UiT The Arctic University of Norway

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# Impact Assessments and Sámi Self-determination in the Násávárre case: a right or a privilege?

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Cover image: A cabin on Násávárre with text in **South Sámi** and Swedish reading: "***Welcome to Násа Sámi Moratorium****: With respect for us and our area's history for our foremothers who were enslaved here when the colonisation of our Sápmi began, we protect Násа from new abuses. Mining is not welcome here! – Svaipa, Gran, Semisjaur-Njarg Sameby, and Saltfjellet Reinbeitedistrikt"*. Photo by Jens Toft 2021.

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# Abstract

In 2004 the Chinese company Elkem proposed the construction of a quartz quarry on Násávárre in Rana Municipality, Norway. Their proposition entails severe implications for Norwegian and Swedish Sámi reindeer herding communities, who use the area of the mountain throughout the year. The conflicting interests required an evaluation of said implications. Commissioned by Elkem, Sweco Norway AS conducted an Impact Assessment, which was criticised after its publication in 2013 for its lack of Sámi involvement. A second Impact Analysis of 2019 attempted to compensate for these shortcomings by requesting information on use of the area from the reindeer herding communities.

This thesis explores Impact Assessments as practise to predict implications which Indigenous communities could face caused by natural resource extraction, using the example of the Násávárre case. Although Impact Assessments are used globally, their "practice has historically been little aligned or even contradictory to Indigenous Peoples' rights to self-determination" (Larsen, 2018, p. 208). Through the analysis of the Impact Assessments from 2013 and 2019 as well as conducted interviews with authorities, right holders, and impacted communities this discrepancy shall be explored. The focus is put on the degree of Sámi reindeer herders' participation in the process and examines Larsen's (2018) assertion that Indigenous participation in Impact Assessment processes is oftentimes treated as a privilege rather than a right.

By shedding light on Sámi influence in the decision-making processes of the Násávárre case, this thesis aims to depict the concrete implementation of Indigenous participation in Impact Assessments and its potential and limits for Indigenous self-determination.

Keywords: Impact Assessment, Indigenous Knowledge, Sámi reindeer herding, Indigenous self-determination, natural resource extraction, Násávárre, Nasafjell.

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# 1. Introduction

This thesis is a case study of how Sámi concerns are integrated in Impact Assessments (IA) carried out prior to extractive activities in Sápmi. By IA, I mean "(…) a structured process considering the implications, for people and their environment, of proposed actions while there is still an opportunity to modify the proposals." (IAIA, 2023). Specifically, I will address the case of Násávárre, where Elkem AS, a mining company owned by China National Bluestar, is planning for the extraction of quartz. A total of five Sámi Reindeer Herding Communities (RHCs[1]) will experience direct and/or indirect consequences of mining activities which on the Norwegian side includes Saltfjellet and Ildgruben reinbeitedistrikt and on the Swedish side, Svaipa, Semisjaur-Njárg and Gran Sameby. Reinbeitedistrikt[2] (RBD) is the term used in Norway to divide the Sámi regional reindeer pastures and includes the yearly pastures used by the reindeer herders in the district (Landbruks- og matdepartementet, 2007). In Sweden, the equivalent term sameby (SB) is organised as an economic and administrative association of Sámi reindeer herders (Sámediggi, 2022). Some RHC have historically been able to cross the national borders between Sweden and Norway, a right first anchored in the Lapp Codicil of 1751. The mountain Násávárre is in Rana Municipality in the county of Nordland and in proximity of the Swedish border. The name, Násávárre, is the Lule Sámi name for the mountain. For clarity the Norwegian name, Nasafjell, is how the mountain is referred to in most documents. At the time of writing this thesis, the expropriation application from Elkem to extract quartz on Násávárre is under evaluation by the Ministry of Trade, Industry and Fisheries and awaiting a decision.

This thesis is a case study of Sámi reindeer herding and acknowledges the Sámi as Indigenous Peoples[3] with rich historical and cultural traits distinguishing them from the majority society of Norway, Sweden, Finland, and Russia in which they predominantly reside and have done so since time immemorial.

[1] RHC used as singular and RHCs used as plural.
[2] Reinbeitedistrikt can be translated as Reindeer Pasture District.
[3] In this thesis, the term Indigenous Peoples is deliberately written with capital 'I' and 'P' and with plural 'S' as a sign of respect to Indigenous communities, identities, and institutions that historically have been considered illegitimate. Using the plural 'Peoples' is done to respect the multiple distinct Indigenous Peoples. This approach has also been applied to direct quotes in this thesis.

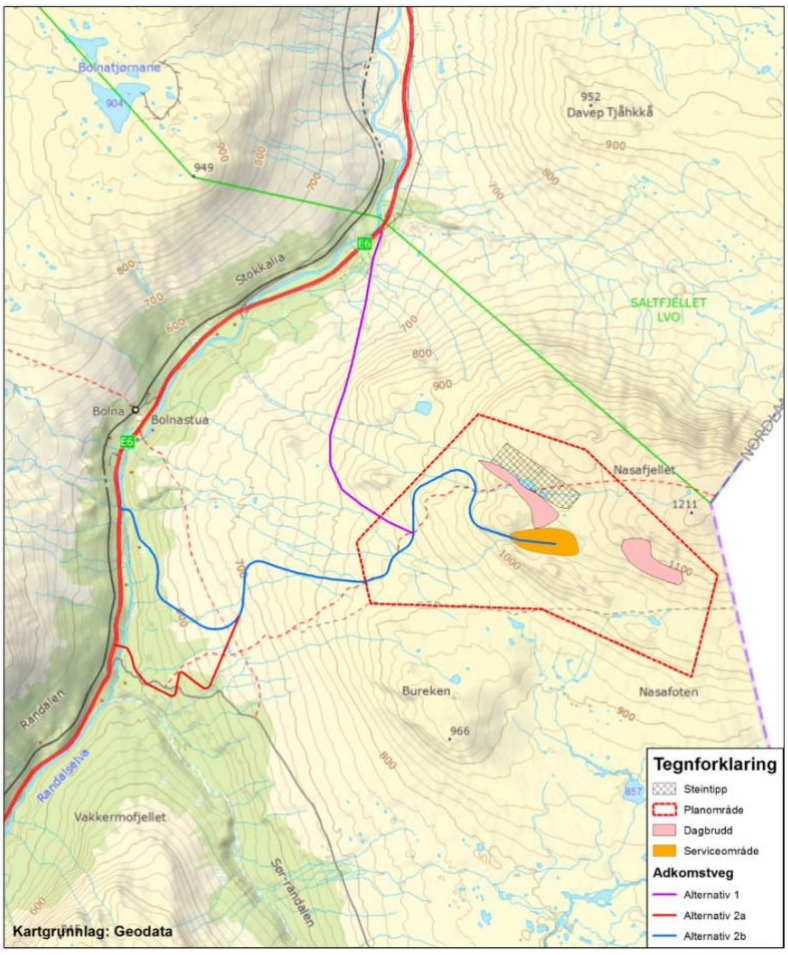
## 1.1 The Násávárre Case

Extractive industries and Indigenous Peoples' land rights have been linked in a colonised context globally and in Sápmi for centuries. Sápmi refers to the Sámi homeland covering what today is located within the national borders of Norway, Sweden, Finland, and Russia. In a historical context, Násávárre bears a dark past as it is also known for the discovery of silver in 1634 and the subsequent mining of it. The Swedish king forced the local Sámi population and their reindeer to work with the transportation of silver ore between the excavation site and the smelting facilities (Elenius et al., 2015). The silver mines starting in 1635 are an example of former exploitation of the Sámi and their traditional lands. Today, the silver mines are still visible on Násávárre, which also has evidence of Sámi cultural heritage (Sweco, 2013, p. 62).


Sign to the silver mines hiking route on Násávárre. Taken during fieldwork on Násávárre, 2021, by Jens Toft.

The proposed mine on Násávárre, today, is a testimony of the continuous encroachment on Sámi traditional land for the similar goal of resource extraction strengthened by global corporations. Extractive industries, such as mining, rarely benefit the local population and the consequences can cause pressures to the communities' traditional livelihoods on an environmental, economic, and social level (O'Faircheallaigh, 2013).

The proposed mine on Násávárre is located on the border between Norway and Sweden where multiple Sámi reindeer herders are using the area for pasture and migration. RHCs in the area follow their reindeers' seasonal migration. In the case of the three Swedish SBs, this includes crossing the Norwegian border. Although Násávárre is located on the Norwegian side of the border, Swedish reindeer herders have periodic migration rights, stated in 1751 in the aforementioned Lapp Codicil. The mountain in question is therefore subject to land rights both for Swedish and Norwegian RHCs. The 2013 IA shows that all the five RHCs will be impacted by the proposed mine which is why affected Swedish RHCs are included in the data.




(Sweco, 2013, p. 21)

The map shows the mine proposed by Elkem AS taken from the 2013 IA. Visible from it are the two planned excavation quarries marked with pink that will be the main excavating sites. Elkem estimates the mine to extract and transport 150.000 tons of quartz per year. A more in-depth description of the proposed mine and how it is described in the two reports can be found in the chapter Empirical Data.

The application from Elkem AS to engage in mining on Násávárre adheres to the regulatory framework for planning in Norway and is governed by the Planning and Building Act of 2008 (Kommunal og moderniseringsdepartementet). This establishes that the primary objective of the planning is ensuring sustainable development. The 2009 Nature Diversity Act (Ministry of the Environment) is also a key part of the regulatory framework as it outlines the principles for public decision-making applied to municipal planning. The key principles include the utilisation of scientific and local knowledge and adopt a precautionary approach. All three levels of government i.e., state, county and municipal level have designated roles in this process, but the primary planning authority resides at the municipal level. At the state and the county levels, it is primarily the development of guidelines and expectations to be integrated in the planning processes at the municipal level. However, for issues of national significance the chief responsible is the state (Kvalvik, Solås, & Sørdahl, 2020).

The assessment and analysis of the impact of the mine on Násávárre is carried out by Sweco. It is an international company with its headquarters in Stockholm, which offers consultancy services in a wide range of fields. Sweco is specialising in impact assessments and therefore plays a key role in the Násávárre case. The role of Sweco is to provide a comprehensive environmental and social impact assessment, crucial in providing a complete and objective evaluation of the potential impacts of the mine. The IA is one of the key elements in guiding the stakeholders and informs the decision-making processes.

## 1.2 The Sámi, Reindeer Herding, and Extractive Industries in Sápmi

Reindeer herding is one of the traditional livelihoods practised by Sámi and other Indigenous Peoples. In the circumpolar North, it involves around 100.000 Indigenous Peoples and an estimated 2.500.000 reindeer (Mathiesen et al., 2023, pp. 1-2). Through reindeer herding, semi-domesticated reindeer are herded in defined areas often in a yearly migration circle. This livelihood practise is used across the globe, including in Norway, Finland, Sweden, Russia, Greenland, Alaska, Mongolia, China, and Canada. The nature of reindeer herding has always been shaped by climate and environment. Reindeer herding serves as a central cultural practise for many Sámi communities and has economic, cultural, and social importance (Reindeer Herding). Of the estimated 50.000-65.000 Sámi residing in Norway around 3.307 are identified as reindeer herders. On Swedish territory about 2.500 of the 20.000-40.000 Sámi are reindeer herders (Bjärstig, Nygaard, Riseth, & Sandström, 2020). Reindeer herding builds on an old practise with a nomadic lifestyle moving between summer and winter pastures. These migration

movements cross national borders following the customs of the Sámi, whose traditional homeland stretches from Norway across Sweden and Finland to the Kola Peninsula in Russia (Bjärstig et al., 2020). Sámi reindeer herders have traditionally lived and worked through the Siida system, which is the North Sámi word and Sijte in Southern Sámi. A Siida is characterised by either an area or a working partnership and consists of individual reindeer herders. A RBD can consist of one Siida or more and has been passed down through generations which gives strong usage rights to their traditional pastures (NVE & Reindriftsforvaltningen, 2004). The Reindeer Herding Act of 2007 legally recognised the Siida system leading to individualising rights to land for reindeer herding. Kristina Labba argues that "(i)n contrast to the Swedish law, the developments in Norwegian law better protect Sámi reindeer herding traditions" and notes that in Norwegian courts, the Siida system has been recognised over the past decade in conflicts of land use (Labba, 2015, p. 141).

In Sweden, Norway, and Finland, Sámi reindeer herding has historically been impacted by national borders which still pose challenges to the relatively small industry today (Reindeer Herding, Unknown-a). This is part of the legacy of colonisation, specifically meaning the strongly resisted, forceful intrusion of nation states into Sámi territory (Bjärstig et al., 2020). In this context, the nation states imposed their cultural dominance as well as political control onto the Sámi. Through this, the culture and traditions of the Sámi were highly influenced and changed if not lost. Reindeer herding, for example, became more difficult under these circumstances and many had to give up this livelihood. The late 1980s, however, sparked an increase in the recognition of Sámi rights and led to international and national responsibilities of Norway towards the preservation of and safeguarding of Sámi reindeer herding (Bjärstig et al., 2020). The Reindeer Herding Act of 2007 is the legal framework that regulates reindeer herding which stipulates that only those with a reindeer earmark can practise reindeer herding; and for the right to an earmark the person has to be Sámi and whose relatives have reindeer herding as the main occupancy (Landbruks- og matdepartementet, 2007).

Rebecca Lawrence and Rasmus K. Larsen emphasise the recent emergence of two contradictory trends. In recent years there has been a growing international recognition of Indigenous Peoples' rights to land and natural resources with an emphasis on free, prior, and informed consent. Simultaneously, there has also been increasing interest in enhancing extractive activities on traditional Indigenous land, activities that often fail to respect the rights of Indigenous Peoples. They argue that extractive industries like mining continue to undermine Sámi rights to their land and its resources and can be tied to internal colonising practises. For

practises of internal colonisation[4] that dispossess the Sámi, one can look to the continuous approvals from governing bodies of extractive industries in Sápmi (Lawrence & Larsen, 2017). Although Lawrence and Larsen are reasoning from a Swedish context, there are similarities that resonate with the case of the proposed Násávárre mine. It is a part of an increasing encroachment on Sámi territory in Norway where the affected RHCs have voiced their concern as well as their opposition to the mine.

Similar cases in Sápmi include the Nussir case, where the company Nussir ASA received approval to mine for copper and subsequently deposit mine tailings in Repparfjord (Eythórsson, 2011). This case has brought about concerns and objections from the Sámi Parliament on the consequences for the local reindeer herding and repercussions of the tailings in the fjord (Kommunal og moderniseringsdepartementet, 2014). Norway's approval of building the copper mine is described as "a litmus test for the Arctic, where climate change and technology are enabling mineral and energy extraction, shipping and tourism, but threatening traditional ways of life" (Solsvik & Fouche, 2019). The project met protests by youth groups preventing the beginning of the mine's construction (Påsche, Estenstad, & Pedersen, 2021). Another case to highlight here is the Kallak iron mine project in Jokkmokk Municipality. In Kallak or, Gállok in Lule Sámi, the British owned company Beowulf Mining PLC has received the government's green light to commence the extraction of iron (Johnson, 2022) while the local Sámi reindeer communities have been in opposition since the beginning (MacPhail, Lindahl, & Bowles, 2022). Both examples illustrate how permissions have been granted despite receiving critique from local and national Sámi groups. Human rights experts from the United Nations argued in support of the Sámi reindeer herders in Kallak that Sweden should not grant permission to mine (Ahlander, 2022). This is an example of how Sámi communities receive support beyond the national or regional borders and include international organisations such as the United Nations. The examples above are also a testimony to the similar struggles facing the Sámi across Sápmi.

From the Norwegian Ministry of Trade and Industry's Strategy for the Mineral Industry it is evident that there is a growing political will to increase mining activities in Northern Norway (2013). The growing interest in mining has sparked a reaction from Sámi institutions. From the 21st Sámi Conference in 2017 a subsequent declaration was produced, the Tråante Declaration,

[4] Lawrence describes how she works with the concept: "In brief, internal colonisation refers to the unresolved processes through which Western society and Indigenous Peoples have come to inhabit the same territories, and the continuing Indigenous resistance to colonial occupation of those Indigenous territories." (Lawrence, 2014, p. 1039).

highlighting the Saami Council's position on status quo in the four countries of Sápmi. Under the section of "Saami rights to land, water and natural resources" Article 17 clearly states the Saami Council's positioning towards the increasing encroachment of their traditional land: "Intrusion, such as mines (…) steals land from Sápmi and thus causes the Saami living space to decrease (…)" (Samerådet, 2017). It is not only the impacts of mining that are making it difficult for RHCs to continue their traditional livelihoods, but also the cumulative impacts of deforestation, tourism, and recreational cabin-building that make it increasingly challenging.

