag. Following Schlosberg's (2004, 2007) typology of environmental justice, three significant environmental justice perspectives were identified in the conflict; distribution, recognition, and participation. The thesis finds that the extent to which protesters regard land-use as just and fair is a crucial social dimension of the conflict. Moreover, the resistance also relates to broader socio-economic processes such as accumulation by dispossession, as the rural municipalities may not have a real chance to say no to wind power development to secure employment and industry to stop outmigration from the districts. The thesis's results suggest that the knowledge gaps in the Norwegian government institutions oversee the development, the Norwegian Water Resources, and Energy Directorate and the Ministry of Petroleum and Energy. Consequently, arguing that wind power development in Sámi reindeer herding areas can be described as green colonialism, a diverter of Norwegian policies' colonial legacy towards the Sámi minority. Furthermore, the findings show that the conflict over wind park development in Norway relates to the commodification of nature and value perceptions regarding natural resources; both at Fosen and Frøya, the resistance relates to ecological justice. Furthermore, this thesis's findings show that NVE and OED are ignoring environmental advice against building wind power at Frøya. In conclusion, this thesis argues that there is a need to decolonize knowledge and include the Sámi indigenous population in the climate change agenda. There is a need to acknowledge environmental advice to achieve a more socially inclusive transition.

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Henrikke Sæthre Ellingsen

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List of abbreviations, acronyms and Norwegian translations

CERD - UN Committee on the Elimination of Racial Discrimination
ENGO - Environmental Non-Governmental Organization
EJ - Environmental Justice
Frostating Court of Appeal - Frostating lagmannsrett
GC - Green Certificates
GHG - Greenhouse Gasses
IEA - International Energy Agency
IPCC - Intergovernmental Panel on Climate Change
RES - Renewable Energy Systems
RES-E - Renewable Energy Sources
MD - Miljødirektoratet/ The Norwegian Environmental Agency
NNV - Friends of the Earth Norway/Naturvernforbundet
NVE - Norsk Vassdrag- og Energidirektorat/ Norwegian Water Resources and Energy Directorate
NSR - Norske Samers Riksforbund/ Norwegian Sámi National Association
OED - Ministry of Petroleum and Energy in Norway
SSB - Norwegian Statistical Bureau/Statistisk Sentralbyrå

1 Introduction

"(...) perhaps the great commitment to nature is a reaction to the fact that we miss the deeper ecological movements (...), where nature conservation is not just a single issue, but also an inherent system critique" (Interview Aslak 26.06.2020).

Today's environmental issues have profound social, political, and ethical significance for society, which includes the energy sector. At the heart of a transformation to a low-carbon society is the decarbonization of the energy system and the increased deployment of renewable energy sources (RES) (Szulecki 2018: 22). Nevertheless, what is less often acknowledged is that a change in energy systems impacts the heart of the organization of the society as we know it; a push for energy transformation does not come without costs, heated debates, and as justice theory emphasize, the production of winners and losers (Fuller 2019).

In Norway, the push for renewable energy has resulted in wind power development across the coastline. The Norwegian coastline has a stable supply of wind and is, in this way, ideal for energy production based on wind. However, wind power development is highly contested in the rural areas where the wind power industry complexes are placed. In addition, some of the complexes are placed in Sámi indigenous territory, where reindeer herders now fight for the right to use the land. In the context of the urgent need for renewable energy, the indigenous and local resistance to wind power development seems contradictory. The question is then; why is the resistance happening?

The thesis argues for the need to locate climate change with broader contestations of unequal social and environmental relations. Processes like carbon emissions and global warming are intertwined with unequal social and environmental relations which neoliberal globalization depends upon (Featherstone 2015: 46). New knowledge about societal, political, and judicial aspects are needed to better understand both the social and political implications of renewable energy development today. In Norway, the transition to renewable energy sources is relatively new and underdeveloped; thus, scientific research on the consequences and social effects of the transition is still under development. Creating a low-carbon society is one of today's biggest challenges. Time is of the essence; a rise in temperature will lead to

unprecedented consequences for life on earth. The science is precise: we are facing an unprecedented global emergency. We must act now; the question is, how?

1.1 Main research question

The aim of the thesis is threefold; first, I want to look at the impact wind power development has on Frøya and Fosen to understand why the locals are opposing the projects. Second, I want to establish which mechanism(s) provide(s) the best explanation for the injustice that is taking place in Norway in the context of my cases and how the mechanisms are affecting local livelihoods (Blaike 2007; Swadner and Mutua 2008). Third, I want to explore the power relations in the wind power sector and explain why the claims of injustice at Fosen and Frøya are not heard. Through a qualitative study, I want to contribute with social science insights on *why* there has been intense opposition to wind park development. Furthermore, I want to explore the potential of social movements to create space for collective action against the commodification of nature through a case study of the resistance against wind parks at Fosen and Frøya (Baxter 2016). I will do this by raising three main research questions:

1. Why is there local resistance against wind park developments in the Norwegian rural areas of Fosen and Frøya?
2. What forms of injustice are taking place at Fosen and Frøya?
3. How does the Norwegian state respond to such claims of injustice at Fosen and Frøya?

Erik Swyngedouw (2010) argues that climate change is constructed as a consensual, post-political issue. Environmentalism is still ignoring the contested power relations, which shape exposure to environmentalism hazards and problems (Featherstone 2015: 46). Hence, I will investigate the power relations at play in state-society relations at Fosen and Frøya. Moreover, I want to look at how the local activists at Frøya and Fosen can address their claims of injustice to a national defined political goal. Furthermore, I want to bring critical conceptualizations of environmental justice to new social and geographical contexts to investigate the production of environmental inequalities in Norway (Holifield, Porter and Walker 2009: 599). In order to do so, I will examine how space and scale matter to the context of wind power development at Frøya and Fosen, and how the framework for critical environmental justice analysis reconfigure spatiality (ibid: 592).

When framing of environmental issues as inherently social leads to the notion that there will always be a social production of justice concerning climate change and biodiversity, both action and lack of action on climate policies are inherently political and will have social effects, creating winners and losers. As societies have started to transform to low-carbon energy systems, social and ecological issues have emerged. In this way, the conflict surrounding wind power development policy in Norway lies at the intersection of human-wildlife conflict and environmental justice. At Frøya and Fosen, the wind power development's social and environmental implications relate to land-use, ecological justice for biodiversity, and Sámi rights relating to reindeer herding. In this way, the conflict relates to the political ecology of environmental degradation and the social outcomes of climate mitigation policies. I draw on conceptualizations from environmental justice. The focus here is on redistribution, recognition, and participation, which address access to political power and access to the territory.

Defining *environmental justice* (EJ) has been attempted by numerous academics in environmental, political theory (Schlosberg 2004: 517). Despite its seemingly universal appeal, the concept has emerged in a rather specific socio-political context; local legal battles in the U.S where to place polluting waste (Szulecki 2018: 6). From a theoretical perspective, EJ addresses environmental risks within human communities and ecological justice; thus, the theory is focused on the relationship between those human communities and the rest of the natural world (Schlosberg 2007: 3). Moreover, the theory tries to capture the relation between nature and society and how it produces justice and injustice outcomes. Hence, attention to distribution and cultural recognition and participation is essential in analyzing environmental issues.

The second aim is to look at how the local resistance against wind park development changes the concept and treatment of environmental justice in Norway through the analysis. All environmental actions are embedded within social fields of power and political economies that shape both the social and ecological outcomes of such interventions. Thus, the thesis argues that one of capitalism's main projects has been transforming *nature into a profit-generating commodity* and will further explore what social implications the transformation has had on rural areas in Norway. With this in mind, the analysis explores how wind energy development serves as a capitalist strategy of grabbing land and natural resources resulting in

'accumulation by wind energy,' a process producing social marginalization and Sámi reindeer vulnerability herders and rural areas (Siamanta and Dunlap 2019: 926). As my analysis shows, this relates to how power, political change, and energy transformation produce losers and winners, as political change is never neutral. The paper's normative argument is that the multidimensional process of energy transition needs to be socially inclusive to achieve just distribution of risks and avoid a situation where disadvantaged groups in rural areas are denied access to resources and full participation in social and political life. Concluding the introduction, I now turn to why the cases were chosen, the scope of the paper, and its limitations.

1.2 Cases and scope of the research

The empirical data is concentrated on developing wind parks at Fosen and Frøya, situated in the Norwegian county, Trøndelag, to answer the research questions in this thesis (NRK 2019a). Empirically there are similarities with other cases on wind park development, such as access to land and how the ability to exploit wind resources by transnational companies or by the Norwegian state for capital accumulation, intensifying the social inequality and ecological degradation engendered by the existing trajectories of economic development (Siamanta and Dunlap 2019).

At first glance, wind parks, built on its 'green' reputation, would appear to be an industry where environmental injustice claims would be out of the question (Holifield, Porter and Walker 2009: 604). However, at Fosen and Frøya, a conflict in the land-use has brought environmental inequalities into the light. The wind parks are massive interventions in the natural environment at both locations. At Frøya, the wind park is planned and under construction in an area with mire, already acknowledged as an endangered species and protected by the Norwegian Nature Diversity Act as essential to conserving because of the species' remarkable ability to capture and store CO_2 (Lovdata 2009). By building infrastructure, both in terms of roads and turbines, large areas of mire are dried out in Nessadalen, resulting in the loss of the mires function to capture CO_2 and at the same time releasing all the carbon stored in the mire for the last 12.000 years (Bartlett et al. 2020). Furthermore, the local activists at Frøya question if the constructions are as 'unavoidable' as presented by the Norwegian government and national energy companies as the consequences for nature and the mire are incredibly harmful (ibid; White Paper 28). In addition to being a problem in the context of CO_2 emissions and biodiversity, there is evidence of enormous

indigenous cultural costs when developing a wind park industry. At Fosen, 300 of the turbines are built in reindeer pasture areas of the Sámi people living there (NRK 2018). The Sámi people with reindeers grazing in the area now run the risk of reducing the number of animals significantly, or in a worst-case scenario, they have to stop reindeer herding altogether, as a direct consequence of the establishment of wind power parks in the area.

There are advantages of using case-study research to investigate the resistance to wind power development. As the analysis shows, case-studies can unveil what is at stake and the people behind figures in climate reports, as there is much research on climate change that is technical and abstract. I argue that it is easier for authorities to write off public reports or environmental advice than avoid testimonies such as those in this thesis's analysis. In this way, this thesis is not only about socio-nature relations, but also about connection to places and communities, identity, emotions, concerns, and the strain the wind power development has on people, who have so far been written off in the Norwegian public discourse as fierce opponents of climate measures.

1.1.2 Limitations of the thesis

Both theoretical and practical implications inform the decision to cover two cases. Theoretically, I knew that the cases had a similar lack of participation in the process and the following experiences of disempowerment by information easily accessed through national media coverage (NRK 2019b; NRK Sápmi 2017). Moreover, there were different elements between the two cases that were obvious from the start, as the reindeer herders at Fosen are indigenous Sámi. In the analysis, I contrast and compare these elements in detail. Practically, Fosen and Frøya are geographically close to one another, and because fieldwork is time-consuming and expensive, particularly in Norway, this was the best choice for me when traveling by train.

Furthermore, the wind power development in Norway is highly contested from all political aspects; the paper's scope was narrowed down to exploring the knowledge production on a green transition of the Norwegian state and government, contrasted with the local knowledge on the outcomes and consequences of the policy.

1.3 Energy transition

An energy transition in this thesis refers to a change in the overall or parts of the energy system. Accordingly, Alanne and Saari (2006:641) defines 'energy systems' itself as "The energy chain that can be regarded as an entity consisting of energy production, conversion, transmission, and consumption." According to the UN Intergovernmental Panel on Climate Change (2012), energy transition intervenes in all social areas and requires interdisciplinary cooperation. Furthermore, Grübler, Wilson, and Nemet (2016: 18) defines an energy transition as a structural transition as it is "A change in the state of an energy system instead of a change in individual energy technology or fuel sources". Thus, comprehensive electrical systems are complex socio-technical systems that go beyond physical infrastructure and natural science. Consequently, a renewable energy transition relies upon profound political, economic, social, and technological changes associated with the energy system (Alanne and Saari 2006). One of the core discussions in the scientific literature within social science concerns how society can transition to a low-carbon society in a socially inclusive way. Renewable energy cannot be developed at the expense of biodiversity and indigenous rights, and should not increase inequality (Intergovernmental Panel on Climate Change 2012; IPBES 2019; ILO 1989). It is clear then; green industrialization must thoroughly discuss what a just transition means and for whom the transition benefits.

1.4 The Political Ecology of energy transition

Energy transitions raise several justice issues which demand analysis: The commodification of nature and how inherent values of nature are reduced to their profitability, uneven distribution of impacts of environmental destruction and land use, often corresponding to existing social and political inequalities, and the abilities of different groups to influence political debates on energy issues. I draw on critical literature bodies to work through these issues, such as political ecology, environmental justice, and related debates around land grabbing. Here I present an overview of the larger scales of analysis. In chapter 3, I dig more deeply into environmental justice and space debates to derive five themes upon which I base my analysis of the Frøya and Fosen cases.

Political ecologists have drawn attention to uneven power relations within capitalist societies on several levels. At the broadest level, critical political ecology draws attention to how capitalist processes lead to commodification, marketization, and the financialization of nonhuman nature and how these processes are altering access to land and natural resources on a global scale (Siamanta and Dunlap 2019: 927). The commodification of nature refers to how society values nature and highlights the socio-nature relations under capitalism (Wright 2010). Moreover, commodification, in general, also refers to the shift of production from the state to the capitalist market, giving space and power to transnational corporations to profit from nature. In a capitalist mode of production, nonrenewable natural resources are systematically underpriced in the market since their value to people in the future is not registered in the dynamics of supply and demand in the present (ibid: 69-70). The result is that actors in capitalist markets over-consume resources. Capitalist markets are inherently organized around relatively short time-horizons. Thus, the only way that future generations' value of these resources can be taken into account in decisions about present uses is through the imposition of constraints on capitalism, state, or organized social forces (ibid). It is important to note that the critique of commodification is not unique to capitalism alone. However, the critique is instead that the implications are likely to be incredibly intense and challenging to counteract under capitalism, under the centrality of private, profit-seeking motivations in the operation of the capitalist market and the conflictual character of capitalist class relations, and in this way contribute to an uneven geographical development (ibid; Harvey 1996).

Furthermore, political ecologists draw attention to access and control questions over resources and how these are unevenly distributed. An energy transition involves land-use issues, as new areas for industrial development are needed and, in some cases, co-opted. Changes in land-use and the reduction of areas with nature are presented as the main threat to the world's species and biodiversity, globally, nationally, and locally (IPBES 2019). Without robust and healthy ecosystems, it will be impossible to slow down climate change. Therefore, society must manage to reduce and eventually phase out fossil energy use to ensure the diversity of nature and functioning ecosystems. In addition to being an ever-increasing threat to nature, land-use and 'grabbing of land' has social and political implications, often leading to questions of social justice and the production of vulnerability. In a Norwegian context, land-use conflicts constitute large wind power development projects where the Norwegian state is at large, grabbing land from the indigenous population, producing vulnerability in

rural communities, both in terms of economic implications concerning the ability to adapt to climate change. The development has particular consequences for the indigenous Sámi reindeer herders at Fosen as they have lost grazing areas to the wind power complexes. I will elaborate on this point in the analysis.

An intrinsic part of political ecology is advocating for fundamental changes in the management of nature and people's rights (Watts 2000: Robbins 2012:13). A standard political-ecological premise is that 'environmental changes and ecological conditions are the product of political processes' (Robbins 2012:19-20). The actors involved in a specific phenomenon are often studied, emphasizing systems of power, politics, and injustice (Peet et al. 2011). In this way, a transition in energy systems cannot be understood in isolation from the political and economic contexts within which they are created and the related power dynamic (Bryant and Bailey 1997: Robbins 2004). As shown in the analysis, the term 'green transition' is underpinned by social, political, and economic conditions. Thus, the weighing of different interests and values, in any case, raises challenges. Experiences from long-lasting local conflicts regarding grid development suggest that the traditional top-down approach is insufficient, and calls are made for increased and improved public involvement and participation in decision-making (Ruud, Haug, and Lafferty 2011; Knudsen et al. 2015). However, these issues are compounded when 'the public' is understood as being uneven with different groups having different abilities to exercise power. This thesis draws on political-ecological analysis to help capture this unevenness and fundamental nature-society dilemmas that wind power development raises.

1.5 Summing up

As displayed through the introduction, the problem of socially inclusive transitions to renewable energy sources is a complex process. The conflict must be placed with broader contestation of unequal social and environmental relations to understand the local resistance against wind power development at Fosen and Frøya (Featherstone 2013: 44). For this thesis, the essential questions are then; what are the social costs in environmental issues, who gets what; which values are recognized to achieve justice. As shown in the analysis, these are questions relating to knowledge production of the issues at hand, consensus, and knowledge gaps about the social implications the development has had. Thus, further exploration of the questions occurs in chapter 3, and then again in chapters 5 and 6.

1.6 Outline of the thesis

Chapter 2 provides the background for the energy transition in Norway and gives an account for the context of the social resistance against wind power development in Norway, first at the national level and then zooming in on this thesis's cases, Frøya, and Fosen, Trøndelag. The chapter elaborates on the policies of Green Certificates and legal frameworks related to cases giving an account of the techno-economic elements will first be introduced to describe the current energy system in Norway before turning to the processes' specifics Frøya and Fosen.

Chapter 3 presents and discusses the theoretical concepts of Environmental Justice concerning political ecology and accumulation by dispossession, guiding my thesis's analytical framework.

Chapter 3 presents the methodological perspective and methods of my thesis. The chapter aims to give a truthful and extensive account of the research design. I critically engage with and discuss the methodological implications in the study before I reflect on the qualitative methods, the gathering of data, the analytical approaches, and ethical considerations applied during the fieldwork. I also present conceptualizations of the thematic themes used in chapter 5 for the thematic analysis.

Chapter 5 is the thematic analysis of my thesis, where I analyze the data using my analytical framework. Thematic themes derived from the theoretical framework are used here to give context to my data material systematically.

In **Chapter 6,** I discuss the implications of the findings from chapter five. In this chapter, I seek to answer my main research questions presented in chapter one. I focus on the four theoretical themes of distribution, accumulation by dispossession, recognition, and participation.

In **Chapter 7,** I summarize and conclude the findings of the thesis. I present the main findings and argue that the research presented is a valuable contribution to the field of Human Geography and social science, as in particular, I have attempted to couple my research to the debate on decolonizing knowledge.

2 Energy transition in Norway

This chapter provides the relevant background information on energy transition and the subsequent wind power development in Norway. First, the chapter frames why renewable energy sources are needed in Norway and why this is happening now. Furthermore, the chapter presents the history of the conflicts over land and natural resources, then a section on policies and structural factors shaping the process, before a section with background information on Frøya and Fosen is given. The chapter aims to give context to understand the historical, institutional, and structural factors influencing the conflict surrounding wind power. The following section will shed further light on the political and social issues involved in the renewable energy transition from a political-ecological view.

2.1 Background: Energy transition in Norway

Curtailing CO_2 emissions demands a transition in energy production away from fossil fuels towards renewable energy sources. Due to aging infrastructure, limited fossil energy resources, and diverse energy production externalities such as climate change and biodiversity loss, the energy sector will inevitably have to change (Szulecki 2018: 21). The challenge is to secure access to reliable and sustainable energy at an affordable price for all (IPCC 2012: 7). After decades of hydrocarbon dominance as the primary source of energy for the global economy, there are rising pressures from scientists, social movements, governments, and private actors to move away from fossil fuel dependence to other sources of energy (UNEP 2019). The status quo means that the curtailing of CO_2 emissions relies heavily on the development of renewable energy, as renewable energy transition is perceived as a core element to a successful climate mitigation strategy worldwide.

A politically induced strategy towards a low-carbon energy system has gained force over the last years in Europe, where more renewable energy production is considered a key measure (Knudsen et al. 2015: 299). Moreover, it also appears to be an academic consensus regarding RES as a primary source of energy in the future (European Commission 2016; Funcke and Bauknecht 2016). The Norwegian government sees wind power development as an essential measure in a green transition. The first wind turbine in Norway was completed in 1986. In 2017, the number had grown to 33 wind parks, with an installed 1188 MW capacity corresponding to 3.6 TWh (The Ministry of Petroleum and Energy 2020a). Today, wind

parks account for 3.4% of Norwegian energy production capacity (ibid). As of February 2020, construction on 16 other wind parks had started, with an additional nine being approved by NVE, despite the conflicts which were only intensifying at that point; the development of wind parks in different Norwegian rural areas have met a lot of contention and resistance from local inhabitants in rural areas (Cantero 2019). The conflicts arise in a period of societal change in Norwegian rural areas. The development is happening against the backdrop of a wealthy country with well-established institutions, the lowest population density in Europe, and vast areas of human-modified, but very suitable habitats - so why are there conflicts over wind power development then?

The move towards an energy transition poses challenges related to land-use, distribution of risks, and issues relating to justice. For Fosen and Frøya, the Norwegian national policy for energy transition has resulted in more significant environmental risks and cultural misrecognition of indigenous Sámi rights. The wind power industry's development grabs land in rural areas with a high concentration of mire binding CO_2 and Sámi reindeer grazing areas. From a global perspective, land-grabbing and land reduction are the biggest threat to biodiversity (IPBES 2019). Therefore, land grabbing at both Fosen and Frøya leads to questions of ecological injustice.

Understanding the development from a social science perspective becomes important as human-nature conflicts contain vital elements of social conflicts, and results in what Jacobsen and Linnell (2016: 198) calls human-human conflict. These are conflicts that are superficially concerned with antagonisms between nature/wildlife and humans and are frequently characterized by underlying social conflict. As phrased by Madden (2004: 250), human-nature conflict can become "not the only conflict between humans and wildlife, but also between humans about wildlife." Though this is a distinct advance over the purely technical approach to conflict management, this is an over-simplification. Not only does nature induce conflicts of interest regarding its management, but it can also become a focal point for broader fundamental conflicts between social groups (Nie 2003). Similar to findings concerning the resistance against wolves (*Canis Lupus*) in Norway, resistance against wind power development can also arise from a common perceived need to defend the rural way of life against the cultural expansion of the urbanized middle class (Skogen and Krange 2003; Jacobsen and Linnell 2016; Gulbrandsen 2020).

The Nordic countries are geographically attractive for wind power development (Hovland 2018). Furthermore, investors' highlight low costs for development, a high amount of wind resources, stable political-economic systems, reliable power infrastructure, and much available space to develop large-scale sites (ibid). As in most parts of Europe, the rural areas of Norway face many challenges associated with the transformation of traditional lifestyle based on extensive primary resource use to a modern service economy. For example, the remaining forestry and agricultural activities are becoming more intensive and mechanized (Jacobsen and Linnell 2016: 201). Widespread rural-urban migration is also representing a significant challenge to rural areas. Reindeer herders face additional challenges from loss of grazing lands due to disturbance from infrastructure projects associated with recreation, transport, renewable energy production, and mining (Jacobsen and Linnell 2016: 202). A holistic account for the development shows that wind power does not only produce renewable energy but also depends on rare minerals and soil types and has negative consequences for biodiversity and the indigenous Sámi minority. Thus, at its most basic level, the conflict can be understood to be a conflict between natural science and social science. On a purely technical level, the Norwegian coastline is perfectly suited for wind parks; however, I argue that the Norwegian state and politicians with the power to decide have not taken the social consequences and costs of the development seriously enough, which I further elaborate on in chapter 6.

2.2 The structure of the Norwegian energy sector

This section gives an overview of the energy sector and the different actors taking part in wind power decision-making. The descriptive overview gives further ground for looking at the subsequent sections' policies and laws (see Table 1 below). The Norwegian parliament sets the political framework for energy and water resource management in Norway. The government has the executive authority and performs this with the help of various ministries. The Ministry of Petroleum and Energy (OED) has the overall responsibility for managing energy and water resources in Norway. It is the Ministry's task to ensure that the administration is carried out by the guidelines provided by the Parliament and the Government. Together with the Ministry of Trade and Industry, the MPE has the ownership responsibility for Statkraft SF; a government-owned Energy Company involved in developing specific wind power projects like Fosen. The Norwegian Water Resources and

Energy Directorate (NVE), which is subordinate to the Ministry of Petroleum and Energy, is responsible for managing the domestic energy resources and is the national regulatory authority for the electricity sector.

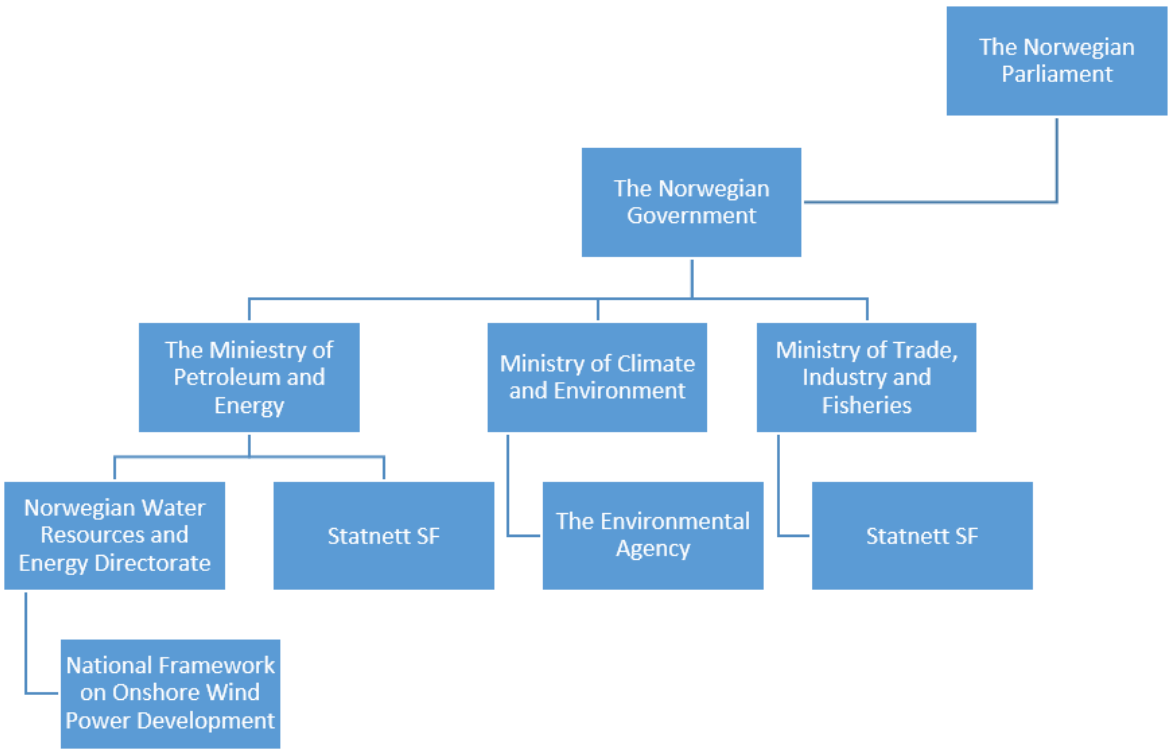

Table 1: The structure of the Norwegian Wind power sector (The Ministry of Petroleum and Energy 2020b).

NVE is also responsible for managing Norway's water resources and taking care of its management tasks within flood and landslide prevention. NVE is engaged in research and development, international development cooperation and is a national professional institution for hydrology. The National Framework for Onshore Wind Power Development was created and provided by NVE in 2019. The framework was intended to provide a national structure, guideline, and coordination strategy for all wind power development projects in Norway. Besides, the Ministry of Local Government and Modernization (KMD) is responsible for planning legislation, the Ministry of Finance is responsible for power plant taxation, various taxes on energy and government expenditure, and lastly (not included in Table 1).

