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**“You are in the mountains to be in nature.”:
A Local Community’s Expected Environmental
Injustices in Norway’s Green Transition.**

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MSc International Environmental Studies

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DECLARATION

I, Kaja Bugten, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature: 

Date: May 14, 2024

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ABSTRACT

This master thesis investigates the expected consequences that the local community and Sámi pastoralists in Kvænangen municipality in Nord-Troms, Norway, have on the proposed idea of developing a wind power plant in the landscape, particularly by power companies Troms Kraft and Ymber, and thus what efforts are needed to mitigate negative opinions potentially. Since the publication of the Truth and Reconciliation report in 2023 and considering the Fosen case in Norway, Indigenous people and local communities have had a sharpened focus on local and indigenous involvement in clean power production.

The Environmental Justice framework reviews how an Indigenous people and local community may experience further land encroachment in the Olmmáirášša mountain that has local value. Using this framework, I analyze what injustices may be experienced in a process like this and how to mitigate them. Troms Kraft and Ymber's published feasibility study, opinion pieces, and national and local newspaper reports identify the landscape users in Kvænangen municipality to be primarily critical to a wind power plant. Through qualitative interviews with participants with connections to Kvænangen municipality, participants communicate various expected issues in the cultural, economic, and ecological spheres, in addition to needs for mitigating purposes.

The findings show that the locals show particular interest in the loss of their landscape for what they use today, mainly outdoor life activities and Sámi reindeer pastoralism. This includes fear of land encroachments such as road and wind turbine infrastructure on pastures. Further, worries about access to the landscape for recreational reasons and fear of identity loss among the local Sámi pastoralists. Finally, Kvænangen's municipality treasury would likely benefit from a wind power plant. However, the Sámi pastoralists fear that their livelihood would suffer greatly.

This thesis illustrates the participants' thoughts on the landscape loss in the municipality and the decision-making that the municipality's politicians make. It suggests mitigating strategies and recommends how power companies could move forward with communication between the relevant parties if the development is approved.

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This section contains two lists. As the paper is written in English, but the research is done in Norwegian, some words have distinct cultural meaning in Norwegian which is hard to directly translate. Furthermore, some of these Norwegian words are originally from Sámi languages which have been translated into Norwegian, making them even harder to translate into English. The first list contains the Norwegian word and the translation used in the paper. The second list is the abbreviations used in the paper for the reader to easily return to, if needed.

TRANSLATED NORWEGIAN WORDS

Norwegian / Sámi word	English translation
Allmenn	common
Allemannsretten	The common law
Arealinngrep	Land encroachment
Flytteleie	Migrating route
Friluftsliv	Outdoor activities
Luftingsområde	Airing area
Luftfartstilsynet	The Norwegian Aviation Authority
Mattilsynet	The Norwegian Food Authority
Reinbeitedistrikt (RBD)	Reindeer Herding District (RHD)
Reindriftsloven	Reindeer Herding Act
Utmark	Outfield

ABBREVIATIONS

EJ	Environmental Justice: the theoretical framework.
NINA	Norsk institutt for naturforskning: the Norwegian word for Norwegian Institute for Nature Research.
NHO	Næringslivets Hovedorganisasjon: the Norwegian word for Confederation of Norwegian Enterprise.
NVE	Norges Vassdrag- og energidirektorat: the Norwegian word for Norwegian Water Resources and Energy Directorate.
OED	Olje- og energidepartementet: the Norwegian word for Department of Oil and Energy.
OHCHR	Office of the United Nations High Commissioner for Human Rights.
RHD	Reindeer Herding District.
RHD 33	Spalca reindeer herding district
RHD 34	Ábborášša reindeer herding district
RHD 35	Fávrosorda reindeer herding district
SIKT	Norwegian Agency for Shared Services in Education and Research.
SSB	Statistisk sentralbyrå: the Norwegian word for Statistics Norway.
UN	United Nations.
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples.
WWF	World Wildlife Fund.

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1.0 INTRODUCTION

The power companies Troms Kraft and Ymber produce and distribute renewable energy made from hydro and wind power to households and industries in Northern Norway (Troms Kraft, n.d.-a, Ymber, 2021). Together, these two companies have conducted a feasibility study on wind power production and industrial development in Nord-Troms, where amongst a few others, Kvænangen municipality has been of interest (Karlstrøm & Sundheim, 2023; Troms Kraft, n.d.-b). As a result of the feasibility study, Troms Kraft and Ymber found that a part of the landscape in Kvænangen municipality has the best option for a wind power plant as it has the most potential for high efficiency (Antonsen, 2023; Karlstrøm & Sundheim, 2023). Figure 1 depicts the area of interest for the power companies and the specific area within the landscape they want to develop infrastructure on, the mountain ridge Olmmáirášša. It is a small percentage of the overall municipality landscape but also the only space for summer and green pasture for the reindeer pastoralists in Ábborášša reindeer herding district (RHD 34) (Wilhelms, 2023). There are three reindeer herding districts (RHD) (Norwegian ‘reinbeitedistrikt’), RHD 34, RHD 33 Spalca, and RHD 35 Fávrosorda, who use Olmmáirášša during summer and are against the development and fear for their own livelihood if the project continues (Wilhelms, 2023). Additionally, the local community in Kvænangen municipality worry about their own access to and continued usage of the mountain as a recreational place for outdoor activities (Norwegian ‘friluftsliv’).

In the feasibility study, Troms Kraft and Ymber found that the landscape in Kvænangen municipality had the best condition for a wind power plant because the area can provide the most power to the community on the smallest amount of land on Olmmáirášša mountain (Karlstrøm & Sundheim, 2023; Troms Kraft, n.d.-b). Additionally, there is already hydropower production in Kvænangen Kraftverk AS and the developers are seeking to utilize existing infrastructures for access roads going up the mountain (Karlstrøm & Sundheim, 2023; Troms Kraft, n.d.-b). Building wind power plants require large areas of landmass. There are currently 62 wind power plants and 2 being built in Norway (Fornybar Norge, 2022). These vary in size, but all require infrastructure such as roads and parking, in addition to the wind turbines (NVE, 2022a). Furthermore, there are different kinds of land encroachment in such projects, relating to directly physical, general development area, noise zone, and buffers, including the visual impacts (NVE, 2023a).

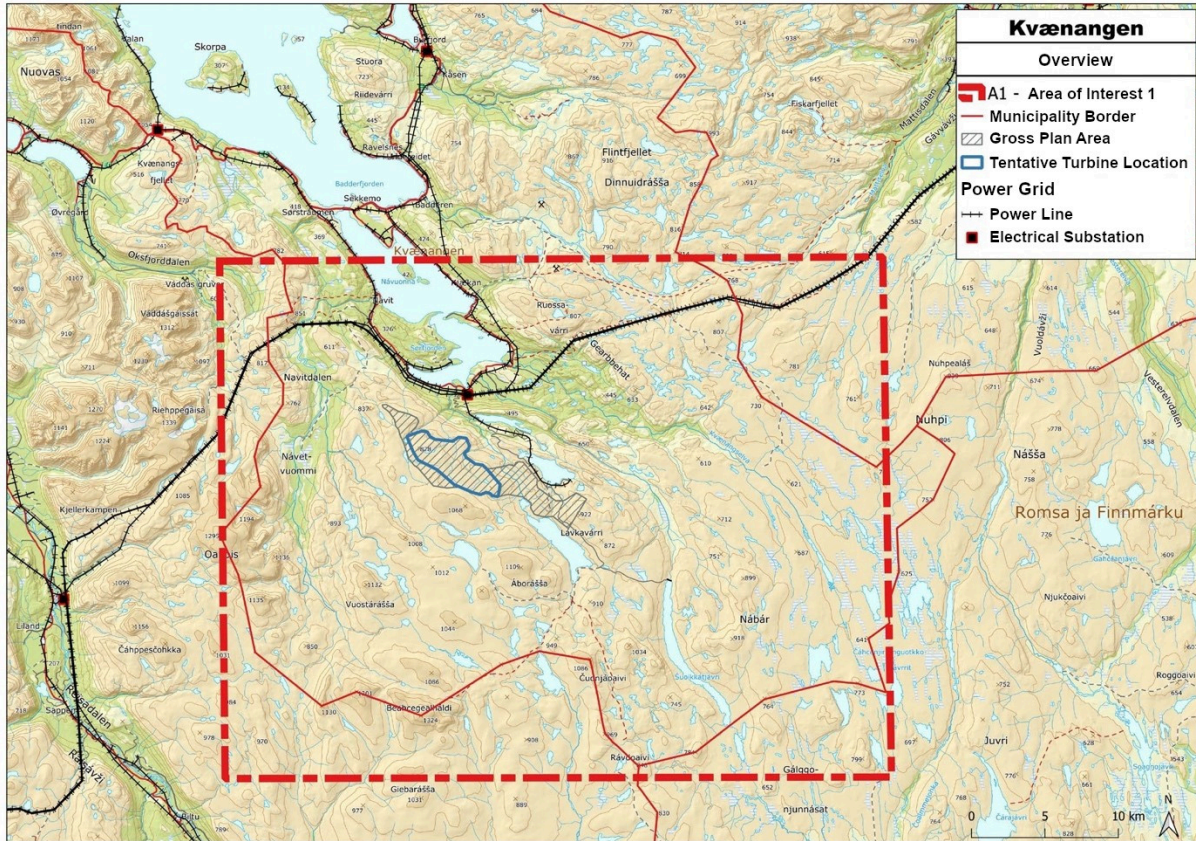


Figure 1. Map of the area of interest for TROMS Kraft AS and YMBER AS in Kvænangen municipality with overview of the turbine location. Source: Karlstrøm & Sundheim 2023, p. 59.

The feasibility study also accounts for the great usage of the mountain ridge as reindeer pastureland during summer season (Karlstrøm & Sundheim, 2023). Sámi reindeer pastoralism is a unique and traditional way of life for some of Norway’s Indigenous people and has been passed down through generations of herders. There are different siida, a Sámi nomadic community of practicing reindeer pastoralists that share certain areas (Sara, 2011), and regions that RHDs are separated into, which are further separated into winter, fall, spring and summer pasture areas with intended purpose to protect the individual regions and pasture from being over-used (Sara, 2009). The seasonal pastures are meant to suit the reindeer’s nutritional needs for each season (Tyler et al., 2021; Karlstrøm & Sundheim, 2023). In TROMS Kraft and YMBER’s feasibility study, the companies report that the area of interest for them encompasses all RHD 34 including much of RHDs 33 and 35 (Karlstrøm & Sundheim, 2023). Therefore, another issue is the potential use and misuse of valuable grazing areas.

A wind power plant will likely affect the locals¹ in various ways that overlap with each other, due to differing and similar valuation of the landscape in Kvænangen municipality, and each person's use depend on one's own abilities and interests. The feasibility study also discusses potential new income, places of employment, and increased cultural offers in the municipality, while also giving the community years of development in their valuable Olmmáirášša including any infrastructure that causes environmental degradation. However, there is not enough insight into what the local users themselves think about the proposed wind power plant and its consequences.

1.1 NAVIGATING THE CHALLENGE: PROBLEM STATEMENT, RESEARCH QUESTIONS AND OBJECTIVES

For any local community whose identity relies on the surrounding nature and use thereof, land encroachments from a wind power plant creates reactions and opinions on the potential consequences the community would face with new infrastructure. The aim for this thesis and research is to find what locals in Kvænangen municipality think about the possibility of having a wind power plant on Olmmáirášša mountain and what impacts it may have on the municipality and the surrounding landscape. Thus, my main research question (RQ) is: what expected impacts would a wind power have in Kvænangen municipality?

To better structure my research, methods, and findings, I have four sub-RQs.

1. How does the participant expect the environment in Kvænangen municipality's landscape to be affected?
2. How does the participant expect their social life or culture in the municipality to be affected?
3. How does the participant expect their own or Kvænangen municipality's financial situation to be affected?
4. How can perceived negative impacts for the local community and Sámi reindeer pastoralists be mitigated?

¹ Sámi reindeer pastoralists live in Kvænangen municipality approximately half the year from April to October due to the spring, summer, and fall pastures. I include them in the collective term of 'locals' and specify between the Sámi pastoralists and local community where appropriate.

To analyze my results, I use the conceptual framework of environmental justice (EJ). This theory focuses on the social conditions and environmental rights of local communities mainly because it is critical to consider the injustices experienced by them (Bullard, 2001; McCauley & Heffron, 2018). Furthermore, EJ focuses on the importance of place-based knowledge and experiences that communities and individuals have in a specific locale (Omukuti, 2021). In my case study, potential injustices arise due to Norway's green transition, and researching the level of fair treatment and meaningful involvement the local community and Sámi reindeer pastoralists in particular receive in the development, implementation, and enforcement of policies for the green transition happening in their backyard. The framework reviews how an Indigenous people, with their community and livelihood, can be threatened as nature, income, and culture may be reduced or completely lost to them. Throughout my discussion I analyze my findings using the EJ framework of distributional and procedural justice, recognition, and capabilities approach.

To answer the RQ, I use the qualitative method of individual semi-structured interviews with open-ended questions. This research includes participants among the local community members and users of the mountain in Kvæningen municipality who has opinions on a wind power plant development. The thesis is geographically restricted specifically to Olmmáirášša in Kvæningen municipality depicted in figure 1. I interviewed members of the local community of Kvæningen municipality, including local Sámi reindeer pastoralists, political persons in the municipality, and other locals with some connection to the landscape for their perspectives on the issue. I supplemented the collected data with literature reviews of similar topics in journal articles and gray literature, such as newspaper publications, and reports.

1.2 THE THESIS' STRUCTURE

The thesis is structured into chapters and sub-chapters for enhanced readability. Chapter 2 is a literature review with sub-chapters of issues raised by the green transition and wind power plant developments and infrastructure present within the environment and society that exist in its proximity. Chapter 3 takes the reader through the theoretical framework that is be used in the discussion. Chapter 4 aims to explain the data collection method in addition to limitations of my approach. Chapter 5 elaborates and discusses the results from the collected data in four main sub-

chapters. Lastly, Chapter 6 provides a conclusion and recommendations for any potential future developers.

2.0 LITERATURE REVIEW

My RQs investigate the possible impacts of a wind power plant to Kvænangen municipality. There is no direct primary literature that addresses this specific concern because the issue is so new, and research has not yet been conducted in entirety. However, to conduct a literature review, I will refer to primary literature from similar cases in addition to published debates online. This latter literature is collected from online newspapers both nationally and locally.

2.1 CHALLENGES FOR LOCAL COMMUNITIES IN NORWAY'S GREEN TRANSITION

Climate and energy justice have the same philosophical foundations as the EJ framework, and it is therefore pertinent to discuss them together from a justice perspective. A transition to clean energy systems is beneficial for communities for them to become more resilient to climate change (Menton et al., 2020). Wind energy is a climate change mitigation strategy and could provide more employment opportunities in a rural area, although it can still put limitations on traditional livelihoods and therefore violate human rights and decrease local communities' opportunities to adapt to climate changes on their own terms (Normann, 2021). Increased energy demand results in faster production and a need for infrastructure expansion, exemplified in Nord-Troms with Troms Kraft and Ymber's search for new locations and energy efficient places for renewable energy production through feasibility studies in four municipalities (Semningsen & Martinsen, n.d.; Karlstrøm & Sundheim, 2023).