Larsen, through his work with Indigenous Peoples and IAs, observes that although IA is the main instrument to address potential impacts of a proposed measure "its practice has historically been little aligned or even contradictory to Indigenous Peoples' rights to self-determination" (Larsen, 2018, p. 208). He further submits that although this process is guided by laws and corporate interest the participation of Indigenous Peoples often becomes a privilege rather than a right. Thus, global trends do not resonate with the rights of Indigenous Peoples to self-determination.

## 1.3 Indigenous Knowledge Systems, Planning and Environmental Decision Making: The Role of Community-Based Impact Assessments (IndKnow)

The research for this thesis was carried out as part of the IndKnow project at the Centre for Sámi Studies at the Arctic University of Norway in Tromsø. IndKnow is a research project cooperating across institutions and aiming at integrating Indigenous Knowledge (IK) into the process of decision making. The IndKnow project specifically focuses on how decision-makers can respect and include IK systems in land and marine based planning processes, environmental decision making and other decision-making processes that may impact Indigenous Peoples (IndKnow).

Part of the data gathering for this thesis was carried out in cooperation with my two supervisors, Professor Else Grete Broderstad and postdoctoral fellow Lena Gross who are the principal investigator and member of the project, respectively. In August 2021, we started a two-week fieldwork trip to the Násávárre and surrounding area conducting interviews with some of the affected Sámi RHCs as well as a representative of Rana Municipality.

## 1.4 Previous Research

This section will present some of the previous research of the different aspects relevant to this case study of Násávárre, as it relates to the role of Indigenous Peoples and extractive industries, of IK as in IAs, mining and the Sámi in Norway and Sweden, of municipal planning, and of how mining impacts Sámi RHCs.

In Ciaran O´Faircheallaigh's study of *Extractive Industries and Indigenous Peoples: A Changing Dynamic?* he argues that "Indigenous Peoples and other rural or remote populations often bear the social and environmental cost of extractive industries while obtaining little of the wealth they generate" (O'Faircheallaigh, 2013, p. 20). However, as the title of the study suggests, O´Faircheallaigh observes a change underway. He believes there is increasing recognition of the opportunity to reduce the economic and social impacts of extractive industries in line with Indigenous rights nationally and internationally and that mining companies are increasingly applying corporate social responsibilities. Based on a case study of the Liquefied Natural Gas development in Australia he finds that these changes are enabling the communities to have an impact on the opportunities from extractive industries. This change is also attributed to two factors; the political mobilisation of Indigenous Peoples as well as the capacity of Indigenous communities to "(…) engage with scientists, developers, state agencies and other stakeholders were a major influence." (O'Faircheallaigh, 2013, p. 28).

There is a significant opportunity to expand our understanding by including knowledge sources of Indigenous Peoples. To only use Western scientific ways of knowing and knowledge production can be limiting in various ways. Riseth et al. demonstrate the inclusion of IK or Traditional Ecological Knowledge of Sámi communities in the realm of climate change research. The article shows that knowledge of the intricate dynamics of local snow and ice conditions using Sámi terminology can contribute to our understanding of predicting future changes: "(…) that TEK/science cooperation has much potential for climate change studies, though time and resources are needed to bridge the gap between knowledge systems" (Riseth et al., 2011, p. 202). This is testimony to the value of combining IK and Western science.

Research on how to include IK or Traditional Knowledge (TK) in IAs has been done, amongst others, in a Sámi context by Eyþórsson and Thuestad (2015). Their study shows that including TK in the planning processes is secured by legislation in Norway and identifies the importance of the Sámi Parliament's guidelines. In IA processes of incorporating TK, the authors emphasise the necessity for attention to "the approach to documentation, methodology and ethics"

(Eyþórsson & Thuestad, 2015) to ensure a respectful and holistic outcome. The inclusion of TK in IA processes and how it can be carried out with respect to the knowledge holders is central to the work of this thesis.

In Rebecca Lawrence and Rasmus K. Larsen's article; *The politics of planning: assessing the impacts of mining on Sami lands,* they research the implications of community-based IA with an Indigenous Sámi community affected by a planned mining operation. The mine was a proposed open-pit copper mine in Laver, Northern Sweden, which is the winter pastures of Semisjaur-Njarg Sámi community, one of the same SBs affected in the case of this thesis. Their article examines how the biases that are ingrained in Swedish permitting processes prioritise non-Indigenous viewpoints when determining significant impacts. By collaborating with the affected Sámi community Lawrence and Larsen show how to challenge these biases. They find that cumulative pressures on land-use alongside intricate effects of colonialism and Sámi land dispossession exert strain on the community's internal dynamics but also in their interactions with the broader society (Lawrence & Larsen, 2017).

As this thesis examines the inclusion of concerns and the degree of participation in IAs and since the case of this thesis is affecting Sámi RHCs in both Norway and Sweden, it is important to look at how these practises differ. Previous research addressing this topic includes the article from Therese Bjärstig, Vigdgis Nygaard, Jan Åge Riseth, and Camilla Sandström (2020). They have looked into municipal comprehensive planning and the institutionalisation of Sámi interests and conducted a comparative case study between Sortland Municipality in Norway and Vilhelmina Municipality in Sweden. (Bjärstig et al., 2020)

## 1.5 Research Objectives

Tension over industrial projects on traditional land is not a new trend and there are plenty of modern cases of expropriation depriving Indigenous Peoples of their means of traditional livelihood practises, economies, and cultures. The hunt for resources in the Arctic and near-Arctic regions, as in Násávárre, has increased with attention to resources such as minerals, wind power and aquaculture (Hernes, Broderstad, & Tennberg, 2022). Therefore, this thesis will seek to provide an insight into the knowledge foundation acquired in these processes prior to the decision-making by exploring the inclusion of IK of Sámi RHCs and Sámi concerns in the Násávárre case using the IA reports from Sweco and interviews.

### 1.5.1 Research Question

IAs have the capacity to influence decisions in the planning process, making them a critical tool and ensuring that this tool is functioning is paramount. IAs in theory provide a means of translating objective perspectives and contribute to the foundation of well-informed decisions. Therefore, IAs assume a pivotal role in protection and upholding of the rights of Indigenous Peoples and it becomes imperative to explore the extent to which the integration of Sámi concerns reflects the degree of participation given to RHCs in the process, which is why the research question is:

*To what degree can the integration of Sámi concerns in the 2013 Impact Assessments and 2019 Impact Analysis reports shed light on how the impacted reindeer herding communities have been enabled to participate in the IA processes?*

To address this main question this thesis will look into:

- What are the impacts as described in the IAs of the proposed Násávárre mine on Sámi reindeer herding?
- To what extent is Sámi reindeer herding knowledge integrated into the IA reports?
- To what degree are the challenges and concerns of Indigenous Peoples' rights included in the two reports?

To thoroughly cover the main research question, the purpose of the three sub-questions is to generate and build on results from the data. The first sub-question will seek to analyse the two reports to investigate participation options of the Sámi RHCs. The second question is exploring how the two reports reflect IK, the challenges and concerns faced by the Sámi RHCs, in relation to the textual analysis and interviews. The third question is facilitating a discussion of the circumstances enabling Indigenous participation in IAs.

## 1.6 Method

To fulfil the responsibility as a non-Indigenous researcher, this thesis seeks to create reciprocity by applying Indigenous methodologies and emphasising Sámi perspectives when answering the research questions (Kovach, 2021). To achieve this goal, the chosen method is the qualitative content analysis of two Sweco reports (2013, 2019) as well as three conducted interviews with authorities and rights holders on both the Norwegian and the Swedish side. Hereby, the reports' differences and possible changes that occurred over time, shall be highlighted through a comparative analysis. Further, their statements are evaluated against the explanations made in

the interviews. Patterns within the data are exposed through a set of codes which are developed inductively and deductively based on the interviews and the used theory.

## 1.7 Data

In terms of data collecting, the comparative content analysis is based on two reports by Sweco on the Násávárre mine proposed by Elkem AS. The two reports are written in Norwegian. The 2013 report is an assessment required by law by the Planning and Building Act whereas the 2019 report is an analysis focusing on the connection between cause and effect of specific actions. It needs to be stressed that the IA reports are not of the exact same nature. The impact assessment from 2013 outlines what impacts the Elkem's mine on Násávárre could have on the environment and society, including for reindeer herding. The impact analysis from 2019 describes the impacts of mining for quartz in Násávárre for the affected Sámi RHCs and traditional usage of the area.

Two Sweco IA reports:

1. NASAFJELLET KVARTSFOREKOMST, Rana kommune, Nordland - Konsekvensutredning – virkninger for miljø og samfunn. Revidert august 2013.
2. KONSEKVENSANALYSE AV NASAFJELL KVARTSFOREKOMST FOR REINDRIFT 2019

Additionally, interviews with some of the affected RHCs, representatives of the industry and municipal authorities were carried out. In this thesis, the participants of the interviews stay anonymous and their statements from the interviews will be paraphrased. As this is an ongoing case, the anonymity of the interview participants has been prioritised. Further, not all interviews that have been conducted for the IndKnow project, will be used in this thesis. The purpose of the interviews is to serve as a contributing aspect to the IA reports and enable a discussion of the degree of participation the Sámi have compared to what they are entitled to.

## 1.8 Theory

To facilitate not only an understanding of Sámi participation in the IAs but also emphasise IAs generally as an instrument in terms of Indigenous rights claims, this thesis relies on the Scalar Framework and the Sliding Scale Theory. Larsen's (2018) framework allows for a measurement of Sámi influence in the Násávárre case. Åhrén's (2016) theory, on the other hand, offers a means to understand how much influence the Sámi should have in this issue. The Scalar Framework opens the possibility to not only measure Sámi influence in the Norwegian context

through the reports of the IAs. It also makes these processes comparable to the experiences as described in the interviews. This is true as well for the Sliding Scale Theory, which scales the extent of active involvement of the Indigenous Peoples in decision-making processes on a case-to-case basis. Thus, it lays out how to evaluate the participation described in the IAs and the interviews concerning the Násávárre case.

A central concept to add to the formerly mentioned theories is IK. The skills based on traditional land use, which the Sámi have treasured through centuries, offer possibilities for sustainable land use and with respect to the Sámi people. Therefore, its integration in decision-making processes is an indicator for free, prior, and informed consent and consequently Indigenous self-determination.

## 1.9 Relevance

Globally, there is an increasing demand for resources and states and extractive industries race to secure their part. One of these resources is quartz, which is the mineral that Elkem proposes to extract in an area with Indigenous usage rights. Therefore, with increased interest in these resources globally, ensuring a respectful process with due attention to the rights of the affected Indigenous Peoples is needed. This global trend is exacerbated by the 2015 Paris agreement signed by 196 United Nations membership countries, promising to work actively to limit the emissions of greenhouse gases. In the global attempt to fulfil this agreement there is an increasing demand for technical solutions that can enable a green transition requiring a huge demand for specific minerals and rare earth metals. This indicates that most likely mining activities will increase in the following years to meet the demands of a global green transition amongst others. Therefore, there is an ethical responsibility to ensure that these extractive activities are not carried out in violation of international human rights or dispossessing Indigenous Peoples of their traditional land. Many of the minerals and rare earth metals extracted can be tied to the evolving shift in green conversion of energies, which is also the case with increasing construction of windmill parks on- and offshore also considered as a resource extractive activity. The Násávárre mine is still an ongoing process which has not been granted the final permission to commence their mining operation, to date. It is a good example of how mining activities in Sápmi clash with the Indigenous Peoples that hold rights to the area. Therefore, it is important these rights are treated in compliance with national and international law in the process leading up to a mine. It is also an important testimony to how current

processes are enabling Indigenous participation. We can learn from these processes to sustain a future for extractive industries and Indigenous Peoples in Sápmi.

## 1.10 Thesis structure

In the first chapter, I present the topic, as well as the research question and relevance of the study. To contextualise the Násávárre case, insights into the methods and theories used are given, as well as an introduction to the collected data.

The second chapter deals with the theories "Scalar Framework" and "Sliding Scale Theory". The theories are described in detail and related to the Násávárre case. In addition, I present my understanding of IK.

In the third chapter, I discuss the Indigenous methodology, which forms the basis for the data handling. The method of Qualitative Content Analysis is introduced to present the primary and secondary data and their analysis. I then give a description of the coding and categorisation used in the IAs and interviews. This is followed by my positioning as a researcher in Indigenous studies.

Chapter four presents in detail the IA from 2013 and the 2019 IA Analysis as the empirical basis for this work. Their content is broken down and prepared for analysis.

Chapter five analyses and critically discusses selected aspects such as the description of the effects of the mine on RHCs, the integration of Sámi reindeer herders' knowledge and the inclusion of Indigenous rights and concerns. The statements from the IAs are compared with the statements from the interviews. Based on this, the Násávárre case is finally viewed through the lens of the Scalar Framework to then address the limitations of this theory.

In Chapter six, I list recommendations that focus on the core problems identified regarding Indigenous influence based on the Sliding Scale Theory, before I summarise and conclude in Chapter seven.

# 2. Theory

This thesis aims to contribute to a nuanced understanding of Indigenous participation in IA, the implications of evolving rights norms, and the potential for IA to serve as a tool for the concrete performance of Indigenous rights claims within the specific context of the Násávárre case. Therefore, the requirement for the theoretical frame is to allow for analysis of the data at hand

while evaluating the level of Sámi people's influence and self-determination in the Násávárre case.

This chapter shall introduce the Scalar Framework and the Sliding Scale Theory and provide an understanding of these applied theories and their implementation.

## 2.1 A Scalar Framework for Indigenous participation in IA

The central theory of this thesis is the *Scalar Framework for Indigenous participation in IA* as proposed by Rasmus Kløcker Larsen. His theory is concerned with Indigenous Peoples' influence on IA processes and "transforming IA practices some way toward aspirations of self-determination" (Larsen, 2018, p. 209). The following will present a detailed understanding of the framework and how, by applying Larsen's theory, Indigenous participation in IA can be measured. Herein, the foundation will be laid to assess the Sámi people's influence on the IAs from the Násávárre case. Through applying the theory to the 2013 Impact Assessments and 2019 Impact Analysis reports, it will be discernible how the impacted RHCs have been enabled to participate. Further, future possibilities of Sámi people's involvement in decision making processes can be identified.

The Scalar Framework of participation provides an understanding of how IA regimes generate participation in IA and enable self-determination. It is used to situate the Násávárre case in relation to other IA regimes in the world. Larsen's Scalar Framework addresses the role of Indigenous Peoples in IA regimes, and he affirms that in general there is a tendency of increasing participation meaning Indigenous Peoples have greater influence in IA processes. According to him it is evident "(…) how practice is moving toward co-management and community-owned IA, with developments driven by strong Indigenous demands and political recognition of material rights to lands and resources" (Larsen, 2018, p. 208). Further, Larsen states that the most suitable form of Indigenous participation is by the co-management in IA in direct corporation with the state through the entire process supported by "strategic community-owned IA" (Larsen, 2018). However, he also expresses that, even though practise is moving towards greater influence of Indigenous communities, unwanted projects are rarely prevented. Larsen confronts the IA practises as being "little aligned or even contradictory to Indigenous Peoples' rights to self-determination" (Larsen, 2018, p. 208). He specifically points out Scandinavia, where "a much more limited consultation and notification approach" (Larsen, 2018, p. 208) remains common practise. To understand this discrepancy and examine the actual implementation of self-determination principles, it is necessary to make Indigenous influence

measurable and visible within IA processes. Larsen's theoretical structure is designed to evaluate the level of Indigenous participation by degree of influence.

Larsen emphasises cooperation or co-management that does justice to the Indigenous community's principles of self-determination in line with the project. As a premise for such a cooperation, Larsen draws on James Tully's social conventions. Here consent and mutual recognition of all affected parties is required while guaranteeing their independence, coexistence, and equality in nationhood (Larsen, 2018). Thus, co-management requires the recognition of Indigenous worldviews to enact principles of self-determination in consideration of the level of Indigenous influence needed for a project (see Sliding Scale Theory). To compare the level of co-construction of IAs, Larsen proposes an emphasis on the extent of influence Indigenous Peoples hold in these processes and on the phase with tangibly implemented practises.