2.2.1 Policy background and legal framework

The EU Directive on the Promotion of Renewable Energy from 2009 is an example of a politically induced strategy towards a low-carbon energy system, with implications for Norwegian energy politics through the EEA agreement; making Norway obliged to increase its share of renewable energy (European Union 2009; Knudsen et al. 2015). It is important to note that Norway is not a part of the European Union; however, directives can be implemented through the EEA agreement. Most of the revenues from energy exported in Norway comes from hydropower, and the inflow to power reservoirs from rain and melted snow has implications for the total power balance. The situation means that Norway may have a power deficit in dry years and depend on imports from neighboring countries. During years with much rainfall, Norway will export power, in this way, offering flexibility and contributing to the energy transition in both the Nordic region and further into Europe (Statkraft 2019). The volatile weather means that hydropower is a volatile energy source. The insecurity has implications for the energy transition in Norway, and thus there is a need for secondary renewable energy sources that can supplement hydropower in dry years. However, the EU directive does not state that wind power development is vital; the Norwegian government chose this strategy as wind power conditions along the coastline are right, as I will show in the analysis. As energy transition is of national concern, the law overseeing the development is the Energy Law (*Energiloven*), which resides in the Ministry of Petroleum and Energy (OED). Moreover, in 2016, the government released a White Paper on energy development called *"*Power for change: Energy policy towards 2030*"* (White Paper 25). The White Paper maps out the potential for wind power and cites an obligation to fulfill the increased efforts for emission reductions from The Paris agreement from 2015, affecting developments in the energy field (White Paper 25: 6). The push for wind power was realized through the White Paper 25 and the green certificates, the latter detailed in the section below.

2.2.2 Green Certificates

The main financial support scheme for building wind parks in Norway are Green Certificates (from here GC). GC was introduced to support renewable energy development in Norway and Sweden and is a technology-neutral incentive (White Paper 25). In Norway, the scheme came into force on 1 January 2012 when the Electricity Certificate Act came into force, and the scheme lasts until 2021. The Norwegian Water Resources and Energy Directorate (NVE)

administers the scheme. The system is a license for developers to buy at the European energy market and then proceed with wind power parks in Norway. The logic behind GC is that in order for a green transition to materialize, substantial investments are required for large-scale installations; hence, subsidies for building renewable energy are still necessary. In 2011, the Norwegian Government committed to having a 67.5% share of renewable energy by the end of 2020 (Bøeng 2011). The green certificate scheme was introduced to achieve the renewable target and to ensure that enough renewable energy industry was built in Norway and Sweden for a green transition to be realized as the technology at that time was expensive and financially risky to develop, so the Norwegian state created a financial framework to give safety. Green technology investments are incredibly expensive initially, and it can take a long time before companies can make a profit. Furthermore, the scheme was developed in a manner where the most profitable projects were realized, regardless of technology and location.

The license lasts for 25 years from the production start and has to be renewed. If a renewal is not granted, the wind park has to be deconstructed. Norwegian environmental organizations contest the green certificates, and the scheme expires in 2021 without any further plans to prolong it (Kolbeinstveit 2009: 7). The protests around the scheme have come from Norwegian ENGOs, fearing biodiversity loss at the expense of economic interests and organizations working with indigenous Sámi rights, fearing cultural heritage loss. Between 2017 and 2021, there has been an abnormally high pace of wind power development in Norway; thus, conflicts have simultaneously escalated. The development had a slow start from the green certificates that came into force in 2012, as wind power development was not cost-efficient or profitable technology at the time. Since 2016, there has been a boom in foreign investors from transnational corporations, which contributed to the projects becoming less economically risky. Even though wind power technology is cost-efficient today, the Government has decided not to prolong the GC because of the conflicts. In May 2019, the Government announced that the goal of renewable energy share had been reached (The Ministry of Petroleum and Energy 2019a). However, the licenses are already given through the National Framework on Onshore Wind Power Development and, in the period from 2012-2021, will not be revoked (ibid).

2.2.3 National Framework for Onshore Wind Power Development

In April 2019, when NVE presented its National Framework on Onshore Wind Power Development (from here National Framework) where 13 areas were highlighted as particularly suitable for wind energy development. The framework is based on the White Paper 25 made by the Ministry of Petroleum and Energy. Half a year later, in October 2019, the Norwegian Ministry of Petroleum and Energy scrapped the plan (The Ministry of Petroleum and Energy 2019b). The framework had received 4000 responses on different projects. Out of the 97 municipalities located within the National Framework, only two were positive towards wind energy development in their municipalities (Pedersen 2019). After scrapping the National Framework, the Ministry of Petroleum and Energy released a new White Paper called *"*Wind power on land: Changes in the licensing process*"* (White Paper 28). Nessadalen at Frøya was designated as an area for development in 2004, the license was given in 2012, and the construction started in early 2019. At Fosen, the development started at Storheia in 2016, then expanded to include three other parks at Roan, Harabakfjellet, and Kvenndalsfjellet. The development will be elaborated in detail in subsequent sections 2.3.1 Wind Power Development at Frøya and 2.3.2 Wind Power Development at Fosen.

2.2.4 Legal Framework

Norway has ratified The Convention on Biological Diversity (from here CBD), known informally as the Biodiversity Convention. The Convention has three main goals: the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits from genetic resources (United Nations Convention on Biological Diversity 1992). The treaty's object is for states to make national plans based on the CBD Aichi-goals on preserving biodiversity from 2010. In 2016 the Ministry of Climate and Environment released a White Paper called "Nature for life: a Norwegian action plan for biodiversity" based on the CBD Aichi-goals (White Paper 14). Moreover, in 2009 The Biodiversity Act (*Naturmangfoldsloven*) was passed in parliament. Thus, Norway has made both international and national obligations to conserve biodiversity sustainably. For the local activists at Frøya, these obligations are essential, as the value of mire for cutting CO_2 emissions are evident. I will elaborate on this in the analysis.

Furthermore, Norway has also ratified international conventions on indigenous rights, such as 'the UN International Covenant on Civil and Political Rights' from 1966, the ILO convention 169 from 1989, and the UN Declaration on the Rights of Indigenous Peoples, from 2007. The latter declaration states:

> "*Recognizing the urgent need to respect and promote the inherent rights of indigenous peoples which derive from their political, economic and social structures and their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources*" (United Nations Human Rights 2007:2).

The Norwegian government was part-taking in making the declaration, stating that the goal was to create a declaration that can contribute to strengthened legal protection for the world's indigenous peoples (The Ministry of Local Government and Modernization 2020). As the analysis shows, for the reindeer herders at Fosen, the legal protection of rights is essential; however, their experience is that the government is violating their indigenous rights when developing wind power.

2.3 Trøndelag

The county of Trøndelag is located in the central parts of Norway (See Figure 1). It comprises 42,201.59 km2, and the county is divided into 38 municipalities, where Frøya and Åfjord (in this paper referred to as Fosen) are two of them. Traditionally, Trøndelag is known as one of Norway's most fertile areas, and agricultural production revolves around dairy and meat. Of the 13 areas designated for wind power development in the National Framework, three were situated in Trøndelag. A total of 29 123 square kilometers were pointed out for development in Norway, and 11,866 square kilometers were in Trøndelag. In Norway, Trøndelag is the county with the most planned wind turbine projects due to the natural conditions that allow for a lot of wind in the area (Norwegian Water Resources and Energy Directorate 2019).

2.3.1 Wind power development at Frøya

Frøya is the westernmost municipality in Trøndelag County. The island of Frøya is located outside the peninsular of Fosen. The village of Sistranda is the administrative center of Frøya. Other villages include Hammarvika, Titran, Sula, and Mausund. The population of Frøya consists of 5,151 people (Frøya Kommune 2020).

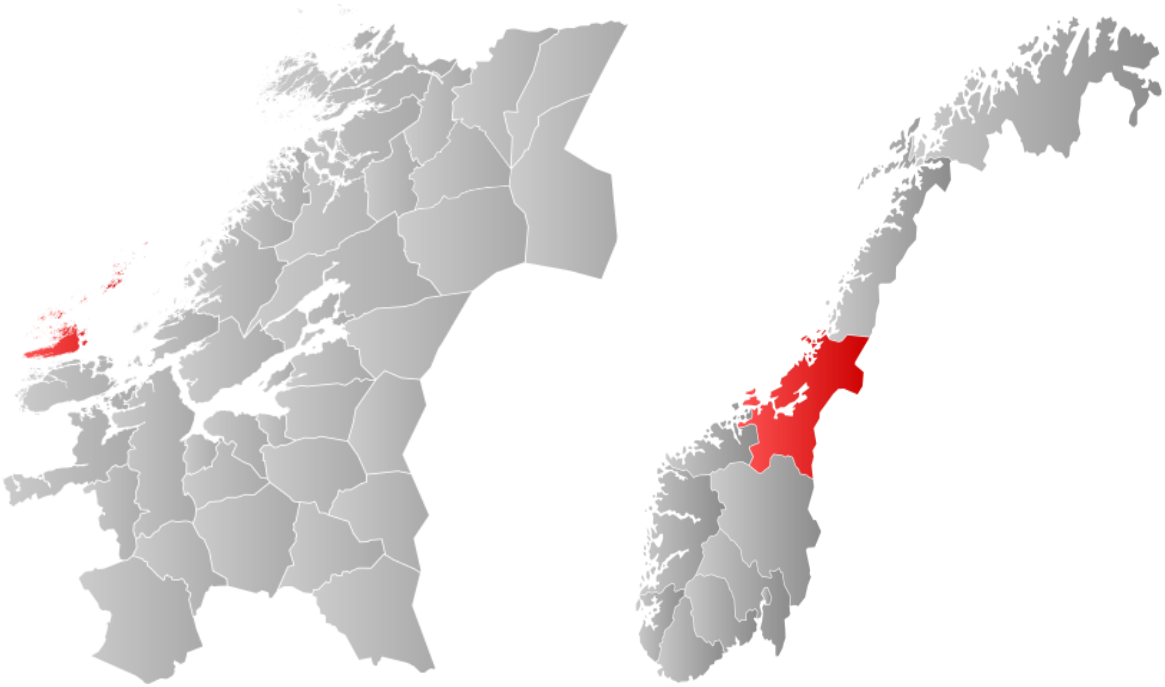

Figure 1: Map showing the position of the municipality of Frøya within the county of Trøndelag in Norway (Bjarkan 2017).

Frøya Wind Park is located in Frøya municipality. In 2004 came the first application to develop a wind power park at Frøya. However, the project fell through as the developers did not have enough capital to invest in the project, and wind power was still considered a risky investment without guarantees for profit. The second license was applied for and granted in 2012 by NVE. However, the decision was appealed, and the Ministry of Petroleum and Energy granted final permission in August 2013. The construction start was delayed as finance for the project was needed. In 2016, an exemption was given by the County Governor in Trøndelag, pushing the last day to start construction to April 1st, 2019 (Pedersen 2019). Thus, construction started around April 1st, 2019, and will be completed by the end of 2020. Today, TrønderEnergi is the overall project manager for the wind park and owns 30%, while the German municipal company, Stadtwerke München, holds the position as investors and

owns the remaining 70% of the project (Moe 2019). Furthermore, the development also includes necessary associated infrastructure such as roads, foundations, cranes, and installation sites, an internal 22 kV cable system, operation, and maintenance center and transformer station, making it an industrial complex. The planned area covers 6.6 km2. The licensed performance is 60 MW installed capacity, with an expected annual production of 201.8 GWh (TrønderEnergi 2019).

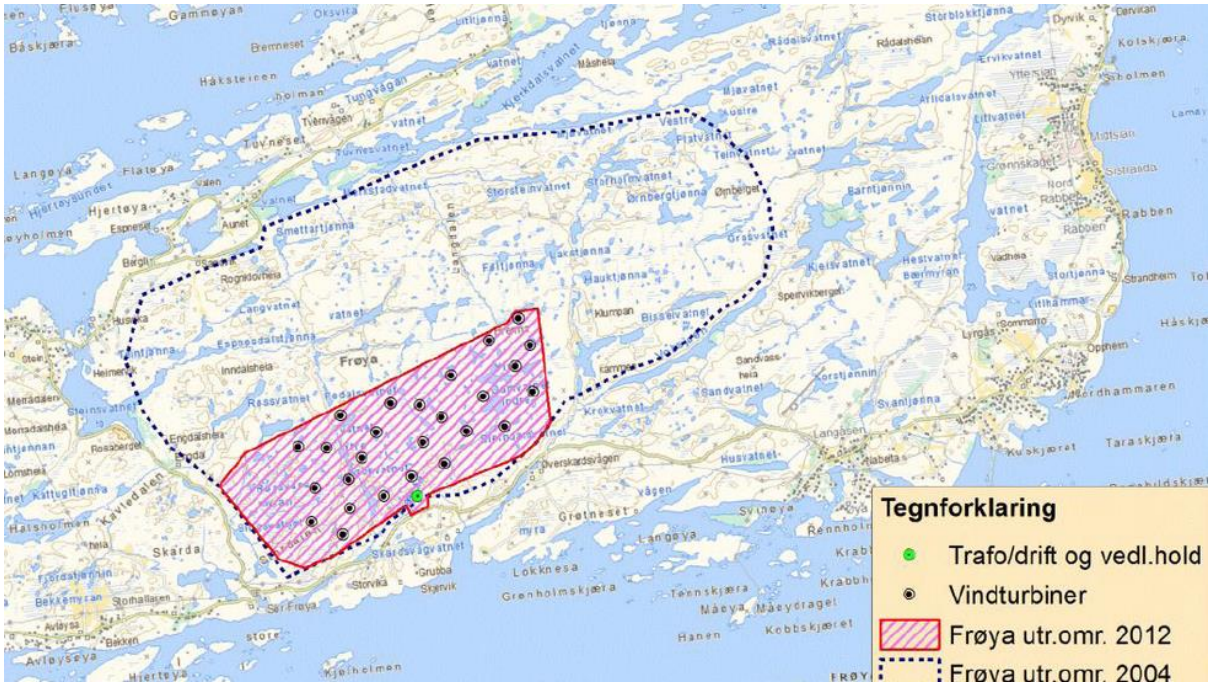

Figure 2: Map showing the wind park at Frøya. The red square is the result after revising the plan in 2012. (Hitra-Frøya 2018).

The protests against the proposed plan at Frøya started from the very beginning. In 2005 the first local referendum about wind power development was held, where 51, 4%, 1.177 voted yes and 48, 6%, 1.114 voted no (Kommunal Rapport 2005). In 2019 a second referendum, only five days after the project was set to start, and this time the results showed a more negative attitude towards the development; 78, 7% voted no. It should be noted that the voter turnout was at 48, 2% (Norwegian Statistical Bureau 2020). The second referendum has been a subject for much contention; the people for the development deemed the referendum invalid because of the total turnout being less than 50%. At the time around the second referendum, there were also disputes about the project's validity because the first referendum was over ten years old. Moreover, the developers applied for a time exemption to delay construction start and were given by the county Governor in Trøndelag (Viseth 2019). Construction was set to

begin April 1st, 2019, when the county Governor's exemption in Trøndelag ran out. By then, TrønderEnergi had placed an excavator at the building site, without it being in operation. The process has caused disputes over the project's validity, as I will detail in the analysis in chapter 5.

2.3.2 Wind power development at Fosen

Located at a peninsular outside of Fosen, the municipality of Åfjord lies at the middle to the west coast of Fosen (see Figure 3). Åfjord municipality is today by far the largest reindeer-grazing municipality at Fosen, as the entire municipality is defined as a pasture area for reindeer (Åfjord Kommune 2020). The Sámi population lives in the subarctic north of Fennoscandia, in Sápmi (see Figure 4 below).

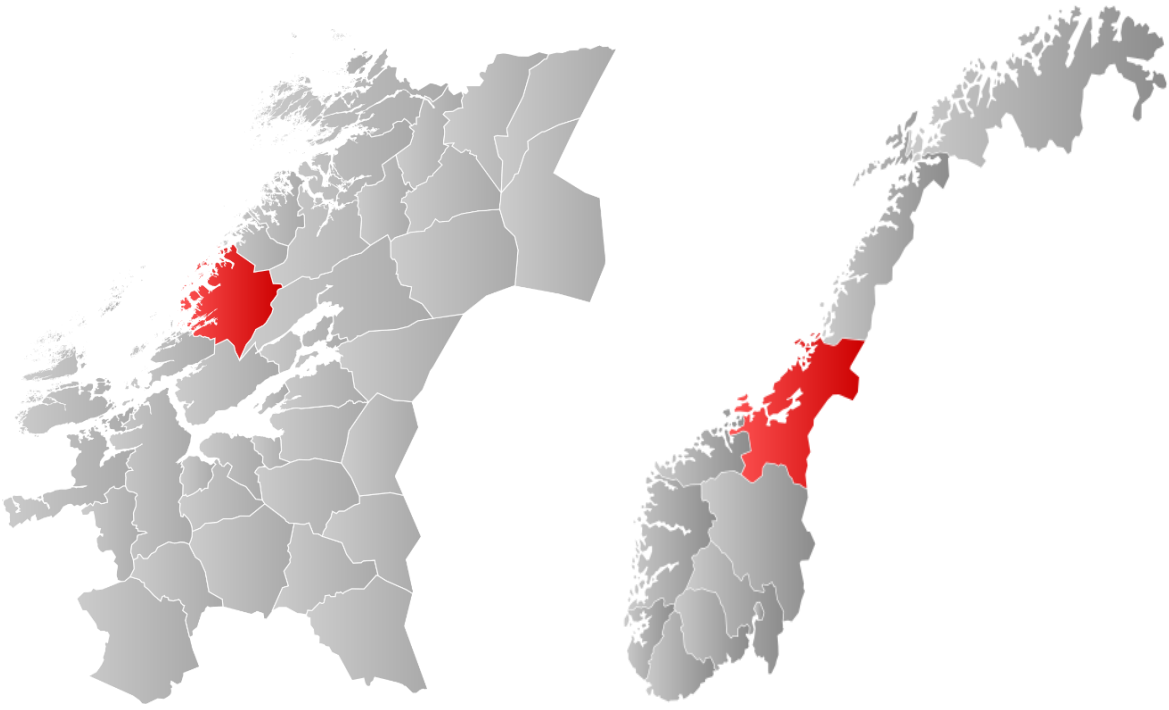

Figure 3: Map showing the position of the municipality of Åfjord within the county of Trøndelag in Norway (Bjarkan 2017)

Figure 4: Map situating Sápmi (Wråkberg and Granqvist 2014:83)

In the past, the Sámi people have hunted, gathered, fished, and herded reindeer. The cultural-landscape has been central to the Sámi lives and livelihoods (Joks, Østmo and Law 2020: 306). In the 16th and 17th centuries, the Sámi developed an innovative livelihood of pastoralism based on semi-domesticated herds of reindeer. By combining this lifestyle with continued hunting and fishing, the Sámi could both transform and maintain their culture (Wråkberg and Granqvist 2014: 83). Overall, this is still the case for many. Simultaneously, for at least 400 years, brutal and racist forms of colonialism have marginalized Sámi people throughout Scandinavia. In Norway, a policy of assimilating the Sámi population by forbidding Sámi languages and culture was long practiced. The Sámi relation to land has also been subjected to assimilation through expropriation and the Norwegian state intervening in reindeer herding practices. The Reindeer Herding Act from 2007 stipulates, among other things, provisions for upper reindeer numbers. In 2018, after three court cases, Jovssat Ante Sara was forced by the Norwegian state to reduce his reindeer herd from about 350 to 75 animals. The decision was based on what the Norwegian state saw as violating their fixed upper limits of the number of reindeer allowed within each pasture district. Sara had too

many reindeers, his pasture district, Fálá in Finnmark, was over the fixed limit (NRK Sápmi 2018).

Moreover, the Sámi reindeer herding area in Norway is a continuous area from Hedmark to Finnmark. However, the reality does not look like that, as many reindeer herders have had their areas fragmented over time into many small pieces by several development projects with massive land-use interventions. Previous research points out that reindeer herders face challenges from loss of grazing areas to a plethora of issues from infrastructure projects associated with recreation, the building of cottages, roads for transport, renewable energy production, and mining (Jacobsen and Linnell 2016: 202; Normann 2020). Fosen reindeer herding area, in Sámi *Fovsen-Njaarke*, is one of Norway's southernmost coastal reindeer grazing areas (see Figure 5 below). The reindeer herders at Fosen has a license for 2,100 reindeers in the spring herd, divided into two operating groups, southern and northern Fosen. The border between the two operating groups runs along the Stordal river, further east to Tekssjøen (lake), Reinsjøan (lake) and to Holden, and along the river down to Malm in Verran (ibid). The traditional Sámi group division, a nomadic village, is called *siida* in northern Sámi, and in southern Sámi *sitje* (Wråkberg and Granqvist 2014: 83). Today, the Sámi *sitje* coincides with the Norwegian division of reindeer pastures into districts. The Norwegian reindeer pasture districts are a public administrative division created by the Norwegian state; what was once a nomadic way of life with self-regulated boundaries is now fixed districts with a limit to the number of reindeers allowed by the Norwegian state within each of them. In this thesis, the two herding groups at Fosen are referred to as the 'North-group' and the 'South-group,' which is common among my interviewees and other scholars. The areas of the North-group covers Roan and the mountain of Harbaksfjellet, Kvenndalsfjellet, and Bessakerfjellet. The South-group covers the area of Storheia. Fosen Vind DA claims to be developing Europe's largest onshore wind power project in Central-Norway, comprising six wind park complexes, with a combined capacity of 1000 MW. All of the parks developed are located in the Sámi reindeer herding areas (See Figure 6).

Figure 5: Map showing South Sámi reindeer herding districts (Gaavnoes 2016).

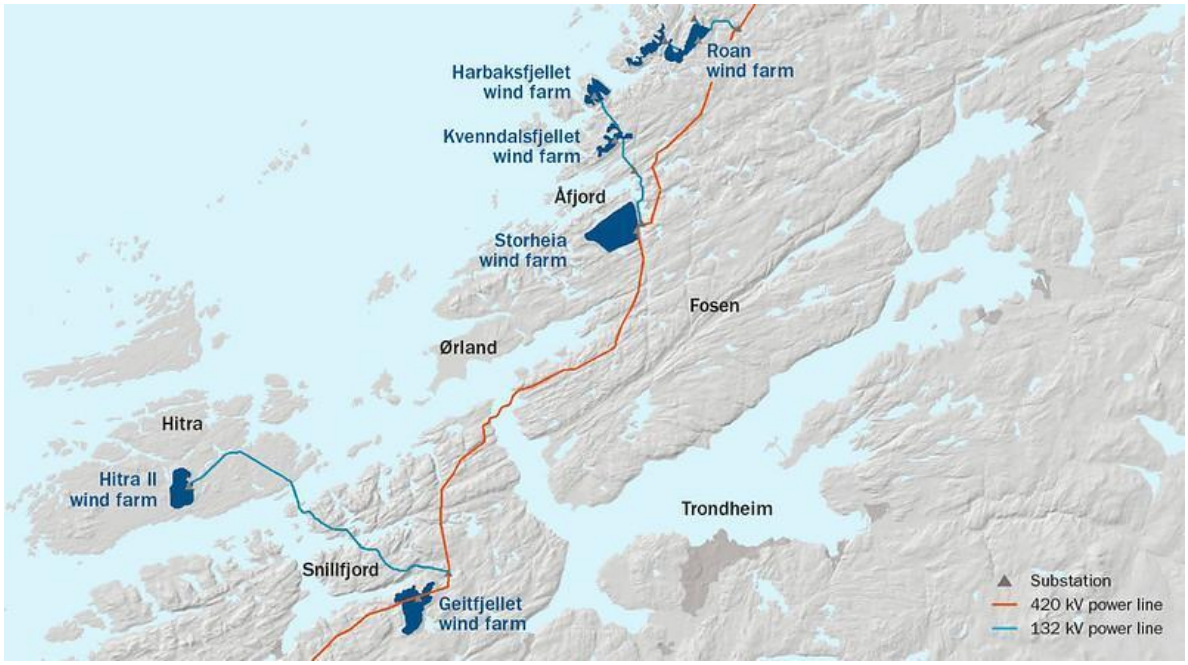

Figure 6: Map showing the position of Storheia Wind Park and Roan Wind Park within the municipality of Indre Fosen (Nilsen 2016).

Conflicts over land-use are nothing new at Fosen. During the 1970s, there were plans to make a military shooting range. The fight lasted for more than 20 years before it was crowned with victory for the local activists in 1994; the shooting-range was not built. In 2010, NVE granted a license for four wind power parks at Fosen: Sørmarkfiellet, Roan, Kvenndalsfiellet, and Storheia, as well as two power line plants. All decisions were appealed to the MPE, which maintained the licenses. Since then, Fovsen-Njaarke has been exposed to close to 30 wind power projects, more than any other reindeer pasture district, not all of them granted licensing. Statkraft, a publicly owned Norwegian energy company, is carrying out the development on behalf of Fosen Vind DA. Fosen Vind DA is a joint venture company owned by Statkraft (52.1%), TrønderEnergi (7.9%), and Nordic Wind Power DA (40.0%), a European investor consortium established by Credit Suisse Energy Infrastructure Partners and supported by the Swiss power company BKW (Fosen Vind DA 2020). The first development was at Bessakerfjellet, north of Fosen. The reindeer herders at North-Fosen agreed to accept the development at Bessakerfjellet, in the hope of dropping more developments in the area; instead, they got more cases, such as Harbakfjellet, Kvenndalsfjellet, and Roan.

In 2016, *Fovsen-Njaarke* took the case to court because wind power development was not valid and violated their indigenous rights. They lost the case in Trondheim's district court; however, both districts were granted economic compensation for the loss of land. The case was then appealed to the Frostating Court of Appeal, which started in December 2019, and the verdict came in June 2020. The verdict states clearly that the areas at Storheia are lost and cannot be used for reindeer herding by the south-group. However, the project was not deemed to violate indigenous rights. The economic compensation was much higher, clearly indicating that it is essential for reindeer herding at Fosen. In August 2020, both parties, the reindeer herders and Statnett, appealed to the Norwegian Supreme Court. I will elaborate on the court case from the Frostating Court of Appeal in chapters 5 and 6. In addition, the United Nations Committee on the Elimination of Racial Discrimination (CERD) has considered the case of Fosen, and the verdict is still pending. In 2018, CERD requested the Norwegian government temporarily suspend the construction at Storheia while they process the case, out of consideration for South Sámi interests. However, the Norwegian government chose not to accede the request from CERD, and most of the development at Fosen is already up and running. The impact of the development is directly leading to the loss of land. As the analysis shows, the misrecognition of Sámi rights could potentially lead to devastating interventions for their livelihood, culture, and Sámi language.

2.4 Summing up

Summing up, the conflicts over wind power development are seen by the locals as an external threat to the survival of rural life, loss of local nature and biodiversity, and a threat to the Sámi culture and tradition. At both Fosen and Frøya, the conflicts surrounding the development of the wind parks have been prolonged, lasting conflicts. However, in both cases, the conflicts escalated nearing the start of construction. At Frøya, the project has divided and polarized the local community. At Fosen, the very future of reindeer herding is at stake. The cases highlight the need for a new era where conservation and biodiversity can prioritize Norwegian politics. Martin et al. (2016) have also echoed interlinking justice categories' concerns and placed them directly within a biodiversity conservation context. Furthermore, competence in Sámi culture and herding is needed in state institutions. I will elaborate on this in the analysis. In the following chapter, the theoretical framework is provided.

3 Theoretical framework

In the following section, I will explore the theoretical connection between *environmental Justice* (from here on EJ), political ecology, and accumulation by dispossession. This chapter aims twofold; one is to explore the different dimensions of EJ and relate them to the spaces of contention, as they together shed light on the uneven geographical development regarding energy transition occurring in rural areas of Norway. Secondly, building on political ecology, another aim is to explore how power relations are connected to knowledge production and the logic of wind power development. From this framework, six thematic categories are developed; 1**.** Impact, 2. Vulnerability and Risk, 3. Responsibility and Representation, 4.Recognition and Influence, 5. The logic of Arguments and 6. Considerations. These six themes map onto core issues that emerged out of the Norwegian case. Together, they inform and theoretically frame the discussion on why the locals contest wind power development at Fosen and Frøya in chapter 6.

3.1 Environmental Justice

Justice theory is often divided into three intertwined categories: distribution, recognition, and participation (Schlosberg 2007). For wind power development at Frøya and Fosen, the question of justice relates to the relation between nature and society and how this relation produces outcomes of injustice. According to John Rawls (1999), justice through distribution is the process of distributing goods to all in society. Building on this, Nancy Fraser (2007) argues that justice must be concerned with classic distribution and redistribution issues, while it must also address the processes that construct maldistribution. The argument demands a focus on social recognition as crucial elements of attaining justice (ibid). Fraser (1995: 69) further formulates the dualism; under what circumstances can a politics of recognition help support a politics of redistribution? In addition, when is it more likely to undermine it? In this way, the focus is on individual and social recognition as crucial elements of attaining justice (Schlosberg 2007: 4). Recognition is about identifying the cultural and racial barriers to individuals and communities receiving a just distribution (ibid: 5).