This creates production sacrifice zones and vulnerable social groups (Hernández, 2015) as traditionally used land and minorities are not recognized or included in the decision-making processes (Bickerstaff, 2018). Infrastructure and large-scale production of wind power plants that

are placed in reindeer pasture areas can cause dispossession² of the pastureland and reduce resilience for the Sámi pastoralists (Normann, 2021).

Potential state land use of areas that have meaning to Indigenous people is also environmental injustice (Menton et al., 2020). The location where the feasibility study for a wind power plant has been made in Kvænangen municipality, there is green summer pasture for RBD34 and two other districts. Many have expressed negative feelings towards their grazing land being taken and used for wind turbines, roads, and other infrastructural changes (Antonsen, 2023; Haug, 2023). Thus, the Norwegian state's mission towards a green transition for energy resources contributes to conflict with systematically marginalized people like the Indigenous people who use the areas that are most often considered to have with the best conditions for the creation of new infrastructures to be built (Busterud, 2023).

An alternative perspective states that the land used for the turbines is smaller than the whole field itself due to the distance needed between each turbine and rotor. There is less disruption during construction than after its finished (Denholm et al., 2009). And because of the distance between the turbines, the rest of the land can be used productively as pastures or space for outdoor activities (Milligan et al., 2012). It is therefore believed that locals would not be as affected once the power plant is built.

2.2 WIND POWER: ECOLOGICAL IMPACTS

The World Wildlife Fund (WWF, n.d.) have developed a few demands when it comes to wind power plants in Norwegian natural landscape. These include no power plants in pristine nature, specific nature areas of different human and natural valuation, or areas where it interferes with the livelihoods or movements of some species. Additionally, the nature organization demands that developers restore equal parts of nature as is lost to infrastructure (WWF, n.d.). In the Sámi languages, there is not one, specific word for nature nor a separation between nature and culture, rather they are intertwined with their livelihood (Høybråten et al., 2023). Development of energy infrastructure and construction is, among other things, threatening the traditional livelihood of

² Dispossession happens if you for instance lose your land, you also lose your sense of belonging to the world (West, 2016).

reindeer herding in Norway because of increased habitat loss for the animals, in addition to other locally valued landscape and nature loss (Tyler et al., 2021).

Physical loss of pasture as a result of destruction, i.e. transformed into something else such as wind power plant and pasture covered with concrete and asphalt, or non-physical loss of pasture areas as resources are reduced due to human activity i.e. wind power plant and traffic to and for is causing reindeers' avoidance behavior (Tyler et al., 2021). Frode Utsi, leader of RHD 7, expressed unforeseen and worse-than-told consequences after the construction of their local wind power plant. Behavioral changes in the reindeer where the herd stays 10 km away from the wind turbines, which this decreases the grazing opportunities and leads to fewer animals in the herd (Horn, 2021). A report from NINA also addresses the roads, wind turbines, and rotors that cause avoidance behavior by the reindeer and result in reduced use of the immediate grazing area closer to the infrastructures (Strand et al., 2017).

Wind power plants take up a lot of highland areas that reindeer utilize as airing areas during summer siida, which would likely have some impact on the reindeer's natural migration route (Norwegian: 'flytteleie') as the animal is shy and prefers low resistance in the natural terrain (Sara, 2011; Skarin et al., 2015), and cause them to dwell in valleys longer than they would like to (Berg et al., 2018; Tyler et al., 2021). Additionally, the construction of roads ruins pastures and increases the opportunity for other people to get to the area (Høybråten et al., 2023). Strand et al. (2017) points to a positive effect of the wind power plant, stating the increased accessibility to the area; however, this is not something herding districts think of as good. This is due to the female reindeer and calf's shyness to humans and human constructions that create additional noise and shadow affecting them (Berg et al., 2018; Eftestøl et al., 2021).

The wind power plant in Raggovidda in Finnmark County has been criticized by the Norwegian Food Authority³ (Norwegian: 'mattilsynet') because of its proximity to the local drinking water. This is a problem because wind turbines have hydraulic oils in them which had previously leaked

³ The Norwegian Food Authority is a state delegation that is meant to ensure safe food and drinking water for the consumers (Mattilsynet, 2023).

out and wind turbines have caught on fire (Horn, 2021). Additionally, there are chemicals on the blades of the wind turbines that contaminates the surrounding nature, an example is bisphenol A which can cause negative health effects on people consuming too large quantities of it (Horn, 2021). Further, Motvind Nord⁴ says that microplastic from the rotor blades and toxic emissions like oil and chemicals like bisphenol A can harm the salmon in Storelva river and contaminate the drinking water source to all Berlevåg municipality in Finnmark County (Horn 2021). Further, Ragnhild Sandøy in Motvind Nord exemplifies with the construction period on Kalvøya in Tromsø municipality in 2021, the locals still received bottled water due to the risk of pollution from hydraulic oils (Sandøy, 2021; NVE, 2023b).

Studies have found evidence of increased bird deaths due to collisions with the wind turbines and habitat disruptions, in addition to their behavioral changes (NWCC, 2010, NVE, 2023c). BirdLife Norway report that Haram wind power plant in Møre and Romsdal County experience increased bird deaths mainly due to collisions with the wind turbines (Eggen & Folkestad, 2024). Additionally, a sub-report from the National Framework for Wind Power suggests that the wind turbine infrastructure contribute to habitat loss and different levels of avoidance behavior (Hoel et al., 2019). In an attempt to reduce bird deaths due to collision with wind turbines, scientists at SINTEF have proposed a solution that will detect and slow down the rotors whenever a bird is headed in the direction of the wind turbines direction (Holthe & Lervik, 2022).

In 2007, a general national regulation plan for wind power plants that touches on the planning process and placement was published (Det kongelige miljøverndepartement & Det kongelige olje- og energidepartement, 2007). The publication does not include maintenance and safety protocols. Since then, there have been several accidents with greater consequences as oils and chemicals have been spread into nature (Horn, 2021). Examples of this can be seen in a wind power plant in Roan in Trøndelag County where oil leaked into nature, and in Florø in Vestland County where hydraulic oil rained down over their drinking water (Stranden & Rørslett, 2022; Horn, 2023). Additionally,

⁴ Motvind Norge (Norway) is an organization against concessions given to wind power developments on insufficient knowledge basis (Motvind Norge, n. d.), and Motvind Nord is a sub-organization for Northern Norway.

there have been multiple fires that have had no safety routine and therefore have burned to the ground or released environmental toxins (Horn, 2023; Solem, 2024).

2.3 WIND POWER'S SOCIAL FOOTPRINT

The Kvens of the North of Norway are known to have been in today's Norway from at least the 1500s and have their own language and culture, which include Sámi reindeer pastoralism, which over time have been largely reduced due to an assimilation policy imposed by a nationalistic Norwegian policy government since the 1800s and until the 1980s (Høybråten et al., 2023). However, it was not until international conventions like the ILO convention number 169 which Norway ratified in 1990 was made that it had an impact on Indigenous people's rights (Kommunal- og distriktsdepartementet, 2020). Thus, by the 2000s the Norwegian state has had responsibility for the rights of minorities, but this has not been followed through on (Høybråten et al., 2023). Still, the recent Fosen case⁵ which further escalated in 2023 has brought many controversies with it as local Indigenous people have expressed concerns about limited possibility to practice their livelihood (Høybråten et al., 2023). Furthermore, Høybråten et al. (2023) uncovers that there is no national plan to secure reindeer herding interests in the building of parks, and in a letter exchange between the OED and the Truth and Reconciliation Commission⁶, the OED clearly states that they do not consider the Sámi reindeer pastoralists at all.

In WWF's demands (n.d.), the nature organization includes that Indigenous people have rights to be heard and be part of decisions for wind power plant development. Even though power companies Troms Kraft and Ymber already included Sámi representatives in their feasibility study, the local community still expressed that they felt that they were too few local and Indigenous people involved at this stage (Karlstrøm & Sundheim, 2023). Additionally, there is no guarantee that what is agreed upon by a developer and the local community is followed through. The developers of a wind power plant in RHD 20 Jillen-Njaarke on Øyffjellet were required by the OED to make a deal with the RHD to ensure the reindeer access to their winter pastures, which turned

⁵ In Fosen, there is a wind power plant in a RHD that was built before the legal proceedings between the Sámi reindeer pastoralists and OED were finalized. The Norwegian Supreme Court ruled in 2021 that what had happened was a breach of human rights, however since then very little has been done to mitigate this outcome (NHRI, 2023).

⁶ The Commission that published what is known as the Norwegianization report lead by Høybråten in 2023.

out to be impossible as the two sides had different opinions as to the reindeer's needs (Høybråten et al., 2023). The development commenced without any agreements which has caused great legal proceedings continuing to this day between the parties, where the Norwegian state has multiple times favored the developers over the local RHDs already (Høybråten et al., 2023).

In Norway, NVE points out that there is a recommended limit to noise levels of wind turbines due to the experienced extra bothersome noises (NVE, 2024). These limits can be adjusted in certain cases and highly depends on the local topography (NVE, 2024). Living in houses close to wind turbines increases chances of seeing and hearing them. An NRK online article exemplifies lower quality of life due to experienced health impacts such as poor sleep and migraines caused by the noise (Villalobos, 2024). Issues like these on the local community level could be mitigated based on dialogue with the community members or technological innovations leading to material use with lower noise (Bastasch et al., 2006).

In the investigative documentary series *Oppsynsmannen* that recently aired on Norwegian TV, it is shown a great dissatisfaction with the aesthetics that a wind power plant and its wind turbines bring (Skaare, 2024). NHO points out that wind turbines are the most visible kind of energy production and that the aesthetics of this is one of the main arguments against development by local communities (NHO, 2023). This is because the areas in use are often landscapes with every day and leisure activities, that has important values connected to the landscapes such as Sámi livelihoods, common identity, experiences, and visual qualities (NVE, 2022a). There are multiple conditions that affects the visual experience of a landscape, especially as topography favors the effectiveness of wind turbines located high in the terrain (NVE, 2022a).

2.4 LOCAL ECONOMIC IMPACTS OF WIND POWER

Wind power plant research also illustrates economic benefits for the municipalities where the power plant is located. Local effects can be increased employment in otherwise financially weak municipalities, which can lead to optimism and a strong belief in the future (Holmelin, 2015). However, research on the profitability for the municipality have shown to be less than expected, and there is limited employment and use of existing local services for housing (Folkestad, 2018).

Nevertheless, there has also been research done that show less negative impact on tourism and outdoor activities than previously assumed (Holmelin, 2015).

The wind power company in Raggovidda Varanger KraftVind has 51% ownership by the local municipality, while the other 49% is an international owner (Horn, 2021). The local ownership increases the municipality's financial situations and can have positive effects for what types of recreational activities are offered for youth and adults. However, most wind power plants in Norway are owned by international investors (Tax Justice Norge, 2021). This means that most of the profit made in certain wind power plants leaves the local communities and Norway, which means that the inhabitants do not get to see the money themselves. Not seeing the money and not knowing the developers also causes mistrust in the affected local communities.

The Fosen case also exemplifies the limited possibility of practicing their culture and thereby livelihood which causes economic losses to the Indigenous people who use the traditional pasture areas (Høybråten et al., 2023). Land encroachment in grazing areas and a policy that requires reductions in herd sizes contributes to less capabilities for those practicing reindeer pastoralism because of reduces access to necessary resources (Tyler et al., 2021; Høybråten et al., 2023). Furthermore, consequences of cases such as Fosen and Øyfjellet⁷ that include legal proceedings is the economic burden of paying for legal assistance and any payout if their case gets dismissed (Høybråten et al., 2023).

2.5 CONTRIBUTION OF THE PRESENT STUDY

This literature review has used examples from Fosen, Øyfjellet, and Raggovidda which have similar issues that Kvænangen municipality may face if a wind power plant is built. These examples point out issues in handling of dialogue, cultural differences, and the local and Sámi traditional livelihoods, which are issues my research intends to address for the new area of interest: Kvænangen municipality.

⁷ Like the Fosen case, development of a wind power plant on Øyfjellet has barricaded the natural migrating routes for the reindeer which is illegal considering the Reindeer Herding Act that requires all migrating routes to be open (Eira, 2020).

In researching Kvænangen municipality, I am investigating the impacts that a wind power plant is expected to have on the local community and those with traditional interest in the Olmmáirášša mountain, I will look further into the affected communities whose culturally specific life in Kvænangen would likely be altered due to the potential land use change. Furthermore, I will investigate how and if locals are involved in the decision-making processes as these potential changes do happen. And in this process, specifically being able to understand the affected communities and their cultures. This will also be seen in relation to the capability the affected communities have to withstand any changes to their livelihood. These issues are seen through social, economic, and ecological impacts that members of the local community in Kvænangen municipality identify.

3.0 THEORETICAL FRAMEWORK

This thesis uses the Environmental Justice (EJ) framework. It establishes what types of priorities are fulfilled for the Sámi reindeer pastoralists' and local community as the municipality and other actors make decisions on a possible wind power plant development in Kvænangen municipality. Even though there is currently no decision made in the municipality and impacts are not yet in place, researching and discussing them beforehand is useful to identify aspects of which local realities are important to the local people, and help identify components of EJ during the process before the actual implementation of decisions.

Justice in political science balances numerous interlinked elements that a group or community may feel or need (Schlosberg, 2007; Menton et al., 2020). The EJ framework emerged as socio-environmental movements that crosscut the “environment, anti-racism and civil rights” (Menton et al., 2020, p. 1623). The standard definition of EJ usually focuses on race-based and antitoxin movements, in addition to proximity to polluting industries (Bullard, 2001; Schlosberg, 2003). Bullard (2001) states the “fair treatment and meaningful involvement of all people” (p. 4627) in reference to the processes of environmental policies, while Schlosberg (2003) stresses environmental racism that popularized the EJ term and focuses on the unequal risk that ethnic communities often face.

I follow an EJ focusing on the local level and individual and community experiences (Omukuti, 2021). By doing this, I will emphasize the views of individuals in the local communities on the land encroachment of an area that many locals view from their houses or use for outdoor activities such as hunting. Additionally, people’s experiences of a constructed wind power plant on the reindeer’s summer pasture and the access to and use of the area in the same manner it is today or how it will be affected is a large part of the justice of local use.

I base my research on Schlosberg’s (2003) developed EJ framework that focuses on three justice dimensions: recognition, distributive and procedural justice. Furthermore, he added another dimension of the capabilities approach which focuses on the individual’s capability to experience well-being in their chosen livelihood (Schlosberg, 2007; Menton et al., 2020), which I will also include in my EJ framework. Figure 2 visualizes the EJ framework and the four aspects used in this thesis.



Figure 2. The Four Aspects in Environmental Justice used in this thesis.

3.1 DISTRIBUTIONAL JUSTICE

The term environmental racism includes the injustices that individuals or communities based on race, in this case, Sámi pastoralists, may experience in a policy process (Mohai et al., 2009). The term nods to the Norwegianization policy that has affected the Indigenous people of Norway since nationalistic beliefs were fully implemented by the late 1840s (Minde, 2003; Høybråten et al., 2023). The systematic and forced assimilation of Sámi culture and language into the national majority has since been officially ended. However, there are still injustices towards Indigenous people incorporated in many of today's policies and practices, as shown in the report handed to the Norwegian Parliament in 2023 (Høybråten et al., 2023). Therefore, when we look at development projects that require extensive space and environmental degradation in areas of land used to practice Sámi traditional livelihood, environmental racism reminds us of the institutionalized racism that the Norwegian government is upholding as their quest for a green transition sharpens.