Larsen examines Indigenous Peoples' right to participate in IAs by drawing on IA regimes from Norway, Sweden, Australia, New Zealand, and Canada (Larsen, 2018). He then employs the implementation processes from these countries to his *Scalar Framework for Indigenous participation in IA* where he distinguishes between 'community-owned' IA which signifies total influence and 'notification' which shows no influence. In Appendix A, a table shows the key elements of Indigenous participation in the selected IA regimes that Larsen compares, which will help situate the Násávárre case. Larsen differentiates, as visible from the figure below, between four phases of an IA process once the need for it has been established. The process includes 'Scoping', 'Evidence Generation', 'Significance Determination' and 'Follow-up' and evaluates cases on the level of influence from total-, shared-, limited- and no influence (Larsen, 2018).

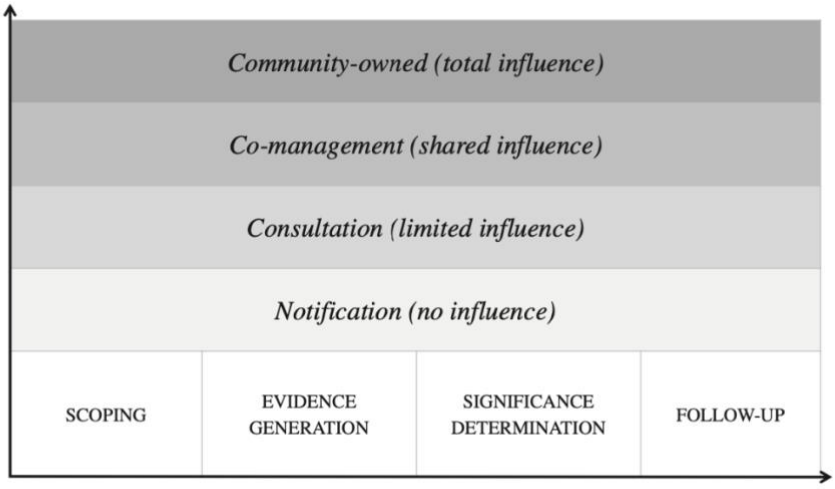



**Figure 1.** Scalar framework for indigenous participation in IA.

(Larsen, 2018, p. 211)

### 2.1.1 Norway and the Scalar Framework

The situation for the Sámi, had to battle the loss of their identity, language, and traditions, changed in the 1980s when Norway recognised them as an Indigenous People (Bjärstig et al., 2020). The Alta controversy – the resistance to a hydropower plant in the 1970s and 1980s in the Alta-Kautokeino River – was a decisive incident for this development which can also explain the greater recognition of Sámi rights in Norway than for example in Sweden. It was ground-breaking for the inclusion of the Sámi people in matters concerning their lands and led to milestones such as the ratification of ILO 169 in 1990, the Finnmark Act 2005, and the vote for UDRIP (2007). However, according to the key elements of Indigenous participation in IA processes (see Appendix A) as identified by Larsen, Norway falls on the level of consultation and notification, meaning limited to no influence (Larsen, 2018, p. 212). Larsen sees the lack of "substantial changes in procedural rights for IA participation" (Larsen, 2018, p. 216) as a result of a non-territorial approach to self-determination.

The Sámi are acknowledged "as a people in their own right as well as Indigenous People" (Broderstad, 2001, p. 160) with culturally attached claims to the land they historically used and resided on. This recognition found expression in the ratification of the ILO 169 by Norway in 1990 as well as the formerly ratified International UN Convention on Economic, Social and Cultural rights (1972), the International Convention on Civil and Political Rights (1972) and the European Convention on Human Rights (1952).

The ILO Convention No. 169 and Article 27[5] of the International Covenant on Civil and Political Rights (ICCPR) entail certain requirements concerning Indigenous Peoples and land rights (Ravna, 2020b). The provisions of Arctic 27 has evolved in its application to become the most important international measure safeguarding Indigenous Peoples from interference and affirming their rights to preserve and advance their cultural heritage (Strömgren, Nystuen, & Wille, 2022). These emphasise the connection between Indigenous Peoples and their land as cultural, which surpasses the history of state borders. This connection is thus deeply rooted in their culture. Through the ratification, Norway consequently recognised the continuous connection of the Sámi people to their land as dating back to a time long before state borders were established (Broderstad, 2022). The ratification of ILO 169 entails further the obligation "to consult the Sámi people in Norway whenever consideration is being given to legislative or administrative measures which may affect them" (Ravna, 2020a, p. 244). ILO 169 emphasises the state's responsibilities to enable Indigenous Peoples to preserve and practise their culture as well as the responsibility to "recognize the rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy" (Ravna, 2020a, p. 235).

As Sámi elected political body, the Sámi Parliament advocates for political self-determination of the Sámi people and is warranted to integrate Sámi viewpoints into the state's policies and legislative processes through a centralised consultation process (Larsen, 2018). The state's obligation to consult the Sámi Parliament in matters concerning "all material and intangible forms of Sámi culture" (Ravna, 2020a, p. 245), which includes land issues, is formulated in the Finnmark Act of 2005. Here the Sámi Parliament and the Norwegian Government established procedures for consultations, which in 2021 became statutory law (Moderniserinsdepartement, 2021). The proposition for the consultation chapter in the Sámi Act as suggested by the Sámi Rights Committee in 2007 was considered by the Norwegian government in 2018, though crucial aspects such as free, prior, and informed consent were not adopted in this bill, and has since been debated (Ravna, 2020a).

The mentioned debates, however, do not seem to have increased the influence Sámi people have in terms of decision making. In Larsen's figure "Key elements of Indigenous participation

[5] Article 27 reads: "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language."

in the selected IA regimes", this circumstance is illustrated as the centralised consultation with the Sámi Parliament is placed in the column of "Scoping" under "Consultation (limited influence)" (Larsen, 2018, p. 212). Generally, the figure below displays that exercised procedures in Norway do not exceed "Notification (no influence)" and "Consultation (limited influence)".

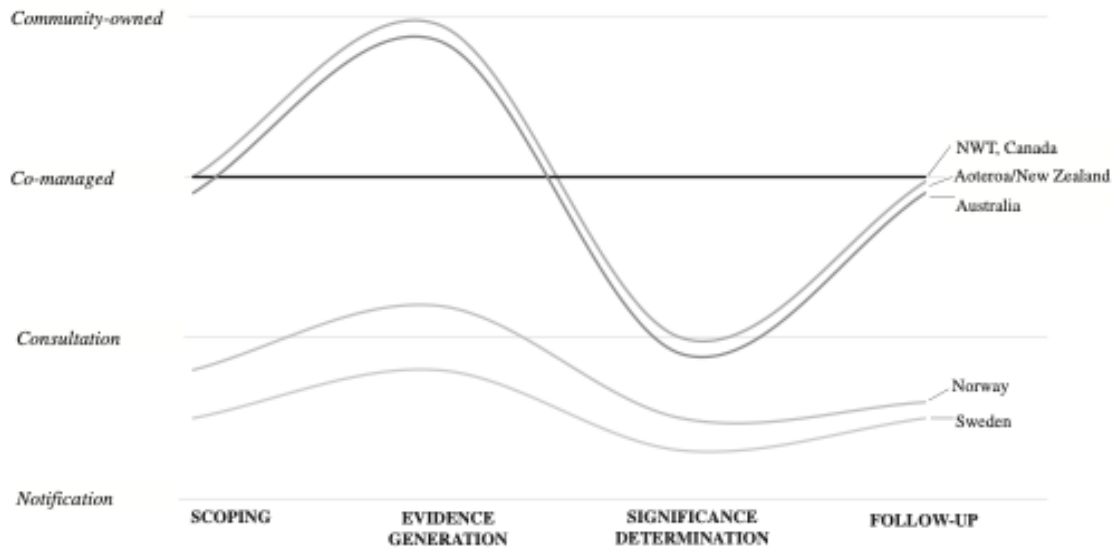



**Figure 2.** Indigenous influence across key IA phases.

(Larsen, 2018, p. 215)

### 2.1.2 The Scalar Framework and the Násávárre case

Larsen sets up a framework that illustrates how to interpret the scale of participation of Indigenous Peoples in relation to IA regimes. He argues that the Scalar Framework should "(…) serve as a 'dialogical tool' to support comparison of experiences and there is no intention of conveying exact (or legal) distinction between the four levels" (Larsen, 2018, p. 210). The Scalar Framework contributes with a lens that enriches the analysis and understanding of the IA reports. By providing a structured approach, insight can be gained into the impacts of a mine on the Sámi RHC and to what degree the RHCs influence IA processes in Norway. Larsen gives an account of the level of influence visible in the Norwegian context. By the Scalar Framework benchmarking against other IA regimes such as Sweden, Canada, Australia, and New Zealand it is possible to assess the case of Násávárre against other national practises and their practise of international law. This approach allows an insight into how participation advances at the

various scales, or levels of development, helps uncover dynamics of power, as well as situates the complexities in Sámi participation in IA processes.

Sámi inclusion in IA processes in Norway is characterised as 'Corporate-owned IA with stronger non-territorial self-government' (Larsen, 2018). The Scalar Framework, thus, can be used to conceptualise the Sámi influence in IA processes with a comparative analysis of the reports from Sweco. This will shed light on the degree of participation of Sámi RHCs in IA processes in a Norwegian context. Through the adaptation of the Scalar Framework this thesis seeks to understand the extent of Sámi inclusion and influence on the IA process of the Násávárre case. This thesis will, however, not review the concrete consultation practises between the reindeer herders and the authorities. This thesis will focus on integrating TK and IK to IA reports with insights from interviews with relevant participants, sparking discussions about the right to self-determination. Interviews with affected reindeer herders will help clarify their perspectives on inclusion, complementing Larsen's framework.

By using the Scalar Framework of Indigenous participation in IA, I examine participation of Sámi RHCs and how they have been enabled to participate in the two IAs on Násávárre. The word 'participation' is used to understand how the concerns and challenges of the Sámi RHCs are included and addressed in the IAs.

In consideration of the evolving Indigenous rights norms, including the right to self-determination as articulated in UNDRIP and ILO 169, it can be explored how these norms align with or challenge mainstream IA practises. The examination of the Násávárre case within the context of Indigenous influence sets the stage for a critical discussion on the status of Indigenous rights in Norway. The framework also facilitates explorations into whether a strong national legal position, as in the case of Norway, acts as a catalyst for Indigenous participation and co-governance in IA. It sheds light on the intricate dynamics between state authorities, developers, and Indigenous communities (Larsen, 2018; Larsen et al., 2022). Thus, this thesis sets the stage for an examination of how the Násávárre case fits into the Scalar Framework of participation.

## 2.2 Sliding Scale Theory

The incorporation of Mattias Åhrén's *Sliding Scale Theory* into this thesis provides a theoretical framework for understanding Indigenous participation in IA within the context of Indigenous rights to self-determination and participation. Åhrén argues that, due to the focus of legal scholarly work on whether Indigenous Peoples can exercise their right to self-determination at

all, there are scarce international legal sources on how this right to self-determination should be interpreted. Therefore, he proposes to understand Indigenous Peoples' right to self-determination as a sliding scale (Åhrén, 2016).

While the Scalar Framework of participation can be used to measure how much Indigenous Peoples are involved in decision making processes, the Sliding Scale Theory is concerned with how much influence they should have depending on the individual issue. This theory, as clarified by Åhrén (2016) introduces a nuanced perspective by emphasising that the degree of Indigenous influence should vary depending on the issue's significance to Indigenous culture, society, and way of life. In other words, the more crucial an issue is to Indigenous Peoples' cultural integrity and well-being, the more influence they should be allowed to exercise over the decision-making process (Åhrén, 2016). Conversely, if an issue is of lesser importance to Indigenous communities but holds significant relevance to the broader society or state, their influence may be more limited. The level of influence should adapt to the specific context and importance of the issue being considered (Larsen, 2018). This emphasis can function "(a)s a strong candidate for a criterion to settle (...) conflicts" (Åhrén, 2016, p. 139). By applying this framework to various key IA phases, the thesis aims to shed light on the actual practise of Indigenous participation and its implications, particularly within the Norwegian context, where Indigenous rights and participation intersect with IA processes. Ultimately, this approach contributes to a deeper understanding of the dynamic interplay between Indigenous rights, self-determination, and IA, especially in cases where conflicts of opinion arise between Indigenous communities and state authorities or majority populations (Åhrén, 2016). The theory acknowledges the dynamic nature of Indigenous rights to self-determination and participation and provides a nuanced lens through which to evaluate the Násávárre case.

Åhrén demonstrates the application of his theory with the example of land and resource usage, which play a central role in terms of Indigenous self-determination (Åhrén, 2016). Åhrén makes a distinction:

> *(...) between lands and natural resources traditionally used by Indigenous Peoples (...) and natural resources situated on, or (...) under, Indigenous People's territories, but which the people in question have not used historically (...)*
>
> (Åhrén, 2016, p. 141)

Following this approach the Násávárre case can be placed in the latter category as the efforts of Elkem AS are directed towards the resource quartz. Further, the process will inevitably affect the land traditionally used by them for reindeer herding. According to Åhrén, these impacts on land as well as livelihood deserve special consideration (Åhrén, 2016).

In cases when the extracted material is not crucial to the Indigenous community's culture, Åhrén suggests that it should be, maybe initially, "managed by institutions that represent the entire population of the state" (Åhrén, 2016, p. 141). In circumstances like this it must be considered that the respective Sámi RHCs should be granted a co-management position or a share of the financial gains (Åhrén, 2016). As mentioned above, the extraction activities additionally may negatively impact the land and thus reindeer herding. Following Åhrén's argumentation, though, Sámi communities are granted:

> *(...) to exercise considerable influence over decisions that are not explicitly directed at their lands, natural resources, or livelihoods, but (...) have the capacity to result in negative impacts on such lands and livelihoods.*
>
> (Åhrén, 2016, p. 141)

The Sliding Scale Theory provides thus an understanding of the scope of influence the Sámi should have in the Násávárre case: While the resource quartz may be managed by another institution, the Sámi should be actively involved in decision-making processes, hold appointed co-management positions, and participate in financial gains.

## 2.3 Indigenous Knowledge

The inclusion of IK in decision-making processes is important in terms of free, prior and informed consent. Not only scientific approaches are needed to grant informed consent, but also the knowledge that the Indigenous community holds (Ravna, 2020a). Further, IK offers skills, which hold potential and solutions for sustainable development in land use (UNEP, 2022).

In the following, a description of IK and its relevance for decision-making processes shall be given as understood in this thesis.

This work acknowledges that "Indigenous Knowledge systems are diverse" and change according to new challenges (Koivurova, Broderstad, Cambou, Dorough, & Stammler, 2020, p. 125). The definition of IK remains, thus, indefinite due to the continuous development and its deep correlation with the cultural identities of the respective Indigenous Peoples. This

chapter, however, shall depict IK as understood by the author to explain its relevance for IA and to show possibilities for decision making processes.

IK can be understood as "holistic knowledge systems" which depict the tight connection between humans and their environment (Dahl & Tejsner, 2020, p. 233). 'Environment' in this context means "culturally modified landscapes" (Eyþórsson & Thuestad, 2015). The connection between human culture and land is further reflected in the terms TK, traditional ecological knowledge, local knowledge as well as local ecological knowledge which are also used to refer to IK (Eyþórsson & Thuestad, 2015). The interchangeable usage of the terminologies emphasises the mentioned ambiguity of a definition which can pose problems for utilisation, set different focuses, may result in confusion, and therefore have implications for Indigenous Peoples. Here, these terms shall be summarised under the concept of IK.