Covering the category of participation, Amartya Sen and Martha Nussbaum's (1993) capability theory focuses on the capacities necessary for individuals to fully transform 'goods' into functioning in their chosen life. For both Sen and Nussbaum, participation is a crucial political capability, necessary for attaining justice (ibid). Groups and social movements often

employ multiple conceptions of justice simultaneously and accept both the ambiguity and the plurality that come with such a heterogeneous discourse (Schlosberg 2007:5). The focus highlights the need to be sensitive to local and geographical contexts while employing claims for justice. At Fosen, the wind power development enhances environmental risks and vulnerability within the reindeer communities, while at Frøya, the wind power development questions ecological justice. Moreover, EJ's geographic dispersion is about examining the relationship concerning power, inequalities, and environments around the globe, working across and between multiple scales. From a geographical perspective, context is here understood as multi-scalar; multiple enduring and contingent phenomena come together empirically, the 'local' articulation of a phenomenon may alter operation across space and time in meeting other phenomena (Castree 2005: 542). Injustice manifests differently in different spatial and social contexts - it is no longer only a matter of race and class. Activists and academics are increasingly identifying these relationships in terms of environmental justice and injustice (Holifield, Porter and Walker 2009: 596-597). The attention to local context has become particularly important, as organizations have begun creating policies to address existing environmental injustices (ibid: 597). No matter how well-intentioned policies concerning environmental mitigation might be, if they lack sensitivity to the place specificity, they risk imposing solutions that are ill-suited to social and environmental conditions (ibid). In the context of wind power development, questions need to be asked about whether the wind power development is as green as the reputation says and if the local issues should be tolerated for the greater good and majority society.

Furthermore, *ecological justice* focuses on the relationship between human communities and the rest of the natural world. Ecological justice involves a focus on food security and climate justice, indigenous justice, and justice for both humans and nature (Holifield, Porter and Walker 2009: 597). In this way, environmental movements come together in a broad and inclusive discourse that can strengthen the explanatory and mobilizing power of the movements that use the language of environmental and ecological justice (Schlosberg 2007:7). Furthermore, in some cases, mobilization for justice is not a response to rising demands, but due to an urgency to defend current needs (Hildebrandt 2013: 9). Indeed, environmental degradation can have real material implications; as wind power development at Fosen shows, reindeer herders are losing control of their land and livelihood and needs to defend their way of life. Moreover, this also relates to indigenous control over their land, which will secure the quality of life. The questions of justice in energy transition manifest

themselves around policies, participation, and problem framing, as these require access to the process of developing renewable energy systems with local sensitivity. I will elaborate on this below.

Most discussions of environmental justice focus on maldistribution (Schlosberg 2007: 3). Here, maldistribution is shown by the fact that poor communities, indigenous communities, and communities of color get fewer protections (ibid: 4). In other words, maldistribution is the empirically grounded fact that poor communities, indigenous communities, and communities of color get fewer environmental goods, more environmental risks, and less environmental protection (Schlosberg 2007: 4). Moreover, maldistribution is easy to point at, and measure as material inequality is rising in most countries. Hence, the focus and the goal from the distribution perspective is on fair processes for the (re)distribution of socioeconomic goods and benefits to all, not the few (Fraser 1995: 68; Schlosberg 2004: 518). One of the critical questions driving early research on environmental injustice in the USA was whether polluting facilities or land uses were disproportionately sited in communities of color, or whether spatial allocation reflected real estate markets (Holifield, Porter and Walker 2009: 593). In its early beginning, the EJ framework was built upon the assumptions of neo-classical economic theory, and one of the characteristics of much early quantitative (positivist) research was the effort to settle on a standard definition of the term environmental justice that could be 'operationalized' and thus subject to measurement (Holifield 2001; Phillips and Sexton 1999). From this perspective, environmental justice can be attained through the distribution of goods solely. It is still expected that environmental justice is understood as the process where the costs of policies on climate mitigation are distributed equally among stakeholders. A one-dimensional focus on distribution leaves out other forms of justice claims such as recognition and participation in decision-making, as climate policies affect variables such as gender, ethnicity, class, and political power access. At Fosen and Frøya, the lack of access to decision-making in the wind power development process leads to disempowerment experiences. Furthermore, the asymmetrical power relation affects the Sámi struggle for rights, as the reindeer herders have lost the fight against the wind power development politically and are now fighting for the right to land through the court. Reflecting these multiple strands, Schlosberg (2004: 517) states that attention to "Equity in the distribution of environmental risk, recognition of the diversity of the participants and experiences in affected communities, and participation in the political processes are required, which create and manage environmental policy."

Moreover, David Schlosberg (2004) argues that a solely distributive approach to justice is insufficient in practice because it does not adequately encompass the range of demands made by environmental justice movements. He claims that recognizing identity and full participatory democratic rights are integral demands for justice and need to be woven together to achieve environmental and social justice (Schlosberg 2004). Furthermore, he argues that environmental justice should include participation and recognition issues in addition to distribution. In Schlosberg's framework, three components are identified. First, *distribution* refers to the equitable division of environmental harm and environmental goods between communities or individuals. Second, *recognition* refers to the recognition of the diversity of the participants and their identities. He draws on Young (1990), who argues that recognition is both the foundation of distributive justice and a good in itself; lack of recognition of social differences prevents the examination of those differences that give rise to inequitable distribution and leads to a negative image of the self, thus constituting harm. These justice categories are interlinked, as both Young (1990) and Fraser (1995) point out, and in the same way as a lack of recognition can lead to distributive injustice outcomes, unawareness of distributive injustices can lead to failures to the recognition of affected stakeholders. Third, *participation* refers to how individuals or communities can take part in the decision-making process and risk-sharing. The goal is achieving policies that are 'just' and inclusive. According to Schlosberg (2004: 517-518), most theories of environmental justice are, to date, inadequate because of the one-dimensional focus on distribution, as they are incomplete theoretically and are under-theorizing the nearly related dimensions of recognition and political participation. Furthermore, they are insufficient in practice, as they are not tied to the more thorough and integrated demands and expressions of the critical movements for environmental justice globally (ibid). At Fosen and Frøya, for example, as I will show in the analysis, these questions manifest themselves around the knowledge on Sámi livelihoods and biodiversity in the consultation process when developing wind parks, leading to knowledge gaps, which creates injustices in all three categories of injustice pointed to here.

Building on environmental justice, *energy justice* is a concept that describes and explains how issues of justice relate to energy systems. The concept draws on long-standing justice theory and is particularly elaborated within the environmental justice literature concerning distributive, procedural, and recognition justice to explore the social costs and benefits of

energy systems. In its broadest form, the concept of energy justice captures "a global energy system that fairly disseminates both the benefits and costs of energy services and one that has representative and impartial energy decision-making" (Sovacool and Dworkin, 2014; 436). Two central claims to energy justice stand out; i) the dynamics of energy consumption in terms of access and affordability, as this relates to the distribution of environmental risks, and ii) the second claim regarding the politics of energy production mainly about infrastructure and development, which relates to recognition and participation in decision-making (ibid). These claims show that normative concerns about justice within energy systems draw on a history of environmental justice scholarship; the concept of energy justice is rooted in the environmental justice literature, which draws on social justice theory to advance justice (Fuller 2019). Thus, moving toward a more 'just' approach to energy policy and practice needs to consider distribution issues, who gets what, where, and why this is happening. Addressing these questions will give proper recognition to the diversity of needs and capabilities of individuals who experience energy injustice and create more equitable procedures for involving them in decisions about their energy futures (ibid; Schlosberg 2004). Energy justice has particular implications for indigenous communities, as I will elaborate on in the analysis (Baker 2016).

In sum, Schlosberg's EJ framework argues for a trivalent understanding of environmental justice combining notions of distributions, participation, and recognition. Schlosberg finds that activists, rather than defining environmental justice according to a rigid scheme, combine these elements differently in response to place-specific concerns, which I will show is also evident at Frøya and Fosen (Holifield, Porter and Walker 2009: 596). However, a narrow focus on justice implications is inadequate to make sense of the complex dynamics inherent to controversial wind parks. Instead, the analysis needs to be placed into a broader understanding of the political economy and social structures. For that, I turn to Heiman, Lake, Pulido, Holifield, Porter, and Walker (1996; 1996; 1996, 2000; 2009) scholarship, making calls for a more critical theoretical approach that would begin to situate the production of inequalities for broader social structures and political-economic processes.

3.1.1 Critical Environmental Justice

From a critical perspective, it is about understanding how the wind park development debate in Norway is grounded in capitalism and indigenous rights issues; what is at stake is the

material reproduction of life and livelihoods. At Fosen and Frøya, the energy transition to sustainable energy is about the multiple mechanisms through which capitalist accumulation attempts to absorb life in its value circuits, which is challenged by both the reindeer herders and the local activists in order to achieve social and environmental justice (Jackson 1999: 15). Traditional socialist demands for the regulation of free markets and a fairer redistribution of resources will have to be crucial components of ecopolitics. However, it seems clear in the case of Fosen, that such a political project cannot be exclusively about the traditional socialist class struggle (Oksala 2018: 231). Thus, it is about understanding which parameters of injustice become relevant in environmental disputes and how these injustices are (re)produced in the political and economic sphere environments. History of emancipatory struggles by excluded classes, ethnicities, slaves, workers, colonies, women, young people, and diverse sexualities, repeatedly achieve the most profound (often-rapid) radically progressive social change (Stirling 2015: 54). In this understanding, what ecological and social justice challenges require is not controlled 'transitions' driven by incumbent structures, but rather vibrant agonistic political mobilization towards more open-ended 'transformations' (ibid: 55). This thesis sheds some light on whether the struggles witnessed in northern Norway can be considered to be transformative in this sense.

From a Marxist perspective, socioeconomic injustice is rooted in society's political-economic structure and capitalist exploitation (Fraser 1995: 71). Furthermore, it relates to capital's tendency to turn social relations and nature into commodities and gain dynamics through a permanent land-grabbing (Brand 2016: 509). For Wright (2010: 15), equal access to material goods is a criterion for equality. However, equal access does not imply that everyone should receive the same income or have identical material standards of living, both because the necessary means to flourish will vary across people and because some amount of inequality is consistent with everyone still having equal access to the necessary means to live flourishing lives (ibid; Löwy 2002). The remedy for economic injustice is political-economic restructuring, production, and material ground, which might involve redistributing income, reorganizing labor division, subjecting investment to democratic decision-making, or transforming other basic economic structures (Fraser 1995: 73). Thus, there is a need for economic relationships aimed toward satisfying fundamental human needs, based on new relationships to nature and among people, carried through participatory democracy and socializing the means of production (Leichenko and O'Brien 2008: 19).

3.2. Spaces of inequality

From a geographical perspective, the production of injustice is tied to how environmental degradations and social dislocations have been unevenly distributed spatially. For rural parts of Norway, such as Fosen and Frøya, an idiosyncratic spatiality and an understanding of space as a part of producing injustice are needed in order to understand the production of space as a force in socio-environmental change. When treating space as relational rather than as an absolute framework for social action, it becomes possible to see how capital accumulation creates not only space but also different spatiality (Harvey 2006: 78). Today, this often relates to an urban/rural division and rural politics leading to marginalization, as my analysis shows (Swyngedouw and Heynen 2003; Holifield, Porter and Walker 2009: 594).

The theory of the uneven geographical development of capitalism reflects the different ways in which different social groups have materially embedded their modes of sociality into the web of life, understood as an evolving socio-ecological system and how this process is disproportionately affecting rural areas; what Harvey (2004) calls *accumulation by dispossession*. Moreover, the process also relates to discriminatory tax policies and social exclusion that create a polarized political landscape (Moyersoen and Swyngedouw 2013). The plight of the Sámi is not contained to indigenous land alone; instead, their areas are embedded within a broader rural space that is facing economic decline and the exhaustion of socio-economic resources and natural resources. The impacts of uneven development relate to land-use and how policies produce vulnerability and risk in rural areas, including climate mitigation policies. Capitalist activity is always grounded somewhere; thus, material processes such as social and ecological must be appropriated, used, and re-shaped to the purpose and paths of capital accumulation.

In Norway, the development of wind power continues colonial policy as several reindeer herding districts experience having the industry located in their grazing areas, from Fosen in the south to Finnmark in the north. Hence, the Sámi indigenous population in Norway talks about experiencing a 'double burden'; they are already experiencing increased vulnerability due to climate change and global warming and the increased vulnerability, followed by the exposure to changes in land-use (Normann 2020:15). The term green colonialism is used to describe the double burden in apparently sustainable transitions where the industry proposed

is harmful to indigenous populations. Together with the term double burden, it describes how human-induced land-use change through natural extraction has significant ecological, social, and cultural effects for indigenous communities. In this way, environmental injustice encompasses land claims (Stein 2004: 2; Österlin and Raitio 2020). In other words, it is a conflict of materiality as different actors compete for the control and use of assets and resources (Pelling 2011: 17). Colonialism historically functioned as an effective political strategy for this kind of expropriation; resources such as gold, ivory, and rubber were extracted from the global south to enrich the global north (Oksala 2018: 221). Moreover, the neo-colonial exploitation of territories and indigenous groups and their culture lies at the root of the uneven geographical development (Harvey 2006: 72). In this way, for the Sámi reindeer herders, access to land is linked to their peripheral status in Norway.
Differential patterns of exploitation of populations, resources, lands result. In this way, land grabbing, where land is expropriated to develop some industry like wind power, is then the destructive side effects of industrialization on socio-nature systems. While space-specific articulations of diverse injustices often serve as a resource for movement-building, they can also complicate activist struggles. The environmental movement can become too embedded in the local, mainly to understand the macro-politics of what capitalist accumulation by dispossession is all about. In the case of the local activist at Frøya, as I show in the analysis, the creation of a national organization, Motvind, followed after the local struggle against the wind power development was lost. In this way, scaling up claims of injustice, from the local to the national, focuses on the rural policy and accumulation by dispossession and structures the argument more coherently, showing that the problems related to wind power development are the lack of place-specific concerns by the government.

In sum, distributional justice and injustice's spatiality cannot be reduced to a matter of simple linear distance. Patterns of marginalization of the rural areas in Norway and the issues of land-use rural areas are leading to an uneven distribution of vulnerabilities for the rural areas, which does not map neatly onto homogeny and census-defined demographic groups; instead, it is due to the leading rural policy by the Norwegian government. Hence, marginalization is a process of becoming peripheral and follows "center-edge analogy, in which actors at the edge are disempowered in comparison to actors at the center, who are privileged and socially dominant" (Trudeau and McMorran 2011: 438). Thus, understanding that variables are always normative and political can potentially hide underlying causes for injustice and undermine responsibility, power relations, recognition, and participation should be a part of

the researchers' reflexivity. When defining a variable, it leaves the researcher with a power of definition, which should be carefully examined and transparent. In this case, such concerns have led me to be attentive to the asymmetrical power relations within my thesis, which I will elaborate on in chapter 4.

3.3 Recognition

So far, I have discussed the impact of distribution and accumulation by dispossession on EJ concerns relating to the Frøya and Fosen cases. In this section, I will elaborate on the concept of recognition. Recognition allows me to look at the status of those less well off in distributional schemes. It is rooted in social patterns of representation, interpretation, and communication. Examples of misrecognition include cultural domination, non-recognition, and disrespect (Fraser 1995: 71). In modern capitalist societies, the class structure and the status order do not neatly mirror each other, although they interact causally (Fraser 2005: 19). Instead, each dimension has some autonomy vis-à-vis the other. As a result, misrecognition cannot be reduced to a secondary effect of maldistribution, as some economic theories of distributive justice appear to suppose. Nor can maldistribution be reduced to an expression of misrecognition, as some cultural theories of recognition tend to assume (ibid). Moreover, in contrast, the remedy for cultural injustice is some cultural or symbolic change; this could involve upwardly revaluing disrespected identities and the cultural products of maligned groups. It could also involve recognizing and positively valorizing cultural diversity. More radically still, it could involve the wholesale transformation of societal patterns of representation, interpretation, and communication in ways that would change everybody's sense of self (Fraser 1995: 73).

In Norway, cultural autonomy is often applied to indigenous communities, as the rights to preserve language and culture in liberal democracies, which is very much the case for the Sámi culture. Over some time, the Sámi population has had a series of important victories concerning recognition, such as establishing the Sámi parliament and rights to speak Sámi languages, which were, for a long time, not the case. These and other recognitions are important and have, together with an increased focus on racism against the Sámi population, helped to see the structural obstacles the Sámi minority face today when it comes to stigmatization and racism. However, cultural recognition often comes without addressing indigenous political and economic self-determination. The recognition is 'given' without the

material reality to maintain it in order to maintain the status quo (Kuokkanen 2006: 4). Without access to and control over land, it is particularly difficult to live according to governance and economic models other than the dominant capitalist one, as the case at Fosen shows (ibid: 7). Although cultural autonomy provides a basis for indigenous people to defend and fight for their collective autonomy, it can also be argued that separating the rights from the material denies indigenous communal ownership of land. The ability to exclude others and exercise control over populations and resources within an area is the essence of territory as a political technology to use by states (Nicholls, Miller, and Beaumont 2013:7). Thus, as I have argued above, land intervention and land-use changes in indigenous areas reflect the neo-liberal agenda and approach to indigenous rights where access to the marital dimension of recognition is unfulfilled or denied.

Postcolonial theory and criticism have opened up new possibilities and dimensions for indigenous knowledge (Kuokkanen 2006: 2). The theory especially relates to critiques of colonialism and analysis of power relations in society. In this way, decolonizing knowledge can avoid direct forms of colonization, such as land grabbing and more subtle forms of colonization, like 'epistemic violence,' the imposition of another worldview and another set of values (Kuokkanen 2006; Wråkberg and Granqvist 2014). The theory does not imply that the indigenous population is a passive victim of colonization. Colonized peoples around the world have various ways of resisting and subverting colonial control and exploitation. The knowledge production also relates to how indigenous peoples' ways of relating to nature and space are quite different from the modern state territorial logic of the conquest of nature (Agnew and Oslender 2013: 124). The historic territorialities based on sustainable relations with their surroundings have existed for hundreds of years, although they have mostly been ignored until recently by human geography. According to Kuokkanen (2006:10), in a decolonial perspective, there is a need for alternative models of the nation-state that are not based on domination, violence, or coercion (the nation-state model) but instead on interdependence and mutual reciprocity. In this way, it is about challenging the power constellations that (re)-produce inequalities. Further, this will allows for the restoration of values and approaches, such as considering nature in a more holistic approach. For both the local activists at Frøya and the reindeer herders at Fosen, misrecognition relates to acknowledging rural and indigenous ways of life and experienced-based knowledge. Knowledge, representation, and meaning are connected to issues of justice, power, and values, especially when it comes to the recognition of indigenous culture and rights.

Therefore, a focus on the knowledge production itself and its relationship to experience and agency should be high on the research agenda (Swadner and Mutua 2008).

Moreover, at Frøya, institutional processes of disrespect, stigmatization, and social marginalization have led to the misrecognition of the local activists (Fraser 1995; Walker 2009: 626). The local resistance has been criminalized from the beginning of the construction of the wind power park. All the activists I met during my stay at Frøya, informally and through the interviews, expressed concerns over their portrayal as illegal activists; they all stated they had done nothing wrong, but rather that they are only using their democratic right to protest a development which they disagree over. In this way, the institutional misrecognition has led to social marginalization; they feel like criminals and are portrayed like criminals through the media for the rest of the Norwegian population. When conflicts arise, movements are often crushed with state violence, for the most part by state powers acting in the name of 'order and stability' – for the activists at Frøya, the resistance to wind power has been criminalized. There have been some incidents that are still under investigation. However, none of the interviewees knew who had done what. Thus, they all expressed a grievance over the police presence at the island, as they were drinking coffee in the protest camp situated across the street from the development site and over the police's constant pressure when they move around in the landscape near the development site. In this way, accumulation by dispossession has produced intense social and political rivalries between the local community at Frøya and the state, creating misrecognition of the activist's right to protest the development (Harvey 2006: 64).

In sum, as an analytical tool, recognition looks at *how* racism and racialization work to constitute environmental injustice as misrecognition is never a product of isolated discriminatory acts. Instead, it constitutes spaces of injustice generated by colonialism's unique historical-geographical dynamics and the oppression of indigenous populations or other marginalized groups (Holifield, Porter and Walker 2009: 594). As my analysis shows, the focus is on addressing the complexities of indigenous territorial sovereignty, access to decision-making when it involves land-use conflicts, and the conflictual relations among indigenous communities, states, and the local government (ibid). In this frame, the remedy to misrecognition is then redistribution combined with cultural and institutional recognition.

3.4 Participation

According to Fraser (2005:17), justice needs be addressed through the incorporation of a third, specifically political dimension to the framework; participation in decision-making, alongside the economic dimension of distribution and the cultural dimension of recognition, as all three components can actively be producing a devaluing of gender, ethnic or indigenous groups. The concept of participation allows me to explore the injustices of representation at Fosen and Frøya. For both cases, political participation at a local level was not facilitated in a fully democratic way by the government. Thus, the lack of full political participation forms a hindrance to attaining access to land and influencing decision-making in developing wind power, as my analysis shows.

Fraser (2005:17) distinguishes between two levels of (mis)representation; '*ordinary-political misrepresentation'* that is the object of much of the literature on political systems of representation, and the *'higher-order misrepresentation'* which is concerned with frame-setting, for the state this is a powerful instrument of injustice, which gerrymanders political space at the expense of the poor and despised. In this way, misrepresentation occurs when political boundaries and decision rules function to wrongly deny some people the possibility of participating on a par with others in social interaction, including, but not limited to, political arenas. Far from being reducible to maldistribution or misrecognition, misrepresentation can occur even in the absence of the latter injustices, although it is usually intertwined with them (ibid: 21). Furthermore, for both Sen and Nussbaum (1993), participation is a crucial political capability, necessary for individuals to ensure functioning. Moreover, for Wright (2010: 13), a just society is one in which all people have unconditional access to the necessary means to flourish, both in a restive and a broad sense. For the activists at Frøya, this dimension of justice also relates to access to nature, as I will elaborate on in the analysis (Holland 2008). The restrictive sense entails the satisfaction of basic human functioning needs, and the expansive idea of flourishing refers to the various ways in which people can develop and exercise their talents and capacities. Concurring with Sen's view, justice requires ensuring that people have equal 'capabilities of function' to participate in democratic processes (Sen and Nussbaum 1993; Fraser 1995: 71; Wright 2010).

Furthermore, participatory justice includes accountability. Here understood with two sub-concepts forms the energy justice framework; accountability in explaining the reasons behind

decisions and accountability in terms of the opportunities to hold someone responsible for their actions (Jacobsen and Linnell 2016: 203). Here, accountability means the public's control over experts, the right to question their decisions and policy choices (Mulgan 2003). Democratic accountability places moral authority with the account holder; in other words, the public (ibid: 30). Fischer (2000: 42) argues, "Insofar as experts understand the policy to be its technical core, citizen input will remain a secondary, inferior contribution." In this perspective, experts can frame a democratic process as problematic for policy planning and transition management (Hendriks 2009; Szulecki and Kusznir 2017). The perspective emphasizes the need for understanding the basic notion that decisions that influence people's lives should be taken with people's active involvement, along with the principle of political equality and provide normative justification for a position. It may seem like a banal point to make in countries that score high on democratic indexes; however, ensuring a lasting democracy is a continuous process that never stops as the cases of Fosen and Frøya is an example of. Thus, inclusion and seeing the public and experts as stakeholders interested in the common good avoid further class divisions and ensure the quality of decisions. Broadening the stakeholder group will increase the chance that policies are for the common good (Szulecki 2018: 30).

Fischer (2000) also notes that participation and professional inquiry bring in local knowledge and a level of nuance that can be missed in centralized, technocratic governance. Through the power to define problems, experts can "Impose definitions and meanings that speak at least as much to the system's (governance) imperative as to the needs of the principal actor, society" (Szulecki 2018: 30). For the Sámi population, the emergence of techno-experts leads to knowledge-gaps in government institutions. In the process of developing wind power at Fosen, some of the reindeer herders participated in consolations with the developers as they have a right to be consulted in cases involving the Sámi population. However, the consultations did not lead to a change in plans, quite the opposite; the reindeer herders felt that they were portrayed not to know anything about herding by the developers. I will elaborate on this in my analysis. In this way, participation in decision-making relates to power relations. By studying power, political ecology "Highlights how differentiated social actors gain access to and control over resources through institutionalized practices" (Watts 2000: 269). As I will show in the analysis, the power structures in the process are experienced as highly asymmetrical, at Fosen particularly, and also at Frøya, where inputs and arguments

of biodiversity conservation are not experienced to be seriously considered by OED nor NVE.

Moreover, power over nature and society is exercised not only through complex forms of social control but also as a normative ideology of governance. Taking this into account, then studying power and power relations within political ecology is about studying conflicts and power dimensions within the use and conservation of areas and natural resources (Benjaminsen and Svarstad 2017). According to Fischer (2000: 7), the newly emerging class of techno-experts have "Mainly given shape to a more technocratic form of decision making, for more elitist than democratic" instead of facilitating democracy. The science of climate change itself influences how we recognize and understand these changes (Swyngedouw 2010). Szulecki (2018: 29) adds that this "Appears particularly true in the energy sector, which has traditionally been presented as a techno-scientific domain reserved for experts: mostly engineers who construct the infrastructure, and scientists who design the hardware." Finally, when security and risk are discussed, 'society' is presented as a passive object of a policy shaped and executed by the national government and is often state-centric (Fischhendler and Nathan 2014; Szulecki and Kusznir 2017; Szulecki 2018). In this way, the technocratic perspective is felt at the local level as well; research from grid development in Norway, Sweden, and the UK in 2014, finds that the public perceived the planning process to be heavily dominated by experts and decision-makers at the national level, with only limited influence from local inhabitants and NGOs (Aas et al. 2014). The results are also relevant for the case at both Fosen and Frøya, which underlines that there has been little change in access to the decision-making process when developing Norway's energy industries.

3.5 Summing up

Summing up, in order to understand claims to environmental justice in the energy transition, it appears that there is a need to understand how the diverse categories of justice intertwine and create different outcomes of injustice at Fosen and Frøya concerning wind power development. The interactive and complicated energy transition process implies issues of power, redistribution, recognition, and participation in the process, reflecting the different actors involved and their interests and contextual factors such as socio-economic conditions, infrastructure, resources, land-use, and institutions (Rogge and Richardt 2016). This thesis

proposes to understand environmental justice as an ideal political goal, in which the citizens are the recipients, stakeholders, and account holders of the entire energy sector. Developing an energy transition should be characterized by broad participation of informed, aware, and responsible political subjects, in an inclusive and transparent decision-making process relating to energy choices, with the public good as its primary goal. To create and safeguard civic empowerment and autonomy, high ownership of energy generation and transmission infrastructure through private, cooperative, or public means is necessary (Szulecki 2018: 35). Here, the ideal goal, which needs to be understood as a continuous process, is the democratization of natural resources to include those entitled to a just distribution and reciprocal recognition (Fraser 2005:17).

Based on the literature discussed above, I will analyze the empirical data according to the following thematic categories (see chapter 5: Thematic analysis); '*impact*,' '*vulnerability and risk*,' '*responsibilities and representation*,' '*recognition and influence*,' '*logic of arguments*' and '*consideration*' (See Table 4 in chapter 4). The thesis employs these categories to analyze the different aspects of environmental justice and the uneven production of space. In chapters 5 and 6, I seek to assess to what extent and how these categories are interconnected in wind power development cases at Fosen and Frøya. The following chapter on methodology will illustrate how these different elements will be articulated and operationalized to make sense of the social resistance against wind park development at Frøya and Fosen, Norway.

4 Methodological perspectives

In this chapter, I will elaborate and critically reflect on the methods and methodologies that guide this research. This chapter's purpose is twofold; to describe the methods I employed during the process of data gathering and analyzing the data and to give a better understanding of my choices of methods. The chapter first discusses the choice of a qualitative method and the following conceptualizations of case studies and the chosen method for the thesis: Action Research. After the account for what action research entails, a critical description of the sampling and data-gathering process follows, with a description of the interview outline and structure. I present the process of data analysis and the following analytical strategy chosen, thematic analysis. To demonstrate reliability and trustworthiness, ethical considerations, and reflections on my positionality and weaknesses attached to the research, conclude the chapter.