Thus, distributional justice looks at the “fair distribution of environmental costs and benefits, the allocation of material goods, such as resources, income, and wealth, or the distribution of social standing” (Menton et al., 2020, p. 1624). These socioeconomic factors are rooted in the larger society's economic structure (Schlosberg, 2003). For the local community, this means that issues like the potential environmental degradation of their valued outfield (Norwegian ‘utmark’) are detrimental and perpetuate further destruction for the Sámi pastoralists. This is in addition to likely changes in reindeer behavior in close contact with a wind power plant and other infrastructures belonging to the power plant that needs to be addressed to mitigate or compensate for potential resource or income loss.

3.2 PROCEDURAL JUSTICE

Procedural justice examines the “fair and equitable institutional processes of a State” (Menton et al., 2020, p. 1624), where political and social processes are tied together. Historically, institutions and decision-making processes have been practiced in favor of the dominant society and left national minorities and local communities with participatory inequities or complete exclusions. The wind power plant is an example of decision-making that will have different environmental benefits or burdens for the national and local communities. Neglecting marginalized people and

prioritizing national goals over local needs leads to procedural environmental injustices (Schlosberg, 2007; Bell & Carrick, 2018; Menton et al., 2020).

Schlosberg (2003) emphasizes that procedural justice requires democratic participation from minorities and social groups and recognition in decision-making structures to increase equity for typically marginalized groups. Bell & Carrick (2018) write that “[a] group that does not enjoy equal respect is likely to be excluded or marginalized in decision-making [...]” (p. 102), which we know from the report on Norwegianization of the Indigenous people over the last few centuries, can still have an impact on the level of involvement in the mayor’s office’s decision depending on the bias and knowledge the politicians holding power have at the given time (Høybråten et al., 2023). Additionally, the local community who value the landscape as it is, may also be ignored in the decision-making process.

According to Hunold & Young (1998), five principles are emphasized for better procedural practices. These are the inclusion of the minority community, prolonged contact over time for a deeper understanding of the issues, compensation of the inequity in power relations and decisions, participation in the decision-making by all parties, and codifying the final decision so that it cannot be overturned (Hunold & Young, 1998; Bell & Carrick, 2018). These principles are more idealistic (Bell & Carrick, 2018); however, I will use them in my discussion.

3.3 RECOGNITIONAL JUSTICE

Recognitional justice looks at the “recognition of, and respect for, difference” (Menton et al., 2020, p. 1624), where recognition of personal dignity of all individuals and collective identities with specific concerns, needs, and livelihoods that relate to the surrounding nature and environment are central (Menton et al., 2020). It is distinguished between two types of recognition, one focusing on equal dignity and the other on recognition for specific distinctiveness or difference (Schlosberg, 2003). Furthermore, justice in recognition is more profound than just tolerance for difference; justice needs to be entirely free and have all rights and cultural traditions valued (Schlosberg, 2003). Recognition is therefore seen in relation to cultural and political institutions, which are often critiqued for their lack of recognition of smaller communities in a nation (Schlosberg, 2003).

Recognitional injustice takes place when differences between cultures and opportunities are not honored or accepted (Whyte, 2018). Whyte (2018) emphasizes that societal institutions can fail to “recognize human social difference” (p. 119), such as cultural traditions and use of land for sustained livelihood for Sámi reindeer pastoralists where protection of green pastures for nutritious sustenance have already been reduced due to Norwegian land laws (Høybråten et al., 2023). For the Norwegian society to function best for as many as possible, all voices should be respected to limit further offences by the state than previously done through forcefully stripping unique languages and, therefore, culture and traditions away from the Indigenous people (Høybråten et al., 2023). For there to be recognitional justice between the Sámi reindeer pastoralists and the decision-makers on the wind power plant, the local Sámi’s concerns and needs must be heard and met so their traditional livelihoods are not threatened.

3.4 CAPABILITIES APPROACH

To have capability means to have the “opportunity to engage in valued functionings⁸” (Day, 2018). The capabilities approach is based on the distribution of goods, such as natural resources, and how they “link to an individual’s capacity to flourish” (Menton et al., 2020, p. 1624). The injustices in the capabilities approach are based on restrictions that cause harm instead of flourishing and the chances to regenerate individuals and the community and is especially appropriate in indigenous EJ (Schlosberg & Carruthers, 2010).

In the Olmmáirášša mountain, this means having a continued livelihood with cultural and economic interests fulfilled for Sámi reindeer pastoralists now and in the future. For others in the local community that use the area for outdoor activities, being able to use it for small game hunting and dog sledging are essential values for individual freedom. Functioning communities are communities where cultural characteristics are supported, the environment is secure and productive, and experience injustice if anything tries to limit this (Schlosberg & Carruthers, 2010). The notion of community is further emphasized as injustices victimize the group and not only individuals, since environmental injustice limits functioning if economic and cultural livelihoods are ruined (Schlosberg & Carruthers, 2010). Moreover, flourishing requires capabilities to function

⁸ Functionings are various things to do or to be. Examples are activities like eating or states of being like being well nourished (Schlosberg, 2007).

entirely in their chosen life and have freedom based on those capabilities, a multi-dimensional aspect of well-being (Menton et al., 2020). Finally, McCauley & Heffron (2018) point out that EJ includes the lived experiences and proximity to injustices on individual and community levels, which are essential aspects for social conditions of those affected.

4.0 METHODOLOGY

To collect data for this master thesis, I proceeded with a mixed methods approach. The mixed medium was semi-structured interviews and literature review. These were chosen due to the theme of the research questions and the availability of informants that had connections to Kvæningen municipality or the implementation process of a potential built wind power plant. The supplementary literature review further illuminates the Environmental Justice (EJ) framework, which the case study benefits from.

4.1 RESEARCH DESIGN

This thesis' research design is qualitative research based on a case study of a particular area in Kvæningen municipality in Nord-Troms district in Troms County in Norway. The case is based on the research question that asks multiple groups about the impact a wind power plant would have on the local community and way of life in the municipality.

The chosen qualitative research approach is a case study, as I wanted a “detailed and intensive analysis of a single case” (Clark et al., 2021, p. 59). It focuses on the single community of Kvæningen municipality, with a few outside participants for additional input on recognition. By outside participants, I mean that they did not live in Kvæningen municipality, but still had some connection to the place. The community's location is vital to my research. It is important for examining the collected data, as it is an idiographic approach⁹ that will find specific perspectives of this case (Clark et al., 2021).

⁹ The idiographic approach is a case study where individual thoughts are emphasized rather than collective group ideas (Clark et al., 2021).

The data was collected mainly through individual interviews over Teams, Zoom or the phone as I could not travel to Kvænangen municipality for in-person interviews. However, the digital option allowed for better flexibility with the participant's schedules for date and place (Clark et al., 2021). The semi-structured interviews allowed for follow-up questions and a more personal and laid-back tone with the local informants who might otherwise be skeptical of an interview on this topic. I have chosen individual interviews, which allow for more honest and deeper conversations than a group interview may allow (Clark et al., 2021).

4.2 SAMPLING STRATEGY

Based on the research questions (RQ) made, I chose criteria that described what kind of participant's I needed, and which further developed the context or setting, and unit of study (Clark et al., 2021). The main RQ specifies Kvænangen municipality, so I contacted mainly local actors with special interests, such as Sámi reindeer pastoralists, the power plant company, decision-makers in the municipality, and the Sámi Parliament. I needed local people with connections to the municipality and the proposed wind power plant area and extra contributions from decision-makers who are linked to the area or have expertise in Sámi interests. The context was mainly Kvænangen municipality and politicians or experts on Sámi interests. I presumed that the chosen population already had some knowledge about the wind power plant proposal, but this was not a requirement for participating in my research.

I conducted a generic purposive sampling by selecting from a pool of individuals who matched my criteria. This sampling strategy was used as my criterion of inclusion was clear as to who could be my participants. The primary sampling used maximum variation within the criteria to reach a broad local community and politicians. However, snowball sampling was introduced as invited participants declined interviews and recommended others to me (Clark et al., 2021). I found names of relevant Sámi representatives in the Troms Kraft's published feasibility study, where some had been previously interviewed and mentioned in grey literature in media articles. For politicians and experts on Sámi interests, I contacted relevant people in the Sámi Parliament with roles that relate to either policy processes or reindeer herding. Other locals, activists and organizations were found on their websites and through other interviews. As most people I contacted first came from a priori knowledge and were public persons, their contact information was easy to find by doing some

extra Googling. Table 1 shows the subject, time, place, and a description of why each participant was relevant for the study.

For most of my planned sampling population, I sent out invitations to individual interviews via e-mail for a time and location of their choosing between February 1st and March 1st. The ones not e-mailed were contacted by phone calls and direct messages on Instagram. Firstly, I reached out to 19 individuals, of which I conducted six individual interviews. Throughout those interviews, I asked for suggestions for who else to contact, which led me to five more individual interviews. In total, I contacted 24 participants and interviewed eleven of them. Even though Clark et al. (2021) specifies that there is a standard of between 20 and 30 participants in qualitative research, my eleven participants were enough for the scope of this thesis and research, considering the time limitations and the criteria for sampling. The snowball sampling led me astray from my original criteria, but all remained with local connections to Kvænanen municipality. I contacted 13 more people who could not participate or did not reply to my inquiry. Therefore, I experienced limitations in my interview guide, and the data categorization was affected as I did not follow up with the non-respondents. Additionally, by the end of the interviews, I reached theoretical saturation by mostly getting the same answers again and again from the participants.

Table 1. *The Thesis' Participants and Interview Setting.*

Participant	Date	Place	Description
1	Wednesday 31 st January	Phone call	Reindeer pastoralist in district 34.
2	Wednesday 7 th February	Online video call on Teams	Politician in Kvænangen municipality.
3	Wednesday 7 th February	Online video call on Teams	Retired nature resource manager and activist in Motvind Nord.
4	Friday 9 th February	Online video call on Teams	Local salmon farmer and activist in Motvind Kvænangen.
5	Monday 12 th February	Phone call	Part of the Truth and Reconciliation Commission for the Norwegian Parliament in June 2023.
6	Monday 12 th February	Online video call on Teams	Grew up in Kvænangen municipality.
7	Tuesday 20 th February	Online video call on Teams	Retired journalist from Kvænangen municipality.
8	Wednesday 21 st February	Phone call	Politician in Kvænangen municipality.
9	Friday 23 rd February	Online video call on Teams	Researcher in Alta municipality.
10	Tuesday 27 th February	Online video call on Teams	Reindeer pastoralist in district 34.
11	Tuesday 5 th March	Online video call on Zoom	Local fish technology researcher and activist in Birdlife Finnmark.

4.3 DATA COLLECTION

The interview guide (see Appendix A) was set up to collect background information on the participant, a few overview questions, and more specific ones that reflected my predetermined

general themes. This data collection method encouraged some informants to talk about their life experiences and others to talk as field experts (Clark et al., 2021). I tried to stick to my interview guide to ensure that I had more to analyze and compare between the informants. If I strayed from the interview guide (see Appendix A), I asked similar follow-up questions. Some questions did not work for all participants, so adjustments to the structured format and additional follow-up questions were brought in.

Holding the semi-structured interviews was interesting, and the participants differed in what they wanted to discuss. For my first interview with Participant 1, I reached out with a phone call intending to get an email to send the interview invitation, but they wanted to do it right there and then with only notes and no recording. This is how I conducted the rest of the phone interviews as well. All interviews followed my interview guide, and all questions up until question 11 were asked to all participants. In addition, I asked the remaining three questions to political figures. As the interviews unfolded, I followed up with similar questions to each participant, which became apparent through each interview because similar and different perspectives were represented. I felt that more detail about what was brought up was needed to understand the participant's thoughts better. By the end of my interviews, I felt the data collected had become repetitious, with no new data emerging and new understandings of my categories. I reached saturation in my data collection (Clark et al., 2021).

4.4 DATA ANALYSIS

As I began working on this thesis, I found a framework and theory I wanted to use in my findings. This is a deductive approach to my research where I deduced my chosen theory of EJ, which then guided me in my data collection method and analysis (Clark et al., 2021). As I analyze my data, my findings will lead me to a slight inductive approach as my theory is confirmed or rejected and in need of revision (Clark et al., 2021).

I found that the primary qualitative data analysis I used was thematic analysis. This is evident because the themes identified from the collected data were based on the questions in the interview guide, as I tried to make sure specific topics were addressed. The uncovered themes related to my

research focus are built on more detailed codes identified in the transcription and later coding of the data material (Clark et al., 2021).

Coding collected data is a way of breaking down the text into smaller and more concise parts by finding themes and topic, and labelling them (Clark et al., 2021). To analyze the collected data, I coded it with the intention of fitting it into my chosen framework and theory. In the coding process, I mostly followed Auerbach & Silverstein's (2003) small steps from a low to a high level of understanding. This approach led me from raw text to my final research concerns, and I adjusted it based on having decided on most themes already. Furthermore, Auerbach & Silverstein (2003) describe theory as patterns found in the data. This is how I inductively could confirm or reject my predetermined theory. The interpretation I have found from my analysis is one of many, and I have had to choose based on this to weed out what data was most important to this study.

Auerbach & Silverstein (2003) have seven small steps to developing theory; however, I only used a few of them and did not follow the strict order that the authors suggested. I overlapped slightly with the thematic analysis approach that Clark et al. (2021) represented. Firstly, aligning with Clark et al. (2021) and Auerbach & Silverstein (2003), I familiarized myself with the raw data by transcribing the interviews. Next, I identified my predetermined themes (Clark et al., 2021) and cut down the raw data to only relevant text concerning the theme (Auerbach & Silverstein, 2003). Then, I found repeating ideas that participants mentioned that fit into those themes, and if some repeating ideas did not fit in anywhere, new themes were made (Auerbach & Silverstein, 2003; Clark et al., 2021). Lastly, I defined my themes with my evidence (Clark et al., 2021).

I did each step at a time to make the coding and thematic analysis more manageable. I inserted the relevant text and repeating ideas along with the themes into separate documents for a clearer visual. In my repeating ideas, I kept the participant's language with no changes, except for translations to be used in the Results and Discussion chapter. I also decided to stick to one category at a time, which allowed for constant comparison between similarities and differences found in the data (Clark et al., 2021).

4.5 EVALUATING RESEARCH INTEGRITY AND APPLICABILITY: ASSESSING CONSISTENCY, ACCURACY, AND TRUSTWORTHINESS

Throughout my research, I have taken steps to ensure my and the data's credibility, dependability, confirmability, and transferability so that anyone else who might want to replicate my research can reach the same or different conclusions than me. These steps ideally show rigor, reliability, and validity in my research, especially as I include limitations that my working conditions provided.