Passing on traditional skills and observations together with adaptability were essential to create thriving communities in the Arctic (Dahl & Tejsner, 2020, p. 233), where a large part of the Sámi people live (Koivurova et al., 2020, p. 238). The Northern Sámi equivalent for TK is "árbediehtu", which can be translated as knowledge that is inherited and creates continuity (Porsanger & Guttorm, 2012). Porsanger and Guttorm define it as:

> *(T)he collective wisdom and skills of the Sami people used to enhance their livelihood for centuries. It has been passed down from generation to generation both orally and through work and practical experience.*
>
> (Porsanger & Guttorm, 2012, p. 18)

The Sámi hold specific knowledge on the environment of Sápmi which "derived from the experience and traditions" (Eyþórsson & Thuestad, 2015) they made and make in this landscape. Eyþórsson and Thuestad divide it into "1) knowledge about the environment, 2) knowledge about the use of the environment, 3) values about the environment, and 4) the knowledge system" (Eyþórsson & Thuestad, 2015). Thus, living with and off the land by applying intergenerational knowledge in combination with "traditions, values and beliefs (…) formed holistic knowledge systems in the Arctic communities" (Dahl & Tejsner, 2020, p. 233). Dahl and Tejsner explain:

> *These knowledge systems are based on worldviews that reflect contextual frameworks different from scientific knowledge, having their own*

> *philosophical, spiritual, cultural and social dimensions, with their own methodologies and validation processes.*
>
> (Dahl & Tejsner, 2020, p. 233)

Today these systems are accepted as scientifically relevant for environment related management such as impact assessments (Eyþórsson & Thuestad, 2015). There is an understanding "that traditional knowledge should contribute to firm, sustainable development" (Porsanger & Guttorm, 2012, p. 14). In the case of the Sámi people, the duty to take IK into consideration was acknowledged in 1993 in "Section 8 of the Nature Diversity Act (NDA), which corresponds to Article 8 in the UN Convention on Biological Diversity" (Eyþórsson & Thuestad, 2015). Additionally, the Convention on Biological Diversity of 2022 emphasises the importance of IK systems and elevates them to the same level as scientific evidence. It states the need to:

> *(…) ensure that the rights, knowledge, including traditional knowledge associated with biodiversity, innovations, worldviews, values and practices of Indigenous Peoples and local communities are respected, and documented and preserved with their free, prior and informed consent, including through their full and effective participation in decision-making, in accordance with relevant national legislation, international instruments, including the United Nations Declaration on the Rights of Indigenous Peoples, and human rights law.*
>
> (UNEP, 2022, p. 5)

However, though the obligations are stated clearly within the mentioned documents as well as in guidelines by the Sámi Parliament in 2007 (Guidelines for Assessment of Sámi interests in cases of changes in land use in Finnmark) (Sametinget, 2007) and 2010 (The Sámi Parliament's Planning Guidelines) (Sametinget, 2010), the vague definitions of IK in these statements spark questions about how to incorporate it in exercising impact assessments (Eyþórsson & Thuestad, 2015). Yet, the increasing interest in the European Arctic, due to for example resource extraction and tourism, presents the environment with major challenges and threats (Eyþórsson & Thuestad, 2015). According to the Arctic Council, "using traditional knowledge (…) is essential to a sustainable future in the Arctic" (Dahl & Tejsner, 2020, p. 233). However, the political will to include IK in "research, management and resource development" is met with lacking and inconsistent definitions and guidance (Dahl & Tejsner, 2020, p. 233). The Arctic Council has recognised the importance of "the traditional knowledge of the Indigenous Peoples

of the Arctic and their communities" since its inception, through the 1996 Ottawa Declaration (Arctic Council, 1996). Therefore, the Arctic Council suggests for example "co-production of knowledge and meaningful engagement of Indigenous Peoples in order to fill knowledge gaps" (Dahl & Tejsner, 2020, p. 233).

Another strategy to overcome this lack is presented by expert reviews conducted in conjunction with the work of the Finnmark commission[6] together with Sámi Trade and Development Centre (SEG), the University of Tromsø and Northern Research Institute (Norut) (Eyþórsson & Thuestad, 2015). They evaluated the inspections of Finnmark Commission (FC) concerning "potential customary property or use rights within the land areas managed by Finnmark Estate Agency" (Eyþórsson & Thuestad, 2015). Doing this, the collaboration generated knowledge, which proved to be "useful for the development of a methodological approach for incorporating (IK) in IAs" (Eyþórsson & Thuestad, 2015).

Apart from the insufficient guidance, another concern when implementing IK is the possibility of its misinterpretation, control, and appropriation "by science or management institutions" (Eyþórsson & Thuestad, 2015). This poses the question whether bureaucratisation of IK will empower Indigenous communities or limit their agency (Eyþórsson & Thuestad, 2015).

# 3. Methodology

In this chapter I will present, elaborate, and reflect on how the data was collected and on what criteria it was subsequently analysed. The two main sources of data are Impact Assessment (IA) reports and interviews. In the following I will introduce my choices of methods, understanding and application of qualitative research, Indigenous methodologies, semi-structured interviews. By deductive reasoning and by applying my theoretical framework, I rationalise my choice in categories. To end this chapter, I will contemplate the ethics of my role as a researcher in carrying out my work.

## 3.1 Indigenous Methodologies

As a non-Indigenous researcher who carries out research on Indigenous issues, the acknowledgement of research as "probably one of the dirtiest words in the Indigenous world's vocabulary" (Smith, 2012, p. 1) is crucial. Research by non-Indigenous scholars has often not

[6] Finnmark Commission, https://www.domstol.no/no/domstoler/annen/finnmarkskommisjonen/.

only benefited primarily non-Indigenous causes but was also used against Indigenous communities (Smith, 2012). Much harm has been done in the name of research to the intensively examined Sámi people (Virtanen, Keskitalo, & Olsen, 2021). The resulting scepticism towards research is still felt and expressed among Indigenous Peoples (Kovach, 2021). Thus, this thesis aims to create reciprocity by sensitively approaching IAs by putting Sámi perspectives into focus (Kovach, 2021). "These counter-stories are powerful forms of resistance" (Smith, 2012, p. 2) and listening to them creates a counterbalance to Western, non-Indigenous research. Further, this work understands the political nature of research (Drugge, 2016) and that "the pursuit of knowledge is deeply embedded in the multiple layers of imperial and colonial practices" (Smith, 2012, p. 2). This means additionally not to misappropriate IK in the context of IAs.

## 3.2 Methods

In the following the methods used to understand, relate, code, and categorise the data are described. The methods have been chosen based on applicability to qualitative data and based on relevancy to answer the research questions. To analyse the qualitative data provided by the IAs and the interviews, it was necessary to leave space for creating knowledge through specific observations that indicate generalised hypotheses (inductive reasoning) as well as general hypotheses leading to specific conclusions (deductive reasoning) (Boréus & Bergström, 2017). This approach is also reflected in the development of the categories to decode the data. The codes have been generated through the interviews and IAs (inductive) as well as based on the applied theories (deductive).

### 3.2.1 Qualitative Content Analysis

For this thesis two IA reports form the primary data and qualitative interviews serve as secondary data. To create an understanding of the propositions of the IAs and the reality experienced by the RHC the qualitative content analysis was chosen whilst calling on thematic analysis. The methods contribute to the purpose of investigating the Sámi reindeer herders' influence in decision-making processes. Qualitative content analysis allows for structured but flexible analysis of textual as well as visual qualitative data, to which both the IAs and the interviews belong. They can thus be carefully examined to understand their content, their meaning, to contextualise them and put them in relation to each other. In order to interpret the findings, the "content analysis uses coding to systematically break down, categorise and describe the content" (Boréus & Bergström, 2017, p. 24). The necessary information is, thus,

gathered directly through the IAs and the interviews by coding the material and creating categories based on that coding (Boréus & Bergström, 2017). Hereby, the categorisation and classification of relevant or irrelevant data is based on the research questions.

Through qualitative content analysis, patterns in the material can be detected and it also enables "comparing different corpora" (Boréus & Bergström, 2017, p. 25). This means that differences, similarities, and developments can be recognised within and across the different sets of data. Further, "the attention paid to a particular topic" (Boréus & Bergström, 2017, p. 26) can be surveyed which allows for the voices of the Sámi reindeer herders in the interviews to set the emphasis.

Summarised, for the analysis of the primary data (Sweco IA reports) it is primarily of interest to spot the differences, similarities, and developments between them to then review the reports in the light of the secondary data (interviews) and the focus set here.

## 3.3 Primary Data – Impact Assessment Reports

As this thesis is concerned with the description of impacts by extractive industries on Sámi reindeer herding in Impact Assessments, two Impact Assessment reports by Sweco on the Násávárre mine proposed by Elkem AS serve as primary data. The IAs shall provide insight on the extent that knowledge of RHCs is incorporated, how their challenges and concerns find inclusion and how international law is reflected in the process.

Both reports are concerned with the project of the Chinese company Elkem to forward the building of a mine on Násávárre. The mine is estimated to operate over a period of 30 to 40 years while being in use between March 1st and October 31st.

The two reports were published in Norwegian and differ from each other by the 2013 report being a *Konsekvensutredning* whereas the 2019 report is a *Konsekvensanalyse.* A Konsekvensutredning is an impact assessment that is demanded by law and prescribed by the Planning and Building Act. Its goal is to provide a holistic understanding of how a project can impact the environment and society around it. An analysis of the consequences, or Konsekvensanalyse, focuses on the connection between cause and effect of specific actions. It can be a tool used in impact assessment to delve deeper into the potential impact of different courses of action.

The first report "NASAFJELLET KVARTSFOREKOMST, Rana kommune, Nordland - Konsekvensutredning – virkninger for miljø og samfunn" stems from 2013. It was

commissioned to give an assessment of the overall impacts of the proposed mine. The IA report was completed by a team consisting of 13 employees of Sweco Norway, who have an expertise in landscape architecture, archaeology, botany, civil engineering, resource economy, economy chemistry, ecology, geography, and nature management. The European engineering consultancy company Sweco focused the report on assessing potential consequences of the mine related to landscape, free of intervention zones, the natural environment, cultural heritage, contamination, and society. In the segment society, the impact assessment on the reindeer herding is covered and makes up 12 pages of the 128-page report. This report states that the field of reindeer herding will be one of the most affected by the project.

The report draws primarily upon a set of concepts for evaluation from the Norwegian Public Roads Administration guidelines to describe and assess the benefits and disadvantages of the planned mining operations. Three criterions have been applied: The first is 'value', which has been divided into 'low', 'medium', and 'high' to value the specific area or proposed project. The second criterion is 'the scope of the effects' that evaluates the changes through a specific project graded from 'high negative' to 'high positive'. The last criterion is 'consequences' which involves the assessment of the value of the area in question and how it would be affected by the project. The 'consequence' is measured in a nine-step grading system from 'very large negative consequences' to 'very large positive consequences'.

The greatest impacts on the RBDs and the reindeer are estimated to be during late spring and early winter as well as late winter and early spring according to the level of activity in the mining facilities. For the SBs and their reindeer, the impacts will be greatest when they are collecting and migrating the reindeer in Norway towards the Swedish border during late summer and fall. They considered aspects where there was direct and indirect loss of areas due to activity in and around the quarry, fenced off safety zones and accessibility of roads. Further, the operational site and road working is a barrier for the reindeer, who also may be affected by noises like explosion during active mining. The limited possibilities of land use cause a mixing of reindeer herds as for example herds are pushed north into Semisjaur-Njarg herds or south towards Ildgruben RBD. Additionally, reindeer are pressed towards the E6 and railroad which pose risks for their lives. All this results in an increased workload and problems for the RHCs. The marking of the calves is affected by this as well as a loss of reindeer is to be expected. Caused by stress, the reindeer may suffer from weight loss and the overall production may be reduced. Moreover, other regional measures may follow the mine, such as expansion of the E6

and the railroad, development of recreational homes, other extractive or wind power development projects. This entails impacts on Sámi cultural heritage.

The second report, KONSEKVENSANALYSE AV Nasafjell KVARTSFOREKOMST FOR REINDRIFT 2019, was commissioned because objections towards the coverage of reindeer herding in the first report have been raised. This Impact Analysis report exclusively covers possible impacts on Sámi reindeer herding that will be caused by the mine and its activities. It provides a detailed account of the annual cycles and how the respective reindeer herding of the RBDs and SBs works. For this, information about the area's value and usage related to reindeer herding has been shared by the RHCs. The sections in the report that deal with the respective RBDs and SBs have been shared with them for review to receive comments before publishing. In this context, maps of the area's usage were provided. Sweco states in the report that the RHCs were asked to contribute with their own chapters which they did except Gran SB and Ildgruben RBD.

For the assessment, the 2019 report used a Swedish method developed by the Sámi Parliament, the National Union of the Swedish Sámi and the County Board of Västerbotten. Therefore, it has less focus on categorising value, effects, and consequences and more on describing the current situation and probable concrete consequences of the quartz mining.

Further, the 2019 report presents common uncertainties in projecting impacts and describes the uncertainties related to the description of the mining project, to the data basis and in their cause-effect assessments.

To assess reindeer pastures in the area, GIS mapping has been used by looking at the amount of different vegetation. This was done to assess the grazing value of the affected areas.

Here, a more nuanced description of the impacts of the mining is presented. These include the loss of grazing lands and increasing pressures on pastures in other areas. Also, a mixing of the herds is expected which increases the workload and costs tied to gathering the herds and migration routes as well as change of calve marking facilities. Moreover, the risk of reindeer collisions on the E6 and the railroad increases. Long lasting impacts are expected after the operation is concluded. It will take a long time for example for the vegetation to regenerate. Also, a barrier effect for the reindeer is mentioned as well as conflicts and social impacts. The proposed mine causes stress and increases the fear of mixing the herds. The report includes this as a potential consequence but does not analyse it as it falls beyond the scope of the report.

Further the report shows the reindeer herders' use of the mountain, which can vary according to season and given changes in weather and snowfall. It becomes apparent that this report expects an impact all year around.

## 3.4 Secondary Data – Qualitative Interviews

To analyse the sufficiency of the two reports but also to create reciprocity (Kovach, 2021), it was necessary to talk to the impacted communities. Their first-hand experience provides crucial inside into the communications between Sweco and the Sámi communities and the actual inclusion of the RHCs as well as their IK. The interviews were conducted with a focus on the communication and interaction between the Sámi reindeer communities and respectively Rana Municipality and Elkem. Further the interviews shine light on whether and how Sámi rights are considered and protected in the process of decision making. The interviews serve therefore as a measure of the real-life sufficiency of the IAs.

The method of qualitative interviews was chosen to give the participants freedom to set their own priorities and allow for follow-up questions on substantial perspectives brought up by them (Brinkmann, 2013). This way, possible missing elements, or different weightings of impacts in the IAs could be revealed. The de facto description of the situation for RHCs by itself creates exclusive insights (Brinkmann, 2013) and enables a discussion on the degree of influence the Sámi have contrary to what they are entitled to.

A series of interviews - 9 in total - were conducted together with Else Grete Broderstad and Lena Gross as part of the research project IndKnow. The interview participants were identified based on their relation to the Násávárre case and the IA reports. The relevant actors were approached through e-mail with a request to participate in interviews for a research project due to their involvement in the case. Before agreeing to participate they were presented with a detailed description of the project, our intention, and their rights. Before each interview an informed consent form was signed after assuring that the participants understood what they agreed to. Some of the interviews were conducted physically while on fieldwork in the area surrounding Násávárre and recorded on location using local facilities such as community houses, restaurants, and municipal offices. Other interviews were conducted online with the same procedure as the physical interviews. Due attention was given to local and national Covid restrictions to ensure compliance with law and the safety of the interview participants and us. The participants from the Sámi RHCs were paid for their participation as they had to take time off their daily occupation to participate.

The interviews were carried out in Norwegian as all participants are either Norwegian or Swedish speaking. The interviews were then transcribed in Norwegian. The expectation of possible language barriers turned out not to be unbridgeable. Before the interviews began, we had an informal chat with the participants. This eased the ear to each other's language. Since I have good knowledge in Norwegian, being a native Danish speaker myself, and being able to rely on my co-interviewers' assistance in the translation, there were no problems understanding each other. We, the interviewers were respectively Sámi-Norwegian, German, and Danish, all being able to communicate in Norwegian. Throughout the interviews there was good cooperation, and we could fill in where needed. We were conscious of and worked to ensure that the interview participants understood the questions correctly. The language barrier in this interview made it difficult to contribute with questions as a Danish speaker but to account for this we summed up at the end of the interview ensuring that all relevant questions had been answered.

For the purpose of publishing, the participants signed an agreement prior to the interviews as well as the approval of recording.

The interview guides were structured based on relevant topics and issues to the IndKnow project and had to incorporate aspects of each interviewer's research projects. Therefore, the interview guides were divided into different themes depending on interview participants. Common for all the interview guides was a background theme where they explained who they were and their relation to the Násávárre case in question. This was aimed towards loosening the conversation and getting a basic understanding of their specific role in place. Similarly, we ended all the interviews by asking the interview participants whether they thought we missed anything and asked if they wanted to add anything they found essential.