4.1 Ontological and epistemological assumptions

I consider myself a postcolonial materialist feminist, and in the thesis, I adhere to a Marxist research paradigm, understanding social phenomena at the core as social relations and class struggles. A Marxist approach to environmentalism aims to uncover the social (human) relations that lie underneath and produce environmental and social inequalities (Holifield, Porter and Walker 2009: 601). The thesis's theory is linked to the method through methodology and epistemology; this shapes how the choices I made about gathering information (Cresswell 2013: 4). As a postcolonial feminist, I take a stance towards knowledge applied in a universalistic manner, and I do not take for granted that the same findings of this study can be applied to all other cases involving wind power development or indigenous minorities. Moreover, neoliberalism, the commodification of nature, and the accumulation of dispossession are seen as different expressions of capitalism and as different processes produced through people's actions, relational and active, not just outcomes of other processes. Furthermore, I do not take for granted that this study's same findings can be applied in a universalistic manner to all other cases involving wind power development or indigenous minorities.

Through this project, I want to explore the empowering, transformative potential in qualitative research; in line with a Marxist production of knowledge, I seek to challenge the existing state, rather than reinforce it (Creswell 2013: 125; Johnson and Madge 2016: 76). Taking a postcolonial stand requires recognizing that multiple and conflicting realities coexist

(Hay 2016: 24). From a postcolonial stand, it is about deliberately giving voice to those silenced or ignored by hegemonic (modern, colonial) views of histories and geographies, as they embody and acknowledge previously anonymous individuals. In this way, my thesis seeks to give voice to a part of the Norwegian Sámi minority. Paradoxically, however, the voice of the oppressed not only speaks for itself; it is a part of a more comprehensive whole, enabling a more holistic understanding of society (ibid). Although social science depends on lay concepts as the foundation for analysis, it also tries to go beyond participants' lived experiences (Buraway 1991: 5). In other words, I adopt a postcolonial stand and seek to promote Indigenous and the marginalized ideas about society, creating space for conducting research that allows 'silenced' voices to be heard (Hay 2016: 80).

Here, empowerment refers to the process of increasing the social, political, spiritual, economic, or psychological potential of individuals and communities that are overlooked in hegemonic discourses. It often concerns groups that have been marginalized from hegemonic decision-making processes through discrimination based on historically constructed unequal relations of power based on age, gender, race, ethnicity, sexuality, class, religion, nation, and disability (ibid: 78). The project thus aims to create awareness of the multiple oppressions affecting rural and indigenous lives, which demand that geography recognize the intersection between multiple factors that can produce injustice and oppression of groups or individuals (Braun 2015; Arruzza et al. 2018). Postcolonial theory and criticism have opened up new possibilities and dimensions for an indigenous scholarship or indigenous autonomy. Especially analyses of colonialism, power relations in society, and the dismantling and rejection of the Eurocentric (presented as universal) assumptions and views have advanced the shaping and recognition of indigenous discourses. For some scholars, the adaption of indigenous knowledge into mainstream academic knowledge is not a goal in itself as the Western knowledge can never fully be decolonized based on its history of colonization (Wråkberg and Granqvist 2014). In the Nordic countries, however, there is a marked shortage of postcolonial analysis of colonialism in Sápmi and research considering the effects of the colonial legacy on Sámi society, which this study seeks to produce knowledge (Kuokkanen 2006: 2).

4.2 Qualitative research

Given my desire to understand the conflicts between the local resistance and state around wind park developments, I have chosen a qualitative methodology. Qualitative methods

allowed me to probe in-depth the casual processes of the cases, how and why some people become involved in one side of the issue versus another, and at the same time look for similarities between the two cases (Ragin and Amoroso 2011). As the first research question of this study points to, the aim is to understand why the resistance has accrued and the phenomena' mechanisms at hand. Qualitative research methods allowed me to go in-depth and turn observations into explanations, data into theory. Concurring with Gerring (2007) that the product of a good case study is insight, the aim is to create in-depth knowledge of why the resistance at Frøya and Fosen is taking place, as I will detail in the next section.

4.2.1 Case Study

The methodological status of case studies is still to this day highly discussed. The critique postulates that the research method is scientifically inadequate because it lacks documentation of the approach to data collection, data management, and data analysis and inference (Gerring 2007). According to Gerring (2007: 14), a case can be understood as a spatially delimited phenomenon or a unit observed at a single point in time or overtime. Each case may provide a single observation or multiple (within-case) observations. A case study is here understood as an intensive study of a few cases, where I examine the resistance to wind power development at Fosen and Frøya in detail. The intensive strategy chosen, aims to construct a full portrait of the cases through a close analysis of the links among many different aspects of the cases.

The cases of Fosen and Frøya were chosen because I deemed them critical cases for understanding the different approaches to resistance within wind power development in Norway. I first heard of the plans to develop wind power through my work in Young Friends of the Earth Norway (Natur og Ungdom) in 2013. Since then, and especially in 2018, when I started the master's program, both Fosen and Frøya received a lot of media attention. However, the media coverage never explained why the resistance was happening and was only giving descriptive accounts of the cases. Thus, I wanted to do a deep dive into the reasoning. Of course, the thesis would look different if I had chosen to look at how Motvind, the newly established national organization against wind power development in Norway, works and what kind of political space they are a part of and creating. Alternatively, if I had chosen to include more cases, as there are many of them in Norway at the moment, I would maybe be able to make more generalizations; however, as an in-depth-case study aims to

preserve the texture and detail of individual cases, features that are often lost in large-N cross-case analysis. For this thesis, I designed an intensive research project to look at how processes of establishing wind parks work in particular cases at Roan and Storheia (Fosen) and (Nessadalen) Frøya. I wanted to establish what actors do in a case, why they behave as they do, what produces changes in both actors, and the contexts in which they are located. How everyday life is distorted, eroded, overpowered by, and subordinated to institutional forces that may seem beyond human control (Buraway 1991: 1). Moreover, I wanted to look at how social movements are created, the collective and individual's power to create the conditions of resistance to bureaucratic and technocratic decision-making. Thus, it is not the aim to generalize to other resistance cases for this project, even though there might be some correlation between them, but that is an entirely different project.

4.3 Action Research

Accordingly, the epistemological approach of the thesis is followed by a research method called *action research*. Action research is suited when studying indigenous issues where conflict is based on justice issues because action research methodology can help with empowering research subjects to influence decision-making for their aspirations (Reason and Bradbury 2006: xxv). Furthermore, the goal of action research, and consequently of this thesis, is not just to describe or analyze social reality but to help change it. The change occurs through the active involvement of research participants in the research's focus and direction. The process entails researchers working *with* a social group to define their issues (ibid: italics in original). In my case, it implies that Sámi communities should be active collaborators and participants, deciding how research is done in their communities and homelands (Johnson and Madge 2016: 82). Moreover, empowering research with Indigenous communities must be conducted respectfully, from an Indigenous perspective, and should have meaning that contributes to the community, which I intend to fulfill in a respectful manner (ibid).

In participatory action research (PAR), change is informed by testing theory through practical interventions and action; this involves community development devised by epistemology grounded in people's struggles and local knowledge (Johnson and Madge 2016: 82). PAR is an approach that values the process as much as the product so that the 'success' of a PAR project rests not only on the quality of information generated but also on the extent to which skills, knowledge, and participants' capacities are developed during the research process (Pain 2003; Kindon 2016: 261). The purpose is to enable oppressed groups and classes to acquire

sufficient creative and transforming leverage as expressed in specific projects, acts, and struggles to achieve social transformation (Kindon 2016: 259-260). Even though it was not possible to involve the research participants deeply in every step of the thesis due to the time constraints of a master's degree, it was possible to make the project more attentive to asymmetrical power relationships and encourage empowerment (ibid: 260-261). I chose the method of action research to guide my research as it bridges and combines my ontological and epistemological stand and the overarching goal of the thesis to give voice. Then, it was essential for me to take the process of decolonization of knowledge seriously while combining it with my understanding of reality through the lens of historical materialism.

It is also important to note that this is an ideal research method; reality is always less linear and messier. I strive to empower my informants, both in the analysis of this thesis and outside in the 'real' world. For the latter part, this includes discussing future strategies for resistance with some of the informants (after the interview). Furthermore, it is also about being part of a collective of researchers from the Center for Environment and Development at the University of Oslo (SUM), Norwegian Institute of Bioeconomy Research (NIBIO), and the Norwegian University of Science and Technology (NTNU); meeting all these researchers, listening and sharing thoughts has been a vital contribution to my own process. Lastly, it is also about listening to what is needed of me and the knowledge that I have accumulated this last year, and one of the specific requests has been to lift the Sámi perspective in the national media. Together with Susanne Normann at SUM, I have written two articles in Norwegian, the first in the national newspaper Dagsavisen (Normann and Ellingsen 2020) and the second, forthcoming in the Norwegian magazine, Gnist. Giving back when taking up space is an essential step in action research, and I will continue to strive for this in the future.

4.4 Doing Fieldwork

Following the method of Action Research, doing fieldwork became vital to me, as I wanted to interact with the local activists and see the sight of controversy. Moreover, it was necessary as action research requires a commitment to other people, and this, in turn, requires building relationships with the local community, as this form of relationship and research cannot be negotiated through emails and phone calls (Johnson and Madge 2016: 84). In order to appreciate the self-understanding of the participants, some advocate that observers strip themselves of their biases in order to become like their subjects - based on empathy (Kearns 2016). Others argue the opposite; objectivity comes only from a distance, where the

researcher should be detached and emotionally removed (Buraway 1991:.4). The purpose of fieldwork was not to strip myself of my biases, for that is an illusory goal, nor to celebrate those biases as the researcher's authorial voice, but rather to discover and perhaps change our biases through interaction with others. Remaining on the sidelines or positioning oneself above the "native" not only leaves the researcher's own biases unrevealed and untouched but quickly leads to false attribution, missing what remains implicit and generally taken for granted. The practical consciousness of everyday life contains the non-discursive knowledge - that is, the assumed knowledge rather than the unconscious (ibid: 5). In this sense, my fieldwork aimed neither for distance nor immersion but dialogue, where I was learning.

During the fieldwork, it was essential to establish trust with the informants. In my experience, the funnel method, where I started with easy to answer questions, made it easier to have a conversation that was not stiff and the subject eventually moved on to topics they found relevant or more challenging to talk about, which was my goal. I have previous experience in interviewing people for a magazine called Putsj; however, when conducting my first interview at Frøya, I felt very uneasy and could not relax at all. The uneasiness led to me asking leading questions which was not in the interview guide. For this to not happen again, I listened to the tape and wrote down the wording chosen, and practiced asking the same questions more openly. Being reflexive of my role during an interview, how I formulate questions, power relations, and focusing on the subject's answer and potentially formulate follow-up questions while talking was hard. I felt my head was overloaded. I solved this by having a little notebook by my side to write down questions and ask them later when it was suited. In other words, I learned how to multitask during my stay at Frøya. In addition, it should be added that the previous night to my first interview, my host-family had been kind enough to invite me to a nice dinner and to some great company, which led to me having too much dessert wine. The dinner gave me insight into the local political community, and that is the first time I realized the profound effects the development had on the community at Frøya.

However, as life is unpredictable and a global pandemic broke out in the middle of my planned fieldwork, I had to postpone the second half of my fieldwork, going back to Fosen in June 2020 instead of March 2020. Establishing contact with local communities was much more time consuming than I expected. Thus, the extra time to reach out to people through Facebook, email, and phone proved to be a blessing in a horrible situation. I also ended up doing two of the interviews through videoconference. The use of digital recording raises

questions of privacy concerns as I used Zoom for the interviews. Zoom has become known for its security breaches; however, it allows for recording the conversation, making sure that the quality of the recording is adequate (Warren 2020). The recordings were processed in the same manner as the other recordings on a tape recorder and deleted when this thesis was handed in.

4.4.1 Reflexivity

During fieldwork, I engaged in reflective journal writing and analysis of my thoughts during the process; this was done to check for internalized stereotypes and avoid reproducing them in my thesis (Kindon 2016: 267). In order to enhance reflexivity, the sociological imagination helped me in the process of analyzing the data; it became essential to be able to 'think myself away' from the familiar routines of the daily lives to look at the situations I was observing with fresh, critical eyes. I did this because I have been working with this issue for a long time through activism; however, never in an academic sense (Mills 1959).

Being aware of the relationship between experience and the wider society was important during fieldwork; for me, this meant seeing things socially and interacting and influencing each other. For example, I did not expect to find such division within the local community and the policing of legal democratic resistance at Frøya. They were all upset about how the local police and media had portrayed them. At first, I dismissed this as not relevant to my thesis and had some 'expert' thoughts of how the activists were handling that negative focus from the public. Later, during the initial visit to their protest camp in Nessadalen, I realized my urban position. Frøya is a small island, and the consequences of the development for their local community was devastating, with people previously being friendly to each other that now had stopped talking to the activists. They were being alienated in their own home. The conflict is eroding not only trust in the government but also trust within the local community. In a Norwegian context, the trust in the welfare state, and each other is high; I did not expect to find this level of mistrust developing. Hence, I had to reflect on my own 'expert' position concerning their situation, the context of rural, small communities and empathize with their fear of being dismissed as 'terrorists' and the experience of being marginalized and incorporated those concerns in my analysis in addressing the criminalization of activists. I did not measure trust or lack of trust as a variable in my thesis but found it an essential effect of wind parks' development process at Frøya and Fosen.

4.4.2 Selection of participants

When selecting participants for this study, the aim was not to select a representative sample of the population, unlike quantitative methods and studies. Instead, the aim was to sample participants covering the range and diversity of views present among the target stakeholders (Cross 2005). Thus, the interviews conducted in this thesis should ideally reflect the plurality of actors within the cases chosen, and I sought to obtain a spread in the type of interviewees from local activist organizing resistance at Frøya, to reindeer herders at Fosen, Sámi activists organized through ENGOs and Norsk Samisk Riksparti (Norwegian Sámi National Party, NSR). To locate potential individuals to interview, I used snowball (or chain) sampling, which identified interest subjects reported by people who know other people involved in similar cases (Bradshaw and Stratford 2016). My sampling was strategic, not random, and the aim was to interview individuals who were "data-rich" and likely to express a particularly interesting or pivotal view (Watts and Stenner 2012: 79). The participants in this thesis were individuals who were practicing reindeer herding, organized activists, or environmentalists. For this study's purpose, 'environmentalists' is defined as any person who actively participates in an environmental organization.

At Frøya, I reached out to the people involved in the local group 'Aksjonsgruppen' by SMS. Four out of five people asked immediately responded positively; the last one answered me four months after the text was sent, saying yes to the interview. At Fosen, I first tried to get in touch with the three reindeer herders from the South-group in February 2020 but did not respond. I tried again with the same people in June 2020 over Facebook messenger and got a negative reply from all three. At the same time, in June 2020, I contacted Lena, future reindeer herder from the North-group at Fosen, over messenger, and got a positive reply. She also put me in touch and mediated the contact with her father, Terje. Aslak, from the Norwegian Sámi National Association (NSR) lives in Oslo, and I knew him from my time in Young Friends of the Earth Norway, so we met for an interview in June 2020, Oslo. Aslak put me in tough with Kjell, whom I emailed and then interviewed over zoom. In the end, 8 of 12 of the people invited to participate did so. All participants involved in this study signed a consent sheet, allowing me to use their real names, see section 4.6.1 for more on this.

When I first started the interviews, I went to Frøya in February 2020. The local activists were easy to get in touch with and very welcoming. I have reflected on this later on, as I struggled

to get in touch with those organizing the resistance at Fosen. In my view, I think that the activists at Frøya felt overlooked and kept asking me questions of why I was interested in Frøya; they were very positive towards me. On the other hand, at Fosen, it was particularly challenging to establish contact with the indigenous Sámi community at Fosen, as I am an outsider. Moreover, building a research relationship with an Indigenous community cannot be based on a "helicopter" approach where I drop into their lives for a short stay and then disappear with the information I need, never to return. These research relationships require lasting and durable commitments. It is a process of cyclical reciprocity predicted on a continual renewal and sharing of knowledge (Johnson and Madge 2016: 84-85). In addition, it may seem that the Sámi community at Fosen might be overexposed to researchers and media over a long period, making it a case of 'research fatigue' (Hay 2016). My responsibility to the research participants is such that I should not take advantage of someone's less powerful position to gather, nor should it cause harm, neither physical nor psychological (Dowling 2016). I do not deem this a case of harm; however, I wanted to show respect and understanding and not impose myself. I will always have the choice to be an activist or not, the Sámi population does not have that choice; they are fighting, not necessarily because they want to, but because they have to.

However, a mitigating factor turned out to be that I am partly an insider as I have a lot of experience from the Norwegian ENGOs of Natur og Ungdom (Young Friends of the Earth) and Naturvernforbundet (Friends of the Earth) and knew people from the movement that put me in touch with other people. Thus, this experience has taught me to stay flexible, take advantage of the unexpected and patient throughout the whole fieldwork process, and always make up a plan B or even C and think them through methodologically. I was already in contact with a potential person for an interview, originally from Fosen, but recently moved to Finnmark, making the travel impossible to make within my budget. Therefore, I decided to go through with an interview on Zoom. I also contacted Aslak, who works for NSR, as I knew that they would have experience and involvement in the case at Fosen, making them 'data-rich.' Although the result deviates from the original plan, I would argue that I could still capture the cases' critical aspects.

4.4.3 Interviewing

The thesis's primary source of empirical data is eight semi-structured interviews focused on in-depth and detailed accounts of the local knowledge production, involvement, and tactics in the resistance, lasting between 45-80 minutes. The research began with individual interviews with local activists at Frøya and Fosen. Individual interviews were used to encourage and allow in-depth and detailed accounts for their experience with the process, their knowledge production, and the consequences of the development (for justice). Understanding perspectives in complex social situations usually require some form of in-depth interviewing or observational method that often results in a deep and detailed appreciation of complicated issues (Bradshaw and Stratford 2016). The research was presented as a project on 'the local resistance against wind power development in Trøndelag.' The interviews were recorded and transcribed for a thematic analysis. Participants are identified by first name and locality or organization (for example, 'Ola, Frøya' or 'Aslak, NSR'). Initials (HSE) identify the researcher. The interview-guide used during all interviews was designed after the funnel method to make the interview subject more relaxed and start the conversation about what I considered more straightforward questions to answer (Hay 2016). The first questions touched upon the subject's role in organizing the resistance and contributing to so far.

I interviewed four of the activists at Frøya involved in establishing the people's movement against the wind park development at Frøya (*Folkeaksjonen mot vindmøller på Frøya*). Moreover, I interviewed two actors within the ENGO and Sámi rights movement and two interviews conducted at Fosen with local Sámi reindeer herders. Initially, I thought of interviewing local landowners who had voiced their resistance against the wind park development at both Fosen and Frøya and developed an interview guide for that purpose (See Attachment II and III). The local landowners are often involved earlier in the process and have greater access to information; however, their space for action is limited as the state can expropriate land for the industry's development. Furthermore, I knew that landowner was and still are, offered money from the wind park companies, as part of the leasing contract. Some landowners have declined this money, being principally against the development. However, during my fieldwork at Frøya, I realized that this would be too comprehensive for the thesis, and decided to limit the scope, focusing on the local organization and mobilization through local activists only. The following table provides an overview of the different interviews that were conducted (Table 2)

Table 2: Overview of interviews.

	Name	Place	Description of informant	Length of interview
1	Hege	Frøya	Frøyværing, member of 'Aksjonsgruppen' from the start. Working at a local shop.	60 minutes
2	Ola	Frøya	Moved to Frøya and worked in the municipality administration as advisor on environment. Holds an education in biology. Member of 'Aksjonsgruppen' from the start. Works as a teacher at the high school	70 minutes
3	Eskild	Frøya	Frøyværing, leader of 'Aksjonsgruppen' and involved from the start. Married and father, works as a sheep farmer and holds a position on the municipal council for the Norwegian Socialist Party (Sosialistisk Venstreparti).	80 minutes
4	Astri	Frøya	Frøyværing, former member of 'Aksjonsgruppen', had to withdraw because of personal issues. Still visits the camp whenever she can.	70 minutes
5	Aslak	Fosen	Sámi indigenous, originally from Finnmark, lives in Oslo. Works as a political advisor at Norwegian Sámi National Association (NSR). Was partaking in the civil obedience demonstration at Storheia, Fosen in 2018. Has worked with wind power through Young Friends of the earth (Natur og Ungdom).	60 minutes
6	Kjell	Fosen	Originally from Fosen, lives in Finnmark. Has worked against land-use intervention at Fosen for over 20 years. Holds a degree in agronomy. Was partaking in the civil obedience demonstration at Storheia, Fosen in 2018. Is a member of Friends of the Earth (Naturvernforbundet).	75 minutes
7	Terje	Fosen	Sámi indigenous, originally from Fosen. Works as a reindeer herder at North Fosen and will retire in 3-4 years. Is the father of Lena.	45 minutes
8	Lena	Fosen	Sámi indigenous, future reindeer herder at North Fosen when her father, Terje, retires. Married and has children.	45 minutes

4.4.4 Documents and secondary data

When collecting data, I have designed for what Bradshaw and Stratford (2016: 77) refer to as triangulation, to ensure rigor in the data set. Triangulation involves using multiple sources, methods, investigators, and theories (ibid). Thus, I also analyzed state documents such as white papers and planning documents concerning the development process in Norwegian wind park development. I also did participatory observation of demonstrations both in Oslo and in Trondheim, and I observed the trial between the state and Fosen Vind DA and the Sámi reindeer herders at Fosen. Being an observant in the trail gave me insight to better understand the experiences of the reindeer herders at Fosen and how the development of wind power is effecting them (Watson and Till 2010: 12). Moreover, partaking also gave me the insight of the power relations between the Sámi population and the state (here represented by Statnett) – an experience that made me question if researching Fosen was the ethical thing for me to do. At the time, I did not have enough insight on decolonization and the situation at Fosen. If I had known what I know today, I would not have chosen Fosen as a case because of the pressure they are under form the state and from research environments. In some sense, I find it difficult to defend the decision to stay with the case. However much I try not to exploit the lived experiences, I cannot avoid the fact that a thesis will advance my career in some way (Wråkberg and Granqvist 2014: 88).

The secondary data consists of OED and NVE's documents on wind power development. OED and NVE both defined a green transition and how to respond to climate change and cut CO_2 emissions, which contrasted to the interviewees' definition in chapter 5. I wanted to look at some of the opposing views from different actors on both sides of the conflict. The documents take the form of official mid-term and long-term strategic plans (NVE and OED) to develop wind parks in Norway called the national framework (NVE) and White paper 25 and White paper 28. Furthermore, I included the verdict from Frostating Court of Appeal in order to look at what the Norwegian court system says about Sámi rights and to be able to refer to Storheia, which is located at South-Fosen. I also used news articles from different Norwegian media outlets, which consists of web formal and informal opinions. The document analysis is used to locate the politics and different actors, their position in the field to locate their stand on nature, justice, and distribution within the green transition. Table 3 below provides an overview of the documents and how they are used.

Table 3: Overview of secondary data

Title	Norwegian title	Publisher	Year
White Paper 25	Stortingsmelding 25. Kraft til endring: Energipolitikken mot 2030	Ministry of Petroleum and Energy in Norway	2016
National Framework for Onshore Wind Power Development	Nasjonalt Rammeverk for vindkraft	Norwegian Water Resources and Energy Directorate	2019
White Paper 28	Stortingsmelding 28. Vindkraft på land: Endringer i konsesjonssystemet	Ministry of Petroleum and Energy in Norway	2020
Verdict, Frostating Court of Appeal	Overkjønn	Frostating Lagmannsrett	2020

4.5 Analytical strategy

A thematic analysis was used as the analytical strategy, as I wanted to identify patterns across the data set to interpret these in a meaningful and systematic way (Alhojailan 2012). The strategy was chosen to make the empirical data speak to the broader theoretical approach and the discussion-taking place in chapter 6. This thesis is designed in a deductive manner and is a theoretically informed study. In this way, when analyzing my knowledge and preconceptions, the researcher inevitably influences the identification of themes (Joffe and Yardly 2004: 58). When analyzing, I focused on interpreting data to give a detailed account of particular aspects within the data set; this will then be at the expense of providing a full account of the material. However, I argue that the strategy's strength makes up for this weakness, as it provided me the opportunity to stay flexible when I moved forward with the analysis. Moreover, as this is an in-depth case study, it was important for the thesis's quality to leave something out in order to give a detailed account of the aspects chosen. The strategy's apparent weakness is how I chose to solve to present the findings, separating the analysis from the discussion. The separation limits the narrative of the findings, however realizing this too late, I could not start on restructuring chapters 5 and 6 as this would have

reduced the quality of the thesis. If I had the time, I would have structured the analysis and discussion in three separate chapters.

4.5.2 Coding

To organize the empirical material, I used the computer coding-program, NVivio. First, I read all the transcripts highlighting areas of interest and following my theoretical framework. Using this strategy, coding is focused on noting patterns in the data and dividing the data to clarify their detailed content. The strategy for analysis was chosen to operationalize the theoretical framework and interpret and discuss the empirical data in a systematic way. Thus, six thematic categories **Considerations** were developed from the theoretical framework: **1**. **Impact, 2. Vulnerability and Risk, 3. Responsibility and Representation, 4.Recognition and Influence, 5. the Logic of Arguments and 6.** Table 4 gives an overview of the content of the codes.

Table 4: Overview of thematic themes and codes

Thematic Theme	Definition	Manifest code	Latent code
1. Impact	The impact of the development on economy, nature and community	Distribution and degradation of nature	Commodification of nature and knowledge production
2. Vulnerability and Risk	Whether impact are producing increased vulnerability and risks	Increased human vulnerability, access to resources	Knowledge production
3. Responsibilities and Representation	Whether the local protesters are respected and able to participate in the political community as full members	If rights are acknowledged by the government and developers	Power relations
4. Recognition and Influence	How access to and control over changing resources are distributed and if local participation is achieved	Cultural and material recognition, influence on decision-making, equality of opportunity	Power relations
5. Logic of Arguments	If arguments for the development are logical and justifiable	Participation in the knowledge production	Knowledge production
6. Consideration	Whether inputs are being noticed and seriously considered by the government and developers	Recognition of inputs, participation in the development process and response from government and developers	Knowledge production

First, all interviews were coded into the broad conceptualizations used in the introduction and the theory and highlighting interest areas. All mentions of the terms' green transition', 'colonialism,' 'land-use,' 'profit,' 'double burden' in the transcripts were identified as all manifest codes and easiest to find as they were directly observable the data. Using this strategy allowed for selecting sections from the interviews where the participants were using

the term or discussing examples of the term's use. Second, latent codes such as knowledge production and power relations were identified. I then developed latent level codes, such as talk in which green transition is implicitly referred to, for example, by a comment about wind power development or hydropower. The second step was deductive coding, drawn from the existing theoretical ideas framing my thesis. The thematic analysis conducted later in chapter 5 draws on both types of codes, and when the manifest theme is the focus, the aim is to understand the latent meaning of the manifest themes observable within the data, which requires interpretation (Joffe and Yardly 2004: 57).

Third, the codes were placed into broader thematic categories derived from the theoretical framework. To establish what a theme is, I looked for something of relevance to the research question that could be identified across the data set. Assessing relevance was essential to construct thematic categories; the more the subject was mentioned by the participants, the more relevant it was, and this way, I was able to reduce the number of themes to six (Table 4). The statements within each category were chosen because they highlight the experience of the issues at hand. Then, the themes were reviewed during the whole analysis process by comparing themes by asking questions to the data material such as; are the empirical codes exemplifying the theoretical literature? Do the codes challenge, expand, or engage the theoretical framework? The approach examined both the consistencies and contradictions within the participants and specifically on the contradictions of knowledge production to the white papers and the National Framework for Onshore Wind Power Development in Norway. For the secondary data, the White Paper 28 and the National Framework on wind power development, all mentions of the terms' wind power ', 'biodiversity,' 'Sámi,' and 'reindeer' in the documents were identified. The strategy allowed selection of sections from the texts where the terms were used. The questions that the thesis seeks to explore do not center on the legal legitimacy of these policies, but on the extent to which some stakeholders regard the compromises explicit in these decisions as being fair and just. In practice, of course, the analysis jumped between levels and progressed erratically.