In upholding credibility, my main strength was triangulation. Firstly, at the beginning of my research process, I made a conceptualization document where I found concepts and themes that would be relevant to focus on. This is because my participants were of varying genders, ages, and types of belonging to my research area. The interview guide and questions I had made and used during semi-structured interviews (see Appendix A) were primarily based on the umbrella categories I expected to develop and fill. I have read and re-read the transcripts in the coding and result process, which enhanced my analysis. Additionally, I had time to follow up for respondent validation as needed throughout the analysis process (Clark et al., 2021). Moreover, the interview guide (see Appendix A) and my systematic explanation of my sampling strategy demonstrate rigor in my research, coding, results, and analysis process.

Based on my RQ and my sampling method, I made the interview guide, and the way I spoke and asked questions to my interviewees was neutral without interference from my opinion on the topic or theories I was investigating. Even though no one can ever be entirely objective in any case (Clark et al., 2021), I did not give away any views that otherwise might have influenced the answers given. My bias and positionality stayed neutral during all interviews, and the semi-structured interview guide kept my neutrality and openness in check and required the informants to think and answer for themselves.

This thesis' research aim requires me to address my positionality. I am an ethnic Norwegian from the south of Norway doing research on a contested topic with heavy interest among Indigenous groups belonging to the area in Kvæningen municipality where the wind power plant is proposed

to be built. Based on my values and ideas about the world, I may involuntarily have influenced my research, interview guide, how I speak with the participants and what I find as results from the collected data (Clark et al., 2021). My research was based on finding the consequences of a potentially new wind power plant where both local interests and a national minority lie. Sámi livelihoods are affected by the loss of land and nature due to development projects encouraged by the Norwegian government. I have tried to be neutral in my approach, questions, and analysis; however, due to the long history of Norwegianization of the Indigenous people, my knowledge about their livelihoods and culture are affected by varying attitudes, education, and social aspects that have been underlying in my own culture growing up until now.

There were also ethical considerations in my method. Firstly, to ensure proper consent, privacy, and correct handling of participants' data before, during and after the interviews, I sent in my research project, and the Norwegian Agency for Shared Services in Education and Research (SIKT) approved my data management plan in early February 2024. After the participant agreed to the interview, I sent out a document with information about the project (see Appendix B). I asked for consent for recording and keeping their information until after the submission of my thesis (see Appendix C). Most participants had a chance to read through it before the interview and gave me their informed consent (Clark et al., 2021) before the interview started, and I asked again as I turned the audio recording on just to be sure. Some had not yet read the forms, so I explained what they said and let them know that they could still read them later if they wished and that they could withdraw at any point, in addition to me anonymizing the interview data. When I started recording or writing notes, they consented to this happening and asked for consent again on tape. For the ones on phone calls, I offered to send them my notes after the interview.

Finally, there were several limitations to my methods process. First, all interviews were held online with either video or phone calls, limiting the non-verbal cues that may otherwise have been detected in real life (Clark et al., 2021). Furthermore, there were technical difficulties with more than one of the scheduled interviews, but they were fortunately solved. These difficulties were specifically with participants 5 and 8, where the Teams link did not work, so these were fixed by simply turning to phone calls. The last interview on Zoom with Participant 11 was conducted nicely until my free version gave us 10 minutes to finish up, which partly disrupted the flow and ended the interview earlier than intended.

Compared to previous research projects of a smaller scale, I did have the opportunity for prolonged engagement with my participants. However, the limited time for this project caused some lack of credibility on my part. More time would also have allowed me to follow up with non-respondents and increased my sample size, which would have been better as this is a qualitative research project and Clark et al. (2021) state that 20-30 participants should be the minimum. Furthermore, I lack negative cases, which are cases that do not align with the patterns and themes that I found in my coding and analysis, as I found my participants to share similar views on the questions asked (Clark et al., 2021). I reached saturation, but this could have been due to my sampling criteria, strategy, and RQ, which did not allow for more time to find other points of view. Had there been more time and a larger sample size, my data might have been of a more varied kind, and saturation would have taken longer to achieve.

Furthermore, I can be critiqued on my sampling method as it was a mixture of convenience, snowball, and purposive sampling. The participants who suggested other possible participants for me to interview may have narrowed down the total participants' collective perceptions and caused conversations between them that may have affected their responses to me during the interviews. This sampling may also have led to a less thick description, as I could not capture all the issue's nuances and layers of significance. This can be further exemplified as some participants, primarily Participant 6, felt uncomfortable by possibly being recognized in the study due to the sensitivity and divide of interests and feelings of the topic within the municipality. The participants might have responded differently to my questions if they felt the topic was less sensitive. To mitigate this, I ensured that their anonymity is kept, and the coding of their responses make them unrecognizable.

5.0 RESULTS AND DISCUSSION

Semi-structures interviews with open-ended and neutral questions have allowed my participants to elaborate on topics without influence from others. My main research question (RQ) is to document the expected impacts of wind power plants in Kvæningen municipality. Further, I believe that it is relevant to learn how a wind power plant would affect the specific area and how these impacts may be mitigated. Through thematic coding I found that participants believe that most impacts are within the realm of economic, ecological, and social aspects, and a few of them

have thoughts on mitigation strategies and the policy processes. This chapter will present the main findings of my research and further discuss them with existing literature.

One of the first things that I wanted to learn about the participants was their sense of belonging to the Olmmáirášša mountain. There were three different types of belonging that were mentioned: the landscape was either used for livelihood, outdoor activities, and physical closeness. There were three participants who mainly mentioned physical closeness, they could see the area from their homes and therefore would have a good view of the potential wind turbines. The rest of the participants had a more direct engagement with the landscape. Four mainly used it for hunting small game, fishing, and other kinds of outdoor activities. While the last four primarily used the landscape as form of livelihood and related to reindeer. In Table 2, these three themes are depicted. The different senses of belonging to the landscape creates the basis for the discussion and what the participants emphasized in their responses. Their different views on and experiences with the mountain in Kvænangen makes the participants have varied opinions on what they think is important within each topic of discussion. Further, since there is an equal divide in sense of belonging, both Sámi livelihood and the local community's experiences are presented together in this chapter.

Table 2. *Description of Themes Mentioned as Sense of Belonging.*

Theme	Mentioned by Participants
Livelihood	4
Outdoor activities	4
Physical closeness	3

Note: Number of participants who mentioned each theme.

5.1 ASSESSING LOCAL CONCERNS: PERCEIVED ECOLOGICAL IMPACTS OF THE PROPOSED WIND POWER PLANT

When asked about how they thought a wind power plant would affect the Olmmáirášša mountain that is proposed for Troms Kraft AS and Ymber's project, the initial responses typically revolved around ecological impacts that my informants knew were issues in and around other wind power plants. Nonetheless, multiple participants already had some knowledge about potential impacts to their mountain that they shared with me. I have separated the themes into ecological impacts based on wind power plant infrastructure, the pollution that the infrastructure creates, and the effects on Sámi livelihood.

5.1.1 NEW INFRASTRUCTURES IN THE LANDSCAPE

Kvænangen municipality's landscape has already experienced land encroachment when Kvænangen Kraftverk AS was established to provide hydropower to Troms and Finnmark Counties in the 1960's (Kvænangen Kraftverk AS, n.d.-a). This later resulted in the construction of concrete dams in the outfield (Kvænangen Kraftverk AS, n.d.-b). Furthermore, there is an old mineral mine where copper ore was extracted from the 1840s until 1909 (Thorsnæs & Askheim, 2024). Even though the mineral industry is long shut down, a local politician states that "the wounds from the mineral industry have still not been mended" (Participant 2). Participants who use the land for livelihood and outdoor activities notice discoloration in the soil and ponds when they are close to the old facilities. Locals can still see negative ecological impacts from old infrastructures and most fear that further development of new infrastructures would cause more negative impacts on the nature that they use.

Because of the existing infrastructure of access road and power grid from Kvænangen Kraftverk AS, the feasibility study praises the area as extra good (Karlstrøm & Sundheim, 2023). The study has found that Troms Kraft and Ymber can use the same access road for their new developments. However, both the feasibility study (Karlstrøm & Sundheim, 2023) and multiple participants agree that the roads would need to be improved at least in turns and steep inclines. Another option for access road would be to build a road where a current ATV road is (Karlstrøm & Sundheim, 2023). Even with these options, my participants are skeptical about the road infrastructures. One points to experiences from other wind power plants where the roads are large and wide, and others think

that it is the road constructions that would be most noticeable during the development process. The Sámi pastoralists think that the reindeer would likely be disturbed by the construction and finished roads because it is likely that the road would need to be taller which makes it harder to cross for the reindeer. Troms Kraft and Ymber add to the temptation for wind power by preaching how the companies can use existing roads for less land encroachment without precise methods on how, which results in a skeptical local community who look to other wind power plants around them for ideas about how it would turn out.

Using the existing infrastructure to minimize the land encroachment in the mountain is not enough for those who use it for outdoor activities and as livelihood. The Sámi pastoralists expect bigger roads to impact the reindeer's natural migration which may lead to more active herding (see more in section 5.1.3) and ecological changes where the reindeer graze. This can, in coherence with EJ theory and distributional justice (Menton et al., 2020), lead to income and resource loss which further affects the opportunity to continue practicing the traditional livelihood. For the landscape users who visit and live in Kvænangen municipality for the proximity to nature and outdoor activities, road construction and taller roads may change the way that they can use their valued mountain. The area would thereby become an energy sacrifice zone for the local communities who would have to tolerate a disproportionate burden in their lives compared to the majority of Norway (Hernández, 2015). Furthermore, to have capabilities in theory (Day, 2018), the opportunity for my participants to partake in their cherished functionings (see section 3.4) and experience well-being is essential. Additionally, so is to feel that their own lives and recreational activities are being recognized by others (Whyte, 2018). These are injustices that local users of the landscape may experience if a wind power plant is built today.

5.1.2 LOCAL PERSPECTIVES: IMPACT OF DEVELOPMENT ON LAND AND ENVIRONMENT

A local politician states that a wind power plant under and after the construction phase “would also impact the nature in the area” (Participant 2). This is because, according to this informant, during development and as the wind turbines are started, direct pollution like oil leaks from the turbines which releasing environmental toxins into the soils, changes in biodiversity and habitat of flora and fauna that are sensitive to the wind turbines, as well as the uncertainty in access to the

landscape. Participants believe that a wind power plant in Kvænangen would “destroy” the local mountain (Participant 5), and stress that “you are in the mountains to be in nature” (Participant 4). Having the wind power plant infrastructure and further the environmental degradation those may bring is taking away from the feeling of outdoor activities and seeing and connecting with the mountains and nature in Olmmáirášša mountain.

Locals and visitors who use the landscape for outdoors activities, and bird enthusiasts, expect that the small game and birds that they are used to find there would likely be changed. The retired journalist states that “it is known that here with these wind power plants, the bird population is affected” (Participant 7) and is skeptical to how much of the small game grouse there would be if the rotor blades have their way in the terrain. Figure 3 depicts where people hunt for grouse in the landscape. Other participants mention bird species like Rock Ptarmigan, Graylag Goose, Snowy Owl, European Golden Plover, and Eurasian Dotterel. Haram wind power plant in Møre and Romsdal County finds numerous birds killed around the wind power plant, which in turn affects the protected areas nearby (Eggen & Folkestad, 2024). Similarly, a local politician points out that Olmmáirášša mountain “lies in the middle between two protected areas, landscape protected areas” (Participant 2), which areas are called Kvænangsdalen and Navitdalen. Hunters and bird enthusiasts will likely notice a decline in biodiversity and change in what small game they would find in and around the mountain if a wind power plant is built. Additionally, the significance that a protected area holds seems overlooked when wind power plants are built near them making them less protected for the species coming in and out.

Moreover, participants have commented on the lichen in the area. One says that the lichen may disappear, the flora would change and that the lichen specifically needs more time to grow out again. The reindeer pastoralists agree with this as they expect the reindeer avoid the wind turbines, pushing them toward the fall and winter pastures that contain more lichen earlier (see section 5.1.3), leading to higher grazing pressure and lower recovery for the power plant to regrow as normal. Changes in grazing patterns for the reindeer may cause additional stress to the animal and the Sámi pastoralists who would need to herd them more actively.

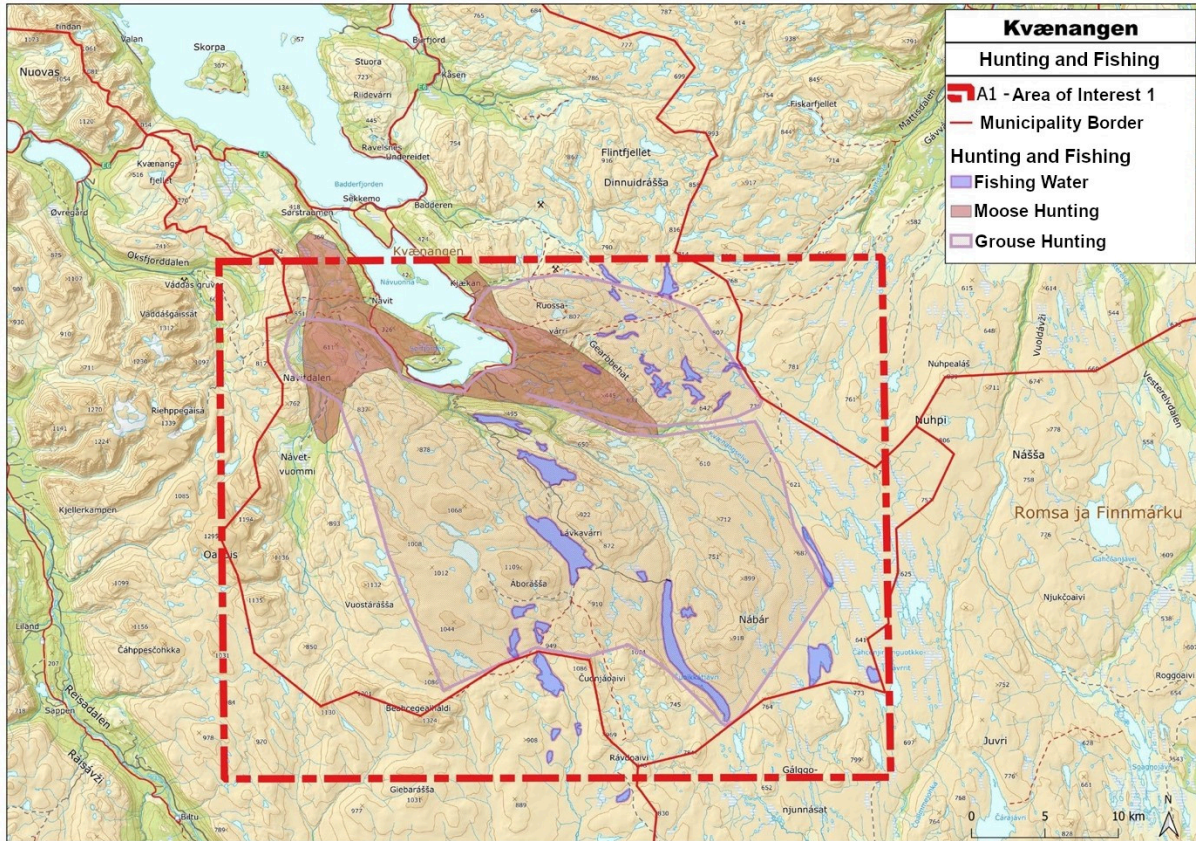


Figure 3. Map of the area of interest for Troms Kraft and Ymber in Kvænangen municipality with overview of hunting and fishing inside the landscape. Source: Karlstrøm & Sundheim 2023. p. 52.