For the research participants representing the RHCs the interview guide was structured based on the following themes: general, information flow related to the Násávárre case, national legislation, cooperation with other actors, inclusion of IK, the IA reports and knowledge on the procedural obligations to consult Indigenous Peoples. The interviews were designed as semi-structured interviews of around one hour each guided by an interview guide for each interview. This seemed like the most fitting approach both categorising the interviews by key topics with relevant questions but also leaving room for the interview to flow naturally. Doing this gave the research participants more room to navigate through our question between which we could move around (Brinkmann, 2013). The interview guides acted primarily as guidelines throughout but oftentimes the research participant would answer one question through another

which gave the opportunity to follow up on relevant questions. It also opened doors to areas not included initially (Brinkmann, 2013). This approach further enables the interviewer to add questions that might arise from what information the interview participants share (Brinkmann, 2013).

Consideration was given to the location of each interview to minimise potential outside disturbance and ensure a calm setting for the interview participants to openly express themselves as they saw fit. However, when travelling to do fieldwork, determining a suitable location for an interview can be difficult. We met people at different locations both in offices and public spaces.

## 3.5 Categorisation

In this thesis, a combined approach of inductive and deductive coding has been applied. The use of categories or codes, as an approach, helps to guide the analysis of the empirical data into dimensions and or themes (Schrøder, 2003, p. 165). The codes shall, however, not only enable the analysis of the IA reports and interviews, but also enable a comparison of the IAs. The codes have been developed deductively based on the research question and theory, and inductively based on the interviews and IAs. Additionally, to the codes, definitions for clarification and sub-codes have been worked out to shed detailed light on patterns within the data. Since the focus of this thesis lies on the influence and participation which the Sámi reindeer herders have in the Násávárre case, the codes included are: “Degree of Influence”, “Degree of Participation” and “Enabling of Participation and Influence”. Further, codes such as “Description of Impact”, “Knowledge Base”, “Indigenous Rights”, “Challenges” and “Concerns” have been generated. For this thesis it is crucial to give space and put emphasis on to the Sámi perspective, which shall be ensured through sub-codes that focus on the Sámi viewpoint such as “Indigenous Knowledge”.

## 3.6 Reflexivity and Ethics

Following the line of Indigenous Methodologies, it is inevitable to self-reflect to achieve reciprocity, transparency, trust, and responsibility when researching Indigenous issues (Kovach, 2021). As a non-Indigenous, Danish, white, male student, a sensitive and humble approach is necessary to ensure that I act in the interest of the Sámi communities and am aware of blind spots and my outsider position (Smith, 2012). The outsider position comes with responsibilities but also provides advantages.

I came to this case as a researcher, who is particularly interested in the Arctic region. The conflicts between extractive industries and Indigenous rights are known to me in the context of Greenlandic and Danish relations. Then, when I was confronted with land right conflicts in Sápmi as part of the Master Program in Indigenous Studies, it became apparent to me that the issue at hand had a circumpolar relevance. I understood that I could use my knowledge and privileges to shed light on these conflicts and power imbalances.

Generally, my background and nationality were an advantage to study a master's program in Northern Norway. Further, my bachelor's degree in Global Humanities with a focus on communication and cultural encounters gave me necessary tools and knowledge to approach the case of Násávárre. All this became a particular advantage throughout the work on this thesis. For example, source material in Norwegian, Swedish, Danish, or English was equally accessible to me and, later, the interviews could be conducted in Norwegian, Swedish, and Danish without major obstacles. This circumstance helped putting less stress on the involved.

After starting the field work for this project, I was able to begin an internship at the Arctic Council Secretariat, which later turned into a full-time position. The study program of Indigenous Studies has taught me to constantly look out for my blind spots, consider my background and proceed my research as well as my work humbly.

The above highlights the importance of being respectful in the way the Sámi people and their case are described and portrayed as well as the involved non-Indigenous people. To understand this was crucial for acknowledging my responsibility as a researcher (Olsen, 2016, pp. 28-29), including being respectful to the counterpart of the case, the industry, even though my personal beliefs disagree with them.

In conducting the interviews, processing the data and in the writing of this thesis, mutual respect between the involved people, was a guiding line.

Considering my role as researcher, being non-Indigenous, I aimed to be engaged with my interview participants being well informed and familiar with customs, history, and other relevant information to case. A focus on my epistemological entry to IK was challenged throughout by a discussion of the conceptual understanding of the topic. By this I emphasise that with my academic background I should be conscient of the inherent world view that I enter with. To account for this, being a part of the IndKnow project and conducting my fieldwork in cooperation with considerably more academic experienced, proved valuable in terms of

knowledge sharing, preparations cooperation, and addressing potential uncertainties and misunderstandings.

Conducting the fieldwork and gathering the data collectively through the IndKnow project, was done to limit the stress on the involved parties. Generally, a lot of time was used in getting in contact with the reindeer herding. As it was a busy time of the season, it took time for the reindeer herders to respond which is understandable. It also became apparent that many people were reaching out to them, but they expressed gratitude that research on the Násávárre was being done.

With a continuous aim at reflecting on and reconsidering my findings from a point of decolonising methodologies, I have worked towards but most likely not avoided completely my Western school of thought (Smith, 2012). Though this can also work to my advantage with a continuous focus on my own position hopefully I detect to some degree the reasoning I apply when interpreting certain findings. By reflexivity, I am trying to be conscious of the influence of my perceptions, experiences, and biases when working on this topic (Chilisa, 2012). In assisting my research as well as my own interpretation and understanding of data there will be a continuous discussion on methods and ethics within the research group. The affiliation with the research group in the IndKnow project also entails that my research is covered by an application at the Norwegian Centre for Research Data (NSD), which was filed for the IndKnow project. In 2022, the institution NSD joined Uninett and Unit to become the Norwegian Agency for Shared Services in Education and Research (Sikt). The interview participants always had the right to withdraw consent. This also entails the concept of consequentialism in Indigenous studies; “The results of the research must be measured against the consequences of your research on the community and the people that the research is connected to.” (Olsen, 2016, p. 28). In this case the potential outcome could strengthen the case of the affected reindeer communities but also increase the attention to the involved Sámi reindeer communities.

Being a Danish researcher and a master student formed by a traditional western school of academia conducting studies in Norway among Sámi RHCs I approach this research with a profound respect for the rich linguistic and cultural diversity I was exposed to context. Equally I entered this project being humble and attentive to the delicate topics which was the lived reality of the people we interviewed and worked with. In trying to recognise how my background can influence my interactions and interpretations while collaborating with Sámi individuals I must acknowledge that it is a continuous process. Throughout this research, I have

been committed to foster an inclusive and culturally sensitive written language and environment, honouring the knowledge and the perspectives of the Sámi people.

# 4. Empirical Data

While the previous chapters have presented the thesis design, this chapter will consist of a comprehensive presentation of the primary empirical data. Keeping the research question in mind, the chapter will identify what impacts on Sámi reindeer herding the two reports identify and will try to pinpoint the challenges and concerns that are presented. Furthermore, a description will be given of the different methods and guidelines used by Sweco to collect data for the report as they are depicted in the two reports. Finally, an outline of how the reports depict the respective Sámi RHCs use of Násávárre will help the analysis to delve into the differences between the reports. This chapter serves as a foundation for the analysis and discussion and will outline the vital content of the IA reports from 2013 and 2019 (revised due to changes in the planning program) to ascertain how the report portrays impacts on Indigenous Peoples. This chapter presents the data as described by Sweco and from their perspective.

## 4.1 Nasafjell Quartz Deposit Impact Assessment – effects on the environment and society, 2013

The impact assessment report is a requirement by the Planning and Building Act 2008. It was carried out in relation to the plans by Elkem AS Salten Verks to extract the deposits of quartz on Násávárre for the manufacturing of various silicon products. The IA report is a revised version after a public hearing related to the regulation plan from 2012 and it consists of 128 pages excluding preface and appendix with the purpose of covering all relevant factors related to impacts of the mining operations on the mountain. The IA report was completed by a team of employees from Sweco Norway AS and the team consisted of employees such as two landscape architects, an archaeologist, a botanist, three civil engineers, a resource economist, an economist, a chemist, an ecologist, a geographer, and a nature manager. A total of 13 people[7] worked on producing the IA report though evaluations, expertise, analysis retrieved from

[7] The description of these individuals in IA 2013 has been made anonymous and names and employers/ home organisations and universities have been left out.

informants from the area in question, Elkem, and the department in Sweco working with area and transport.

The IA report presents the reason and the background for the project from Elkem. This is followed by a one-page account for their methods and how they collected the data needed to complete the report. Subsequently they situate the proposed mining operations to the following laws and regulations: the municipal plan from Rana Municipality, the relation to Saltfjellet-Svartisen national park and the Saltfjellet protected area, the Mineral Act, the Pollution Control Act, the Road Act, Nature Diversity Act, The Reindeer Herding Act and the Norwegian-Swedish Reindeer Grazing Convention, and the Cultural Heritage Act. The report continues with a detailed description of the extent of the mining operations on Násávárre and where different facilities on the area, seasonal operations etc. will be located. The following section of the IA report focuses on the impacts of the mining operations and accounts for impacts on the topical fields of landscape, intervention zones, the natural environment, cultural heritage, contamination, and society. The latter is the primary account for the impacts on the Sámi RHCs because of the mine.

### 4.1.1 Description of the Mining Operation

The IA 2013 report provides a description of the proposed mine of Elkem AS. Visible from the map (see introduction), are the two proposed excavation quarries marked with pink that will be the main excavating sites and three options of roads connecting the service area of the mine with the E6 highway (Sweco, 2013, p. 21). Elkem estimates the mine to extract and transport 150.000 tons of quartz per year using one of the proposed roads to and from the excavation site named ‘Alternativ 1, 2A or 2B’ on the map. On average 18 loads a day with 28 tons. The map also indicates the proximity of the mine to the Swedish border (shown in white) but does not indicate reindeer activity in the area (Sweco, 2013). The quartz found in the mountain is of high quality and will primarily be produced into silicon used for solar panels and in alloy steel. It will be retrieved from the mountain using traditional mining techniques such as drilling and using explosives. The use of explosives will happen twice per week in the operating season. This will take place in quarries, a western and eastern quarry. All the material not transported for further processing will be deposited on the stone deposit north of the western quarry. The IA estimates this to be 40% of the extracted mass. The proposed mine is estimated to be functioning between March 1 to October 31 and will excavate 280.000 ton of mountain mass and extract 150.000 tons of quartz annually. The expected timespan of the mine is 30 – 40 years (Sweco, 2013).

The IA describes the measure's area of influence (tiltakets influensområde) which is the area having significant effects of the measure and distinguishes between direct and indirect effects. The measure's area of influence on the reindeer herding is expected to be the entire area of the affected RBD[8] due to the dynamic and holistic use of the RHC in the entire area. These are referred to as indirect effects.

### 4.1.2 The Methods of Data Assessment in the Report

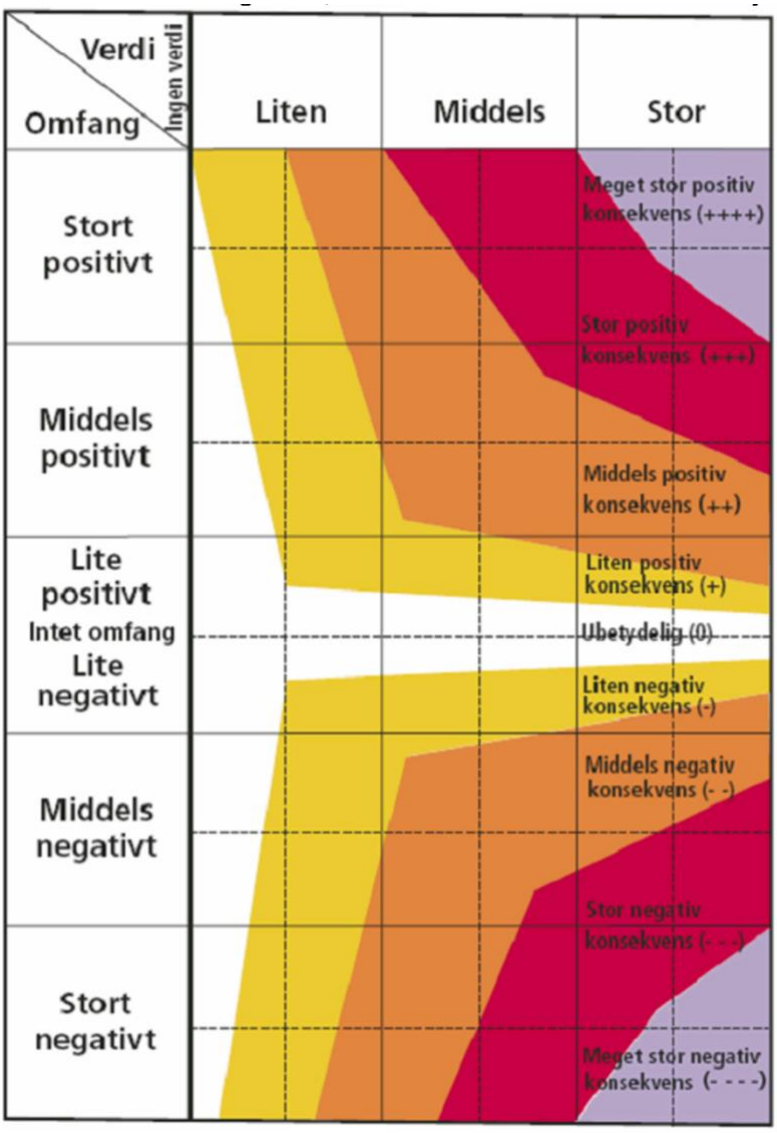
As part of the greater planning process for the proposed mine an impact assessment is as mentioned above, required by the Planning and Building Act (2008). All proposed activities that can have significant effects on environment and society require an IA grounded in the knowledge available and relevant to the related decisions needed. The IA must be based on the knowledge available with the requirement to update such knowledge if relevant. Another obligation is to acquire or produce unavailable knowledge necessary to provide a complete representation. This is the methodological foundation of the report. Sweco draws on the Norwegian Public Roads Administration's guidelines for impact assessment (Statens Vegvesen, 2006). For the report to describe and analyse the benefits and disadvantages of the planned mining operations on Násávárre, it is necessary to distinguish between the difference in impacts and to ascertain the cause and effect of specific connections is needed.

The first criteria of the guidelines are '*value'* which is graded in in three parts, 'low', 'medium', and 'high'. This is used to estimate the value of a specific area or proposed project. Secondly, they use '*the scope of the effects*' to evaluate the changes of a specific project. This criterion is graded according to 'high negative', 'medium negative', 'little or no effect', 'medium positive', 'high positive'. The final criterion is '*consequence*' which is the function of the value of an area and the effect of the proposed measure on the given area. The '*consequence*' is measured from 'very large negative consequences' to '*very large positive consequences*' in a nine-step grading system. In this method 'consequence' refers to the impacts as it is the aggregate of value and effects (Sweco, 2013, p. 13). The report utilises these criteria to make the results reproduceable.

Beyond following an adapted set of guidelines of the Norwegian Public Roads Administration, a set of guidelines from the Norwegian Water Resources and Energy Directorate (NVE) and the Reindeer Management from 2004 was used to value the different areas. The impact matrix

[8] It is believed that the reinbeitedistrikt referred to here is Saltfjellet.

below illustrates the interrelation between the three different criteria from the Norwegian Public Roads Administration's guidelines.




(Sweco, 2013, appendix 3.19)

### 4.1.3 Impacts on Reindeer Herding and Sámi Culture

The report from 2013 has in its mandate to account for a wide range of impacts. It highlights the biggest negative impacts to be on outdoor life, landscape, vegetation, and Sámi reindeer herding. Of the 128 pages that make up the report, 12 pages exclusively deal with how Sámi reindeer herding and livelihood interests in the area will be affected.