Fourth, I went on to consider the implications of the different parts of environmental justice for power relations between the participants and the government. I examined who was speaking and who was heard and interrogated the different interests that might be served by different accounts. Furthermore, when moving from coding to analysis, once the codes have been developed, I determined the reliability with which the codes can be applied. An initial

impression of reliability can be gained by applying the codes to the same piece of text on two occasions separated by a week or so (a kind of 'test-retest' reliability) (Johannessen et al. 2012). The evaluation of the validity comes down to the validity of analysis in qualitative research, and that is why I have laid out the strategy for analysis in a clear and reporting manner. Finally, I repeatedly returned to the research implications for all of the participants and my role within it. I considered how the material could be fed back to the local activists and its impact on practices. I reflected on my interpretations, double-checked tapes, went back to the literature and the transcripts again to make sure that the informants were saying and meaning what *I* believed they were saying and meaning.

4.6 Ethical considerations

The thesis's ethical considerations relate mostly to my role as a researcher and power relations inherent in the research process. As I have political experience from the field in advance, and I chose to disclose my experience before the interviews were taking place, I wanted to make sure that interviewees felt safe to speak their minds as both cases have mistrust elements towards others. Furthermore, the experience from ENGOs gave me an advantage when approaching the field of research as I already had the insight to the national process and policies on the issue at hand.

When creating the interview guides, I assessed some literature on developing open-ended questions best, allowing space for different opinions and political views (Cannell et al. 1981; Elin Sæther 2006). I did this to reduce and become aware of my power as a researcher, as it is essential to acknowledge the inequalities of power between observer and participant in an interview setting; how and what kind of questions are asked and how I formulate them influences the answers of the participants. However, being sensitive to power relations does not remove it because social science, as we know it today, rests on an irreducible level of domination, and in the final analysis, what we write as researchers are outside the control of the participants (Buraway 1991).

Indeed, the interviews should allow the capture and understanding of the local understanding of the meaning behind the complex political situation, regardless of my stand. It was never my goal for the interviewees to match my political views, and I never asked or demanded the enclosure of their political position. I only interviewed people opposing the development, I

did some research through news articles which showed me that the resistance is not a homogenous group of people. The people involved in the resistance belong to all kinds of Norwegian political parties from left to right, as well as environmental NGOs and Sámi political parties and organizations (NRK 2018, 2019). I wanted to put forward the opinions and the point of view of the local activists in a respectful manner; however, translating the interviews from Norwegian to English can cause some ethical concerns, as the translation will be my words, not the interviewees.

4.6.1 Norwegian Center for Data Security

The Norwegian Center for Data Security (NSD) oversees all research conducted in Norway, and all master's thesis has to apply for approval of the project before collecting data (NSD n.d). The thesis is in accordance with NSDs guidelines for ethical research. The interviewees are all named and have signed a declaration of consent (see Attachment I), which states that they allowed me to use their full name and organizational position. I chose to disclose the subjects' identity, as there are no ethical considerations about having their names in a public file because they are already known through media or official political positions. Thus, a declaration of consent was provided for the interview subjects, and they were all told before and after the interview that at any given moment before the thesis was due, they were able to withdraw their consent. All the data was recorded on a digital tape recorder borrowed by the Institute for Sociology and Human Geography at the University of Oslo, the files were uploaded on my private computer, and all audio files were deleted right after this thesis was handed in. The process is in accordance with NSD's recommendation of how to handle data.

4.7 Validity and Reliability

For this thesis, I have designed for method triangulation, using interviews, participatory observation, and secondary data sources in order to be able to confirm the findings from the interviews or add to certain assumptions, perspectives, conclusions, and incidents from the secondary data (Johannessen et al. 2012: 230). The process helped me assess the data's credibility and evaluate the extent to which the data and the data interpretation reflect the reality I have studied (ibid).

Moreover, the thesis aims not to be objective; instead, the aim is to be reflective of my subjectivity and biases. Trying to understand the meaning of particular aspects of social and spatial life and meaning is always a matter of interpretation; thus, a value-free account is not the product (Mansvelt and Berg 2016: 410-411). The problem of objectivity is compounded by the problem of validity, namely, intensive research limits the possibility of generalization (Buraway 1991: 2). The intensive research strategy demanded a critical inquiry of the cases chosen, grounded in the observation of a phenomenon or category in the real world at a specific point in time and space, which in turn cannot be generalized to a different context (Bailey et al. 1999: 171). At Fosen and Frøya, the cultural context was different, and in this way the findings of injustice experienced by the Sámi reindeer herders cannot be applied to the context of Frøya.

As previously mentioned, a research diary was kept to develop and document links between the scientific (rational) and rhetorical (creative) research. The diary ensured reporting so that the theoretically informed accounts of social phenomena, grounded in people's everyday experience of this study's participants, are produced (Bailey et al. 1999: 172,175). Overall, this is the apparent weakness of the thesis; how to ensure that the reflexiveness is right and enough for it to contribute to the validity of the thesis? The reflexive writing-in of research experiences and assumptions does not necessarily lead to the validity of the thesis if the writing-in is treated as one stage in the research process; thus, for this thesis, it was applied continuously to each stage, from the early planning, establishing of relations in the field, to the writing of the analysis and conclusions, to represent the findings authentically (Bailey et al. 1999).

There are two apparent weaknesses concerning reliability for the thesis. First, by translating the citations, they might become something else the informants cannot stand for. In this way, a critical assessment of my subjectivity was done by going back to the empirical material to evaluate whether the informants were saying and meaning what I believed they were saying and meaning. Second, there is a danger that the analysis may fall into a top-down deductive approach, in which the 'selective' use of qualitative data (transcripts, field notes) may be used to legitimate pre-existing theories (Bailey et al. 1999: 171). A workable solution to this dilemma is to ensure that both the social context and the empirical material critically inform the analysis together, which demands a synthesis or rhetorical and scientific thinking, and may be managed by validity in terms of reflexive management, as mentioned above.

Furthermore, in theory, proving faults is also a finding and can further advance the theory; however, that is not the aim of the thesis. The point made is that defending a theory as flawless seems relatively meaningless.

Lastly, I have collected a large amount of data for the scope of a master thesis, which could be a problem for the representation of the two cases. Both cases are data-rich, so having an angel and point of entry was necessary to narrow the thesis's scope. Furthermore, reflexive writing-*in* can contribute a way of validating the presentation of the findings. Reflexivity rests on my ability to 'question' the testimony of the respondents; are they telling me what I want to hear? In addition, in my awareness of the theory's development, am I seeing what I want to see? (Bailey et al. 1999: 172).

4.8 Summing up

Summing up, this chapter has explained the ontological, epistemological, and methodological assumptions of this thesis, all informing the subsequent analysis and interpretation of the data in chapter 5 and 6. Moreover, the point here is for me to be transparent about the choices I made for the research design and the following analysis. In other words, if the interpretations upon which the descriptions are constructed can be articulated clearly and logically so that the reader can follow my interpretations and conclusions (Blaike 2007; Creswell 2013: 4). In this chapter, I have tried to foster openness to avoid the most damaging criticism of engaging in 'anything goes' science as the thesis's integrity (rigor) depends on procedures being made explicit and systematically evaluated (Baxter and Eyles 1997: 521). In addition, being open and transparent of the research process's strengths and weaknesses makes it easier to assess the validity and reliability of the findings. In the next chapter, I turn to the analysis, presenting the findings from the empirical material.

5. Thematic analysis

This chapter provides the analysis of the thesis. I chose a thematic analysis to give a systematic overview of the findings and connect the topics of the two very different cases. In order to further look into how the different categories of justice are perceived, this chapter presents findings from the interviews and the issues emerging in the material - according to the six thematic categories of 'impact,' 'vulnerability and risk,' 'responsibilities and representation,' 'recognition and influence,' 'logic of arguments' and 'consideration' - as presented in chapter 2. All categories are derived from the environmental justice framework and relate to political ecology, which is considered subcategories to operationalize the conceptual framework and make it a useful analytical tool. The categorized findings will be related to why the local resistance to wind power development has occurred and how the resistance relates to a perceived degree of justice and fairness. The conflict surrounding wind power development in Norway lies in the intersection of human-nature conflict and environmental justice, especially in terms of semi-domestic reindeer herding. At the most obvious level lies the distributive justice issue, which centers on who should carry the negative costs caused by wind power development and, in extension, a national energy transition.

5.1 Impact

The term 'impact' is here employed as a broad term; the thematic category covers economic distribution and commodification of nature and the impact the development has had on the local community. In this section, the thematic category includes the manifest codes of impact on nature and community, and the latent code includes knowledge production and problem framing on how to battle climate change.

At **Frøya,** the development of a wind park in Nessadalen has caused concerns about biodiversity's impact. During my interview with Astri, a local activist at Frøya, expressed frustration over the Green Certificates; addressing the motives for building wind power in Norway:

> *"(...) it is about money. It is all about money. The government has used subsidies to draw ordinary electricity consumers into the wind power industry. What if the*

subsidies we pay ourselves could have upgraded people's homes to become more energy efficient? This way we would have saved energy, we would have saved the climate, but they are not interested in looking at it because wind parks are a business model (...)"

"(...) it is the wind power developers who have won the battle over the capital in this case. They are only interested in building because it is profitable, and it is subsidized. They are paid to rob the people at Frøya. It is outrageous".

(Interview Astri 04.02.2020).

Astri's statement addresses a typical perceived unjust distribution; the consumers of energy and local inhabitants have to pay for the development over the electricity bill. The Green Certificates are designed in this way, which inherently is thought of as an equal distribution of the economic burden an energy transformation requires. However, when the outcome, wind power development, is seen as unjust because of its damage, the arrangement of GC will subsequently be seen as unjust. For distribution outcomes to become just, it requires a fair process for the distribution of goods and benefits, which is not the case for the local activists at Frøya. Stadtwerke München, a German municipal company, holds 70% of the shares in Frøya Wind Park (Moe 2019). Eskild, the leader of the local activist group at Frøya' Aksjonsgruppen', states that Stadtwerke München would not have been at Frøya were it not for the opportunity for profit:

"Had it not been for the scheme of Green Certificates, Stadtwerke München would not have come to Frøya. It is quite clear, even the economists say it outright, that the developers are not here because of the green transition; they are here to make money. Their job is to make money, and they go for opportunities. For them, wind power in Norway is lucrative. Central politicians are responsible for the design of the scheme. It is a system that's not working" (Interview Eskild 04.02.2020).

Both statements above relate to socio-nature relations in a capitalist mode of production; a societal development logic consists of profit-making, capital accumulation, and the related social power. Through this process, the society organizes its material foundations, including its relation with nature (Brand 2016: 509). For the local activists at Frøya, the development of

wind power means that profit is valued over the local biodiversity and that their local environment is sacrificed for foreign companies seeking to profit from the energy transformation in Norway. However, as noted in Eskild's last sentence above; this is allowed to happen through the green certificates system, designed by the Norwegian government. Moreover, the premise for building wind power in Norway is cutting coal and fossil fuel within the European Union. For the local activists at Frøya, the burden of distributing consequences is perceived as unjust; the premises are rejected as a justification for the development.

Furthermore, the taxing system for wind parks is much lower than other energy industries. Historically, Norway has had an attitude that companies need to pay society back when borrowing our shared resources. The oil companies are taxed 78% of their revenues, and hydropower production is taxed 59%. In contrast, the wind power companies pay ordinary corporation tax at 22% (Skårderud 2020: 4-5). Furthermore, the wind power companies also have favorable special rules, which means that they pay little or no tax in Norway during the first years of operation (Figved et al. 2018). In this way, the change in the taxing system for energy development underlines that there has been a change in how the Norwegian government relates to natural resources and values nature. When developing hydropower as an energy source, water was the natural resource that the Norwegian state borrowed from society and collectively owned together with society, thus putting high taxes on nature interventions. For wind power, the state is now facilitating companies' profits by offering a lower tax, moving away from that natural resource is collectively owned by all. The shift is further underlined by the investigation on where the money from wind power ends up. For example, journalists' recent work shows that the surplus revenue from Tellenes Wind Park in Rogaland is transferred to the Cayman Islands and tax havens (ibid). In this way, the system is built on the logic of a capitalist market, which leads to a contradiction for the locals experiencing wind power development in their community as there is a contradiction between the implied subsidy to wind park and the way the profits are then moved off-shore.

At Frøya, not only is the damage done to nature a concern, but the wind power development is also causing worry about their largest workplace, Salma, which can potentially be affected by the degradation of nature due to water pollution from the wind park development:

> *"We have a large fishing industry complex at Frøya, Salma, completely dependent on clean water. If Salma is closed down, we will lose our biggest workplace out here, we will have something, but Salma keeps Frøya running. I think that is a huge risk. I cannot understand that the developers are allowed to build such a large facility without it being properly impact assessed (...)"* (Interview Astri 04.02.2020).

The last sentence refers to the microplastic coming from the wind turbines, which has not been assessed by the NVE. Microplastic is a relatively new pollution issue; however, it has gained attraction as a severe issue for ecosystems in the ocean, mainly because most of the detected microplastic comes from garments. Hence, available information regarding the risks related to wind power development in terms of emerging pollutants, particularly microplastics, is scarce (Wang et al. 2018). For Frøya, the potential of an emerging pollutant is of great concern and has not been addressed in the pre-examining done by NVE. Thus, Astri's statement points to the potential increase in community vulnerability, both in health and economically. They also experience that their right to maintain a livable environment is violated to benefit profit-seeking companies. I will elaborate on this in section 5.3 Responsibilities and Representation.

At **Fosen**, Terje, a reindeer herder in the North-group, expressed concerns over the future of reindeer herding because of the loss of areas, leaving the future livelihood of his daughter uncertain:

> *"HSE: Why do you think it is essential to continue with reindeer herding for the next generation?*
>
> *Well, it has always been a Sámi way of thinking that we use and borrow the land. As we say, we borrow the land we operate in, and then we deliver it to the next generation in a healthy condition. That will not be possible here at Fosen, since the government has destroyed as much as they have. I feel it as my obligation to facilitate, so there may be opportunities to take over after me because reindeer herding is an industry that is valuable in many ways, and we produce Norway's most sustainable food. No one can compare with us on that, so it is clear that it is a driving force in itself for me, it is also a profession that we are proud of and which I want to pass on to the next generation"* (Interview Terje 02.07.2020).

The statement points to the potential loss of material foundation for the reindeer herders at Fosen. In this way, it is a case for unjust costs of distribution and unjust concerning intergenerational justice. Lena, the daughter of Terje and the heir to the reindeer-herding district at North-Fosen, expressed concerns for her future as a reindeer herder, even though she wants to continue the Sámi and family traditional way of life:

> *"(...) my father will retire in 3-4 years, and then it is my turn to fight for what he has worked so hard for, that I will have the opportunity to take over. (...) I have to start paying extra attention to what he does. It is a new workload for me in the future and for him now, which is related to the changes that wind power development has already caused. The reindeers are quite scattered now, and we will have a lot of work to do to get back to the same way it used to be or at least roughly how it was. So it is going to be tough for me. However, my father has not given up, so neither will I"*
>
> *"(...) I try to be positive; however, we will have to see how it ends up. So far, the future does not look promising, but I will not give up without having tried at least"* (Interview Lena 02.07.2020).

The social-nature relation is, in this sense, turned into commodities for the reindeer herders at Fosen. In Sámi culture, the relation to nature is a unity between use and protection (Riseth 2007). Moreover, the relation to nature in indigenous communities might not always be on profit-making in the sense of a capitalist mode. At Fosen, the Norwegian state to claim the reindeer meat production is ineffective, and during the court case in December 2019 in the Frostating Court of Appeal, the arguments from the previous state attorney, now representing Fosen Vind Da, Johan Remmen, followed the same argument:

> *"I was partly present during the court case in Trondheim and listened to Remmen argue that the total production in reindeer herding is so small, that there is practically nothing to consider when considering wind power development. There are so few tons of meat coming out of Fosen that society can ignore it; it has little social significance. At the same time, the international conventions, like ILO 169, says that we should not compare reindeer herding with economics, that it is an absolute right*

> *to maintain an indigenous culture and traditional livelihood independent of the economic production value"* (Interview Kjell 01.07.2020).

The findings here show that the distribution and impact on the local community at Fosen are seen as unjust. Moreover, as Lena points to above, the impact on the workload for the reindeer herder has changed. Scattered reindeers are harder to herd, increasing the burden of work for the future reindeer herders in areas where wind power is developed. Equal access to nature is a matter of distribution, relating to the reindeer herders right to land as the reindeer production systems depend on the extensive use and access of forest and alpine tundra (Jacobsen and Linnell 2016: 201). Furthermore, for the local inhabitants at Frøya, access to nature without interfering construction is important as they highlight nature's intrinsic value, which cannot be translated into price-setting systems. Overall, this relates to nature-society relations; how nature is valued by society. For the local activists, ecological justice is about an interconnected relationship to nature in Nessadalen, the wind power development site. They use the area for fishing, hunt, camp and recreational use such as hiking. The connection to nature and how they used it for recreational purposes was something all the participants highlighted, and they all experienced that they are now losing access to an area they have always been able to use. Eskild told the story of how his great-grandparents met at the 'love path,' a nature-path that connects the west and east Frøya, which is now located inside the wind park area out of reach for the locals. Furthermore, for Aslak, the alteration in the nature-society relation and how nature is valued needs to be addressed:

> *"The big elephant in the room is economic growth; we cannot build our way out of the problem of climate change with wind parks or with more efficient power lines. I believe that we need to address the problems of economic growth, and also fair distribution globally"* (Interview Aslak 26.06.2020).

In the Norwegian case, we, therefore, see fundamental tensions in the logic through which the state and wind developers, on the one hand, and Sámi and local communities, on the other, approach their use of the land. For the former, it is about profit, and their actions reflect a clear separation of society and economy from nature. For the latter, they understand their ways of being linked to their use of the land and nature.

5.2 Vulnerability and risk

The thematic category of vulnerability and risk refers to how the burden of climate change is distributed and put more at risk by interventions in land-use. The category also covers how rural areas can become more vulnerable when wind power is developed. The manifest code relates to the increase in risks and burdens by both climate change and land-use interventions. The latent code of the section covers the production of vulnerability.

The nature at **Frøya** consists mostly of coastal heath (*kystlynghei*), which is the oldest form of the cultural landscape in Norway and defined as endangered by the Norwegian Environmental Agency (The Norwegian Environmental Agency 2013). The changes in nature that the development is causing is irreversible as parts of the mountain have to be blasted out with dynamite. The interventions in nature cause concerns among the local activists that the wind power development in Nessadalen will lead to biodiversity loss and degradation of nature:

> *"Frøya is located far out on the coastal shore, where the water meets land. This landscape is called coastal heath, a type of internationally endangered vegetation, and which has a national protection status in Norway. However, the developer writes in the environmental, transport, and construction plans (MTA-plan) that there is so much coastal heath here that the project must disregard consideration for the coastal heath. If they do take it into account, the project will be impossible. Furthermore, we also have a limestone channel that runs in the middle of the wind park area, which means that area is rich in species (...) and the area is also home to the coastal population of Hubro, and the main migration corridor for Arctic birds along the coast, so every autumn and every spring there are millions of birds flying north /south over Frøya"* (Interview Ola 03.02.2020).

Ola's concerns are supported by the Norwegian Environment Agency report produced for NVE's National Framework on Onshore Wind Power Development:

> "*Of the endangered coastal nature, coastal heath constitutes one of the habitat types considered to be particularly vulnerable to extensive development. Coastal heath is found in Norway along the coast from Agder up to and including Nordland. However,*

> *coastal heath is increasingly endangered landscape type due to demolition and land-use pressure in some areas and changes in land-use in agriculture, both the intensification and non-use with subsequent overgrowth*" (The Norwegian Environmental Agency 2019: 9. My translation).

Coastal heaths are also the habitat for several endangered and nearly endangered species (ibid: 10). At Frøya, the area where the wind park is developed is a nesting area for Hubro (*Bubo Bubo*):

> *"(...) we have one couple who have their hunting area in the same area where the wind power is developed. The couple has produced hatchlings for many years; however, they did not produce any hatchlings last year. Moreover, the Hubro couple has recruited other birds to Frøya, (...) so locally, it is clearly the Hubro is put most at risk of extinction by the wind park development"* (Interview Ola 03.02.2020).

In addition, coastal heath is wetland areas with mires, which is a type of wetland containing large amounts of carbon stored for thousands of years. Plants that die in the mire sink into the water and form deep layers of peat. The total amount of carbon in all the world's mire is about the same as in the atmosphere, according to Weldon et al. (2016). Norwegian mire stores at least 550 million tons of carbon on five percent of the land area, corresponding to approximately 3,500 million tons of CO_2 or Norway's greenhouse gas emissions for 66 years (ibid). Reduction in areas and conditions has led to us finding 19 habitat types in wetlands on the Norwegian Red List of Habitat Types 2018, of which 14 are considered endangered (Artsdatabanken 2018). About 15 percent of our endangered species (174 species) live in wetlands (ibid). A paradox arises, as the goal of cutting CO_2 emissions will most likely not be effective without preserving the natural storages of CO_2 in the mire. Moreover, the White Paper 28 recognizes the threat of land-use changes to biodiversity:

> *"(...) in Norway, land-use changes are the most important influencing factor for nature. It includes both physical encroachments in general and land changes in agriculture and forestry. The UN's nature panel report tells us that all countries must pursue an active policy to avoid a piece-by-piece degradation of nature"* (White Paper 28: 39. My translation).

The question is then, why are the developers allowed to disregard the international obligations? Furthermore, in 2019, the Norwegian Environment Agency submitted a report to NVE on all areas in Norway that should have been excluded from wind power development based on consequential habitat types or important species and biodiversity in the area. Frøya is mentioned as an important area for birdlife and migration, and the Norwegian Environment Agency, therefore, advised that no wind power should be developed at Frøya (The Norwegian Environmental Agency 2019: 123). Furthermore, this also the case for some of the areas at Fosen; the Norwegian Environment Agency does not recommend the development of wind power at Roan, Bessakerfjellet, nor Harbaksfjellet as these areas are important breeding areas for Hubro and other so-called management-priority species such as sea eagles, peregrine falcons and small loons (ibid: 128). Moreover, the IPBES report released in 2019 clearly states that economic growth is a threat to biodiversity (Bartlett et al. 2020). Based on my data material, I argue here that the Norwegian government is structurally ignoring environmental advice for the sake of profit and in this way is a barrier for ecological justice at Frøya.

> *"(...) we see that the environmental authorities are not heard. Hopefully, they will eventually be heard, but when? It is impossible to have economic growth as the only parameter for development; nature must be valued just as much. Maybe even more so, as I see it, but the shareholders think differently"* (Interview Eskild 04.02.2020).

At the heart of Sámi, resistance to wind park development at **Fosen** is concerned over the fragmentation of their pasture land. The concern is caused by multiple factors, with wind park development being just one. The winter of 2019/20 was measured to be the warmest in Norway since the Meteorological Institute began temperature measurements 120 years ago. In addition, 70 percent more precipitation was registered than the period 1961-90 (The Meteorological Institute 2020). The precipitation fell as snow in several areas used for winter grazing for reindeer, resulting in large amounts of snow. The winter weather was also volatile, with alternating mild and cold temperatures. This led to the pastures being 'locked,' i.e., hardened layers of ice formed inside the snow. Similar winters have occurred before, e.g., the winter of 1999/2000, where locked pastures occurred extensively with fatal consequences for reindeer herding (Nymo 2020). Climate models show that such winters will occur more often in the future, and mountain areas with coastal climate will receive more significant rainfalls, like Fosen. During winters, this will come as snow and provide difficult

grazing conditions. The milder winter climate is also expected to result in more frequent icing of pastures (ibid).

> *"During the winter, what we call locked pastures can occur. This happens when it first rains, then it gets cold, and an ice cover occurs, which makes it very difficult for the reindeer to get to the food (...) Fosen is close to the coast, and therefore, the areas can be used for grazing during the winter, the areas are used carefully and in a cyclical manner. So the logic in reindeer herding is that if an area is rarely used, the area is even more valuable for the herders"* (Interview Kjell 01.07.2020).

When winter grazing, the reindeer digs through the snow and down to the underlying pasture; this is demanding under normal conditions; furthermore, with increased snow and up to several hard layers of ice in the snow, the pastures become 'locked.' Based on the serious situation, the Crisis Preparedness Committees for reindeer herding in Troms and Finnmark and Nordland concluded that there was a serious grazing crisis for the reindeer herders. About 75 percent of the domestic reindeers in Norway were without food (The Ministry of Agriculture and Food 2020). In some cases, the situation caused a need to feed the reindeers with fodder, adding an extra expense to the herders. However, during the reindeer herding negotiations between the State and the Norwegian Sámi National Association for Reindeer Herding, the grazing crisis fund was expanded based on the current crisis (Nymo 2020).

Moreover, during the crisis, the government authorities often assume that a grazing crisis is due to too many reindeer and overgrazing, which was not the case according to the herders. Thus, locked pastures affect access to areas and lead to the need to use other areas for grazing. Combined with the interventions in land areas by wind power development, the situation produces more work for the herders, a workload they are not sure if they will manage:

"The biggest challenge with wind power development is that we lose many areas, grazing area. The reindeer is forced to divide into smaller groups, and the herd spreads over larger areas than it used to before. We are only three people to do the work, and it goes without saying that when the work becomes this much more because the reindeer spreads out, the work doubles, probably more than that. It is a challenge in itself" (Interview Terje 02.07.2020).

For the reindeer herders at **Fosen**, the wind power development and the changes in weather caused by climate change put a *double burden* on the reindeer herders. The level of CO_2 in the air is still on the rise, incidences of locked pastures will mostly likely increase in frequency in the future as the weather becomes volatile coincides with human-induced land-use change such as wind power development in reindeer pastures, putting immense pressure on the Sámi communities (Österlin and Raitio 2020). When situations of locked pastures happen, it becomes crucial for the reindeer herders to have various grazing areas that can be used. Thus, land-use interventions such as wind power development in grazing areas leave the Sámi reindeer community more vulnerable, adding to the burden of climate change changes.

5.3 Responsibilities and Representation

The thematic category of responsibilities and representation covers power relations and whether authorities respect rights. The subsequent section's manifest codes relate to disempowerment and rights, both concerning the conservation of nature and indigenous rights. The latent code relates to asymmetrical power relations and how these relations affect participation in the process when developing wind power. First, the legal framings of rights related to indigenous rights and biodiversity are presented as the foundation for the rest of the analysis taking place in this section.

The duality of the purpose of developing wind power is also enshrined within the Norwegian constitution. The revision of the constitution in 2014 formalized the relationship between its citizens' rights and the state of the natural environment. Article 112 states that:

> "*Everybody has the right to an environment that secures their health and a natural environment where productivity and diversity are conserved. Natural resources shall be used within a long term and holistic consideration that also considers these rights for future generations"* (Lovdata 2014. My translation).

The paragraph can be interpreted to support the cause of both the opponents and proponents of wind power development. The right to an environment where diversity is conserved can be

interpreted as an obligation to maintain the landscape at Frøya and grazing areas for reindeers at Fosen because this constitutes a part of biodiversity. Equally, the right to an environment without CO_2 emissions from energy production contributing to climate change can be interpreted in favor of the wind power development industry because fossil fuel energy production is seen as a threat to a livable environment. It is a complex process of finding compromises between interests and the different points of view among different stakeholders concerning the compromise's nature. Overall, this is the foundation for the conflicts that exist concerning wind power development. Furthermore, the second sentence of Article 112 requires these compromises to be made in the open, informed, and participatory process:

> "*Citizens have the right to knowledge about the state of the environment and the effects of planned and ongoing human impacts on nature so that they can take care of the rights mentioned in the previous clause*" (Lovdata 2014. My translation).

Moreover, the purpose of the Norwegian Nature Diversity Act is to preserve:

> "(…) *nature with its biological, landscape, and geological diversity and ecological processes is taken care of through sustainable use and protection, so that it provides a basis for human activity, culture, health, and well-being, now and in the future, also as a basis for Sámi culture*" (Lovdata 2009. My translation).