Flora and fauna are important in the landscape that is actively used for livestock and hunting. If wind power plants are built in landscapes like this to the largest benefit for the majority society, it is essentially an energy sacrifice zone (Hernández, 2015). Olmmáirášša mountain in Kvænangen municipality is sacrificed due to eventual land use changes as the reindeer pull away from the wind turbines and other infrastructure, the biodiversity changes as there are less birds which will likely also affect the soils in the area, which again will likely provide less nutrients for the reindeer and other livestock grazing.

Furthermore, wind power plants bring new technologies and machinery that participants have heard can release environmental toxins like antifreeze fluids, hydraulic oil spills, and microplastics into the mountain. Mitigating strategies are used to limit the dangers of ice on the rotor blades (see more on this in section 5.2.2), and a participant states that antifreeze fluids is one. In early January 2024, Kvitfjell Raudfjell wind power plant on Kalvøy in Tromsø municipality in Troms County had a leak of approximately 60 liters antifreeze into the industry area, which is highly toxic

(Bertheussen, 2024). Moreover, diesel and hydraulic oil spills are mentioned by the retired nature resource manager. Such spills into nature are illegal in Norway (NVE, 2023a). Lastly, they mention leading edge erosion which is the damage due to the weather conditions on the rotor blades which further causes microplastics to spread (NVE, 2023a). The three polluting factors are worrisome because of the environmental degradation on soils and waterways nearby the power plants. In addition to the pollution being environmentally degrading, human and livestock health are at risk as Olmmáirášša mountain is used for grazing for reindeer and cows who are later eaten by us.

Additional pollution comes from possible increased road access for the general public, as opposed to the potential reduced access discussed in section 5.2.2. More road use means more exhaust and other types of dust from vehicles traveling on gravel roads on the nearby pasture. The retired nature resource manager says that the reindeer and cows would “rather not eat grass or green feed that has a lot of dust and sand” (Participant 3). Moreover, another participant points to littering from visiting tourists, mentioning that an improved access road may bring more busses of visitors up the mountain. A reindeer pastoralist expresses that they already think that the existing road and road usage is hurtful to the reindeer, but “even more traffic is very negative” (Participant 10). A more accessible road up the mountain affects both the nature and the livestock that uses the landscape.

To summarize, my informants expect environmental degradation of the landscape and physical changes for biodiversity in grazing patterns for livestock and birdlife, in addition to environmental toxins from the wind power plants and increased public access into the mountain causes great environmental costs. Locals will likely suffer greatly from this environmental cost which causes unfair distribution for them compared to the rest of the major society (Menton et al., 2020). Moreover, the environmental costs experienced by the local community and Sámi pastoralists illustrate that their way of life and how they use Olmmáirášša is not necessarily recognized in the renewable energy driven society thus Whyte (2018) recognitional injustice occur as opportunities are not respected.

5.1.3 WIND POWER PLANT ECOLOGICAL IMPACTS ON SÁMI REINDEER PASTORALISM

Kvænangen municipality and landscape is the summer home and green pasture for reindeer and the Sámi pastoralists in RHDs 33, 34, and 35. Figure 4 depicts the area for summer pasture with different shading for highland and lowland grazing for the three RHDs in the municipality. The nomadic herding technique is a way to ensure the right resources at the right time for the reindeer (Bjørklund & Brantenberg, 1981; Sara, 2009). The reindeer usually migrate towards the type of pasture where the animals find what they need of nutrition for that season, thus this technique prevents overgrazing and thus soil erosion which further helps maintain healthy land (Sara, 2009; Næss, 2022). Skarin & Åhman (2014) describe that one of the biggest threats towards Sámi traditional livelihood is habitat loss from both direct and indirect impacts on land use. Ecological changes to Olmmáirášša mountain and surrounding pastureland from a wind power plant development, including roads and other infrastructure constructions and polluting effects from hydraulic oil leaks and additional exhaust dust, would have primarily negative impacts on the ability to use the landscape as it is today.

Today, reindeer herders use the landscape in Kvænangen municipality during the summer season. This landscape has green pasture which is good for the reindeer as the mountainous area provides nutritious herbs and grasses, and spring and summer pastures are especially important due to the increased protein from the green pasture to get ready for winter pasture (Bjørklund & Brantenberg, 1981; Riseth & Vatn, 2009). If a wind power plant is constructed in this landscape, a reindeer herder expresses that the reindeer would be pushed away from these green pastures and into pastures with lichen. They further express that “It is not favorable that it is grazed on that early, or that there are reindeer dwelling [in fall and winter pastures with lichen] when they should actually have been in summer pasture” (Participant 10), this is because lichen grows best when grazing is limited (Riseth & Vatn, 2009). In Kvænangen’s mountainous landscape, like other reindeer herds in Finnmark, the reindeer move up the mountain ridge where it is windier to escape from insects (Seiland National Park, n.d.). Participant 3 explains that insects torment the reindeer especially in July and bringing the herd up to the windy and snowy ridges helping them cope with insects and heat in airing areas (Sara, 2011). These ridges are where Troms Kraft and Ymber want to construct their wind power plant. If this happens, participants believe that the reindeer would get pushed out

of Olmmáirášša as an airing area due to disturbances from developments and be kept in the valleys where the insects and parasites would cause agony for the reindeer.

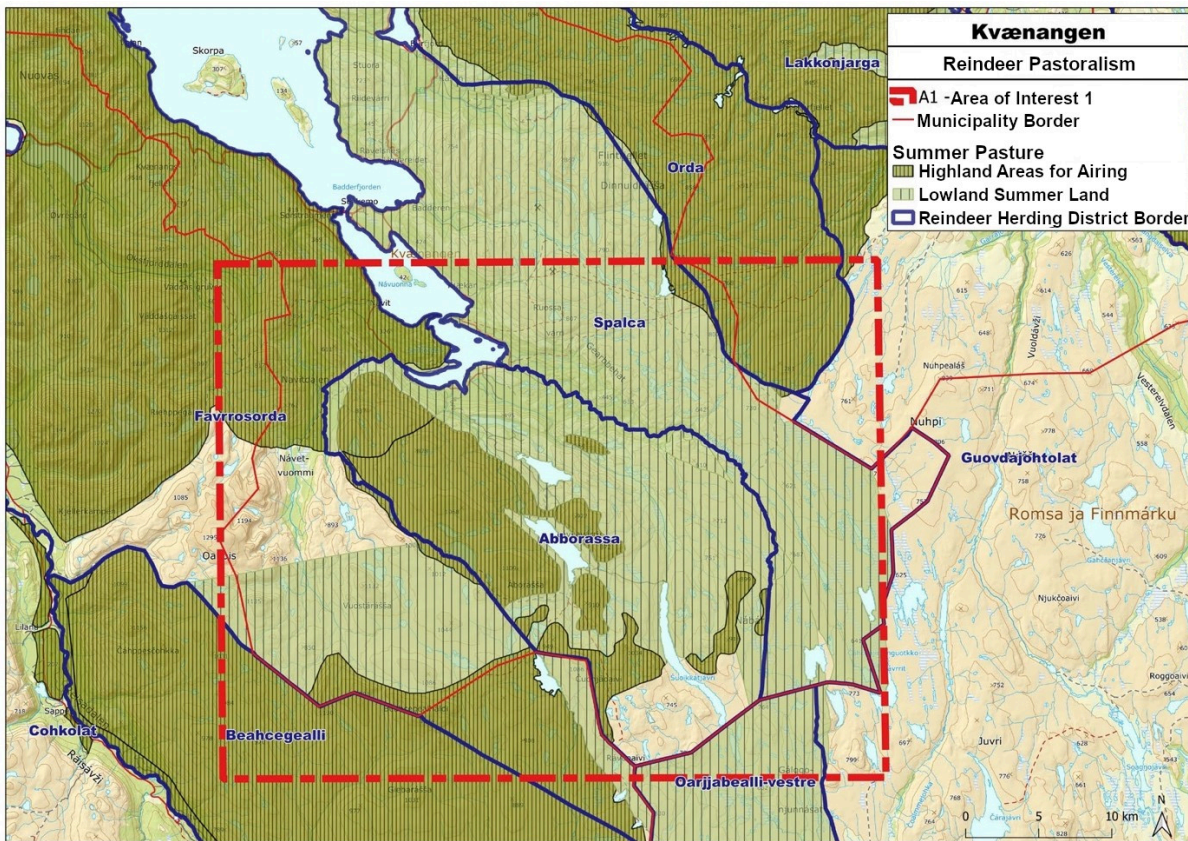


Figure 4. Map of the area of interest for Troms Kraft and Ymber in Kvænangen municipality with overview of summer pasture for RHDs 33, 34, and 35 in the landscape. Source: Karlstrøm & Sundheim, 2023, p. 41.

That is why several participants think that the reindeer grazing in Kvænangen’s mountains would change completely. A reindeer herder in RHD 34 says that “the whole functioning would be different” (Participant 1), while another local believes that it would mean “stop for reindeer pastoralism” (Participant 4) in Olmmáirášša mountain. The proposed National Framework for Wind Power gives additional importance to summer pastures that have airing areas on higher ridges due to the nuisances from insects (Berg et al., 2018), and placing the wind turbines in these airing areas may lead to changed grazing pressure on the lowland pastures in addition to moving on to the lichen too soon in the grazing season. We can look back at the disturbances that the hydropower development by Kvænangen Kraftverk, where the RHD 34 lost large areas of summer pasture and calving land over a period of 15 years (Bjørklund & Brantenberg, 1981). These are

abrupt changes that the reindeer pastoralists would need to adjust to in some way if they want to continue their traditional livelihood if a wind power plant begins development in the area.

Additionally, multiple participants point to negative impacts that road access has on grazing in the landscape, which would contribute to the environmental costs that the land users may experience. Firstly, participants 3, 4, and 6 discuss the road usage on the existing road during times of excessive use, saying that it disrupts the reindeer, and a new and wider road will likely increase this activity in addition to pollution from transportation exhaust and litter left by tourists in the green pasture. Secondly, Participant 10 already thinks that there is much traffic on the existing road, but if there is a reconstruction of this road to a larger one to fit the wind turbines being transported, they believe that the road would hinder the herds' ability to access the lush field. This would result in less nutritious green pasture and more pressure on the pastures with lichen in other locations as the herd changes its seasonal grazing area too soon. A study found that reindeer experiences negative effects in their habitat whenever there was disturbance within short distances (Eftestøl et al., 2021), which supports the reindeer pastoralists' view of a relatively high traffic road during development of the wind power plant and better road for small game hunters to use. Environmental costs (Johansson-Stenmann & Konow, 2009; Menton et al., 2020) like exemplified here, would further underwrite equal distribution among rural locals and their valued nature against the green transition.

The two reindeer pastoralists who participated in this study (see Table 1) pointed to challenges in animal behaviors in relation to the physical structures that the development process of a wind power plant might bring. One expressed worry for animal behavior changing to avoid wind turbines especially for the female reindeer with calves who are particularly jumpy, which they used the Fosen case as the example where the reindeer are proven to avoid the wind turbines by at least 3 km and the pasture there is lost (Ulvin, 2023). Moreover, infrastructure and human activities like main road, hiking and wind power plants are proven to disturb domesticated reindeer negatively in areas with existing wind power plants (Skarin & Åhman, 2014). However, a summary of research done on avoidance behavior in the topic report about wind power plants and reindeer in Norway and Sweden, Berg et al. (2018) finds that there is not one single answer to reindeer behavioral changes that occur when in proximity to a wind power plant. This summary

does have findings where the reindeer avoid the areas around the wind turbines and thus loses part of their pastureland, which is what the reindeer pastoralists in RHD 34 worry about the most.

The other reindeer pastoralist still experiences issues relating back to when the hydropower and mining industry intervened in the landscape in Kvænangen. The infrastructures that were built for humans to access the power stations and the collection of water still causes issues in the landscape because of human made rivers that cannot be crossed as easily by the reindeer as a natural river normally can. Due to old issues like this, reindeer herders fear that developing infrastructures for transportation, wind turbines and manager rooms would cause more land encroachment in nature that would be even harder for the reindeer and herders to manage their way around.

Infrastructure and large-scale production that wind power plants placed in reindeer pasture areas can cause dispossession of the pastureland and reduce resilience for the Sámi reindeer pastoralists (Normann, 2021). Normann (2021) finds that RHDs in the Southern Sámi community in Norway experience impacts from the wind power industrial sites even before construction has started. Like Schlosberg & Carruthers (2010) and Day (2018) point out in the EJ theory; reduced resilience hinders the capabilities that the siida and individual have in order to flourish within the traditional livelihood. This takes away from the groups opportunity to practice their culture in the way they were taught if decisions to develop ensues without proper and equal dialogue (Hunold & Young, 1998; Menton et al., 2020; Høybråten et al., 2023). For Sámi pastoralists to feel heard in a process like this, where the outcome will likely bring changes to the traditional herding management style, they need to know that their lost resources can be found elsewhere or loss of income mitigated somehow which can be done by displaying true recognition in the policy process (Menton et al., 2020).

5.2 COMMUNITY PERSPECTIVES: SOCIAL IMPACTS OF WIND POWER

Another theme which was mentioned often was the social impacts that a wind power plant in the mountain would have on its users. As seen in Table 2, there are different principal uses of the landscape, all of which would be affected in different ways depending on the participant's values

are different from one another. I divided my participants' main concerns within three themes: the aesthetics of a wind power plant in the natural environment, the locals' right to use the landscape as they please for various activities, and the impacts on Sámi traditions. Further, figure 5 depicts the level of usage for outdoor activities such as hiking in the different areas in the landscape.