The data collected for the assessment of the impacts on Sámi reindeer herding on Násávárre from the proposed mine is gathered from the district plan of Saltfjellet RBD, a statement from the Reindeer Herding Management in Nordland, and from meetings held with the Reindeer

Herding Management, the board of Saltfjellet RBD, and the management from the Swedish SBs. The people they met with from Swedish SBs, were the president and representatives of Svaipa SB and representatives from Semisjaur-Njárg as well as Gran SBs. Inspections to Násávárre has equally been part of the IA method of describing the impacts in the report together with data collected from municipal plans of other measures planned in the area. The report specifies that the "database is considered to be very good"[9] (Sweco, 2013, p. 102). To describe the impacts of the proposed mine on the reindeer herding in the area, the report draws on the specified values, as shown in the table below.

| Low value | Medium value | High value |
|---|---|---|
| • Areas with little production of plants for grazing.<br>• Reindeer herding areas with low frequency of use. | • Areas with medium production of plants for grazing.<br>• Reindeer herding areas with medium frequency of use. | • Areas with big production of plants for grazing.<br>• Reindeer herding areas with high frequency of use.<br>• Shortage of grazing resources in the district (minimal grazing)<br>• Calving land<br>• Reindeer operation facilities<br>• Important migration- and moving areas. |

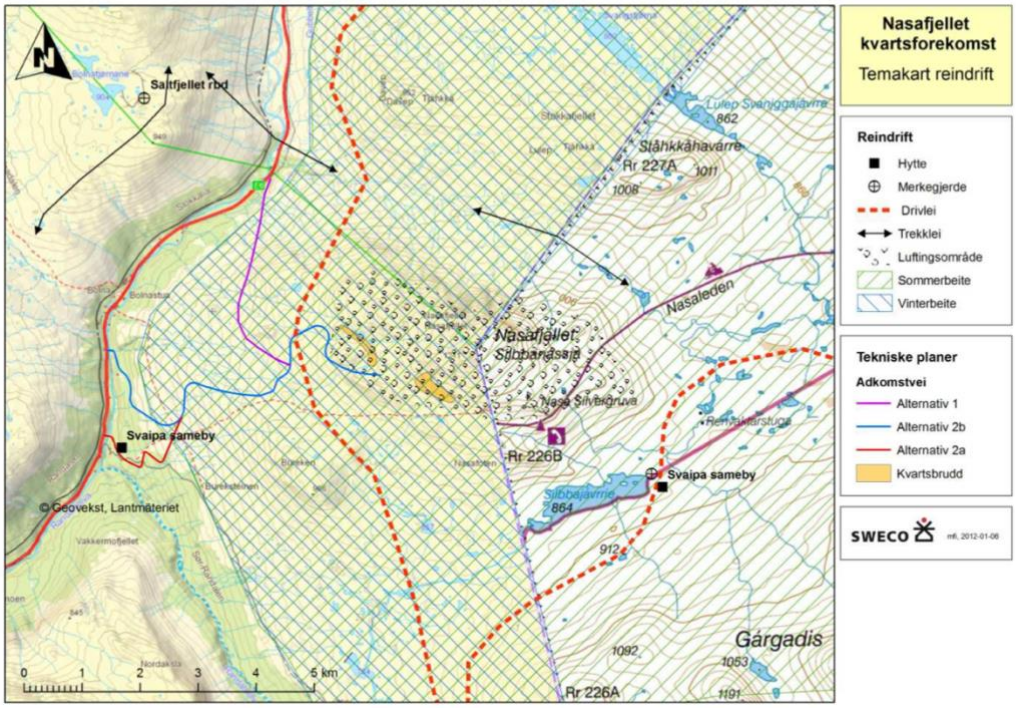
Value criteria for reindeer herding (My translation from Norwegian)[10]

(Sweco, 2013, p. 105)

The IA report from 2013 presents the use of the mountain and the potential impacts on the Sámi reindeer herding. It finds that the area Násávárre and the surrounding area between Randalselva

[9] Original text "Datagrunnlaget vurderes å være meget godt".
[10] All translations from the Sweco reports used in this thesis are my own translations.

and the border to Sweden is of particular importance to the Sámi reindeer herders. The area is used by Saltfjellet RBD as pastures during the winter and by Svaipa SB as summer pastures. Saltfjellet RBD is the biggest of the reindeer herding districts in Nordland and have a dynamic use of the mountains determined by yearly snow, ice, and weather conditions. Grazing wise their entire district is important as there are great variations of areas and years, they need several areas to choose from to adjust for changes. The most important area during winter for Saltfjellet RBD is between Bjøllådalen and the border to Sweden and due to local variations in the area the reindeer are divided into groups during the winter season. In years with especially tough conditions the RBD uses the islands on the coast for grazing but the conditions in the mountain are particularly good due to moderate quantities of snow, little disturbance, and good quality of the pastures.




Important functions related to reindeer herding in Násávárre area.

(Sweco, 2013, p. 106)

Semisjaur-Njarg, Svaipa and Gran SBs have grazing rights on the Norwegian side of the border and down to the Bothnian Bay. They use the mountains on both sides of the border as summer pastures and reindeer migration to the west depends on the weather conditions in summer and early fall. In warm periods the reindeer migrate up the mountains to avoid insects. During the fall the reindeer are led past the Násávárre mountain to the winter pastures (Sweco, 2013).

The report considers the area of Bolna, Stokkafjell, and Násávárre to have a high value for reindeer herding and the southern part of Randalen to have lesser value due to a construction road in the valley. Furthermore, the report finds that the designated area for the quarry, the service and off-loading area as well as the access road between E6 and the quarry will have little impact on reindeer herding. However, the human activity and disturbances caused by the mining activities will pose a barrier to migrating reindeer resulting in pastures cannot be utilised optimally. The report estimates the value of the area surrounding Násávárre in relation to reindeer herding as follows. Stokkafjell, E6, Bolna and Násávárre area has high value because it provides winter pastures with little disturbances and good pastures as well as good summer pastures with high production and contains moving areas. Násávárre above 1000 meter of elevation is estimated to have medium to high value due to the barren pastures that serves as good condition for ventilation (lufting) during the summer. Násávárre, Bureken, and south Randalen are also estimated to have medium to high value for the reindeer herding as they provide good winter and summer pastures although existing infrastructure reduce the value of the area (Sweco, 2013, table 19-2, p. 105).

The greatest impacts on the RBDs and reindeer are estimated to be during late spring and early winter as well as late winter and early spring according to the level of activity in the mining facilities. For the SBs and their reindeer the impacts will be greatest when they are collecting and moving the reindeer in Norway towards the Swedish border during late summer and fall. The herding in the area and in combination with other stressors on winter pastures in Saltfjellet, such as the development of recreational homes and other proposed extractive activities the cumulative impacts will impact Saltfjellet RBD more than Svaipa SB (Sweco, 2013, p. 7).

First and foremost, the area intended for the quarry, fenced off safety zones, and access road is the direct loss of area, and the indirect loss of area is more difficult to estimate. However, the report ascertains that this includes human activity, disturbances, and a barrier effect that seize the pastures and/or keep the reindeer from migrating. The indirect loss of area can represent large areas and can be difficult to assess. The impacts of indirect loss of area due to technical measures and disturbances depend on the accessibility to resources, the type and pattern of disturbances and access to hiding places in the nearby area (Sweco, 2013, pp. 6-7).

The disturbances and barriers created by the potential mining operation can result in mixing the different herds from the RBDs and SBs. These include Ildgruben and Saltfjellet RBD and Gran, Svaipa and Semisjaur-Njarg SBs. Expected potential scenarios include reindeer being pressed to the north and mixing with reindeer from Semisjaur-Njarg, reindeers pressed to the west

crossing the E6 and railroad to potentially mix with reindeer of Saltfjellet RBD, or reindeer pressed towards the south and into the pastures of Ildgruben RBD. The report identifies several potential consequences, some of which include problems during marking the calves, loss of reindeer, and stress resulting in weight loss and reduced production (Sweco, 2013, pp. 107-108).

According to the regulation plan, an estimated 1500 daa[11] has been allocated for the mine and its associated activities and is projected to cause changes to the mountain well beyond the 30-40 years the mine will be active. The report highlights how this is a small area compared to the seasonal pasture area used for winter pastures by the RBDs and summer pastures by the SBs. However, the report also puts forth that the affected area will be much larger and that the impacts do not proportionately measure to the area intended for the mine. As the proposed operational period will be from 1 March to 31 October, this is also the period where the impacts will be largest and affect the behaviour of the reindeer. The report estimates the impacts to be medium to highly negative and highlights that effects on how reindeer will respond to explosions in connection with extracting are unsure (Sweco, 2013, pp. 108-109).

For the access road there are proposed options, alternative 1, 2a, and 2b, and following the report the affects during the construction phase will be similar. As the construction will take place during the first summer of the establishing period and because the reindeer will not be used to the high activity including noise and high levels of traffic, it will avoid the area. The report expects the effects of all proposed access roads to be highly negative. During the operational phase the road will pose a barrier, amongst others due to snow ploughing in the seasonal start-up phase. All three road options would affect the SBs when they are collecting reindeer before herding them. The RBDs will primarily experience the effects as a barrier for natural migration between the pastures. The access road alternative is assessed to pose high negative consequences whereas alternative 2a and 2b pose medium to high negative consequences. Both during the construction and operational phase, the access road is estimated to pose high negative consequences (Sweco, 2013, pp. 109-110).

The impact assessment from 2013 also presents currently running and planned measures in the region that can affect the reindeer herding. Some of these include the nearby E6 road and the railway which pose a large obstacle to the reindeer herding, which is overcome until now by

[11] Norwegian unit of measure. 1 dekar, in short daa, is equivalent to 1000 $m^2$.

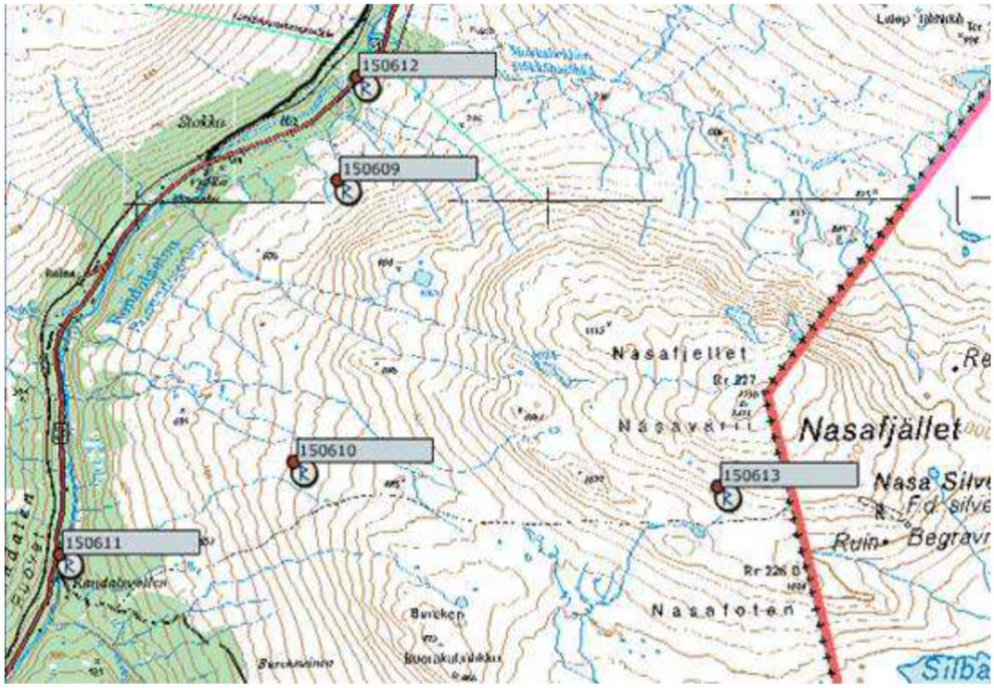
increased efforts by the reindeer herders themselves. Construction in several surrounding areas of recreational and holiday homes are deemed to have low to high consequences for the reindeer herding in the area. It is also put forth that increased recreational activity in the area could benefit the reindeer herders by increasing sales of reindeer meat, however, the report states that this is merely speculations as they cannot find relevant data to support this. Existing and proposed quartz and dolomite quarries are also affecting the reindeer herding and would exacerbate the combined effects of the proposed Násávárre mine. Windmills in Arjeplogs Municipality will also contribute to cumulative effects by hindering migration between pastures (Sweco, 2013, pp. 110-112).

The report puts forth that the mining activities on Násávárre will impact the reindeer herding in the area who are already dealing with difficulties tied to the E6 road and the railroad Nordlandsbanen. Together with other development initiatives, the effects of the mine on Násávárre on the reindeer herding can exacerbate (Sweco, 2013, pp. 112-113). As mitigation measures, the report suggests tailoring the mining operations to the regional reindeer herding and states that this could significantly reduce the consequences. The report also recommends a good dialogue between the mining company Elkem and the reindeer herders from Saltfjellet RBD, Semisjaur-Njarg, Svaipa, and Gran SBs as well as the Reindeer Herding Management from Nordland especially regarding the construction phase and the operational phase (Sweco, 2013, pp. 113-114).

### 4.1.4 Impacts on Sámi Cultural Heritage

Potential impacts on Sámi cultural heritage in the area is also included in the report which mentions a few findings that could potentially be affected. Regarding impacts on cultural heritage, Sweco has been in dialogue with the Sámi Parliament and Nordland County. The Sámi Parliament has undertaken preliminary investigations in accordance with paragraph 9 of the Law on Cultural Heritage (Klima og miljødepartementet, 1979), parallel to the IA work. In the area close to the border there are traces of human activity connected to Sámi usage. North and southwest of Násávárre old Sámi camp sites have been located and nearby the mountain old fireplaces, burial mounds (NVE & Reindriftsforvaltningen, 2004), remnants of reindeer fences and cairns have been found. Some of the proposed options for an access road will impact some of these cultural heritage sites. As for newer cultural heritage, the silver mine operational from year 1635 to 1659 and again from 1779 until 1810. As the silver mine is located on the Swedish side of the border, it is protected by Swedish authorities. The identification and assessment of

cultural heritage sites were conducted together with the Sámi Parliament (Sweco, 2013, pp. 60-64).




**Figur 12-1. Kartutsnitt fra Askeladden viser registrerte lokaliteter i og i nærheten av planområdet (13.12.2011)**

(Sweco, 2013, p. 61)

### 4.1.5 The 0-Alternative

The report includes a brief account for what would happen should Elkem not get permission to start extracting quartz on Násávárre. It is stated that as of 2013 Elkem has spent several tens of millions and 10 years on the Násávárre source. The report emphasises the importance for Elkem to have the quartz they process on their facilities in Norway from a source nearby as quartz makes up the largest quantity of material being processed there, measured in tons. Without the Násávárre access Elkem would have to explore possible sources abroad as they have no other sources in Norway of the same quality and that they rely on a steady supply and require operations based on "responsible, ethical and sustainable principles" (Sweco, 2013, p. 25). Alternative sources of material would have to be transported to Norway to be processed for Elkem's various production of silicon. This could pose increased negative consequences with amongst other the transportation and its environmental and economic impacts. The 0-alternative of the IA from 2013 emphasises that if Elkem commences extraction from Násávárre, the area would not change significantly over the planned extractive period i.e. 30-40 years (Sweco, 2013, p. 25).

### 4.1.6 Brief Summary of Impacts:

The 2013 IA finds that the area around Násávárre is of high importance to the reindeer herding. Saltfjellet RBD has a dynamic use of the area depending on the seasons and conditions The SBs use the area for pastures and migrate past Násávárre. The report finds that the specific area of the mine will have little direct effect on the reindeer, but that human activity and disturbances could have a barrier effect, resulting in larger negative effects. Sweco finds the mine and its activity will have the largest negative effect on the Norwegian RHCs during late fall and early winter, as well as late winter, early spring. For the Swedish RHCs effects will be largest during late summer and fall. The mining operations will have large negative consequences for the reindeer herding. Given other pressures on winter pastures in the area, the cumulative effects will be bigger for Saltfjellet RBD than Svaipa SB (Sweco, 2013, pp. 6-7).

## 4.2 Impact Analysis of Nasafjell Quartz Deposit for the Reindeer Herding, 2019

The following section will briefly account for the Impact Analysis from 2019, conducted by Sweco on request of Elkem ASA. As the title of the report above suggest, the report intends to describe how the operation of the proposed mine will affect the reindeer herding in and around Násávárre. The IA 2019 is made to provide a better foundation to assess the impacts of the mine on the reindeer herding. The first IA (2013) was finished in 2012 but after objections from the County Governor (Fylkesmannen) and the Sámi Parliament (Kommunal- og moderniseringsdepartementet, 2016), and the reindeer herders' critique, Sweco were tasked to produce the Analysis (2019). This IA is not a part of the planning process stipulated by the Planning and Building Act. The version of the report used in this thesis is a compiled report including the reports addressing individual Sámi RHCs affected by the mine (Sweco, 2019).