Lastly, coastal heath has formal protection in the Biodiversity Law. In addition to national laws, Norway is also a signatory to various international biodiversity conventions including, the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), the Convention on Biological Diversity (Rio Convention), the European Landscape Convention, the Washington Convention (CITES), and the Convention on Migratory Species (Bonn Convention). Signing international treaties and conventions makes them Norwegian law. Thus, the Norwegian government should fulfill the conventions' aims and make national goals to reach them. At a global level, ignoring international advice on biodiversity has led to a second crisis, adding to climate change; the speed in which we are losing species globally can lead to the collapse of several ecosystems and further accelerate climate change. At the core of Norwegian policy is an explicit and articulated attempt to balance conflicting policy goals with prioritizing the cutting of CO_2 emissions in Europe. However, as argued, the national law on conservation of biodiversity and international

obligations oblige the Norwegian government to contribute to meaningful biodiversity conservation:

> *"The UN's nature report, which was published on 6 May, last year in 2019, states (...) that over 1 million species are threatened by extinction. That is a lot. The biggest threat is human activity and land loss, and then one can start thinking about what it takes up land? The wind power industry takes up enormous areas; it takes up a large percentage of Norwegian nature. They are grabbing the finest natural pearls; forest, mountains, and coastlines. If you see the map of Norway with all the planned developments, it is completely dense. It is a disaster for Norwegian biodiversity and biodiversity all over the world"* (Interview Astri 04.02.2020).

Astri is here referring to the IPBES report on the state of nature, which urges conservation of biodiversity (IPBES 2019). The consequent ignoring biodiversity is not due to the lack of knowledge. Norway ratified the Aichi-goals made by the UN Convention on Biodiversity (CBD) in 2010 – and the Norwegian Ministry of Climate and Environment followed up the ratification, making clear goals for Norway:

> "(…) *effective and immediate action to halt the loss of biodiversity to ensure that by 2020 the ecosystems are robust and deliver vital ecosystem services to people, thereby preserving the planet's life variation and contributing to human development and welfare and the fight against poverty*."
>
> "*By 2020 at the latest, values related to biological diversity are integrated into national and local strategies and plans for development and poverty reduction and incorporated into national accounts and reporting systems*" (The Ministry of Climate and Environmental 2011. My translation).

The knowledge is there; the question is then; why do the authorities ignore it?

At **Fosen**, a further addition is the consideration of national obligations to preserve Sámi culture, both under Norwegian national law and international law of indigenous rights. The Nordic Saami convention commits to Sámi rights; *"(…) state authorities are obliged to create*

the conditions such that the Sámi can secure and develop their language, culture, and society" (Nordic Saami Convention 2017, my translation).

Norway has also ratified ILO Convention 169 of the Indigenous and Tribal Peoples Convention, which considers the needs of the indigenous Sámi people whose culture is closely tied to the herding of semi-domestic reindeer. However, the issues of access to land from an indigenous perspective are not just about rights; it is about an intermingling of complex Sámi issues of colonialism and assimilation. The president of the Sámi parliament, Aili Keskitalo, has stated that wind power development in Sámi areas and reindeer districts in Norway, can be termed 'green colonialism' describing the processes of wind power development in Sámi reindeer grazing areas as a continuation of colonial practices (NRK Sápmi 2017). The participants at Fosen were asked whether they would apply the term to the process of wind power development at Fosen and how they would define it:

> "(...) *no matter what the intentions are behind the development of wind parks it is colonialism because the Norwegian society goes to Sámi areas to extract resources and to cover its own consumption (...)"*
>
> *"(...) I think it should be made clear that the Norwegian state has practiced colonialism for 400 years at every opportunity the state has had. It is important always to be able to tell the Norwegian society that colonialism and assimilation are not over yet and that it exists in both willful and unwilling politics today".*
>
> (Interview Aslak 26.06.2020).
>
> *"When it comes to reindeer herding and all this wind power development here at Fosen, it goes without saying that in the long run, in the worst case, this could be the end for reindeer herding at Nord-Fosen. We have lost huge areas of land, and as of today, we cannot use those areas where the wind parks are built for grazing (...)"* (Interview Terje 02.07. 2020).
>
> *"Especially in the south of Norway, where there have been many small, small, small interventions, but in total they become large, and finally the threshold is passed, and*

everything breaks down. If this happens, reindeer herding at Fosen is history; it may no longer be practiced. This is the most extreme consequence the reindeer herders in Norway are facing now. It is dramatic that you cannot practice that you lose 100s of years of experience. Then we end up in an internationally bad company, which we would rather not be" (Interview Kjell 01.07.2020).

These findings point to the violation of indigenous rights and points to asymmetrical power relations between the Norwegian government and the Sámi minority. The Norwegian history of Norwegian assimilation policies not only refers to the process of Norwegisation (*fornorsking),* a process where the government denied the Sámi population to speak their language and practice their culture. The practice was often violent, where children were separated from their family and moved into schools far away from home and family to learn the Norwegian language and culture (Wråkberg and Granqvist 2014). The teaching was often based on eugenics, stigmatizing, and oppressing Sámi people. The official policy ended in the 1950s; however, as I argue here, a colonial legacy lives on, especially when it comes to land-use and reindeer herding. In 2017, the Norwegian Parliament approved the establishment of a committee, called The Truth and Reconciliation Commission, set to investigate the Norwegisation policy and injustices done to the Sámi and Kven/Norwegian Finnish peoples (Sannhets- og Forsoningskomisjonen n.d). Now, the Truth and Reconciliation Committee is working on shedding light on the truth of the consequences of the Norwegian assimilation policies, while also aiming at reconciling between the Sámi and the majority society. The committee is set to present their findings in September 2022 with recommendations for creating a continued reconciliation between the Sámi, Kvens/Norwegian Finns, and the majority population in Norway (ibid). However, as a reindeer herder, Terje does not believe that reconciliation is possible as long as the process of building wind power construction in Sámi areas are going on:

"(...) I imagine that it will be difficult with reconciliation if we have to stop with reindeer herding out here in the worst case. Then there will be no reconciliation, as the Norwegian society has allowed this to happen to us. Actually, I think it is strange that the situation has gone as far as it has at Fosen. After all, Norway has signed some contracts with both the UN and the ILO. Had this development taken place in another country with an indigenous population, Norway would have been at the

forefront of the barricades and shouted about major abuses against the indigenous population" (Interview Terje 2020).

The development at Fosen is being treated at the UN Committee on the Elimination of Racial Discrimination (from here on CERD), where they hope that a verdict can give hope for a future decommission of the construction. However, it should be noted here that a CERD decision would only be a suggestion, which the Norwegian government then has to consider. As Kjell points out, a CERD decision in favor of the reindeer herders will not look good for Norway:

"I think that we are in very, very bad company and that a CERD decision will show that the Norwegian state has a huge problem; Norway is engaging in government-induced racism" (Interview Kjell 01.07.2020).

5.4 Recognition and Influence

This section explores the influence on decision-making, both at a local and national level. Concerning Fosen, the Sámi right to be consulted in cases that involve land-use changes and interventions in areas with Sámi activity is explored, before turning to how and if the Sámi rights according to the Norwegian constitution and the ILO convention of 169 mentioned above are recognized in the planning and decision-making process.

At **Frøya**, the influence on decision-making has mainly been a problem and a concern:

"I look at the comments on Facebook, and they all say:' you have to give up, the case is now lost anyway.' I do not think they understand what it means to us. It hurts a bit really because I think that if it had been a case that had engaged them just as much, then they would have known about the powerlessness and how hopeless everything really feels when we are not being heard" (Interview Hege 02.02.2020).

The findings here suggest low access to the decision-making process. Furthermore, the findings are coinciding with previous findings from Devine-Wright et al. and Knudsen et al. (2010; 2015) where local residents perceived to have little influence on decision-making when developing grids in Norway and the UK; this is in contrast to the influence exerted by

electricity supply companies, the TNCs, the national regulator and government ministries who dominates the process. Furthermore, the long time between the granting of the licensing to construction is pointed out as a barrier to influence on decision-making. In 2005, Frøya municipality held a referendum over the proposed wind park, which resulted in a narrow majority for the wind power park. In total, 2291 people of the 4059 people at Frøya were able to vote (counted in 2006), and 1.177 (51, 4%) people voted yes versus 1.114 (48, 6%) people voted no (Kommune Raport 2005). In 2012, the local activist group at Frøya gathered over 1000 signatures for a new referendum, arguing that new knowledge about the wind parks was available and that this new knowledge about the consequences might change the outcome. The municipality declined the request. In April 2019, one day after the construction started, a second referendum was held, and the outcome was 78, 7% voting no, and 21, 3% of the people voted yes. However, the turnout was just above 50% of those with voting rights. The low turnout is most likely caused by the fact that the second referendum came a day after the construction started and that the county governor of Trøndelag had already decided that the dispensation from the license was valid and the construction could start. The referendums has caused contestation of the validity of the development; the local activists experienced that the premises for the project have changed, without them being allowed to influence or vote on whether they want the project in its current form:

> *"(...) there is a big difference now from when these projects were planned; the municipal councils were often positive at first, now a lot has happened with the projects, the wind turbines have become taller and bigger. It feels like a violation when not even the municipality can say no and that the development is governed by the Energy Act and not the Planning and Building Act, then it becomes evident for us that there is someone from the outside who intrudes locally"* (Interview Aslak 26.06.2020).

The development in technology has led to an increase in the wind turbines' size and height, as illustrated by Table 5 below. The changes in size make the interventions smaller in areal. However, the turbines' visibility has increased as they are higher than before, causing other issues such as more noise. Thus, the local activist's experience that the rules have changed along the way and experience of disempowerment is added to the disagreement. In this way,

the local inhabitants have not agreed to the project built today, and the participation and influence over the project are considered low at both Frøya and Fosen.

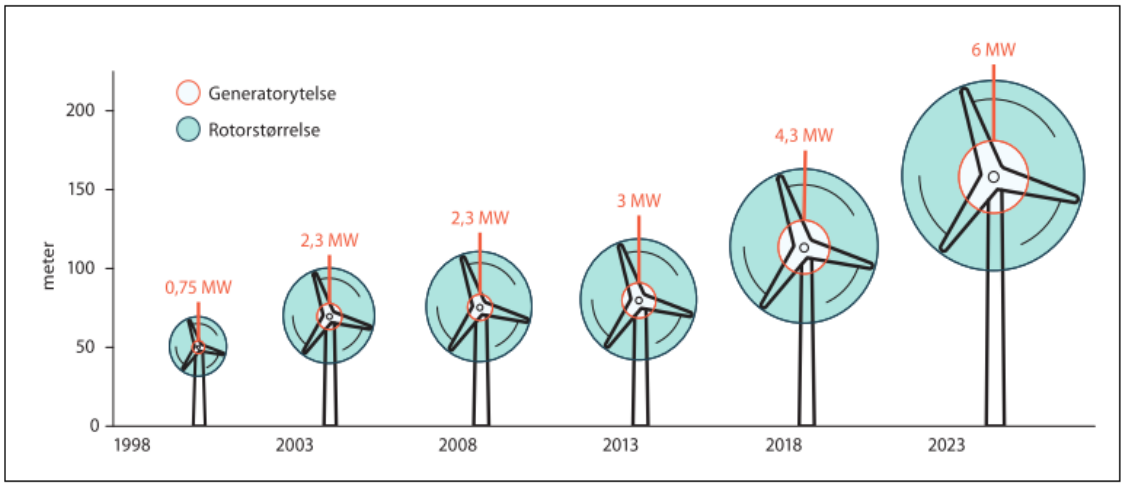

Table 5: The development of wind turbine size. (White Paper 28: 11).

At **Fosen**, the problem of long process results in what is known as piece-by-piece policies. This term is used concerning colonial practices by states and developers when the planes are changed to involve larger development areas. Terje explained how this policy manifested at North Fosen:

> *"We were told that there would be no more wind power parks at Fosen, only the one at Bessakerfjellet. We entered into an agreement about Bessakerfjellet with TrønderEnergi because it is located at the very edge of our reindeer-grazing area, and we found out that it was possible to practice reindeer herding in the area even if Bessakerfjellet was developed for wind power. After that, there were 24 different wind parks planned here at Fosen; this applies to both North Fosen and South Fosen".*
>
> *"At North-Fosen, I ended up with Roan, which started as a park far out in my district area first. However, as they opened Roan, they also built Haraheia and Roan-west, then it became Kvenndalsfjellet, then it became Harbaksfjellet, and then it became Sørmarksfjellet, and as I said, from before we already had Bessakerfjellet (...)"*
>
> (Interview Terje 02.07.2020).

New projects are planned, or existing ones expanded without any inputs during the process, as the licenses are given already, like with Roan Wind Park, giving low influence to the local inhabitants. The low influence on the process also proved a problem for Terje and the rest of the North-group. The reindeer herders have the right to be consulted in cases that involve them, according to the Norwegian on Sámi rights from 2007 (NOU 2007). Furthermore, the reindeer herders from the North-group at Fosen tried to negotiate with the developers, intending to sacrifice some areas to keep the important one. The strategy proved unfruitful as the developers ignored any consideration for Terje's needs concerning herding:

> *"I think they treated us terribly bad, they were good to work with as long as they could do as they wanted, but as soon as we had any demands of any kind, it became difficult right away".*
>
> *"Previously, we have been involved in the planning of cabin fields in our area, and we were told that they should build in areas that are not insignificant to us, but which were less problematic. We tried the same strategy with the development of wind power. We chose to sit at that negotiating table because we suddenly had so many wind parks in our area, and so we set out to save ourselves from Roan Wind Park first. We hoped to save that area, especially the eastern part because it is the yolk in the winter grazing area. (...) Then we tried to save Haraheia, but the developers grab it behind our backs. The planning had gone further than what we were discussing, without us knowing it. Had we known that they would take so much and large areas, the situation would have been completely different. The three of us who work with reindeer herding here at Nord-Fosen sat down and talked with the developer, OED, and NVE, and came out of the meetings with the impression that three people in that room knew nothing about reindeer herding, and what us".*
>
> (Interview Terje 02.07.2020).

For Terje and the North-group, the strategy to negotiate with the developers did not turn out in their favor, and Terje further expressed the lack of influence in the decision-making process at Fosen. Moreover, Terje's experience points to the power asymmetries and lack of transparency of the process:

> *"Today, I see that the people that we negotiated with, the developers, they never told us the truth. I have the impression that the process now regarding wind power is the same way the process was when the government started building hydropower 100 years ago. They are fooling people, and that is why the resistance has become as large as it is today"* (Interview Terje 02.07.2020).

Terje is here referring to the colonial history of energy development in Norway. In 1970, the Sámi village Máze in Finnmark learned about building the Alta-Kautokeino watercourse over their village, submerging Máze under water (Utsi 2020). Máze's population demonstrated and showed the government that they could not forcibly relocate the people. In 1973 Máze was permanently protected and was thus not submerged. The demonstration also ignited a spark that would become the Alta-action and lead to a permanently changed attitude towards Sámi rights and the Sámi parliament's establishment. Furthermore, for the Sámi community, the consequences of being ignored can be fatal for the culture. The United Nations Educational, Scientific and Cultural Organization (UNESCO) classifies the Sámi language as one of the languages feared extinct in a few generations, and South Sámi, East Sámi, and Lule Sámi are all listed as seriously endangered languages (United Nations Educational, Scientific and Cultural Organization n.d). The classification is especially relevant in areas where reindeer herding is closely tied to learning the Sámi language:

> *"(...) nature and reindeer herding becomes a symbiosis; you cannot separate between being out and working. Reindeer herding uses nature as a way to learn languages; the Sámi languages have many nuances in nature, weather, and berries. Especially in South Sámi areas, where so much language development, language training, and being Sámi are synonymous with working in reindeer herding. In the end, if society then manages to squeeze out reindeer herding, the South Sámi language will no longer exist. Being out in nature and working with reindeers is so essential to how we shape ourselves as human beings that I think it is not easy to understand the relationship with nature, especially if you do not get the opportunity to work with reindeer herding* (Interview Aslak 26.06.2020).

The lack of knowledge on Sámi issues and practices within Norwegian institutions such as NVE, OED, or the judicial system on reindeer herding is highlighted as a critical problem. The consultations with the herders may include hour-long or daylong meetings, and even

though NVE has people with some expertise in reindeer herding, the officials who participate in consultations may lack this knowledge. Then it is the difficult task of the reindeer herding districts to explain to the consultants a complex ecology in only a few hours. When lack of knowledge is systematic and maintained over time and helps to legitimize interventions, despite repeated criticism from the Sámi community, we can look at this as a structural ignorance that maintains a colonialist practice.

5.5 Logic of arguments

The thematic category of 'The logic of arguments' highlights the importance of logical and justifiable reasons for the development proposed. For instance, the Norwegian state argues that there is a need for wind power to cut emissions, as the technology is cost-efficient today. Even though all informants accept and understand the need for an energy transition away from fossil fuels, none of the informants express any understanding of wind power as the necessary replacement and it relates to ideological and normative considerations and arguments. When it comes to logic, all informants question whether there is a need for wind power energy.

I will first examine the White Paper 28 on Onshore Wind Power Development released by the Ministry of Petroleum and Energy (OED) in June 2020. The strategy is chosen to uncover the Norwegian government's knowledge on climate change and renewable energy development used in the document, and then draw on the following documents on a National Framework for Onshore Wind Power Development from NVE, released in 2019 regarding the definitions of criteria for wind power development. The National Framework was the concrete plan developed in the aftermath of the White Paper released in 2016. The White Paper 28 was released after the National Framework was scrapped half a year later. White Paper 28 uses the knowledge base for the National Framework. In the White Paper 28 and the National Framework from NVE, the aim of the development of wind power is defined as:

> "*For the government, it is key to achieve the goal of a more efficient and climate-friendly energy use. Development of onshore wind power is today among the sources of new emission-free energy production in Norway with the lowest development costs*" (White Paper 28: 7. My translation).

> "*Through the climate agreement with the EU, Norway has committed itself to cooperate with the EU to reduce emissions by at least 40 percent by 2030 compared to the level in 1990. The agreement with the EU means that Norway participates in the EU climate framework from 2021 to 2030. The framework consists of three pillars: the quota system, the ordinance on effort distribution (for non-quota emissions), and the regulations for an accounting of forest and land use. When the price of CO_2 emissions within the European quota system rises, fossil power production increases, leading to a higher power price (...) On the consumption side, the CO_2 tax on emissions from energy use, including in the transport sector, leads to increased demand for power and higher power prices. The quota system and the CO_2 tax can thus provide increased income for renewable power production*" (White Paper 28: 57-58. My translation).
>
> *"Norway has good technical-economic conditions for wind power production, and the development of more wind power in Norway will in the future help to reduce greenhouse gas emissions"* (Norwegian Water Resources and Energy Directorate 2019: 24. My translation).

Primarily, these definitions see the development of wind parks as a solution to cutting GHG-emissions. It seems to deny any ambiguity that might arise in cases of land-use. Secondly, it describes the development of the wind industry in Norway as clearly positive without stating for whom. Thirdly, the development is framed in economic terms as cost-effective. That is, nature is defined as a commodity. The implication here is that renewable energy is *needed* to battle climate change in a green transition. The need for more power is highly contested by Norwegian researchers, as 90% of the energy used in Norway today comes from hydropower (Skårderud 2020).

In this way, problem framing becomes important; how and who is constructing the problem prioritizes what solutions are presented. OED's definition of the problem at hand claims a need for wind power development; it stresses the need for wind power in a green transition, as it has become cost-efficient, defends corporate power groups, and legitimizes government action. In Norway, there is almost no discussion about the minerals used in wind power and how the industry uses rare soil types used in the production of the wind turbines, and there

was no mention of this in either White Paper 28 or the reports on wind power from NVE. In this way, it frames the industry from a different perspective, making it less sustainable as it is dependent on non-renewable minerals on a large scale, questioning the green reputation of wind power. For the locals at Fosen and Frøya, the problem framing is contradictory to their experiences of injustice. The building of wind power development at Fosen needs to be understood in broader social and environmental relations of colonialism and global value chains to assess if the development is really green and socially inclusive.

At **Frøya**, the local activists all questioned the government's problem framing; they framed the socio-nature relations and the value of nature on other terms than economic, as Ola expressed during our interview:

> *"(...) I think that the value of nature has been very much focused on recently, which should initially be obvious, which it is not. A value that you cannot actually measure in dollars and cents, but has its own value"* (Interview Ola 03.02 2020).

Here, nature is externalized as a costless resource that is implicitly assumed infinite and can, therefore, be expropriated without compensation for use. In commodifying nature, the 'free gifts' of nature and effectively shows how nature is undervalued in its own right and expropriated through sometimes violent and destructive processes such as slavery or colonialism (Corson et al. 2013; Oksala 2018: 223). Moreover, the Global Assessment Report by IPBES points to economic growth as the leading cause for biodiversity and the potential ecological collapse due to land-use and pollution of the ocean (IPBES 2019). Unless we steer clear of the paradigm of economic growth, we will not even be able to adjust the course. In this sense, developing wind power, which demands vast land areas and potentially pollutes micro-plastic, seems less than logical and justifiable for the local activists at Frøya.

There is some promising progress in the White Paper 28 as it recognizes the intrinsic value of nature: *"The Norwegian administration also assumes that nature has intrinsic value regardless of the benefit it represents for humans"* (White Paper 28: 36. My translation). There have also been other improvements in the government's view of the consequences of wind power development. The new White Paper 28 on onshore wind power projects more significant consultation, regional and local access to decision-making, and discontinued green certificates. Still, the White Paper 28 on onshore wind power is very much defending the

development in cost-effective terms and land and in this way, resources and land grabbing is defended under an environmental ethic and rational where climate needs to be saved before everything else, no matter the costs and the new problems it might create (Siamanta and Dunlap 2019: 926).

'Green transition' was introduced as a term used by the media to describe wind power development. The participants were asked whether they would apply the term to the process of wind power development at Fosen and Frøya and how they would define it. The researcher did not offer a definition. At **Frøya**, the argument for building wind power is not justified in their eyes, as the wind park is placed in a protected area with a high density of biodiversity. The local activists refute the aim and the logic of argument from the White Paper 28 and the considerations that NVE has made during the licensing process as they do not see the project as reducing emissions:

> *"We are dependent on energy, and it is clear if we are to be carbon neutral in X number of years, then we must have some concrete solutions, every key politician will point to that today. However, every year we manage to increase carbon consumption in Norway. In addition, we are not changing anything about our oil extraction policies; we are laying cables to electrify or make a wind turbine so that the oil extraction in itself becomes carbon neutral. However, the hydrocarbons are still pumped up and then used. The carbon dioxide content of the atmosphere is still increasing. I teach biology and science, and I remember when I went to high school, it was the same challenges back then with carbon dioxide in the atmosphere, which were also rising at the time. However, the measured values we operated with then were 270 ppm, today we calibrate the carbon dioxide sensor at 400 ppm"* (Interview Ola 03.02.2020).

> *"(...) the wind park area is full of protected mire and coastal heath, with flowers that are endangered and some red-listed species. (...) the mire binds* CO_2*, if you touch the mires, you get high* CO_2 *emissions released from the mire, and they say that they are building the wind parks to prevent* CO_2 *emissions. They have dug up huge amounts of* CO_2 *as soon as they touched the mire (...) because if you start digging in the mire, a decay process starts immediately. When air is mixed into the mire, it becomes acidic, and it makes the soil around acidic; it dries out and will no longer be able to*

contain the CO_2*. We all know that the mire and coastal heath is protected because of this, but then they go do it anyway"* (Interview Astri 04.02.2020).

The interviewees at Frøya all expressed the focus on scientific knowledge as a barrier and strongly emphasized the lack of value assigned to their information gathering and the knowledge within the community. Moreover, the findings also support the notion that conflict between hegemonic (scientific) and subordinate (lay and experience-based) forms of knowledge can contribute to the social conflict exacerbating human-wildlife conflicts, as argued by Skogen and Krange (2003). The conflict was mainly expressed by those involved in the resistance at Fosen and regarding reindeer herding:

"What was new about the Biodiversity Act was the inclusion of both the scientific knowledge base and the experience-based, traditional knowledge, it is the latter type of knowledge that has been very difficult to get the institutions to consider. Most of the knowledge at Fosen is traditional knowledge, that is to say, that there are people who have worked there and have lived their lives with reindeers and know when they move out to winter pasture, when to go up in which area, where the reindeer has access to food when other areas are icy. Therefore, it is clear that having that traditional knowledge on an equal footing with scientific knowledge is hard to achieve. However, the Court of Appeal's verdict stated that the traditional knowledge at Fosen and research knowledge that several Swedish researchers have carried out on wind power development and reindeers coincided. Therefore, a unanimous Court of Appeal concluded that the areas on Storheia are no longer usable as winter pasture for the reindeer herders and that the reindeer herders had to initiate feeding of fodder during the coming winter. This is the first time a verdict has used this knowledge as a basis. In the case of Kalvvatn, OED withdrew the license that NVE had granted. This was done on the basis that Sámi people in the area were able to prove how important the areas are for reindeer herding for the Sámi language and the culture. For example, one could prove that Nilsine (female Sámi) carried fish up to a lake nearby and that this happened in 1897, and that is why the water was rich in fish. They had much knowledge about how the area was used before and could prove that it was important for both reindeer herding and Sámi culture (...)" (Interview Kjell 01.07.2020).

The first part of this statement shows that there has been a slight shift in what kind of knowledge is heard and, not to say the least, who is heard. However, it is essential to note that none of the informants questioned why the experience-based knowledge is not seen as scientific or why the government is not spending any money in formalizing the Sámi knowledge. From a Sámi perspective, contrasting their knowledge with scientific knowledge implies that it is secondary, however well-meaning the argument is. On a structural level, granting research money to research on Sámi knowledge, culture, and reindeer herding will also mean that the burden of proof is shifted to the state and the research institutions. As the second half of the quote shows, it is often the case that Sámi history must be proven by locals to get cases stopped. It is then about making the right people responsible, which in this case, the Norwegian state:

> *"(...) It is mainly the Norwegian government that is the idiot in this situation; they are supposed to protect nature and biodiversity, they are supposed to protect Sámi rights, they are supposed to ensure that we get a 'free, prior and informed consent.' There was much talk about FPIC a couple of years ago; no one talks about it anymore"* (Interview Aslak 26.06.2020).

Institutions may have inherent racism in that they do not recognize non-Western knowledge systems, nor do they have the tools to become aware of this; it can be challenging for the majority population to detect racist traits in their own society because racism has been incorporated into discourses and institutions, and in this way normalized (Bulhan 1985). In other words, the difficulties the Sámi are experiencing wind power issues show the importance of the decolonization debate. Moreover, according to the UN International Covenant on Civil and Political Rights, Article 27 (United Nations Human Rights 1966) 'free and informed consent before the approval of any project' must be achieved before interventions in areas used by any indigenous population. Norway has ratified the covenant, thus making them obliged to follow this in cases where wind power parks are planned in areas where reindeer herding is also taking place. Free, prior, and informed consent (FPIC) holds the potential to grant impacted people veto power, eliminating corporate-state–elite interests from them and enforcing the actual meaning of the words Free, Prior, and Informed Consent (Dunlap 2018a: 106). FPIC could give the Sámi reindeer herders the autonomy to influence and participate on equal terms as those of the state, the TNCs, and energy

companies, enhancing the recognition of rights concerning wind power development in Norway.

5.6 Consideration

Here, the thematic category consideration refers to whether the locals' inputs are being noticed and seriously considered. Building on the findings of Knudsen et al. (2015: 305), there are two factors relating to how inputs are being processed that are evaluated by the local inhabitants; namely, whether issues or questions are answered and appropriately processed and secondly, whether inputs are acknowledged in one way or another. These are the manifest codes. The latent code relates to knowledge production as new knowledge about the consequences of the development has emerged during construction and other wind park projects.