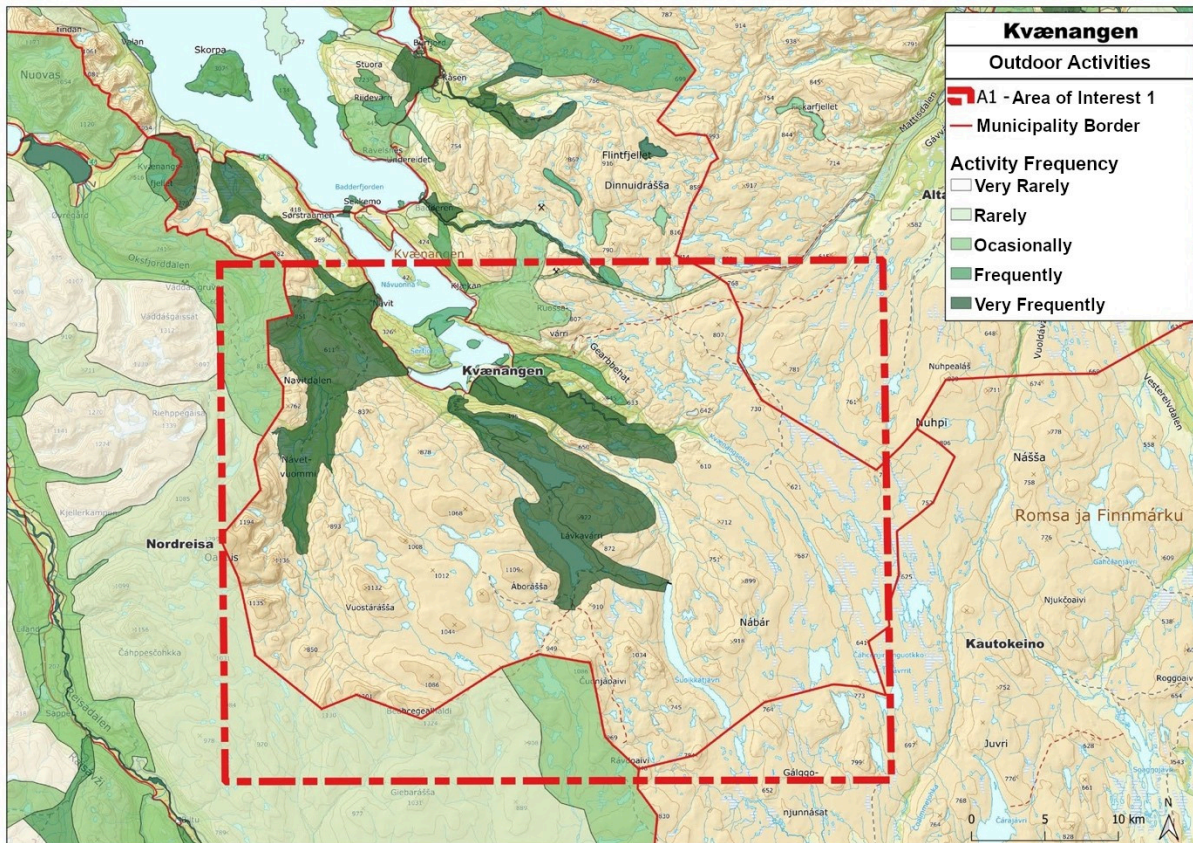


Figure 5. Map of the area of interest for Troms Kraft and Ymber in Kvenangen municipality with overview of the frequency of outdoor activities in the landscape. Source: Karlstrøm & Sundheim, 2023, p. 50.

5.2.1 WIND POWER PLANT AESTHETICS

As already mentioned in the Chapter 2 (see section 2.3), both academic research and grey literature on people's opinions on wind power plants generally tend to mention landscape aesthetics as one of the main pitfalls of the energy production that wind turbines provide (NHO, 2023; Skaare, 2024, 05:54-12:55). Figure 1 traces the outline of the placement of the potential wind turbines, and depending on landscape usage and where one lives, the skyline would be fundamentally changed. Five participants mentioned that a wind power plant would cause an aesthetic change in the landscape that they expect to notice. The visual landscape is an important aspect for Norwegians who choose to live close to nature, and most wish for their views or surroundings to not be polluted

by technological equipment (Simensen et al., 2019; Eriksen & Hole, 2020). Historically, and in philosophy, humans value what is aesthetic and considered beautiful in sceneries with diversity (Brady, 2006). Furthermore, she points out that we only care about this aesthetic after the bare necessities of life are met, and that nature has healing effects (Brady, 2006). Wind power plants and turbines will have continued opposition due to its disillusion of a seemingly untouched rural nature if the mountain is ruined.

The aesthetics also include noise and light pollution. Four of the participants mentioned the possibility for them to hear the noise from the wind turbines and the flickering warning lights on the infrastructure and along the access road would illuminate the dark night sky. As stated in the Chapter 2 (see section 2.3), there are national regulations on noise levels and mitigating strategies to limit distressing noise, however these can legally be exceeded with the right resolution with the developers (NVE, 2023a; NVE, 2024). Additionally, the blinking lights that sit on top of the wind turbines disturbs the views that used to be natural in the night: darkness, starry sky, sunset, and sunrise (Minge & Flote, 2020; Sletten, 2022). The Norwegian Aviation Authority¹⁰ (Norwegian: 'luftfartstilsynet') demands that wind turbines have lights to uphold the flight safety in the air, and have different demands depending on location, size of turbines, and other flight related aspects (Luftfartstilsynet, 2023). To mitigate the visual pollution of the lights, the Norwegian Aviation Authority gives concession for only the outer and tallest turbines to have lights, and that they must be in a specific color and blink in unison (Luftfartstilsynet, 2023). Even though there are mitigating strategies for the visual and sound aesthetics to be less polluting for the participant, the reality is that these cannot be completely removed from any wind power plant.

The issue arises also by being inside the landscape. Participant 4 commented that the landscape proposed in the feasibility study is in an “unacceptable area, it’s even the most beautiful area that exists in Kvænangen.” Nature is often romanticized because of the uplifting effects that it has on a person’s emotions (Brady, 2006), and Participant 4 cares about the possibilities to use the mountain for outdoor activities which is part of the reason for the participant’s relocation to the rural municipality. Another participant points out Norwegian’s relationship with nature as the level

¹⁰ The Norwegian Aviation Authority ensures safe aviation (Luftfartstilsynet, n.d.)

of usage goes hand in hand with the relationship the individuals or collective feels towards any nature. Hikes in the mountains and woods are very popular among the Norwegian population (SSB, 2017), and in an Ipsos-questionnaire on behalf of Norsk Friluftsliv, they found that 89 percent of the studied population feel better and less worries when out in nature (Jakhelln, 2020). Being in nature is important for the Norwegian mind, but this requires that it remains as natural and scenic as possible for any activity to be uninterrupted.

5.2.2 NAVIGATING LANDSCAPE ACCESS

Among the participant's responses on wind power plant's impact on social life in Kvæningen municipality they pointed out the importance of the landscape in relationship with outdoor activities. In Norway there is a policy called the Right to Roam (Norwegian 'Allemannsretten') which provides the individual the right to be in the outfield (Klima- og miljødepartementet, 2021). This common law is rooted in the Outdoor Recreation Act (Norwegian 'Friluftsløven'), pertains to everyone who uses the outfield, and provides opportunities for anyone to enjoy nature if they respect other humans and agriculture that uses the nature as livelihood (Klima- og miljødepartementet, 2021). The law provides the locals and anyone else who wants to use the landscape the opportunity to do so to walk, camp, pick berries, and mushrooms.

The issues that arise for the participants who value the landscape for outdoor activities is the change in infrastructure that is assumed to limit how they want to use the nature. A few participants worry about access to the roads that go up the mountain that is used when hunting or hiking. Participant 11 point out that the wind power plant Raggovidda in Finnmark County have a traffic ban and road barrier for limiting people to use the roads which the participant experiences as more invasive for the use of that landscape. Therefore, Participant 11 worries that the same would happen if a wind power plant is built in the mountains in Kvæningen municipality. Another participant says that it is the Sámi pastoralists who decides when the road barrier is open. Compared to the landscape in Raggovidda which is mostly rocky and has limited vegetation and wildlife (Varanger Kraft, 2017), it means that the outdoor life can be enjoyed by a larger interest group in Kvæningen. If a wind power plant is developed, locals and nature users worry about more limitations in access to the landscape than there is today.

Lastly, participants worry about the changed landscape as new roads would make winter activities like dog sledding and snowmobiling harder to do. The wind power plant in Raggovidda also warns that winter temperatures and weather may cause icing on the wind turbines which can become loose and fly away, and therefore recommend people to stay clear from turbines at least 300 meters under such conditions (Varanger Kraft, 2017). Participant 7 believe that access roads to wind power plants can be closed periodically due to those conditions, and that the negative is that those conditions can last for months or even the whole winter. Schlosberg & Carruthers (2010) emphasizes the importance of communities in the EJ movement that includes land use and effects of development on those communities. If the landscape is dangerous to be in because of consequences from the wind turbines, winter activities must be limited for the safety of the user which would decrease the value of living for the locals in the rural outdoorsy municipality.

The impacts that participants bring up in relation to how they want to spend their time and resources on the landscape in Kvænangen municipality and their concerns on the change they expect from a wind power plant, shows a local community that presume an unfair environmental cost on behalf of the state's economic growth (Schlosberg, 2007; Menton et al., 2020). This type of impact causes distributional injustices as the environmental costs affect the locals in Kvænangen. Further, these are social factors that the state and developers easily overlook in decision-making processes as economic growth and green transitions are, it seems, more important than a small community's recreational activities. Therefore, local values should be fully recognized and be included in any process that potentially affects them disproportionately to experience recognition and procedural justice (Schlosberg, 2003; Menton et al., 2020).

5.2.3 PERCIEVED CULTURAL IMPACTS ON SÁMI LIVELIHOOD

The right to access the mountain is not only for recreational purposes. Multiple participants without Sámi identities acknowledged the impact that a wind power plant would have on the Sámi culture in the municipality. For Sámi culture in and around Kvænangen municipality to survive, there cannot be wind power plant developments in important pasture areas otherwise the culture itself would disappear (Schønberg, 2023). There is no national plan to secure reindeer herding interests in the building of wind power plants, and this response measure to climate change is impacting the Sámi culture as well (Høybråten et al., 2023; Begum, 2024). Moreover, the Norwegian Parliament

has been slow in the policy process where wind power plant development would be subjected to law, in addition to lack of demands in the concession processes, which causes the potential for development and infrastructure to occur in especially important places for reindeer pastoralism (Høybråten et al., 2023). Reindeer pastoralism is essential for the Sámi culture in Kvænangen to continue to flourish once more as a traditional way of life.

Furthermore, A Sámi reindeer pastoralist in RHD 34 says that if a wind power plant is built on Olmmáirášša mountain they would “lose their right to their culture” (Participant 1), and it would affect the children and their future children and so on for generations. The main worry is a sustainable future for descendants who wants to continue in the footsteps of their ancestors who have lived off of the landscape for generations, which is something that the capabilities approach in EJ values and views as an important aspect of reaching environmental justice (Schlosberg & Carruthers, 2010). Many reindeer pastoralists do not want to give up this traditional way of life because of the role it plays in the Sámi’s identity, and if given away it would feel like an identity loss (Bjørklund & Brantenberg, 1981), which further emphasizes the importance of being recognized by decision-makers with other values than the local community (Schlosberg, 2003; Whytes, 2018). Due to the intense and continuously reinforced Norwegianization policy that has since been officially terminated, the state is under scrutiny for how they fulfill the human right commitments (Høybråten et al., 2023). Norway has ratified the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which provides individual and collective rights including rights to their culture as stated especially in article 11¹¹ and 26¹² (OHCHR, 2007). These articles declare rights to practice cultural traditions and be recognized by the state in traditionally used land (OHCHR, 2007). Reindeer pastoralism may disappear from the municipality and thus the culture if the state and developers’ interests are valued over the Sámi interests in land use in Kvænangen’s rural landscape.

¹¹ Article 11 presents the right to practice cultural traditions in the present and future, and cultural properties cannot be taken without free, prior, and informed consent or violation with traditions (OHCHR, 2007, p. 23).

¹² Article 26 presents the right to the land, territories, and resources traditionally occupied, and get legal recognition and protection of these (OHCHR, 2007, p. 38).

On a different note, Participant 4 emphasizes the impact that the loss of culture and uncertain future of Sámi traditional livelihood may cause or increase mental health issues among the pastoralists. A participant within RHD 34 explains that there would be more work for the pastoralists by having to actively herd more frequently which would hurt the people physically and mentally as they would have less time with their families, while another “looks pretty grimly on the future if it [the wind power plant] is realized” (Participant 10). Factors such as more work for less income and less time for a social life negatively impact pastoralists and may contribute to decreasing quality of life and negative emotions. In the questionnaire study SAMINOR 2¹³, it is found among the responses that Sámi participants show more signs of anxiety and depression than the non-Sámi participants (Bufdir, 2024; Torheim et al., 2024). For residents in Kvænangen municipality, the instability of the future of their Sámi traditional livelihood may continuously impact the well-being of those whose lives depend on it.

It is important to listen to the affected community, and in this case the Indigenous people, when outsiders such as the state or other developers want to interfere in a functional landscape. EJ historically considers the medical health of the effected local communities (Bullard, 2001), and even though the locals in Kvænangen would likely have limited directly polluting effects, the mental health aspect is highly relevant and important for the future of traditional practices. Potential state land use of areas that hold profound significance to Indigenous people is also environmental injustice (Menton et al., 2020). Kvænangen municipality’s Sámi pastoralists’ views and opinions have the right to be heard and understood by developers for the best possible outcome for all affected parties (Hollander-Blimoff & Tyler, 2008; Whytes, 2018). Those outcomes go hand in hand with the capabilities that the Sámi pastoralists have for their livelihood to flourish even with less green summer pasture in the existing mountains (Schlosberg & Carruthers, 2010; McCauley & Heffron, 2018; Menton et al., 2020).

5.3 VIEWS ON LOCAL WIND POWER’S ECONOMIC IMPACTS

The last main theme mentioned was the economic impacts that a wind power plant would potentially have on Kvænangen municipality. Participants were largely split on their opinions if

¹³ SAMINOR 2 is a population study where they examine the health and living conditions in the Sámi and Northern Norwegian rural population (Melhus & Broderstad, 2022).

the economic impacts would benefit the municipality or themselves at all. Two key areas of impact were the locals who use the local services, and the Sámi pastoralists who use the landscape to create livelihood. This section discusses these key areas separately.

5.3.1 KVÆNANGEN MUNICIPALITY'S EXPECTED ECONOMIC PROFITABILITY

For most participants, the economic benefits are thought to be good. Participants believe that the income from a wind power plant and from the developers would make the decision worth it for the municipality, cause further income, and make the municipality more attractive to live in due to the additional workplaces and community services that can be provided by the additional income. These are things that the power companies Troms Kraft and Ymber suggests in their feasibility study of Kvænangen municipality, where they write that new places of employment are needed and that compensations to the local communities should be made (Karlstrøm & Sundheim, 2023). However, other participants compare the potential economic impacts with other wind power plants close by to assess how sustainable the employment is. Both participants 4 and 5 do not believe there to be many workplaces after the wind power plant is built, only actually being one to four jobs for someone who lives in the municipality. If compared to Varanger Kraft in Finnmark County, their yearly report of 2022 shows 167 employees in all Varanger Kraft AS which consists of seven daughter companies (Varanger Kraft, 2023). Raggovidda wind power plant is only one of those and only employs 15 persons (Proff.no, n.d.), which illustrates fewer new employment options than Troms Kraft AS and Ymber insinuates (Karlstrøm & Sundheim, 2023; Varanger Kraft, 2024).

Troms Kraft and Ymber bases their monetary compensations to the local community because of agreements in the Parliament and calculates approximately NOK 47 mill and NOK 85 mill for the two areas (Karlstrøm & Sundheim, 2023). These additional incomes to Kvænangen prompts participants to expect better services in the municipality. Multiple participants hope for better cultural offers such as youth clubs. Additional incomes and new workplaces would further increase the possibility for additional employment in the municipality. Moreover, additional employment and revenues for the municipality in the wind power plant comes from the construction process if the developers use local and regional workers (NVE, 2022b). There is a wish among the local

community that the income that goes directly to the municipality treasury from any wind power plant, is used for increased quality of life for the locals in Kvænangen.