In this Impact Analysis, 5 central people are involved in making the report and in total 10 people contributed. According to Sweco, the Analysis also highlights that the affected SBs and RBDs have contributed with valuable information about their reindeer herding as well as about the properties and use of the area. Sweco describes that the central people[12] involved, include a task manager responsible for the Swedish SBs with 20 years' experience as an environmental inspector and management within reindeer herding and Sámi culture, a biologist with

[12] The description of these individuals in IA 2019 have been made anonymous and names and employers/ home organisations and universities have been left out.

knowledge on game ecology, IAs, reindeer herding, biodiversity, and natural resources. Working with describing and assessing the pasture conditions for the reindeer and the mine's impacts was a doctorate in zoology with experience in reindeer areal usage and human disturbances. Contributing with expertise within Geographic Information Systems (GIS) and related interpretation and analysis of satellite footage was a person with a background within game biology and IAs on issues with reindeer and human activity. The last of the 5 central people is the contact person of the project with a degree in nature management and specialising in project management, environmental IAs including reindeer and game resources, planning processes, and IAs. The IA report from 2019[13] consists of 62 pages, of this roughly 40 pages directly describing the reindeer herding and the mine's impacts.

### 4.2.1 Description of the Mining Operation

This IA Analysis (2019) refers to the proposed mine being operated traditionally through drilling and explosives. The 2019 IA Analysis does not contain any relevant changes in the description of the mine. It does, however, provide an 3D illustrated model of how the area will look after operations have ended.

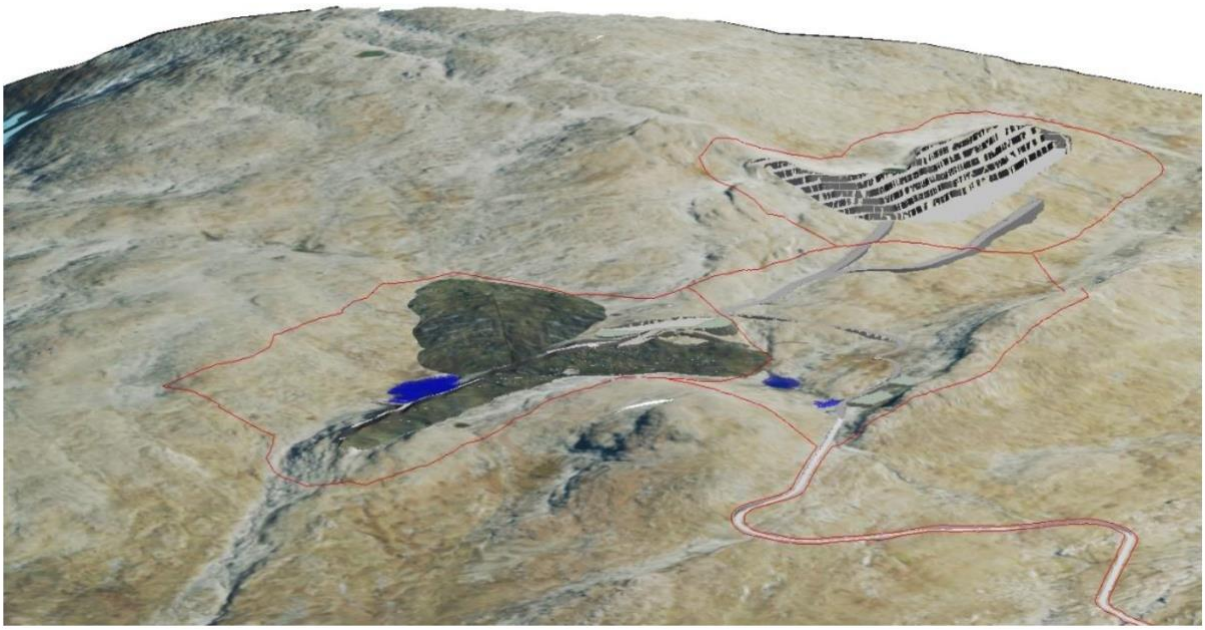


Figure 2-1 3d model of the quartz quarry as it will appear when Elkem as ended ordinary operations. The model shows the southwest side of Nasafjell with the quarry (west quarry closest and the east quarry in the back of the

[13] This refers to the compiled version used in this thesis and acknowledges that individual detailed reports of the RHCs exists.

picture) and the access road connecting to the quarry from the west. The west quarry is used to deposit from the west quarry and will be filled while the east quarry will remain open.

(Sweco, 2019, p. 12)

### 4.2.2 The Methods of Data Assessment in the Report

The IA 2019 is adapted to Swedish methodology for environmental assessments which equates the Norwegian Impacts Assessments. The method is developed by the (Swedish) Sámi Parliament, National Union of the Swedish Sámi, and the County Board of Västerbotten and the report draws on a matrix developed for IAs related to Sámi reindeer herding in Sweden and has been used for the last 10 years. This assessment has less focus on categorising values, impacts, and consequences than Handbook V712 Impact Assessments and focuses more on describing the current status and consequences from the mine on Násávárre (Sweco, 2019). The 2019 Analysis draws on a description of the grazing resources and how the RHCs use the area. This is information both provided by the GIS mapping of pastures and vegetation, official reindeer herding maps, and most importantly information provided by the RHCs. The report describes the expected impacts of the mine operation about area use and reindeer herding knowledge described by reindeer herders.

The knowledge base of the IA Analysis consults relevant academic literature and is based on an inventory of the pastures and an assessment of satellite images describing the vegetation types in an area of 150-160 $km^2$ around Násávárre. Sweco has collected knowledge about the reindeer herding from the RBDs and SBs on how they use the area during the year. It has been done through meetings and interviews with the management of the respective RBDs and SBs and through written correspondence. This makes up a central knowledge base for the analysis and each RBD and SB has been able to review and comment the part of the report concerning them. Consulting online maps or official reindeer herding maps[14] on areal use has also contributed information about the Norwegian reindeer herding. Similar data is not public from Sweden, however, the respective SBs have contributed with the same types of maps to the analysis.

The 2019 Analysis does not address psychosocial consequences for Sámi RHCs. Uncertainties relating to the description of the proposed mine on Násávárre, in terms of the knowledge base, uncertainties in assessments of damage mitigation measures, and cause-effect assessments are

[14] Publicly available reindeer herding maps: https://kilden.nibio.no/.

addressed. The latter involves a matrix addressing the various elements that are central to this case (Sweco, 2019).

### 4.2.3 Reindeer Grazing in the Area

The reindeer grazing in and around Násávárre is assessed in the IA Analysis by drawing on information from the reindeer herders and by use of GIS analysis of satellite images of types of vegetation. The grazing conditions were examined on Násávárre in 2018 and the review supports the information from the reindeer herding showing that Násávárre has a variety in grazing providing good pastures through the whole year. During the bare-ground-period (barmarksperioden), referring to the time of year without snow, the grazing[15] on Násávárre is considered good. During winter, the grazing is somewhat more limited on certain vegetation but there is access to other suitable vegetation for grazing with a high value. Násávárre is described as having rich pastures for grazing and that are functional during large parts of the year due to lushness and variety in vegetation types providing a dynamic exchange of pasture usage depending on conditions. The report also generally finds equal good pastures especially south and east of Násávárre and Stokkafjellet (mountain south of Násávárre). This indicates where it is likely that there will be an increased pressure on other pastures if the disturbances from the quarry results in reduced use of the pastures at Násávárre (Sweco, 2019, pp. 22-23).

### 4.2.4 Reinbeitedistrikts' and Samebyer's Reindeer Herders use of Násávárre

The IA report from 2019 (Sweco) provides descriptions of the RHC's use of the Násávárre area. In this regard, the report differs from the IA report from 2013 (Elkem). The portrayal of each RHC begins with a short introduction of the community. Then follows a description of their reindeer herding practises throughout the year, which according to Sámi understanding is divided into 8 seasons: Spring (April - May), spring-summer (June), summer (June - July), autumn-summer (August), autumn (September - October), autumn-winter (November - December), winter (December - March) and spring-winter (March - April). Finally, the RHC's respective use of the Násávárre and surrounding areas is depicted. This chapter shall give brief summaries of the RHCs' practises on Násávárre (Sweco, 2019).

[15] Refered to in the report as "gras/halvgras med urter, krekling, andre lyngarter og dvergbjørk".

#### *4.2.4.1 Semisjaur-Njárg sameby*

The Semisjaur-Njárg SB are two Norrbotten County located communities (Tjidjakk and Tjallas) with an area of 6440 km$^2$. Due to estimated impacts on pastures and thus reduced sustenance for the reindeer, the SB decreased their number of reindeer to 7000. The SB's southern boundary proceeds north of Násávárre and in 4-5 km distance to the proposed quartz quarry. Therefore, the quarry's so called "disturbance zone" is stated as not impacting the grazing zones of the SB. However, in the summer, some reindeer roam Násávárre and would be impacted. In summer and autumn-summer, 70-75 % of calf markings of the Tjallas community happen about 8 km from Násávárre (Verdejaur). The reindeer stay in the mountain area as it is cooler and has fewer insects (Sweco, 2019, pp. 24-28).

#### *4.2.4.2 Saltfjellet reinbeitedistrikt*

Being the largest RHC in Nordland, Saltfjellet RBD has an area of 6985 km$^2$ and borders 7 other RHCs (RBD: Ildgruben, Hestmannen/Strandtindene, Duokta, Balvatn; SB: Semisjaur-Njárg, Svaipa, Gran). By the time of the IA report, there were 38 individuals organised in 7 siida shares, which operate jointly in the summer pasture but in divided groups in the winter pasture. The RBD aspires to expand the number of reindeer from 3500 to 4200.

The Saltfjellet RBD is a year-round district, meaning that all areas are technically usable all year around. However, due to heavy snow fall and inaccessible vegetation in the Násávárre area in winter, the use is highly dependent on the conditions. Násávárre is located in the southeast of the district and the area used for pasture mainly in autumn, autumn-winter, spring-winter and spring. One location for markings, which happen in late summer, lies about 5.5 km northwest of Násávárre. The reindeer also roam Násávárre on the west side in passing to access pastures further south (Sweco, 2019, pp. 28-33).

#### *4.2.4.3 Svaipa sameby*

The mountain Sámi community Svaipa SB, located in Norrbotten County, covers 4513 km$^2$ and has a maximum number of 5000 reindeer in winter. The SB is organised in 15 registered associations and include 15 families. Their district borders with Semisjaur-Njárg, Saltfjellet RBD and Gran SB, with whom they work together.

The grazing pastures are chosen according to weather conditions and could be used potentially all year around. In spring, occasionally calving occurs in the Násávárre area. In summer, the reindeer are gathered at Násávárre to be taken to the marking locations and the reindeer use the mountain area to cool down and avoid insects. Násávárre is the only mountain area in the Svaipa

district with all year around snow patches. Depending on weather conditions, reindeer roam Násávárre already in spring and spring-summer, summer, autumn, and autumn-winter. Some even remain in winter in this western mountain area. Násávárre is key grazing land for Svaipa SB's reindeer and is considered traditional land (Sweco, 2019, pp. 33-39).

#### *4.2.4.4 Gran sameby*

Gran SB is a distinct nomadic reindeer community with an area of 5438 $km^2$, a maximum allowed number of 7000 reindeer (winter herd) and 50 members. Five of these members work full-time. The first reindeer proceed to Norway in spring, where Násávárre serves as gathering location before the calf markings for reindeer of Gran and Svaipa. Here, up to 5000 reindeer can be handled. Some reindeer stay in Násávárre in the summer as it provides coldness and has fewer insects. During summer-autumn and autumn, the pastures south and west of Násávárre are important for the reindeer, due to mushrooms, foliage, and grass. The reindeer are separated in Norway in collaboration with Svaipa SB in autumn-winter and winter (Sweco, 2019, pp. 39-41).

#### *4.2.4.5 Ildgruben reinbeitedistrikt*

Ildgruben RBD is with an area of 2654 $km^2$ and a maximum of 900 reindeer (spring herd) a medium-sized reindeer district. They border the Saltfjellet, Hestmannen/Strandtindene and Røssåga/Toven RBD. Ildgruben is highly affected by interferences, e.g. infrastructure, in the area and lost pastures in 2005 due to the Norwegian-Swedish Reindeer Grazing convention not being renewed. There is no direct use of the Násávárre area as pastures, and thus no direct impact on this RHC. However, since their northern district border lies only 9 km from the planned quarry and they are in close proximity to directly affected RHC, Ildgruben could be indirectly impacted. Reindeer herds from the RBDs and SBs getting mixed up happens throughout the year naturally as the reindeer move through the landscape. In the fall this frequently happens with the herds from Saltfjellet RBD, and Semisjour-Njarg, Svaipa, and Gran SBs. Ildgruben in the south has experienced problems with mixing up the herds (Sweco, 2019, pp. 41-42).

### 4.2.5 Impacts on Reindeer Herding and Sámi Culture

The following section of the thesis will describe the effects and consequences the RHCs could face from the mine as put forth in the 2019 IA (Sweco). This report bases this on scientific studies of effects on reindeer of similar projects, the information about the use of the area from the RHCs, and the reindeer herders' knowledge and experience.

The influence of an intervention is the difference between the current value of an area for the reindeer herding and the expected value after the development. The report follows the link starting with how the mining operations influence the effects on the reindeer and its basic needs which will have consequences for the reindeer herding. The next section will account for the effects on the reindeer and the consequences for the herding as the 2019 report describes it (Sweco).

#### *4.2.5.1 Effects*

Direct loss of pastures and exposure to disturbances from the mine refers to the physical area occupied and includes the access road, quarries, deposits, and the service area equal to 4.95 $km^2$ according to the regulation plan. The quarries and service area will be fenced off creating a physical barrier affecting reindeer´s migration through the area. The direct seizure of land will have effects on Svaipa and Gran SBs primarily during their summer pastures and Saltfjellet RBD primarily during winter pastures and potential in some years their fall pastures. Semisjaur-Njarg SB and Ildgruben RBD will have indirect effects of this. Human activity from the quarry will cause fear and stress among the reindeer and result in reduced pasture peace and increased movement. This will negatively affect growth and general conditions of the animals leading devalued pastures. These effects are expected only to concern some reindeer and not the general condition of the reindeer herds. Vegetation close to the road can be impacted due to the spreading of dust and a changed pH value in the soil (up to 1 km from the road). Little wear and tear on the teeth of the animals grazing close to the road could occur but will not have any significant impact (Sweco, 2019, pp. 48-49).

With barrier effects the report refers to hindrances in the landscape including fences, steep rock faces, or buildings or hindrance by disturbances that are possible to pass physically but will affect the behaviour of the reindeer. The quarry, active from March 1 to 31 October, will be a partial barrier for the reindeer. During the Svaipa´s calf marking beginning of July, reindeer are herded close to Násávárre. Although it will be physically possible to move the reindeer past the mining facilities, with an active mine, the disturbances will cause significant hindrance. The quarry will have little importance for the access to the pastures at the mine since there is little vegetation there, however, the fenced off quarries will create a barrier for the movement of the reindeer of the SBs to avoid insects on summer days. The access road will be shaped so it does not create a physical barrier and revegetated after the end of operations. Sweco states that the transport activity will however act as a barrier for the movement of reindeer past Násávárre but can be addressed with planning and coordination between transportation activities and

movement of reindeer. This will however cause a less dynamic use of the pastures on the southern and western slope of the mountain. Although the reindeer herders are used to cross roads with more traffic, the report expects that moving the herds in this area will be much more demanding (Sweco, 2019, pp. 49-53).