At **Frøya**, the local activists see it as their primary task to gather information about the consequences of biodiversity and nature. The information is then handed over to NVE and OED. However, the activists experienced that their knowledge and data gathering were not considered and not welcomed:

> *"(...) we have continuously given notice of deviations to NVE, but it is not noticed anyway (...) what we report is never considered seriously, while the cases that they think we have done, that have nothing to do with us, or cases that have happened in a completely different municipality, those cases the police holds on to"* (Interview Astri 04.02.2020)

It may be that deficiencies have subsequently been revealed in the reports, that new and essential knowledge about nature in the area has emerged, or new knowledge about the impact on nature in general. At Andmyran, the development of wind power in mires areas was recently stopped by the Ministry of Petroleum and Energy (OED), and they withdrew the license based on the total environmental costs the development would cause (The Ministry of Petroleum and Energy 2020c). I argue here that the decision not to build at Andmyran comes in the wake of political awakening and after successful efforts from local activists to spread knowledge about the consequences of wind power development.

Moreover, all respondents at both Fosen and Frøya point to deficiencies in NVE's impact assessments:

> *"The impact assessments are poorly executed. For example, when mapping the birds in the area, they used three days in the field on 30 square kilometers. It is completely impossible to do a good job on that amount of time. The municipality of Frøya has better data than what the developers' consultants produced in the impact assessments".*
>
> *"(...) before the construction started, we did nesting bird surveys in the area to try to come up with documentation that would allow us to address the Biodiversity law and prevent the worst damage, without it having any major significance for the developers".*
>
> (Interview Ola 03.02.2020).

Some inputs were considered, and actions were taken after the activist at Frøya pointed it out to the NVE. The NVE has official supervision in the cases, and on Frøya, they were on an inspection in Nessadalen, Frøya, in September 2019. The activists were not allowed to take part in the inspection but had a meeting with NVE in advance where they pointed out deviations that included plastic pollution, drainage of roads, ancient monuments that the National Heritage Board was working on, and that the developers started construction during the breeding season. Through an Environmental, Transport, and Construction plan (MTA), the developers are required to assess the impact and come up with mitigating measures. All the local activists questioned the need for such a plan when the developers were not following it. They also experienced NVEs supervision as deficient as they were only present one time, and therefore they experience that they are the ones who have to keep an eye on TrønderEnergi's work, which has led to conflicts with the developer. However, Ola told me that TrønderEnergi noticed his input related to the glass eel's environmental adaptation issues in the area. Ola pointed out that the eel needs to be able to move between the ponds to reproduce themselves and would not be able to do so because of the construction:

"(...) we managed to have a meeting with NVE before the first environmental inspection they had. (…) in that inspection report, NVE managed to address the eel problem. However, for us, it was not enough, as there was no difference in practice. The pipes that were supposed to lead the eel over to the other side protruded into the air and the outlet side. So if the glass-eel reaches the pipe, it is too high on one side, and the eel will not be able to move through the pipe and on to the other side" (Interview Ola 03.02.2020).

However, as Ola points out, the quality and understanding of the issue seem to be lacking. Not being able to facilitate biodiversity shows a lack of serious consideration for the concerns of the locals. Moreover, where there has been less consideration at the national level, the local developers have considered inputs and changed the construction:

"We have always told the developers that we will document what is going on in the area. (...) When we had a meeting with TrønderEnergi in May 2019, we said to them, 'we are here to document and point out mistakes made' and then they told us that they were happy about that" (Interview Eskild 04.02.2020).

At **Fosen**, the dialogs with the reindeer herders, like the ones Terje had with the developers Fosen Vind DA, have not resulted in any influence or consequences for the wind power projects. Thus, the strategy for being taken seriously has been to take the case to court; first in the district court in 2016, and then the second round in 2019 in the appeal courts. In the verdict from the Frostating Court of Appeal that came in June 2020, Sámi reindeer herders finally won through with what they have argued from the very beginning; that the reindeers cannot live side by side with the large-scale wind power industry (Overkjønn 2020). The areas at Storheia are considered lost by the court:

"It has really been a problem that the developers have a very different understanding of reality; we talk about two different things and relate to different realities. It seems that both the developer and the Norwegian authorities have not previously taken seriously the negative effects wind power development has on reindeer herding (...) it seems that they do not believe that it is a crisis for us. That must be the reason why people are not heard, and that reindeer herding is overpowered. There are also issues with the impact assessors being chosen by the developer, often investigators who may

> *not have (...) legitimacy in Sámi environments. Which, in turn, supports my argument that people live in different realities. At Fosen, the developers have had many consultations both with the Sámi Parliament and with reindeer herders, and very little has happened; there is a lack of facilitation, and it has not been taken seriously how harmful the wind power development is for reindeer herding. Until the verdict from the Court of Appeal, which states that (...), the areas that are used to build wind power are de facto useless for reindeer herders, and therefore the compensation is much higher than the last court case. Then, of course, that does not help the fact that the wind power park is already built. However, I think it is exciting that the verdict is starting to get closer to the Sámi reality, a little more than before, at least"* (Interview Aslak 26.06.2020).

Moreover, the Norwegian government and the companies involved in the development were sentenced to pay economic compensation to herders. Overall, this kind of economic incentive aimed to compensate for the externalities caused by the governments' decision to intervene in the land, in other words, to redistribute the costs of wind power development presence across the whole society rather than placing the whole burden on the locals and the reindeer herders. However, the compensation is seen as inadequate by Sámi reindeer herders (Jacobsen and Linnell 2016: 198). There is also a need to understand this within the context of society's perception of fairness and justice.

In December 2019, at the same time as the Frostating Court of Appeal dealt with the appeal case about the wind power development at Fosen, COP25 was taking place in Madrid. The indigenous delegation at COP25 fought hard to strengthen indigenous peoples' legal protection in connection with climate action (Maynard 2019). Fighting for legal protection and rights is important, however, the legal system requires professional expertise and a background in law is required to have an essential. However, the burden of proof rests on the shoulders of the reindeer herders, they must prove to the court that in the future one or more families must leave reindeer herding as a consequence; the power development this makes it in practice difficult to win a case. The decolonization of knowledge debate also plays a central role here; how can we be sure challenges understand the essence of the reindeer owners' situation if they do not have an educational background that enables them to do so?

> *"(...) it is the total sum of effects on biodiversity and reindeer herding that we must look at. There is no doubt that the areas and the biodiversity at Fosen are now ruined, which is also what the verdict from the Court of Appeal says. The area on Storheia is no longer suitable for reindeer herding, so, therefore, a completely different type of compensation has been given. So, a unanimous court has said that the areas are unsuitable for reindeer herding"* (Interview Kjell 01.07.2020).

The verdict is a step forward in acknowledging that wind power development is problematic for the reindeer herders at Fosen. Moreover, the verdict can create a new starting point for discussing knowledge and decolonizing knowledge on these topics. Nevertheless, the fact that wind parks are considered valid interventions in reindeer grazing areas is a real barrier to recognizing the tradition- and experience-based knowledge on which reindeer herding is based. As Aslak explained, misrecognition of Sámi rights and inputs has genuine consequences:

> *"(...) these cases have been going on for so many years. It is very tiring for those who are partaking in the lawsuits and the processes; you have to set aside 20 years of your life to take care of your own culture and your livelihood. (...) We are tired."* (Interview Aslak 26.06.2020).

5.7 Summing up

In this chapter, I have provided an analysis using different themes. Together, they all constitute the different aspects of the implications of wind power development at Fosen and Frøya. The themes presented in the analysis are interrelated, as I will show in the discussion below, as it is not possible to talk about one aspect of justice without it leading to another (Schlosberg 2004). The same goes for the themes discussed here; the manifest codes show increased local vulnerability and risks of the impact of wind power development. Overall, this is underpinned by the latent codes of knowledge production and asymmetrical power relations. For Fosen, the long history of colonialism manifests through what can be termed green colonialism, as the state continues to ignore the status of the Sámi and their inputs are not seriously considered, nor is there enough knowledge of how the reindeer herding works in the NVE or OED. The development has led to issues of land-use and access to nature in

order to be able to maintain operation as usual. As the analysis shows, the implications are potentially severe; the misrecognition of Sámi culture can lead to the extinction of the South Sámi language. Moreover, for Frøya, the knowledge on the importance of biodiversity and conservation of nature is present in the national institutions working with the environment, as shown above. The wind power development is a part of a pattern of structural ignoring of environmental advice; this is also shown by Lervåg (2007). In his thesis, he reviewed the system around the licensing processes in the Norwegian oil sector and found that the recommendations from environmental institutions involved in the processes comes too late in the process for the advice to be taken into account; the processes have already come too far for licenses to be withdrawn. For wind power development, the environmental advice, as not building the wind parks at Frøya and parts of Fosen because of valuable species, was handed over to NVE in thematic reports requested by NVE to develop the National Framework on Onshore Wind Power Development. Thus, it is safe to say that the environmental advice is ignored. Furthermore, the oil sector's case sheds light on the structural organization of the process as excluding for actors providing environmental advice.

However, it is essential to note here that while understanding a complex social conflict such as this will not automatically lead to its resolution nor better conservation outcomes. It is a necessary step to seeking such goals, and can at least guide a process of channeling the conflict into less destructive and polarized modes, giving ground for understanding *why* the resistance is taking place at all, which was the aim of my first research question. In the next section, I turn to the thesis discussion, where I will explain the implications for distribution, accumulation by dispossession recognition, and participation at Frøya and Fosen.

6. Discussion

In this chapter, I discuss the findings of the thematic analysis and the implications the findings have for distribution, recognition, and participation. I look for empirical evidence that can support my claim that the framework of Environmental Justice is useful to analyze in this particular struggle. Elements of all three forms of justice could be identified in the interviews concerning wind power development in Norway.

6.1 Implications for distribution

In this section, I discuss the implications from the findings in the analysis concerning the first category from the environmental justice framework; distribution. In the analysis, I have looked for empirical evidence supporting claims of distributional inequality and excessive exposure to environmental risk in wind power development at Frøya and Fosen. As per Schlosberg's category of distributive justice, the thematic categories in this section cover the range from material to non-material costs and benefits perceived as arising from the current wind power development. The findings in the thematic categories 5.1 Impact and 5.2 Vulnerability and Risk concern the distribution of costs and benefits from the wind power development, and I argue that the impact and deficiencies in the pre-examine reports from NVE put species, nature, and Sámi reindeer herders at greater risk for extinction.

The analysis findings suggest that the impact of the development on nature is a source for conflict over ecological distribution, particularly at **Frøya**. A critical approach to the ecological distribution conflict underlines that the increase in energy consumption has triggered a wave of socio-environmental conflicts related to wind power development in Norway's peripheral areas. The local activists at Frøya demand a re-evaluation of the development consequences, as they all point to deficiencies in the pre-examine reports done by consultants from or hired by NVE. Demands to halt the exploitation of nature would naturally require looking at the central nodes of the economy - from both the production and the consumption side (Rodríguez-Labajos and Özkaynak 2017: 249).

Moreover, the local activists' demands extend to halt further and existing projects in Norway, as the reasoning behind the development is not seen as justifiable. These findings relate to the thematic category 5.5 Logic of arguments. The projects are developed under the argument that wind power will cut CO_2 emissions in Europe, as Norway is a part of the European

Union's Emission Trading System (EU ETS) "cap and trade" (European Union n.d). EU ETS is a complex system, which at the most basic level can be explained as the renewable energy produced in Norway can be bought by other companies as quotas in the European market to "annul" emissions from coal and fossil fuel. The economic set-up to develop renewable energy in Norway are the Green Certificates. The local activist views the scheme as highly disproportionate in terms of distributive justice as the scheme is financed through the individual electricity bill of the Norwegian consumers. The set-up is not inherently wrong, as is a mechanism that ensures equal contribution to an energy transition, however when the local activists do not accept the reasons for what is proposed, they expressed it as is unfair that their money contributes to destroying nature at Frøya. It is then a matter of distributive injustice.

In addition, electricity will likely become more expensive as it enters a European market, as the electricity price is higher in Europe than in Norway. The price will have to be adjusted accordingly. Thus, higher prices in electricity will have implications for society as a whole, both as personal consumers and for industries dependent on electricity for production. Hence, the activists experience that they pay disproportionate costs in terms of economic and biodiversity losses. Furthermore, there are also emotional costs that some people experience with the loss of biodiversity in the area and loss of the benefits in the form of enjoying untouched nature and reindeer presence. In this way, the locals at Fosen and Frøya express a distributive benefit from biodiversity through increased enjoyment of natural areas when they are "untouched" or free form human interventions, such as industry. The informants from Frøya experience that they have lost the opportunity to enjoy the nature in Nessadalen, expressing grief over the loss of nature in the area.

The impact of the Norwegian national climate mitigation policies of wind power development seems to be increasing vulnerability and risk in rural areas and local communities, and in this way, producing weaker abilities to adapt to climate change. Furthermore, human domination over nature is a value-driven exercise; in this case, is it possible to reduce emissions when undervaluing biodiversity and nature are constant? The domination of nature and the extraction of natural resources can be viewed as another example of the commodification of nature; naturally produced use-values are plundered for productive consumption as raw materials and treated as commodities in the capitalist circuits of value and subject in a market relation (Corson et al. 2013; Oksala 2018: 221). For Fosen,

colonialism functions as an effective political strategy for this kind of expropriation. In this way, the commodification of nature is an ongoing process of green colonialism that manifests itself in the development of wind power today in Norway.

At **Fosen**, the issue of distributive justice is different from Frøya, as here, the total impact of different interventions and changes in land-use must be accounted for. The reindeer herders at Fosen lose grazing areas to power lines, construction of cottage fields, and road construction. The development can be described as a piece-by-piece policy where the state and municipalities allow for what they deem as small interventions if you look at them isolated, but in a holistic perspective, it adds to the burden of keeping the reindeer-herding going for generations. However, for this thesis's purpose, I only cover changes in land-use regarding wind power, which by Terje and his family is seen as the latest intervention that adds on to the piece- by piece-politics. As mentioned in chapter 2, the Sámi reindeer herding area in Norway is a continuous area from Hedmark to Finnmark. The reality does not look like this, as many reindeer grazing districts have had their areas fragmented over time into many small pieces by several development projects with massive land-use interventions, little by little, the cultural landscape that stores the Sámi history and the future of reindeer herding is lost. In recent years, wind power has come on top of other interventions, which means that several young Sámi is today unsure whether they will pass on the reindeer mark to their family, as expressed by Lena.

On their shoulders rests the cultural survival of the wider Sámi community. The uneven distribution of environmental burdens on disadvantaged communities creates further vulnerability for the reindeer herders at Fosen. The current president of the Sámi parliament, Aili Keskitalo, has called the development "green colonialism" and points in the direction of a trend that international research has also highlighted, namely that climate mitigating policies can escalate colonialism (Dunlap 2018b; Siamanta and Dunlap 2019; Normann 2020). Colonialist policies of development are grabbing land through large-scale wind power, hydropower, biofuels, solar cells, and not least the mineral extraction renewable energy, and is based on occupying substantial land areas in indigenous areas. The development removes several indigenous peoples' livelihoods or other traditional societies that live close to nature and defend non-capitalist production systems. In this way, the climate mitigation policy of wind power development represents a double burden; instead of support for adapting sustainable industries to climate change, the reindeer herders are excluded from what is to be

saved. However, it should be noted here that "green colonialism" is a problematic term for some members of the Sámi community and can be seen as partaking in softening the process of colonialism; in other words, for some, colonialism is colonialism and should not be explained in other terms. Nevertheless, I argue here that the term is a useful concept in bringing together what is happening here; climate policies are colonial in design. The term is also in line with what the participants of this thesis expressed during interviews. The term is also useful in showing how colonialism and capitalism have to renew itself and adapt to the modern world, finding new ways at Fosen.

Furthermore, the reindeer herders perceive a failure to maintain the reindeer stock population as distributive injustice. Reducing the reindeer stock would mean reducing the value of nature, both locally, for the global society and future generations. The findings reveals a fundamental difference in value perception of the Norwegian state represented by NVE and OED. The logic of arguments for the development is also refuted at Fosen as the reindeer herders see the development as a direct threat to their livelihood. The Court of Appeal in Trøndelag acknowledged this; the trial's verdict confirms that the winter grazing areas at Storheia, South Fosen, are lost and cannot be used by the South-group herders (Overkjønn 2020). From the North-group, Terje also expressed concerns over this, as the findings from the analysis shows. An increased compensation was awarded to the reindeer herders; however, in distributive terms, it is seen as inadequately covering the full value of depredated livestock of reindeers. Here, it can be questioned how the compensation assessment leads to reindeer herding locked in the framework of economic argumentation. Reindeer herding is a livelihood, but also has an intrinsic value that cannot be measured in money. However, as it is a potential loss of livelihood, money should be granted for the loss, and I argue here that the verdict from the Frostating Court of Appeal may not have fully grasped the value of reindeer herding outside the economic sphere.

Moreover, the Frostating Court of Appeal verdict presupposes that reindeer herding can be transferred to fodder three months a year during the winter. The transition to fodder as the primary source for food during the winter has several unfortunate implications for reindeer herding at Fosen; first, the Sámi reindeer herding will lose its status as a sustainable industry producing ecological meat as the fodder contains imported soya. Overall, this has become a standard "mitigating" practice in cases where reindeer herders have to change their practices due to land-use changes. Secondly, this places the reindeer herders into a commodity chain,

where the indigenous population in Brazil has to bear the consequences of soya production, making the injustice claims global (Normann 2020). Third, it sets a precedent that fodder is a somewhat mitigating measure when changes in access to grazing areas occur. The practice has spread, especially in Finland. However, the first time reindeer herders in South Sámi areas have been imposed to make the change. I argue here that if too much fodder is introduced, the reindeer herding will lose its identity as an indigenous livelihood that is sustainable and ecological, and look more like "modern" cattle farming. As explained in the court during the trial in December 2019, a transition to fodder requires extra work for the herders; the last part was partly acknowledged by the court in the verdict and thus compensated. The Court of Appeal also awards a much larger compensation based on the organization Protect Sápmi calculations than the district court did (Overkjønn 2020).

Furthermore, the verdict states that the winter grazing area at Storheia has not been used for ten years and that it, therefore it cannot be considered an important area for reindeer herders. However, the use of the areas is sustainable as the herder changes grazing-areas with long time intervals to take care of nature and let lichen grow out. In sum, the verdict revealed a knowledge gap concerning the biodiversity of the area and how it is used and maintained by the herders and the consequences of transitioning to fodder for the reindeer herders. In the end, it seems like it will take a lot for a Norwegian court to say that the development violates international law. I will further address the consequences of the knowledge gaps for Sámi reindeer herding in section 6.2 Implications for recognition.

6.1.1 Implications for rural parts of Norway

For both Frøya and Fosen, the development of wind parks is an income source for the municipalities. In Norway, the municipalities are dependent on having an income from some industry to provide welfare services in the rural areas, putting them in a dilemma; as the Norwegian government, set on centralization, is not granting enough money to the rural regions, so the municipalities have to be cost-efficient and produce revenue to build public institutions of quality. At Fosen, Roan Wind Park alone brought in 17 million NOK in 2019, providing the opportunity to build better and safer roads, a new nursing home, and a new library, providing the locals with upgraded welfare services (Kleven and Alisubh 2019). Hence, this is a matter of regional policy development, as centralization and not giving the municipalities can be a trade-off source. The development shows how the resistance is

connected to environmental injustice issues with other social concerns (Holifield, Porter and Walker 2009: 596).

For rural parts of Norway, such as Frøya and Fosen, distribution injustice and accumulation by dispossession result in unjust extra-local outcomes where policies to promote renewable "sustainable" industry, such as cutting CO_2 emissions by building renewable energy in the case, displace environmental problems and injustices to a regional scale, and in creating new problems like loss of biodiversity and violating indigenous rights (Holifield, Porter and Walker 2009: 595). Moreover, regional economic development options are limited in Norway, in part by its isolation and remoteness. In addition, local residents in the rural parts bear disproportionate environmental burdens, while outsider interests reap disproportionate benefits of profit. As the analysis showed, there is no control of where the surplus-value ends up. The set-up around the wind power industry is experienced as unjust by the rural residents when the local community bears the burden of wind power development while learning that money from other similar projects is transferred to tax havens. Finally, community participation is limited and challenging in both cases, and it would be hard to defend any claim that development has proceeded with full community consent (ibid: 604).

In terms of distributional justice, the rural districts of Norway are paying disproportionate costs in the development of wind parks, both in terms of the material costs and local nature. All participants in this thesis express that the development costs should not be tolerated for the sake of the benefits received by the wider society, as the costs they pay are disproportionately distributed. The findings goes against the narrative of the so-called "urban climate elite" - who does not necessarily pay the costs of climate mitigation policies, but claims that we need to cut emissions now, no matter what the costs are in the rural areas (Gulbrandsen 2020). Inclusive policy-making processes, which respect all people's rights and voice, are essential as an end in themselves – but also to secure the best policies. Conversely, elitist policy-making processes undermine democracy and have been shown to result in policies that predominantly benefit those elites; because the urban climate elite does not understand its wind power opponents (ibid). The findings reveals a fundamental difference in the value perception of what a green transition should entail and who should pay the costs of climate mitigation policies. In this way, the local conflict over wind power development symbolizes broader urban-rural tension and related to border socio-economic policies (Skogen and Krange 2003; Jacobsen and Linnell 2016: 201).

In terms of its perception of distributive injustices, the reindeer herders at **Fosen** are intensely concerned with the obligation to preserve reindeers for future generations and the conservation agenda of wider global society (Jacobsen and Linnell 2016). The findings indicates that stakeholders perceive failure to conserve nature and reindeer populations as distributive injustice by reducing the value of nature for a global society, future generations, and enjoyment. At the same time, the official government does not account for such benefits in their evaluation. In addition, it is also a case for intergenerational justice; it is essential in Sámi culture to take care of what is here and now for future generations to enjoy the same benefits and the same enjoyment of nature (Beckman 2008). In addition, it reveals a fundamental difference in value perception of the value of reindeer herding. At Fosen, the rural policies of accumulation of dispossession lead to a continuation of colonial practices where the power asymmetries between the Norwegian state and the herders gives little room for future generations of reindeer herders to make a living off the practice. According to research involving indigenous areas in the US and Canada, Trainor et al. (2007) argue that indigenous populations in the US and Canadian Arctic disproportionately suffer the environmental consequences of global warming, mainly generated by greenhouse gas emissions distant industrialized and urbanized places. Moreover, in both countries, and particularly in the USA, the indigenous communities have severely inadequate power to influence decisions that might mitigate the environmental inequalities that affect them, which have prevented them from overcoming "structurally disproportionate impacts" (Holifield, Porter and Walker 2009: 595).

Furthermore, marginalization generates conflict and social disorder (Wright 2010: 64-65). The conflicts at Frøya and Fosen erode social solidarity and is a barrier for efficient cooperation and influence in the local communities. The wind power development set-up, the turn from national public ownership in the energy sector (the history of hydropower development) to private international companies, further enhances disempowerment. The development highlights how the turn to privatization breaks with Norwegian energy development history, where state and municipal ownership has been vital. Thus, as promoted today, the wind power industry brings questions about democracy to light for the people at Frøya and Fosen. In this context, several participants point to how they experienced being overpowered by the wind power industry actors and by the Norwegian state. Against this backdrop, they all express concerns about their right and ability to participate in democracy.

As the analysis shows, it makes it extra conflicting that someone from the outside comes in and erodes local communities. At Frøya, the conflict is dividing the local community, and the cohesion and social bond within the community are being severely affected as a direct consequence of wind power development. The conflict is also due to the complicated process that extends over a decade, an important barrier to participation and influence over one's local environment.

The national set-up of the Green Certificates is neutral concerning which technology is being developed where. However, I argue here that there will not be a change away from wind power development in the future as the technology has now become cost-efficient, and large-scale investors can build wind parks independently of the Green Certificates or economic incentives. In Norway, the current rural policy leaves little or no mobility to change the course; the municipalities have no choice but to say yes if they want revenues to build welfare services. Sanusi and Sphan (2020: 275) describes this as "The emergence of peripheries characterized by dependence, disconnection, poverty, and outmigration." For the rural parts of Norway, the problems are interlinked between employment, industry, and nature impacts. Like all over the world, centralization policies in Norway have led to less access to jobs in rural areas, and thus municipalities will sometimes be forced to accept industry that destroys nature, but which can keep people, prevent emigration by creating accessible jobs. Furthermore, the overview and information about the consequences of the development were not available when any of the earliest licenses were granted. Together with a growing awareness of creating vibrant rural districts, it may have led to more municipalities and people (through referendums) at the time saying yes, than they would have done today. Currently, there is no research on why or what made the municipalities change their opinions. In 2019, most of the affected municipalities said no to wind park development, which also included previously positive municipalities. Moreover, this also applies to the local landowners (Cantero 2019). However, the change in attitudes towards wind power will not affect the already finished parks.

6.2 Implication for Recognition

In the following section, I discuss the implications of the findings in the analysis for recognition, both of indigenous culture and livelihood, and for the knowledge that is a part of the cases at Frøya and Fosen. In this section, I argue that the development of wind power has

severe consequences for recognizing Sámi rights and the survival of indigenous culture, making strong claims for approaching the case with the analytical concept of EJ.

Strongly emphasized is the justice issues in the category of recognition at both Fosen and Frøya, which describe similar narratives; they experience that their way of life is threatened by wind power development. Both cases shed light on the perceived conditions that allow such a threat to remain. The thematic theme 5.3 Responsibilities and Rights refers to whether official authorities respect the locals' rights and related power relations. Norway has the formalities in place when it comes to complying with international legislation that will protect indigenous peoples' rights, having ratified both the ILO 169 convention and the UN article 27 on the right to maintain indigenous lifestyles. The ratification makes both the laws, Norwegian laws. Nevertheless, the Sámi community has repeatedly pointed out that the processes concerning wind power development are not good enough and that their rights, according to national law, are being violated (NRK Sápmi 2017). The verdict from the Court of Appeal acknowledges that the areas at Fosen have been lost, particularly at Storheia. However, the court does not believe that the Norwegian state is violating the ILO convention 169 or the UN SP 27 on indigenous rights.

In a Nordic context, indigenous communities have cultural autonomy and recognition, which grants them rights to language and culture; however, these rights often come without addressing indigenous political and economic self-determination (Kuokkanen 2006: 5). I argue here, that this reflects the neo-liberal agenda and approach to indigenous rights that seek to reduce and redefine indigenous rights to fit into the economic development of the so-called 'modern' society. As the findings from the analysis shows, this also relates to Fosen, and the result of the violations has been to sue the Norwegian state and the developers for not adhering to the international conventions. Furthermore, the participants emphasized that reindeer presence in nature is part of their way of life; the reindeer has other values than economic ones. There were also concerns with recognizing the intrinsic rights of the reindeers themselves as a part of biodiversity. The lack of recognition of Sámi rights is also an issue of intergenerational justice; what is at stake is the material grounds for the reindeer herders' livelihood. They will not be able to keep the traditional livelihood going for new generations with the burden of wind power land-use interventions.

Moreover, all the participants from Fosen were asking questions of what kind of values and visions matter for the Norwegian society, not only the energy sector and green transformation, but also in general concerning the Norwegian government's treatment of Sámi rights and way of life (Cameron 2012). I argue here, that this has particular implications for the process of the newly appointed Truth and Reconciliation Committee as it will be hard to reconcile while colonialist practices are still happening. Their work resembles processes like those done in Canada, where the government has appointed a committee to look at the injustices done to the indigenous people and community (Truth and Reconciliation Commission of Canada 2015). For Norway, it will be important that the majority society knows and can relate to the process; without this, there can be no reconciliation as this is a process that requires that the majority population acknowledges that wrongdoings of the past and as I argue of the present concerning wind power development and cases relating to land-grabbing of indigenous areas. However, as Terje pointed out, this will be hard as long as wind power development deprives the Sámi reindeer herders of land. In this way, there is a need to address whether wind power development is as green and peaceful as the Norwegian government presents it and why land-grabbing is still a reality for the Sámi reindeer herders in Norway.