There are some negative effects that the participants also point out, specifically in talking about how the energy produced would not be used in locally. There are approximately 866 households in Kvænangen (SSB, n.d.), and one typical wind turbine is expected to produce 14 GWh which is enough for 700 households (NVE, 2023d). Participant 7 explains that Kvænangen municipality already has enough hydropower from Kvænangen Kraft AS that cover their daily power usage, thus the additional power created by the wind power plant would be sold outside the municipality. Participants point to additional expenses as the power grid may need to be expanded further and energy loss through long distance transportation of it. Statnett and other companies need to increase the power grid for the energy to be able to be transported (Strøm, 2023), and approximately 10 percent of power is lost when it is transported in the power grid (Elvia, n.d.). Because of these negative expenses of power loss and the additional built power grid in Kvænangen, participants do not see the value in developing a wind power plant as the power produced is not needed for them locally.

A politician in the municipality (Participant 2) points to monetary income from the Sámi pastoralists who dwell in the landscape in Kvænangen from spring to late fall and use the various industries in the municipality during the pasture season. If the reindeer cannot be in the traditional summer pasture due to noises and activity from a developing wind power plant, and later a functioning wind power plant, the herders would have to move to new pastures in different municipalities which would negatively affect Kvænangen municipality's local industries as there is approximately over 400 Sámi pastoralists who stay in Kvænangen during summer, and more RHDs move their herds through the municipality during spring and fall (Kvænangen kommune, n.d.).

An additional worry from a politician in Kvænangen is the thought of the municipality being “bought up” or owned by others who are not the local community. This is especially concerning as international companies show interest in industries that Kvænangen already have as well. In addition to locally owned Troms Kraft and Ymber (Troms Kraft, n.d.; Ymber, 2021), the Finnish

power company St1 has shown interest in the same mountain for development of wind power (Haug, 2022). The participant expresses the apprehension for non-local ownership of the municipality and that “Kvænangen goes from being a society with local value creation and local ownership, to becoming a raw material supplier with foreign actors who invest capital and who take out the profit” (Participant 2). Feeling like international actors run the incomes and the community is just living there without proper voices in any projects or further developments causes unease with locals who use the landscapes.

Table 3 show how many of the participants thought that their or the municipality’s financial situation would benefit them positively or negatively. For locals in Kvænangen municipality to accept and favor a wind power plant in their landscape, the monetary benefits will likely need to outweigh the ecological and social burden that a wind power plant would bring. This requires that there is a fair distribution of the income generated from the wind turbines. Menton et al. (2020) views fair distribution from any environmental costs that may occur to the locals to reach distributional justice. Additionally, the local community need to feel recognized in their homeplace if international actors end up having large ownership in local industries for social needs and values are met, both for the stationary local community and Sámi pastoralists passing through. Schlosberg (2003) emphasizes that the unjust distribution local communities may face is largely grounded in inability to recognize differences between groups in the society. This would be important for the locals to reach agreements with any developer who shows interest in Oimmáirášša mountain.

Table 3. *The Individual’s and/or Municipality Expected Economic Impact of a Wind Power Plant.*

Economic impact	Mentioned by Participants
Positive	4
Negative	8

Note. Number of participants who mentioned an expected economic impact. Participants had the opportunity to mention both.

5.3.2 SÁMI LIVELIHOOD AND WIND POWER: ECONOMIC PERCEPTIONS

To have a profitable herding business, it is required to have large landscapes and areas to herd in and across as the reindeer have different seasonal pastures (Landbruks- og matdepartementet, 2023). The only areas that reindeer herding has the rights to use as pasture is mountains and outfield, which are steadily declining due to expanding towns and developments like roads and wind power plants where the reindeer often pull away from these infrastructures (Landbruk- og matdepartementet, 2023). This is an issue that goes beyond the physical landscape and areas of use, and to the economic challenges that RHDs would have.

Economic challenges lead to social costs for those whose life depend on the natural landscape in Kvænangen. A Sámi pastoralist in RHD 34 explains issues of wear and tear on the reindeer and their herders in the RHDs because as the landscape changes, it changes how the herders manage their reindeer significantly. They bring up how reduced pasture would result in increased walking distances where the reindeer would lose several kilograms in weight, which further results in decreases the reindeer meat sales with “approximately 500.000 NOK” (Participant 1). Berg et al. (2018) have spoken with other RHDs with wind power plants in their seasonal pastures where their experience is more active herding due to change in the natural migration routes. More time herding is hard to economically estimate (Bjørklund & Brantenberg, 1981), however it decreases time with families and increases expenses on fixing used equipment like snowmobiles while the income remains reduced, which causes increased stress on the individuals, and group whose livelihood depend on the animals’ well-being and meat production. These social issues would intensify if the traditional livelihood become harder to practice.

Another issue related to decrease in meat sales also comes from the impacts that pollution from wind turbines causes on the landscape and thus the pastures. Contamination of the pastures and waterways (Horn, 2023), and vegetation and the soil (Høringssvar NVE nasjonal ramme, 2019) from microplastics and hydraulic oil spills, that the reindeer grazes on may decrease the sales of reindeer meat from areas with wind power plants as potential branding of meat from contaminated areas decrease the belief in reindeer as a pure meat source (Høringssvar NVE nasjonal ramme, 2019; Tandstad, 2019). The retired nature resource manager declares “I will not buy reindeer meat from areas with wind power plants” (Participant 3). Pollution from wind turbines that contaminates

pastures where reindeer and other livestock graze will likely reduce the sales of meat especially today where the purchasing power cares about clean foods, and incomes would go down further.

These impacts on sales of reindeer meat would decrease the economic income within each *siida* and affects the daily life of the individual Sámi pastoralist. Due to shrinking resource bases and pastures from wind power plant developments, a Sámi pastoralist who uses the Olmmáirášša landscape for livelihood utters that a wind power plant in the Olmmáirášša summer pasture landscape “makes the entire operation more difficult” and “many people would probably have to leave the industry” (Participant 10). Furthermore, Bjørklund & Brantenberg (1981) show that RDH 33, 34, and 35 were previously supposedly compensated for loss and damage to their reindeer herding industry due to the mining and its construction and exhibit that the registered loss and damages also then was related to the future of herding, loss of pasture, future loss of pasture, and fences and its maintenance. Similar consequences would likely happen during and after new development today, thus the loss of Olmmáirášša mountain would result in financial issues for the *siida* and individuals who practice this traditional livelihood like their ancestors before them.

Still, as mentioned above (see section 5.3.1), Troms Kraft AS and Ymber would offer economic compensations to the affected actors that normally use the area and would lose income due to the development (Karlstrøm & Sundheim, 2023). The feasibility study rationalizes the development to a lump sum measured to the size of the wind power plant, in addition to yearly compensations based on costs and other issues that may occur establishing industry in the pasture and they want to offer a co-ownership of the wind power plant (Karlstrøm & Sundheim, 2023). Both reindeer herder informants are skeptical of such compensations because the developments interfere with their traditional culture, which is a fundamental problem that inherently limits reindeer pastoralism as a livelihood. One passionately replies “The only thing my colleagues and I want is to be able to do reindeer herding. We will not bother anyone else; we would rather not be bothered ourselves either.” (Participant 10), to questions on any economic compensations. Furthermore, Bjørklund & Brantenberg (1981) explains that reindeer herders cannot use the compensations in the same way other Norwegian ranchers can, as the herder cannot buy new land. For those who value their cultural livelihood, economic compensations are not enough.

For Sámi reindeer pastoralist who use this industry as livelihood, the economic consequences of developing a wind power plant in the middle of important summer pasture are damning. Due to the specialized occupation, few skills can be transferred to other types of employment in the Norwegian society, thus place Indigenous people at the bottom in the Norwegian workforce (Bjøklund & Brantenberg, 1981). For Sámi pastoralists to support a build like this would need to experience fair distribution for the change in resources and income (Menton et al., 2020). Additionally, they need to be recognized as having a culture that the majority society does not have and often overlooks (Whyte, 2018), and have the opportunity to practice reindeer pastoralism in a way where the siida and individual can keep flourishing (Bockstael & Watene, 2016; Day, 2018; Menton et al., 2020). These environmental justice aspects need to be seriously considered before any decisions are made that may push Sámi people out of their outfield.

5.4 MITIGATION STRATEGIES: LOCAL PERSPECTIVES FOR HARMONY IF DEVELOPMENT IS GRANTED

Due to the studied expected impacts that wind power plants have had on local communities and Indigenous people, and the participants' believed impacts on their local community, I have to some degree investigated efforts of mitigation for the local community and Sámi pastoralists. These efforts are mainly believed to come from the developers or as cooperation between the developers and municipality government. This is especially important in the early stages to include dialogue between locals and the developers due to the particular circumstances of land use in this valued mountain. Additionally, the levels of involvement from the local community with interests and the municipality is important for locals to feel that their opinion matters.

5.4.1 ADDRESSING LOCAL LANDSCAPE USAGE CONCERNS

The Outdoor Recreation Act, as discussed in section 5.2.2, gives the individual the right to use public areas however they like within reason and social norms. Participant 7 says that it is mainly used for two things in Kvænangen municipality: snowmobiling and skiing, and hunting. Locals who use the mountain for outdoor activities worry about the loss of access to it during the development process, and after the wind power plant is operating because of the impacts on human safety due to wind turbine icing and reduced grouse hunting abilities. For mitigating strategies for outdoor activities, we can compare with or find ideas from other wind power plants. For example,

like Raggovidda wind power plant in Finnmark County that increased human safety by advising when and where one should roam in and around the power plant (Varanger Kraft, 2017), or be part of suggesting pausing or lowering the speed of the wind turbines to limit bird deaths, like the anti-collision system made by SINTEF (Holthe & Lervik, 2022). Because of the landscape's high value in the local community, it is important that they can be part of and influence the decision-making process if and where an agreement between the municipality and the wind power plant developer is proposed.

Furthermore, for reindeer herding to continue to be part of the Sámi livelihood for the pastoralists in RHD 34 that uses the Olmmáirášša mountain, Sámi reindeer pastoralists are against to co-existence with the turbines. "We cannot coexist there. Wind turbines and reindeer." (Participant 10), because of the effects that the development process and infrastructure would have in the reindeer's behavior in the landscape. Another participant also emphasizes the risk that a wind power plant would have on the traditional Sámi livelihood in the area. Furthermore, if the reindeer avoid the developments and infrastructures due to noise and shyness, keeping the reindeer in pastureland that is ecologically meant for other seasons will eventually cause overgrazing and degradation of those pasturelands as well. To live off the landscape in Kvænangen municipality will likely become harder for those practicing reindeer pastoralism if the project is approved.

Impacts that affect the cultural tradition for the reindeer pastoralists need mitigating strategies for their lives to not be permanently and negatively altered. That is why Troms Kraft and Ymber, as mentioned above (see section 5.3.1), want to come to an agreement that would financially benefit the RHDs that use the mountain (Karlstrøm & Sundheim, 2023). However, a local politician in Kvænangen municipality point to increased predator control, restriction on traffic and access to the landscape in and around Olmmáirášša, in addition to any other economic compensations, is the bare minimum required for the Sámi pastoralists to even join a discussion with the power companies. Following Schlosberg (2003) and Schlosberg & Carruthers (2010), recognition for having a different culture and values, and being understood and included in the policy processes are important for experiencing EJ in collaboration with marginalized groups. Thus, being included, seen, and heard in the decision-making process for the proposed wind power plant in the highly

valued landscape is necessary for the Sámi community to potentially be more willing to adapt their capabilities to the changes ahead.

For the local community and Sámi pastoralists to find EJ in a wind power plant to be developed in a landscape that has high value for both groups, mitigation for environmental degradation and social changes is needed. Inequality in influencing decision-making processes and it is not fruitful for Sámi pastoralists (Bell & Carrick, 2018). Troms Kraft AS and Ymber state that they have had conversations, and would have more, with the Sámi pastoralists in RHD 34 and surrounding area if the project continues (Karlstrøm & Sundheim, 2023). This is positive for the recognition of Sámi interests and procedural justice that would hopefully include and improve decisions that benefit the Sámi community in Kvænangen municipality. Evidence of their involvement in the feasibility study (Karlstrøm & Sundheim, 2023) and the municipality city hall (Høybråten et al., 2023) suggests improvements; however, it depends on the level of authenticity in their involvement. UNDRIP requires states to consult and receive consent from local Indigenous communities before activities or projects are started (OHCHR, 2013). Thus, they must consent freely, without any coercion, prior to any activity beginning and be informed of all aspects of any project. Additionally, the local community's valuation of their landscape speaks to their outdoor activities as culturally significant for many locals in Kvænangen municipality. They also need to be recognized for their lifestyle to feel personal dignity in a decision-making process (Menton et al., 2020).

5.4.2 DECISION-MAKING AUTHORITY FOR OLMMAIRÁŠŠA

In the decision-making process, who ultimately decides what option to go for is a power negotiation. To reach the Norwegian state's goal of increasing the renewable energy production that is an ever-increasing need in the world, it is easy to assume that the state can make these decisions on behalf of the municipalities with areas of interest; however, most participants know that it is Kvænangen municipality and the elected office that have "the final word" (Participants 5 & 8). Troms Kraft and Ymber also states this in their feasibility study (Karlstrøm & Sundheim, 2023), and that is possibly why the interested power companies, including Troms Kraft and Ymber, have addressed the municipality and local community while including them in working groups and informative presentations.

As of today, Kvænangen municipal council has voted that they will not yet allow an impact assessment for the potential development of a new wind power plant. A local politician explains that this decision was made because they want to establish who has the right of use and property rights in the landscape first, as there are questions to whether it is the municipality or Statskog¹⁴ that owns the land. If it is Statskog that has the property rights in the Olmmáirášša area, the organization could go against the local community and Sámi pastoralists wishes. Due to the perceived impacts mentioned in this paper, opinions within the local community have varied as to whether people are for or against a wind power plant in Olmmáirášša mountain. Moreover, the Sámi reindeer pastoralists in the RHDs using the landscape do not have permanent residences in Kvænangen, they do not have voting rights in the municipality to directly influence decisions made in that manner. However, they do have strong social and cultural ties with the municipality and depending what political parties and persons are in office next time a decision on this issue is made, they will likely have a say in the final outcome.

To mitigate any injustice that a policy process may bring, it is important to maintain local interest of the community and landscape users in the decision-making process. Troms Kraft and Ymber are already mitigating these injustices to some degree, and a local politician applauds them because “the developer first and foremost engages in dialogue with those who use the area for business” (Participant 2), such as through working groups for the feasibility study. Dialogue alone is not enough, and for procedural justice to indeed ensue, the developers and decision-makers need to be fair and fully transparent in consultation with affected individuals and communities, as the experienced fairness is based on the process of getting to as well as the outcome (Hunold & Young, 1998; Hollander-Blumoff & Tyler, 2008). Even though most participants in this study portray negative incentives towards a wind power plant in their valued Olmmáirášša mountain, dialogue with affected parties would improve the relationship to the project and support a more collaborative process that meets community needs and recognizes the local community and Sámi rights to utilize the landscape.

¹⁴ Statskog is Norway’s largest landowner and owns one-fifth of mainland Norway, with the intention to ensure the Norwegian society’s nature values (Landbruks- og matdepartementet, n.d.).

The acceptance of change can only occur if all parties feel recognized for how they live their lives in coexistence with the landscape, and loss of resources or needs are mitigated (Menton et al., 2020). This is important because of the locals capability to continue to flourish as they wish in their lives and feel good about it (Bockstael & Watene, 2016; Menton et al., 2020). Furthermore, the Truth and Reconciliation Commission find that policy processes do not protect outfield users interest and rights, but earmark stuff like nature protection and outdoor activities (Høybråten et al., 2023). This proves that the Norwegian state and municipalities need to work on implementing the local community and Sámi traditional livelihood into the decisions made for there to be procedural justice, especially in any democratic process related to developing the wind power plant (Schlosberg, 2003).

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

This thesis explored the participants' expected impacts of a proposed wind power plant in the Olmmáirášša mountains in Kvænangen municipality, Troms County, Norway. The research was based on local perceptions and expectations, not on what has or necessarily will happen if a wind power project is approved.

The informants opposed a wind power plant and new infrastructure in the municipality's outfield and landscape due to the expected severe land encroachment that the mountain and surrounding landscape would suffer. Locals are negative to developing new infrastructures such as roads because it would be noticeable and destroy nature. Further, they fear pollution from the wind turbines, increased bird deaths, and habitat changes that affect biodiversity. Sámi reindeer pastoralists express concern about road disturbance, reindeer movements, and turbine-induced avoidance behavior, potentially increasing grazing pressure in seasonal pastures.

Further, locals have concerns about the social impacts that a wind power plant may bring, particularly its visual and auditory intrusion on their surroundings. Moreover, outdoors enthusiasts also worry about restricted access to the Olmmáirášša mountains due to the dangers posed by icing

on the wind turbines during winter months. Sámi reindeer pastoralists expect personal identity loss if the landscape changes significantly. The mental health of Sámi pastoralists who may have to give up their livelihood is likely to be affected by this identity loss.

Lastly, participants view employment opportunities as the primary benefit of a wind power plant in Kvænangen municipality; however, this is discussed, with concerns about insufficient job creation and its impact on population growth. Besides, a wind power plant may lead to fewer RHDs and siidas in Kvænangen, affecting the local businesses. Sámi reindeer pastoralists expect decreased herd sizes and land encroachment to impact meat sales. Troms Kraft and Ymber would compensate the RHDs for any negative implications; however, my participants are skeptical.

My participant's opinions align with the EJ framework, emphasizing concerns about indigenous and local injustices facing national green transition plans. EJ requires that distribution, recognition, participation, and capabilities are at least sustained for a comprehensive understanding of justice (Schlosberg, 2007). For locals and the Sámi pastoralists, fair distribution (Schlosberg, 2003) relies on limited land encroachment, which my participants do not expect to happen even with the old infrastructure reuse. Furthermore, all locals in Kvænangen municipality must have their cultural values and traditions recognized. Moreover, everyone affected in the local community should be heard and seen by the decision-makers and the potential developers in the future for recognitional justice to be served.

The capabilities approach is the most crucial part of this thesis. The locals who decide to live in a small rural municipality often do so to be in closer contact with nature, and thus, being able to use the landscape that has outdoor recreational value, i.e. sports, is essential for my participants' capabilities to flourish as human beings (Schlosberg & Carruthers, 2010). As for the Sámi pastoralists, this is especially important as their capabilities to flourish is closely connected to the access to and utilization of the Olmmáirášša mountain. A wind power plant could restrict locals' opportunity to engage in their own "valued functionings" (Day, 2018) and thus not have the ability to flourish in their lives both culturally and financially.

Local involvement is essential for mitigation in the decision-making processes. As for now, Kvænangen municipality is postponing action until the property rights of the Olmmáirášša mountain are established. Furthermore, the power companies Troms Kraft and Ymber have started dialogue with locals and the affected RHDs. Continued dialogue, community inclusion, and proper compensation to affected groups are essential for procedural justice (Hunold & Young, 1998), and power companies interested in Olmmáirášša mountain in Kvænangen seem to be on a good trajectory for this.

RHD 34 has endured damage since the construction of Kvænangen Kraftverk in 1960, resulting in changes in migration patterns and reduced herd sizes, affecting the traditional livelihood of Sámi pastoralists (Bjørklund & Brantenberg, 1981). Given the historical hydropower impacts, it is understandable why reindeer herders in RHDs 33, 34, and 35 hesitate to embrace further development encroaching on their landscape. The thesis findings reflect this skepticism among all Kvænangen's locals. Olmmáirášša mountain may become a sacrifice zone (Hernández, 2015) for Norway to continue towards the green energy transition. My participants' expected impacts are primarily negative and have been discussed extensively. Nevertheless, they suggest mitigating strategies detailed in the following section.

6.2 RECOMMENDATIONS

Even though Kvænangen municipality is currently holding up any impact assessment, there is a possibility that Kvænangen municipality or Statskog would indeed like to have a wind power plant in the future. This section provides recommendations for how to move forward with this and, at the same time, include the local community and Sámi pastoralists in RHDs interests and values using Olmmáirášša mountain.

To increase acceptance for infrastructural developments and land encroachment, locals want the new infrastructures to avoid causing more natural degradation than necessary, and if it does, fix it again better than before the development started. Further, the new infrastructure would cause habitat loss for reindeer in the green summer pasture; Sámi herders need relevant compensations, for example, in the form of other green pastures. As for the expected social impacts of a wind power plant in the valued landscape, the primary worries relate to the visual impacts, limited

access to the mountain, and potential loss of identity. Altogether, these expected issues can be mitigated by including the locals and Sámi pastoralists, who are recognized and respected as having different yet equal importance in their cultures. Additionally, continued dialogue from the beginning to the end of the project with all locals and Sámi pastoralists to find what areas are more critical for their daily use to plan around this, so being involved procedurally is essential for continued acceptance in a process like this.

The economic impacts that a wind power plant might have on the municipality and Sámi pastoralists are varied and thus require different mitigating strategies. For the municipality, the power companies need to show accurate and concise numbers so that the locals can believe that the income from the wind turbines would be worth the social and ecological cost to the landscape. However, for the Sámi pastoralists, compensations such as the wind power plant co-ownership need to be worth the loss of cultural identity and decreased ability to continue with the generational traditional livelihood.

Additionally, procedural justice can only occur if the communities are included at every step and understood by the state or power companies. Culturally, individual freedom is important in order to use natural resources in the landscape, increasing capabilities and the ability to flourish. Thus, environmental costs and benefits based on resources and social standing in the majority society should be acknowledged and considered as decision-making processes occur.

All in all, the most crucial part is to include the locals in Kvænangen municipality, including the Sámi pastoralists in RHDs 33, 34, and 35 who use this landscape, especially for summer pasture, to be included, recognized, and heard in the decision-making within the municipality and the power companies. However, this also requires laws and rules that secure local interests even after the concession is approved.

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APPENDIX A: INTERVIEW GUIDE

Bakgrunnsinformasjon

1. Hva heter og hvor gammel er du?
2. Hvor bor du?
3. Hva er din tilhørighet til Kvæningen?
4. Hva jobber du med?

Vindmøllepark

5. Har du hørt at to kraftselskap ønsker å bygge ny vindmøllepark i Kvæningen kommune i Nord-Norge? Hva har du hørt om det og hvordan?
6. Hvordan har du tilhørighet til stedet?
7. Hvordan tenker du at din hverdag vil påvirkes dersom det blir bygget en vindmøllepark på det foreslåtte stedet?

Økonomisk

8. Hvordan forventer du at denne endringen vil påvirke din økonomiske situasjon som helhet?

Økologisk

9. Hvordan tror du naturen på stedet vil bli påvirket?

Sosial

10. Hvordan tror du din kultur som reindriftssame vil bli påvirket?
 - a. Hvordan vil kulturen i kommunen endres tror du?

Skadebegrensing

11. Hvis vindmølleparken blir bygd ut. Hva mener du at er nødvendig for at reindriften og levemåten din skal overleve?
 - a. Hvis vindmølleparken blir bygd ut. Hva mener du at er nødvendig for at din bruk av området skal fortsette å fungere? Evt reindriften på stedet?

Beslutningstaking

12. Hvordan vil en politisk prosess være i en sak der en part vil bygge ut og den andre ikke?
13. Dersom det blir bestemt at det skal bygges, hvordan bør man gå fram for å ivareta alles interesser?

APPENDIX B: INFORMATION LETTER

Invitasjon til å delta i masterprosjekt – Informasjonsskriv

Vil du delta i forskning?

Konsekvenser av utbygging av vindmøllepark i Kvænangen kommune.

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å belyse reaksjoner og perspektiver, samt hvordan beslutninger tas angående bruk av naturområde og utbygging av vindmøllepark i Kvænangen kommune. I dette dokumentet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål:

Formålet med dette prosjektet er å undersøke perspektiver og konsekvenser knyttet til muligheten for en vindmøllepark i Kvænangen kommune i Nord-Troms, hvor fokuset er på sosiale, økonomiske og økologiske antatte utfall av byggingen. Oppgaven har som mål å forstå lokale menneskers reaksjoner på utbyggingen og hvordan deres mulige bekymringer kan bli ivaretatt i den politiske prosessen dersom prosjektet går igjennom. Prosjektet, som utgjør en masteroppgave på 30 studiepoeng, oppfyller omfattende de faglige kravene som forventes på masternivå, og viser dybde i forskning, analytisk rigor og faglig bidrag i samsvar med programmets standarder. Det ansvarlige instituttet for dette prosjektet er Norges miljø- og biovitenskapelige universitet (NMBU).

Ansvar:

Norges miljø- og biovitenskapelige universitet er ansvarlig for personopplysningene som behandles i prosjektet. Institutt for landskapsarkitektur og planlegging er ansvarlig for prosessene der Kaja Bugten har ansvaret for gjennomføringen av forskningsprosjektet og den daglige administrasjonen av data, med støtte fra veileder Andrei Marin.

Hvorfor blir du bedt om å delta?

Målet er å fange opp ulike synspunkter på konsekvenser av utbyggingen av et vindkraftverk i Kvænangen kommune. Ditt unike perspektiv, markert av din rolle i reindriftindustrien gjør deg

til en ideell deltaker. Intervjuene vil ha en semi-strukturert tilnærming, slik at det er rom for å utforske ulike meninger grundig. Dette formatet er valgt for å sikre en grundig forståelse av dine erfaringer, innsikter og perspektiver.

Deltakelse:

Din deltakelse er avgjørende for å bidra til dybde og rikdom i studien. Ved å dele dine tanker og erfaringer vil du spille en avgjørende rolle til å fremme forståelsen av ditt perspektiv og hvordan denne kan ivaretas på best mulig måte i en bestemmelsesprosess.

Hvis du velger å delta i prosjektet, vil din deltakelse primært bestå av å delta på intervju. Denne prosessen forventes å ta omtrent 1 time. Intervjuet vil omfatte spørsmål om din synsvinkel på bruken av naturen i prosjektområdet, hvilke konsekvenser utbyggelsen vil ha for deg, og dine forslag til handling for å få et best mulig utfall av prosessen i sin helhet.

Databehandling:

Intervjuet vil bli tatt opp og transkribert. Etter transkripsjon vil de originale opptakene bli slettet. Transkripsjonene vil bli lagret trygt og anonymisert, og de vil bli slettet senest ved innlevering av masteroppgaven. Dette sikrer konfidensialitet og personvern for ditt bidrag.

Samtykke:

Deltakelsen din i denne fasen av studien er helt frivillig, og du har rett til å trekke deg når som helst uten noen konsekvenser. Hvis du velger å delta, indiker samtykke ved å signere nedenfor.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – Hvordan vi oppbevarer og bruker dine opplysninger

De personopplysningene du oppgir, vil kun bli brukt til de formålene som er beskrevet i dette dokumentet, og vil bli behandlet i samsvar med personvernregelverket. Dine personopplysninger

vil behandles konfidensielt, og kun prosjektleder og masterstudenten vil ha tilgang til dataene. Deltakelsen din i prosjektet skal ikke være sporbar gjennom publikasjoner. Selv om sitater eller beskrivelser kan være gjenkjennelige for deltakere generelt, vil de ikke kunne spores til enkeltpersoner.

Med vennlig hilsen,

Andrei Marin
(veileder)

Kaja Bugten
(masterstudent)

Jeg har mottatt og forstått denne informasjonen om prosjektet. Jeg har hatt muligheten til å stille spørsmål, og jeg samtykker i å delta basert på de beskrevne vilkårene.

(Signert av deltaker, dato)

APPENDIX C: CONSENT FORM

Samtykkeskjema

Ytterligere informasjon om personvern – hvordan vi lagrer og bruker dine opplysninger:

De som vil ha tilgang til dine personopplysninger er masterstudenten Kaja Bugten og veileder Andrei Marin. For å sikre at ingen uautoriserte personer kan få tilgang til dine personopplysninger, vil ditt navn og kontaktinformasjon erstattes med en kode. Nøkkelen til koden vil bli lagret på en separat navneliste, adskilt fra annen data. Det vil ikke være mulig å identifisere deg i den endelige rapporten eller eventuelle publikasjoner som følger av prosjektet. Alle data vil anonymiseres under og før eventuelle publikasjoner.

Hva gir oss rett til å behandle dine personopplysninger?

Vi behandler informasjon om deg basert på ditt samtykke. Behandlingen av personopplysninger i dette prosjektet er godkjent av Sikt – tjenesteleverandøren for kunnskapssektoren.

Dine rettigheter:

Så lenge du kan identifiseres i datamaterialet, har du rett til å:

- Be om innsyn i hvilke opplysninger vi behandler om deg og få utlevert en kopi av opplysningene.
- Få rettet opplysninger om deg som er feil eller misvisende.
- Få slettet personopplysninger om deg.
- Sende klage til Datatilsynet om behandlingen av dine personopplysninger.

Vi vil gi deg en begrunnelse hvis vi mener at du ikke kan identifiseres, eller at rettighetene ikke kan utøves.

Hva skjer med dine personopplysninger når forskningsprosjektet avsluttes?

Prosjektet er planlagt å avsluttes når masteroppgaven godkjennes, forventet i juni 2024. Etter prosjektslutt vil all data som inneholder dine personopplysninger, inkludert lydopptak og transkripsjoner, slettes. Hvis du velger å trekke deg fra prosjektet når som helst, vil all data som gjelder deg bli slettet umiddelbart.

Spørsmål:

Hvis du har spørsmål om studien eller ønsker å lære mer om eller utøve dine rettigheter, vennligst kontakt:

- Kaja Bugten, e-post: kaja.bugten@nmbu.no, telefon: +4791007177

- Andrei Marin, e-post: andrei.marin@nmbu.no

Vårt personvernombud: Hanne Pernille Gulbrandsen, e-post: personvernombud@nmbu.no, telefon: +4740281558.

Hvis du har spørsmål knyttet til vurderingen som er gjort av personverntjenestene fra Sikt, kan du ta kontakt via e-post: personverntjenester@sikt.no eller telefon: +4773984040.

Samtykkeerklæring:

Jeg har mottatt og forstått informasjon om prosjektet *Konsekvenser av utbygging av vindmøllepark i Kvænangen kommune*, og har hatt muligheten til å stille spørsmål. Jeg samtykker til:

- Å delta i intervju

Jeg samtykker i behandlingen av mine opplysninger til prosjektet er fullført sommeren 2024.

(Underskrevet av prosjektdeltaker, dato)



Norges miljø- og biovitenskapelige universitet
Noregs miljø- og biovitenskapelige universitet
Norwegian University of Life Sciences

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