At **Frøya,** the perspective of rights and responsibilities is different as it mainly relates to biodiversity; nevertheless, highly relevant as the wind power's environmental performance must not persist at levels incompatible with environmental goals over the lifespan of a wind park (EU TEGSF 2020). I argue here that if the opposite is true, then the industry cannot be labeled sustainable. The local activists express that the authorities are violating their right to protect nature, that experience-based lay knowledge is undervalued, and that there is a lack of gratitude for the societal function they provide. The Norwegian government has ratified the international Aichi-goals created by the CBD in 2010. The Aichi-goals aims to globally reduce biodiversity loss by 2020 through national targets and create a better awareness of biodiversity's values (United Nations Convention on Biological Diversity 2010). With this in mind, contradictory views on what to emphasize in a green transition arises might arise. As the findings show, Norwegian law supposedly protects coastal heath, and the ratification of the Aichi-goals implies a certain level of knowledge about the consequences of large-scale land-use changes. As shown in the analysis, the knowledge produced concerning the impacts for biodiversity by the Norwegian Environment Agency was not acknowledged by OED or NVE in the National Framework's final making. The Norwegian Environmental Agency

explicitly states that wind power development at Frøya should not be allowed due to areas necessary for birdlife and biodiversity. The advice also applies to several areas at Fosen, such as Roan, Harbaksfjellet, and Bessakerfjellet, all of Terje's herding areas. Neglecting the knowledge is harmful and induces climate change; the ice sheet on Greenland just passed the 'point of no return' (McFall-Johnsen 2020). Furthermore, even if society curtails global warming, the ice sheet will continue to melt. Thus, sea-level rise is now inevitable. I argue here that the Norwegian governments are ignoring the knowledge on the environmental costs, vulnerability, and risks related to wind power development, and in this way, producing greater vulnerability at a local level as well as on a global level. The findings suggest that the misrecognition of environmental justice is a barrier to ecological justice (Martin et al. 2016). Hence, structural ignorance of nature's ability to absorb CO_2 is reducing the chances of combating climate change drastically, both at local levels and globally.

Concerning the violation of rights, the thematic theme 5.4 Recognition and Influence refers to the degree of acknowledgment of the local inhabitants' values, knowledge, and perspectives on the development and if they influence the process. As the findings show, locals at both Frøya and Fosen describe a perceived lack of recognition of their views, lifestyles, and local knowledge by society and policymakers. At **Frøya,** the issue of influence and acknowledgment of local knowledge is also a barrier for recognition. All the interviewees expressed strong concerns about the state of nature and biodiversity after construction started. The local activists see the development as poor land policy, in contrast with the logic of official institutions' arguments. They are directly related to the concern of the UN Global Assessment Report released in 2019 about the state of nature in the world (IPBES 2019). The report states that Norway is in danger of losing 2000 species and the leading cause for this is changes related to land-use. In other words, the way we are building down nature is a threat to the world; as of now, we are producing several red-listed species, which has endangered many nature types. The most dramatic consequence of this development in land-use can be the collapse of whole ecosystems (ibid). It is against this backdrop that the local activists at Frøya are resisting the development. As the findings show in the analysis, Frøya is an area with mire known for its properties to binds CO_2 and thus protected for conservation by Norwegian law. Nature's most significant contribution to tackling climate change is to regulate the climate; it can absorb about 60% of human emissions annually (Bartlett et al. 2020). The activists point to the need for a holistic approach to a green transition, where counting the carbon inventory from the whole process is essential. For the activists, the

development of wind power is a barrier for ecological justice when cutting CO_2 emissions leads to more emissions being released from the mire, making the conditions for biodiversity at Frøya worse than ever. Moreover, the local activists' knowledge is confirmed by the environmental groups and raised concerns about what kind of knowledge was the basis for NVE. In addition, in 2019, the leader of Friends of the Earth, Silje Lundberg, stated that she saw the municipalities' negative response due to the insufficient knowledge that the National Framework was based on (Pedersen 2019).

The issue of recognition and influence further relates to the thematic theme 5.5 Logic of Arguments as I argue that the locals' concerns are not being heard, forms a barrier for recognition when the local and experience-based knowledge, and has been so throughout the whole development processes. The participants at Fosen especially discussed the knowledge hegemony; Terje went into negotiations with the wind power developers, and he, as the only reindeer herder in that meeting, was portrayed as the one who knew least about the realities of herding. Furthermore, this does not only reveal the relevance of the decolonization of knowledge; it also reveals the asymmetrical power relations that the Sámi are still facing (Fuller 2019). In addition, it reflects a deeper issue of cultural recognition and is a part of the long-lasting history in Norway of injustices against the Sámi indigenous population. Their way of life is not valued as much as the 'modern' way of life, and seemingly can be 'sacrificed' when the wider majority's needs are different. For the Sámi indigenous population at Fosen, the injustice of misrecognition is nothing new as they have been fighting land-use interventions for over 20 years. In this way, reindeer pasture areas are spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism (Pratt 1991).

Central to the case at Fosen is the debate about knowledge and research environments, partly because the knowledge produced in research on reindeer behavior becomes important when licenses are given. The studies are also used in court cases related to reindeer herding. The researchers or consultants who carry out the studies are sometimes affiliating with companies that Norwegian state-owned companies are partly funding (e.g., Statnett in the case of Fosen). These state-owned companies are again driving forces for power development, as was documented in the district court in the trial between Fosen Vind DA and *Fovsen Njaarke* in 2018. Thus, the practice of the companies choosing investigators is problematic. To this day, there are no examples from the ongoing wind power developments that NVE has elected

Sámi consultants to pre-assessment of the consequences for development in Sámi areas. In some cases, the Sámi community has managed to fight for additional studies carried out by the Sámi organization, Protect Sápmi; however, the projects have by then often come so far in the process that in practice, they are impossible to stop. The findings in this thesis strongly emphasize issues of recognition of Sámi culture in relation to wind power development, both by the developers and by the Norwegian state.

At Fosen, the reindeer herders expressed that their way of life is threatened by wind park development (Overkjønn 2020), that their rights are being violated, and that their way of life is undervalued. Moreover, the findings show that their unique viewpoint, lifestyle, and culture are not recognized or valued by politicians, policymakers, and to some degree, by society. There is a lack of understanding by politicians and opponents that those who choose non-capitalist alternatives are at odds with the dominant culture, political ideology, and economic structure (Kuokkanen 2006: 6). Therefore, there is a need for recognition that reindeers are valued and legitimate parts of the Norwegian fauna. During the court case in Frostating court of Appeal, it was revealed that understanding and knowledge about reindeer herding could be lost to the judges. The overall time that the consultants spend with the reindeer herders during pre-examine for development is too short. Hence, the opportunity to express information is limited; some crucial aspects and information might not ever be expressed; there might not be enough time to explain all aspects of a way of life or culture, or some cultural understanding does not translate over a short period of time. For example, a *sitje* is relational and includes both the reindeer stock, the human family, the territory, nature, and how they are interconnected and everything else surrounding the *Sitje*. In addition, it also relates to the different herders; they are interdependent. If one herder has to shut down, the others in the same Sitje become more vulnerable and run a higher risk of having to do the same. In contrast, by the court of 'experts', a *sitje* is defined as a static unit with boundaries rooted in property rights, which can be complied with some adjustments - and the boundaries can be maintained through more herding. In other words, as a part of trying to translate old Sámi practices, it loses its relational meaning and is translated into the Norwegian understanding of 'districts'. The mistranslation leads to a change in Sámi practices and misrecognition of the self-organizations that *sitjes* used to have. The policy towards Sámi reindeer herding has been the practice by the Norwegian state for some time, and together with techno-scientific decisions to build wind power industry in Sámi areas, shows a lack of acknowledgment of indigenous knowledge. For the case of Fosen, the practices of Western

knowledge and technoscience manifest themselves in wind power development. Technoscience is designed to handle the world in an economically rational way, giving priority to the companies and seeing social consequences and problems as irrelevant. Thus, decolonizing technoscience is a political matter relating to its governance rather than some reform. In this way, the Truth and Reconciliation Committee's process and work might be helpful to spark this debate if they address the issues in their final reports. If there is a political will, traditional indigenous practices can be granted a special status to remain or develop within this scientific-legal framework (Swadner and Mutua 2008; Wråkberg and Granqvist 2014: 91).

Moreover, the analysis findings suggest harmful knowledge gaps in Norwegian society and institutions like NVE and OED, contraposition Sámi's sense of responsibility and ecologic practice. The implication of these findings suggests the urgent need for re-thinking so-called renewable industries and include indigenous' knowledge in climate change agendas (Normann 2020: 15). The lack of knowledge about reindeer herding in the Norwegian state and society is a barrier to recognizing reindeer herding rights concerning land-use interventions; the development would not have been accepted to proceed, the potential loss for the Sámi community is far too significant. Wind power development, as it is portrayed as 'good' development today, hides indigenous Sámi issues relating to land-use and culture under the need for a green transformation. To assess the impacts of such interventions, all aspects of reindeer herding must be considered. In the case of Kalvvatn, Olsen Renewables AS wanted to build a wind park in the area in 2014. In 2016, OED withdrew NVE's decision to grant a license, ultimately declining development in the area partly due to the total sum of interventions in the area and partly due to the documentation of Sámi history in the area as detailed in the analysis. However, as the analysis shows, the burden of proof lies with the Sámi population, not the state, which shows a lack of interest in reconciling reconciliation and discontinuing colonial history in Norway.

6.3 Implication for Participation in democracy

In the following section, I discuss the implications of findings from the analysis of participation in democracy at a local and national level. The thematic theme is here 5.6. Consideration, where the manifest code is whether there are opportunities to provide input in

the policy process and the extent to which public officials represent their interests, leads to accountability. Here, 'accountability' is divided into two concepts i) accountability in explaining the reasons behind decisions, and ii) accountability in terms of the opportunities to hold someone responsible for their actions. Moreover, the code also relates to insufficient responses by the companies and the government when the input is seemingly acknowledged. The latent code is here knowledge production, where conflicting knowledge is expressed in the inputs. At both Frøya and Fosen, the locals express dissatisfaction on both accounts of accountability described above. Most of them express that politicians only superficially listen to their opinions without considering them, and perceive condescension from TrønderEnergi and Fosen Vind DA. Accountability is fundamental for democratic practice, perhaps even more so in representative democracy and policy areas involving expert knowledge, like the energy sector (Szulecki 2018: 31).

At **Frøya**, there was a strong emphasis on injustice relating to participation in the planning and management process. The local activists expressed that the techno-scientific focus of management processes excludes them from effectively influencing the wind power debate with their experience-based and lay-knowledge. Best described as a technocratic perspective by Hendriks (2009), this is an elite theory of 'technocracy,' emphasizing technology, economics, or security, where the role of society and social scientists should be limited to a necessary minimum. Although the techno-scientific power sector's goal is to provide electricity to the customers, it excludes the possibility of allowing them to decide the structure of that sector and its future development (Mulgan 2003). The Norwegian state is looking at energy development from only a technological and economic perspective and present society and nature as a mere source of demand without considering the possibility of co-ownership of the power generation units.

On the contrary, the police have exposed the activism at Frøya to criminalization and repression from the very beginning. Several have experienced being arrested and accused of activities that they claim they have not done. No one has been charged in the cases in question. The activists in the Action Group made an early camp on the other side of the construction work, with permission from the landowner. Later, the police seized the lavvo (tent) set up and introduced a no-go zone for stays throughout the construction area and over the camp. Activists who have tried to document the consequences have been fined heavily for moving in the area, even after the residence ban expired. The fundamental issue is a dominant

discourse that portrays the activists as violent criminals, instead of recognizing them as citizens with rights to participate and is thus a criminalization of political activity (Holifield, Porter and Walker 2009: 603). The misrecognition of the activists encompasses not only the disrespect and maltreatment of individuals but also the institutionalized exclusion of political activists from the green transition and decision-making processes.

Criminalization speaks to broader issues, including the validity of truth claims and the fundamental relationship between knowledge and power. The activists experience being portrayed in a strongly misleading way by the opposing side and development companies. Overall, this is mostly related to general public debate, which has labeled the resistance as 'deniers of climate change,' and politically on the far-right side, which is true to some extent for the overall debate in Norway; however, politically, the resistance cannot be placed on a political map or in a left/right dichotomy as there are many entry points to the resistance. It is mostly a heterogeneous group of people united by other concerns about the costs of a green transition and who pays the costs as of today. Therefore, for the purpose of the thesis, it is essential to note that none of the people interviewed for this thesis ever denied climate change, and all were very concerned with how to best create climate mitigating policies. On the contrary, the local knowledge of climate change, energy sources, biodiversity, and carbon storage was high, and thus they are questioning if this effective climate mitigation policy or other interests are at play.

In 2020, OED released a new White Paper on onshore wind power development after scrapping the National Framework plan made by NVE (White Paper 28). The changes that came in the White Paper indicate few changes in practice for the licensing process and the future of wind power development in Norway as the companies are still allowed to choose areas that are best suited for the wind power industry. The shift here is that it is now the municipalities or county municipalities that must say yes or no, instead of the municipalities themselves being able to choose areas they consider their own. That said, there is not necessarily enough knowledge in a municipality to avoid this type of conflict. A positive sign is that the Porsanger municipality in Finnmark has made a decision that says no to letters of intent and no to impact assessments. Seemingly, the decision might be based on the lessons learned from the fight against oil drilling in Lofoten, Vesterålen, and Senja, and municipalities increasingly dare to say no to impact assessments as it often leads to construction start.

Input from the Sámi population has been to have 'hard exclusion' in areas with reindeer herding. A 'hard exclusion' entails that no wind power will ever be developed in reindeer herding areas and that the existing facilities will be decommissioned. The White Paper is, in this way, an example of how states often rescale policy and decision-making processes to those scales where popular pressure can be muted or diffused, and where state resources are insufficient to implement democratic decisions (Peck and Tickell 1994; Miller 2007). In addition, as the findings in the analysis show, there is intense dissatisfaction within the Sámi reindeer herding community at Fosen with the opportunities they have for input to the policy formation process on wind power development and the following accountability of politicians.

Moreover, the participation principle of 'free, prior and consent' where the Sámi population can make free, prior, and consent to a development project involving them was not included in the development process. The central role for FPIC in the realization of the rights to self-determination and lands, territories, and natural resources and the obligation it imposes on governments and the private sector (Doyle 2008: 8). In theory, the principle can be a successful tool to increase participation in local cases involving indigenous populations; however, the World Bank has previously interpreted C as consultation, not consent (Doyle 2008; McNeill 2015). In the case of Fosen, The Sámi Parliament was consulted by OED and NVE, and the reindeer herders were given the option to participate in meetings with the developers as the projects were given license NVE. However, I argue here that the processes are not free as the developers already knew that the project would be released, nor was consent given as the dialog did not happen *prior* to granting the license. In this way, consent is reduced to a consultation that Fosen Vind DA can achieve without actually changing the content of the project after inputs. As the verdict from the Frostating Court of Appeal notes, the developers from Fosen Vind DA cannot consult their way out of disagreement (Overkjønn 2020). Furthermore, as Terje pointed out, access to information has been low, the projects evolved after the dialogues, not acknowledging his inputs about the effects the development will have on reindeer herring. As Terje expressed, they experienced the process as opaque, the dialogues with the developers as less than transparent, and the access to information about the process hard to come by. These findings suggest that the inputs from the Sámi community at Fosen are not seriously considered and a barrier for a minority to participate in what should be democratic processes.

Low influence on decision-making in cases that involve reindeer herding and Sámi rights is not new for the Sámi population; however, as the finding shows the disempowerment has not been experienced at Frøya before, causing even more resistance. Not being heard or being able to partake in political processes indicates injustices in both recognition and participation. Furthermore, the injustice also relates to accountability; the reindeer herders have taken that matter into hands and has submitted the case to the UN Committee on Eliminating Racial Discrimination (CERD), where it is still being processed, in hopes of holding the Norwegian state accountable for its actions. In this way, the wind power development in Sámi areas are adding on to an already skewed picture of colonialism, the participatory inequality of the Norwegian minority is still a reality. The development in Norway is further underlined by the global trend of predatory states and companies grabbing land from Indigenous populations to develop extractive industries (Andía and Ødegaard 2019).

6.4 Summing Up

In this chapter, I have discussed the implications of wind power development on distribution, recognition, and participation. In the analysis, I have argued that the opposition at Fosen and Frøya has arisen for two reasons. On Frøya, the local activists protest against structural ignorance of environmental advice and against the destruction of nature and the destruction of biodiversity. At Fosen, they protest against the structural ignorance of Sámi rights that leads to structural racism. The remnants of the Norwegian colonial legacy lives on through land-use policy. The notion of green colonialism applies not only to wind power development but also to cobber mining development in Nussir, Finnmark. Sámi reindeer herding is today under intense pressure and vulnerable to changes in land use. Likewise, the development at Frøya creates increased vulnerability to climate change; the premise of sacrificing nature at the expense of climate cuts and economic profit for a few does not make sense for the local activists. In addition, I have argued that the development creates vulnerability in the districts, a failed district policy that may lead to outmigration. Furthermore, due to rural marginalization, the municipalities, in this case, have been dependent on saying yes to the development in order to secure an income and thus functioned as a tool for the Norwegian state's policy on energy transition. In the process of establishing a wind power industry in Norway, the rules of capital accumulation have actively been re-shaped by the state through a

socio-ecological process (Harvey 2006: 78). Moreover, as the authorities have failed to address the local people's needs at both Fosen and Frøya or work with them to address such conflict adequately, the conflict has and will further intensify (Madden 2004: 248).

Beyond simply indicating that demands for social and environmental justice include elements of equity, recognition, and participation, this exploration of environmental justice on the part the local activists and Sámi reindeer herders illustrates that these conceptions are thoroughly linked and connected to broader issues of socioeconomic policies, such as rural policies (Schlosberg 2004: 527). Significantly, there is a problem for achieving justice in the restricted flows and networks of power and decision-making to which participation requires access, which is clearly restricted in the development process at both Fosen and Frøya (Holifield, Porter and Walker 2009: 600). The lack of full and real participation in the development leads knowledge gaps about Sámi reality and land-use, and thus to misrecognition of Sámi rights and environmental science advice, in addition to rural maldistribution of the vulnerability and risks related to climate change. Hence, it is not merely that the justice of environmental justice in political practice includes issues of equity, recognition, and participation; the broader argument here is that the movement represents an integration of these various claims into a broad call for justice. In this way, equity, recognition, and participation are intricately woven together.

7 Conclusions

Today, the world is facing two intertwined challenges: climate change and biodiversity loss. When addressing climate change, a transition from fossil fuel energy to renewable energy is needed; the question is how to make it socially inclusive. To answer this challenge, the energy transition in Norway has been focused on developing a wind power industry met with resistance in the rural districts where the wind park development occurs. The thesis has explored what a green transition in Norway entails under the structure developed for wind power through the cases of Frøya and Fosen in Trøndelag. The thesis sheds light on how marginalization and increased vulnerability are the driving forces for the resistance against the development of wind power. The findings suggest a need for a better understanding of the social resistance over the construction of low carbon technologies and green transitions to create a socially inclusive transition.

Through the analysis, elements of all three forms of justice could be identified in the narratives concerning the development of wind parks at Fosen and Frøya. Moreover, knowledge production and power were addressed from a political-ecological perspective. For both cases, there is a conflict over how environmental costs and benefits should be distributed in society and the way of understanding the actual nature of the costs and benefits that wind park development represents at a local level. Nancy Fraser (1995) argues that while justice must be concerned with classic distribution issues, it must also address the processes and mechanisms that construct maldistribution. Furthermore, it entails theorizing how economic disadvantage and cultural disrespect are currently entwined with and support one another, which has implications for participation in decision-making. Thus, there is a need to understand better the causes of environmental injustice in its various forms. Using the theoretical framework of environmental justice in this thesis has revealed the diversity and place specificity of definitions and articulations of environmental justice (Holifield, Porter and Walker 2009: 593). In other words, the production of injustice is always a process, differentiated by local and environmental contexts, which in the cases of Fosen and Frøya are reflected in various ways; as distributional concerns, as demands to respect human rights, as insistence on indigenous territorial rights, as claims for the sacredness of nature, and as efforts to preserve alternative visions of - or alternatives to - development.

At the heart of the conflict lies issues of land-use. At Fosen, the Sámi indigenous practice of reindeer herder as a livelihood is at stake. As the analysis shows, the changes in land-use at Fosen directly lead to changes in the identity of an indigenous way of living. In this way, the reindeer herders are forced into 'modern' practices, leading to the extinction of reindeer herding at Fosen. As the analysis shows, the conflict of land-use in Sámi areas relates to knowledge about how the reindeer herders use territory. I have argued that the knowledge gaps concerning Sámi culture and reindeer herding in Norwegian institutions are harmful and might have devastating consequences for the Sámi language at Fosen as it is closely tied to reindeer herding. Moreover, I have argued that forcing the reindeer herding into another way of operating can best be described as green colonialism, describing how the colonial legacy of the Norwegian state has 'reinvented' itself through wind power development policies and thus perpetuates structural racism. In this way, green colonialism recognizes that the policies generating spaces of environmental inequality and injustice is far more historically and geographically complex than they once appeared (Holifield, Porter and Walker 2009: 595). Furthermore, the structural ignorance of rights correlates with the lack of participation in the process and decision-making; recognizing indigenous rights would by logic, be followed by more and increased participation in policy development. For the reindeer herders at Fosen, the principle of 'Free, prior and consent' could have given them the right to say no the development and produce outcomes with fewer asymmetries in power relations. However, as the analysis shows, FPIC is replaced by consultations, reproducing the knowledge gaps in Sámi culture. Hence, I have argued that colonialism is very much prevalent in Norway today, and this is very much a call for decolonizing the Nordic mind and praxis. In the time where #BlackLivesMatter has paved the way for a reckoning with established truths, it is time to confront Norwegian colonial praxis, policies, and mindsets. The pending decision from CERD and the final report from the Norwegian Truth and Reconciliation Committee might help set this process in motion.

For the local activists at Frøya, the development of wind power in Nessadalen means that the local biodiversity has to be sacrificed for the greater good of society, and in this way is a conflict between humans about nature. As the analysis shows, Norway has signed several international agreements to preserve biodiversity and have national goals of conserving and protecting mire because it has its ability to absorb CO2 and store it for a long time. By digging up the mire in Nessadalen, CO2 produced a long time ago has already been released back into the air. Therefore, it is essential to have knowledge of comprehensive climate

accounts when interfering with nature. The findings suggest a need to look at the total carbon footprint of wind power development; I have argued that the development might not be as green as presented, being dependent on non-renewable minerals and large land areas.

Moreover, throughout the thesis, I have argued that the development is allowed to happen because there has been a shift in how nature is valued in Norwegian energy development. Previously, in hydropower and oil, it has been common to assume that when the state uses natural resources owned by the society, it must repay through high taxes as a form of rent. For the local activists, ecological justice is essential; the knowledge on climate change has been available for a long time without noticeable effects in politics or everyday life; the same should not be the case for biodiversity, as the consequences could potentially be devastating in accelerating climate change. However, as I have shown in the analysis, the knowledge is present in the Norwegian Environmental Agency as they advised NVE against the development at Frøya and parts of Fosen, with arguments that the biodiversity in the areas is far more critical to preserve than building wind power. In this way, I have argued that NVE and OED structurally ignore environmental advice given by The Environmental Agency and international obligations to conserve biodiversity. As the analysis shows, this is further underlined by the ignoring of inputs from the local activists. Instead of being seriously considered and able to part-take in the process, the activists have experienced a backlash of criminalization of their protests by the police. The criminalization has led to a growing distrust both within the local community and towards the government. In sum, the resistance is complex and relates to broader issues of devaluing a rural and indigenous way of life and ecological justice and decolonizing knowledge and the Norwegian society.

As the analysis shows, the resistance is connected to issues of environmental injustice with other social concerns such as accumulation of dispossession; the issues connected to wind power development is a matter of regional policy development, as centralization, which might not allow the rural municipalities to say no to development as they are dependent on revenues, income, and jobs. In this way, accumulation by dispossession is a source for a trade-off between nature and income for rural municipalities in Norway, putting them in an impossible situation (Harvey 2004). Further research on the importance of municipal economic status is needed; a green transition cannot be developed on the premises that rural municipalities are forced into agreeing to develop industry in areas where it is not socially acceptable or suited with regards to biodiversity.

Furthermore, the logic of the argument for wind power development is not perceived as justifiable at Frøya nor Fosen and is, in this way, the triggering factor for the resistance. As I have shown through my analysis and discussion, in the two cases, there is competing knowledge about environmental change and risk, which relates to how different knowledge regimes identify and interpret facts differently, and how this creates conflicting depictions of the world and solutions to humanity's problems. I argue that the observable impacts on nature at Frøya is reason enough for not going through with the project. As the project proceeded, the developers' lack of action or damage mitigation intensified the resistance, as the local activists' concerns were not heard. The insufficient institutional response is a manifest of asymmetrical power relations in the energy sector in Norway. At Fosen, resistance against land-use interventions has been a struggle for over 20 years for the Sámi reindeer herders; wind power development is just the last in a string of other fights for their livelihood. The resistance has intensified as existing projects have expanded, and new projects have been planned, seeing that all the proposed wind parks at Fosen are centered in areas used to maintain an indigenous way of life and language. I argue that the development of wind power at Fosen is an expression of colonizing the Norwegian authorities' policies. It happens across legislations meant to protect indigenous culture and international obligation, which the government has signed is obliged to follow. Thus, this study's findings show the relevance of decolonizing knowledge within a Nordic context. Concurring with Normann (2020: 15), the findings of this thesis suggest that there is a need to revise renewable wind power development in Norway and create space for Sámi knowledge on the climate change agenda.

Post-research reflections

The process of doing this thesis can best be described as a cyclical learning process. Initially, I started out looking for how to address the increasing interest of international investors, looking at it from the perspective of global value chains. However, as the thesis evolved, and I talked with people, the perspective changed to looking at the state as a facilitator for international companies to invest in Norway's wind power. Looking at the state as the main obstacle to attain justice has a long history from a Sámi perspective. Taking this seriously

meant a shift of my focus, while at the same time balancing this with how the people at Frøya perceive the resistance. These insights come from informal chats with the informants and my colleague at the Center for Development and Environment, Susanne Normann. The work we have done together has changed and informed my perspectives. Decolonizing knowledge is a process I also needed and will continue working on in the future. In no way or shape do I feel that I am close to understanding the full picture of what decolonization entails; this is a lifelong process. I will always aim to be an ally, and in some ways, have to accept that there are perspectives and knowledge I will have missed in this thesis and that the knowledge I produced here will never be fully decolonized.

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Appendix I

Informed Consent Master's project - simplified version

• Everyone involved in research projects have the right to know how their data and privacy is protected.

• *You have the right to:*

¨ withdraw your consent and/or delete your data at any time
¨ access and/or correct all personal information about you at any time

• *I ask you to participate in any of the following:*

¨ Individual interview - recorded and/or written

• If you want more details, please do not hesitate to ask before giving your informed consent.

I consent to participate in the research project and that information about me is published so that I can be recognized:

.....

(Signed by informant, date)

Sincerely,
Henrikke Sæthre Ellingsen
University of Oslo

Appendix II

Interview guide Frøya

1 Background and presentation – introduction

a. History of the development at Frøya

2 Organizational

a. Role in the local organization

b. What tactics and/or strategies have 'Aksjonsgruppen' used

c. Experiences with cooperation, both with ENGOs and reindeer herders

3 Process of development

a. The development of wind power nationally

b. How the local resistance started – particular event

c. What do you see as the reasons why both local and national opposition have arisen

d. personal experience with the developers

e. personal/political experience with the government

f. personal experience with the police

g. personal /political experience of the power relations in the process

h. Views on political opportunities for stopping the projects

4 Climate change and knowledge production

a. Impact on nature after construction start

b. Changes before and after in community/nature/economy

c. Views on energy production in Norway

c. Views on green transition

d. Views on social justice

e. Views on the value of nature

f. Views on climate mitigating polices

Appendix III

Interview guide Fosen

1 Background and presentation - introduction

a. History of the development at Fosen

2 Sámi rights and reindeer herding

a. Views on the value of nature in Sámi culture
b. How does climate change affect Sámi reindeer herding?
c. Views on green colonialism
d. personal /political experience of the power relations in the process
e. Views on the consequences of the development for Sámi culture
f. Views on the work of the Truth and Reconciliation committee
g. Views on political opportunities for stopping the projects

3 Process of development

a. The development of wind power nationally
b. How the local resistance started – particular event
c. What do you see as the reasons why both local and national opposition have arisen
d. personal experience with the developers
e. personal/political experience with the government
f. personal experience with the police
g. personal /political experience of the power relations in the process
h. Views on political opportunities for stopping the projects

4 Climate change and knowledge production

a. Impact on nature after construction start
b. Changes before and after in community/nature/economy
c. Views on energy production in Norway
c. Views on green transition
d. Views on social justice
e. Views on the value of nature
f. Views on climate mitigating policy