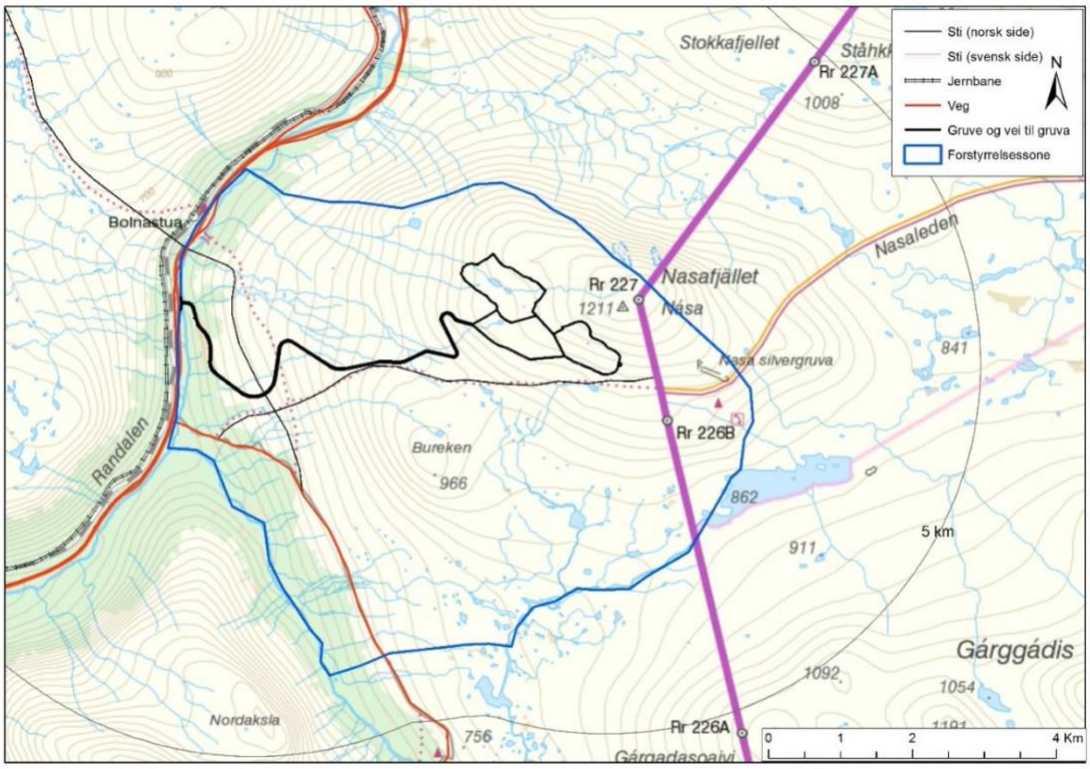



Figure 6.2 The disturbance zone when it is assumed that the reindeer will be directly impacted by the quarry is marked with a blue line. In this zone the reindeer can be directly exposed to disturbances. The area of influence can be larger as it includes the area around the impacted area where the reindeer can change behaviour in its areal use caused by negative effects from the disturbance season.

(Sweco, 2019, p. 53)

The avoidance effects and indirect loss of pastures is understood as "i. a response to sensory impressions quarry, ii. a response to previous terrifying experiences from the area, iii. result of previous experience and herd mentality (…)" (Sweco, 2019, p. 53). Reindeer could therefore avoid areas even though there are no direct sensory impressions. If reindeer avoid, an area it must seek an area with equivalent pasture properties which can cause the reindeer to spread to unintended areas. This can affect the neighbouring districts of Semisjaur-Njarg and Ildgruben RBD receiving reindeer from Saltfjellet RBD, Svaipa and Gran SB. Equally reindeer from Svaipa and Gran SB can move across the E6 highway and the railroad entering Saltfjellet RBD. An active quarry will impact the reindeer negatively with high impact less than 1 km from the quarry and with an out boundary of 4 km, which is reflected in the blue line on figure 6.2 above

(37 km$^2$). This can impact behaviour of reindeer also when the quarry is closed during winter season (Sweco, 2019, pp. 53-54).

In addressing the safety effects**,** the report lists three possible causes of accidents; "i. blasting in the quarry, ii. collisions with reindeer between the quarry and E6, iii. increased collisions with reindeer on E6 and the railroad with increased pressure on reindeer" (Sweco, 2019, p. 54). With the security measures in place during blasting in the quarry, the report does not anticipate any probability of related accidents including reindeer. However, there is an actual danger of collisions with reindeer on the access road given the heavy loaded vehicles using the road. On the E6 and the railroad there are currently many collisions with reindeer by especially trains between October to April either caused by difficult pasture conditions or predators. When the quarry is active the herds behaviour in area will be impacted and cause change of routes and patterns. Loss of winter pastures will impact the area and with increasing difficult winter pastures, the reindeer will migrate more and more often cross the railroad (Sweco, 2019, pp. 54-55).

The biggest negative effects on the reindeer herding surrounding the Násávárre quarry will be from the railroad and E6 highway. Other activity in the area has negative impacts including, upgrading the E6 highway, the Polar Circle Centre, expanding camping area and contaminated water spill from the old silver mines on Násávárre. The effects of these will be increased if the quarry becomes operational but the report assesses that it will not be beyond the limit to where the areas cannot be use for pastures. In addressing the overall effects, the report finds that the quarry and access road will increase disturbances in the area during operation and have some to very negative effects on the reindeer's use of Násávárre. However, it is not assessed to be to the degree to where use becomes impossible. The report situates the quartz quarry in a bigger scale with other and bigger developments and finds that although it will impact the flexibility in use of the area, of great importance to the SBs and RBDs, it will not prevent future reindeer herding (Sweco, 2019, pp. 55-56).

#### *4.2.5.2 Consequences for the Reindeer Herding*

Loss of pastures and increased load on pastures in other areas is one of the consequences. It is estimated that summer pastures of Svaipa and Gran SBs will decrease by 10-40 % in the operational season. The area of the zone makes up 37 km$^2$ of good pastures. As a result of this, the herds will spread to other similar pastures having negative consequences for Svaipa, Gran, Semisjaur-Njarg, Saltfjellet and Ildgruben primarily due to the increased risk of mixing the

herds. The quarry will also limit the reindeers´ ability to move up the Násávárre for ventilation areas (luftingsplasser) and Svaipa and Gran SBs will experience a loss of such areas. Saltfjellet RBD will experience loss of pastures during fall and winter as a direct consequence of the access road and quarry and indirectly from reindeer avoiding the area during the operations season. During the closed season in winter the consequences will be less but some reindeer that have been scared previously might avoid the area all together. Gran´s rutting areas (brunstområdene) can in some years extend towards Násávárre and disturbances during the rutting season can have negative consequences for the rutting (Sweco, 2019, p. 57).

Barrier effects that impact the current patterns of migrations together with avoidance effects can result in mixing the herds. The mix or intermingling of herds between the herd of Saltfjellet and Ildgruben RBDs´ herds happens during fall and late winter and if the quarry starts operations in March, this can be a significant problem. Swedish reindeer can, due to the disturbance zone move west to Saltfjellet and mix with the reindeer of Saltfjellet RBD which in turn can move south and intermingle with the reindeer of Ildgruben RBD which poses a problem if the calves are not marked yet. Swedish reindeer which are prevented to move east during fall can increasingly mix with the Saltfjellet RBD´s reindeer if they arrive to Násávárre early. The report emphasise how the consequences are based on assumptions and the uncertainty is therefore high (Sweco, 2019, pp. 57-58).

Increased workload and costs are another potential consequence for the reindeer herders. The disturbance barrier and avoidance effects will inhibit the calve marking at the facilities of Svaipa and Gran and entail increased workload when collecting and mowing the herds. Should the disturbances make these calve marking facilities close to Násávárre useless they will have to use other facilities 40-60 km away which again is increased workload both for the reindeer and the herders. Ensuring that the reindeer do not move into the neighbouring districts during summer and fall will also be necessary and because of the herds mixing it will entail more work to separate and transport the reindeer back. If the quarry has started operations by late winter, the reindeer of Saltfjellet RBD can move south and mix with the reindeer of Ildgruben RBD. Separating these herds would equally entail an increased workload and might necessitate guiding the reindeer past Násávárre (Sweco, 2019, p. 58).

There is a risk of collisions with Reindeer on E6 and the railroad. When the reindeer of Saltfjellet RBD migrate late winter, avoidance effects and disturbance barriers can result in the reindeer choosing other routes which could include a route further south and in an unsuitable and dangerous area close to the railroad. The avoidance effects for reindeer from Svaipa and

Gran SBs on summer and fall pastures will not entail moving closer to the E6 and the railroad as these already pose barriers. Ildgruben RBD is also unlikely to be affected increasingly by E6 and the railroad due to the mine (Sweco, 2019, p. 58).

The mine is expected to be operational for more than 30 years and the lasting consequences after end of operations from the west quarry of the mine could have consequences for revegetation on that site, especially given the location is 1000 meters above sea level and there are difficult conditions for vegetation. The deposit site and service area will equally be significantly less productive as pastures in the perspective of 100 years. The access road in the lower part will be covered with the primary vegetation relatively fast but will be slower higher in elevation (Sweco, 2019, p. 59).

Regarding the potential for conflicts and social consequences the SBs and RBDs have built relations and traded with each other for a long time to sustain well-functioning reindeer herding in an area where different groups have pasture rights. Sweco states that "the reindeer herders feel general unrest and stress in connection to the plans of Elkem on Násávárre and how it will affect future relations with the SBs and RBDs" (Sweco, 2013, p. 59). This is connected to the fear of increased mixing of herds and solving related challenges. The report has not collected data on this in its assessment as it falls beyond their area of expertise (Sweco, 2019, p. 59).

In conclusion, the planned quarry on Násávárre will entail disturbances and barriers for the reindeer especially during operational period. The biggest negative consequences of the proposed mine are through the avoidance effects and barriers for the reindeer. This includes that the area used for calve marking at Silbbajavrie is worsened, that reindeer cannot move to higher elevation at Násávárre, and that the areas used to collect reindeer for Svaipa and Gran SBs during late fall to the winter pastures is worsened (Sweco, 2019, pp. 59-60).

### 4.2.6 Damage Mitigation and Compensatory Measures

The IA report from 2019 (Sweco) lists a few possible damage mitigating and compensatory measures and highlights that these have not been shared or discussed with the Sámi RHCs for the reason that the RHCs refrain from discussing mitigating measures at that stage of the process. However, Sweco states in the report that for these measures to have the highest cost-benefit effect, it must be thoroughly discussed with the reindeer herders. Sweco further elaborates that while one measure could have positive effects for one group it could have negative effect on another.

Damage mitigation measures are defined as "(specific to the quarry and surrounding area) measures and adjustments of the project that the owner of the initiative does to reduce unwanted negative consequences from the initiative" (Sweco, 2019, p. 61). Compensatory measures are defined as "(more general and not necessarily quarry connected) measures that the owner of the initiative implements to compensate for damages and inconveniences that remain after the implementation of damage mitigation measures"(Sweco, 2019, p. 61). Damage mitigating measures include all staff working at the quarry getting knowledge about the area and its importance for the Sámi reindeer herding and about the considerations needed. The measures also include establishing good communication between Elkem and all the affected RHCs to ensure exchange of relevant messages and new initiatives. Recurring meetings between the reindeer herders and Elkem to evaluate the operations and occurrences to reach agreement on new initiatives. They also suggest meetings between the RHCs to assist in managing and preventing future conflicts. While the former initiative described establishing good lines of communication between the RHCs and with Elkem, Sweco also proposed to seize of operations and transportations during vulnerable movements of reindeer past Násávárre. Sweco presents another mitigating measure by having staff along the access road when much reindeer activity in the area.. Fencing the E6 highway and railroad which could pose new challenges. Finally, Sweco proposes to move the migrating paths (flyttleier) on the westbound rockface of Násávárre if possible.

Examples of compensating measures include investing in infrastructure such as fenced facilities to avoid mixing herds and to sort reindeer in bigger quantities. Financing GPS marking of reindeer as an important measure to evaluate the effect of the mine, could also be beneficial for the herders. Support for staffing and equipment for the movement, assembling, and herding of reindeer as these activities are impacted by the quartz quarry. Winterfeeding is increasingly used in general but is a suggestion with some hesitation as it is expensive, labour intensive, has implications for animal health and cultural issues, and could lead to reindeer losing their ability to find food during winter. Lastly replacement areas are assessed as an impractical measure.

### 4.2.7 Brief Summary of Impacts

Sweco describes the area as of high value to all the Sámi RHCs and that the mine could cause disturbances and barriers for the reindeer using the area primarily in the operational season. During late winter Saltfjellet RBD will experience disturbances from the operation and transport of the site when they are migrating with their reindeer. During spring and summer Svaipa and Gran SBs use the area which is close to their calving areas. The operation of the

mine could have an avoidance effect from the site and disperse the herds causing an increased grazing in other pastures potentially affecting both Semsijaur-Njarg SB and Ildgruben RBD. The quarry and service area will act as a barrier for reindeer coming to cool or ventilate (lufting). However, Sweco states that the area can still be used. In July, during calf marking by the Swedish SBs the road and quarry will act as a barrier and make the migration of reindeer to their marking facilities difficult. Alternative marking facilities are 40-50 km away. The area equally acts as an important collecting area for Svaipa and Gran SBs.

The barrier- and disturbance effects could increase the herds mixing between the various RBDs and SBs, most significantly for Saltfjellet RBD, Svaipa and Gran SBs but will also affect Semisjaur-Njarg SB and Ildgruben RBD. Sweco expects an increased workload and costs in connection with calf marking, mixing of herds, and extra herding past Násávárre. The 2019 IA Analysis finds the largest negative effects to be from the disturbances- and barrier effects. This will cause the area's function for calf marking at Silbbajavrie to be weakened, reindeer not being able to migrate up in altitude on Násávárre, and the function as collecting area for Svaipa and Gran weakened (Sweco, 2019, pp. 59-60).

# 5. Analysis & Discussion

At this point in the thesis, the background of the case, the theoretical framework and methodology application has been presented together with a chapter providing a thorough presentation of the primary data of this thesis, about how the IA reports address the impacts of the proposed mine by Elkem AS on Násávárre. This chapter builds on the empirical data and provides an analysis to cast light on the research question: *To what degree can the integration of Sámi concerns in the 2013 Impact Assessments and 2019 Impact Analysis reports shed light on how the impacted reindeer herding communities have been enabled to participate in the IA processes?* The analysis is guided by the sub-research questions and focuses on how the two reports describe the impacts from the mine on the Sámi RHCs. Furthermore, it investigates and discusses how Sámi reindeer herding Knowledge is integrated into the reports. The data, IAs, and interviews have been processed by coding and categorising the data guided by the research question as elaborated in the methodology chapter. The analysis will lastly look into how we can see the IAs and interviews in light of Indigenous rights and how we can apply the Scalar Framework by Larsen (2018) to provide an understanding of the degree of participation of affected Sámi RHCs in the IAs. The analysis and discussion will delve into how the challenges and concerns of Indigenous Peoples' rights are reflected in the data.

Each section will first investigate what the data from the IAs show and discuss it in comparison with the relevant content from the interviews.

## 5.1 Description of Impacts on Sámi RHCs

### 5.1.1 Experts involved in the IAs

In the preface of the first IA from 2013, Sweco states that all the expert assessments relating to the case of assessing the impact of the mine on Násávárre is compiled in the 145-page IA. As outlined in the empirical chapter, these include contributors with a wide range of expertise to address the impacts on the natural environment, cultural heritage, and society, including reindeer herding and Sámi commercial interests. The IA 2013 does state that "We (Sweco) have had good contact with a number of informants and people with knowledge of the area". However, there is not a person in the list of contributors that have any significant background in reindeer herding (Sweco, 2013, p. i) as it appears in the report. The 2013 report also states that information used to assess impacts on the reindeer herding and Sámi commercial interests are gathered from the district plan of Saltfjellet RBD and a statement and meetings with the Reindeer Herding Management of Nordland. In addition, Sweco refers to dates of meetings with the management of Saltfjellet RBD and Svaipa, and with representatives from Semisjaur-Njarg, Svaipa, and Gran SBs. The contribution of the RHCs, is however not very transparent. In conclusion, Sweco states that "(t)he basis of data is assessed to be very good" (Sweco, 2013, p. 102).

The list of contributors to Sweco's IA from 2019 is a group of people who have experience with reindeer herding and IAs from various perspectives, see chapter on empirical data. It further states that the RHCs have been instrumental in providing information to the report about reindeer herding and usage of the areas. The information provided by the RHCs and included in the report, was shared with the RHCs before its completion, which indicates a method of ensuring transparency.

The secondary data to this thesis, the interviews, provided an insight into how some of the RHCs read the reports. The interviewed RHCs found that the report from 2019 was flawed and that it gave an incomplete picture of the use of the area and reindeer herding (Interview A & B). The report from 2013, represents an assessment that follows current principles in how to conduct an IA but left out the Sámi reindeer herders' perspective, which sparked criticism. As such it is an example of what an IA looks like according to legal commitments. There were also

objections from the County Governor towards this report (Kommunal- og moderniseringsdepartementet, 2016).

### 5.1.2 The Methods of the IAs

To assess the impacts of the mine on Násávárre, the two IAs use different methods. While keeping in mind that the 2013 IA is mandated to give an assessment on more aspects than reindeer herding, it uses the Norwegian Public Roads Administration's guidelines and a set of criteria for impact assessment, valuing the impacts of the proposed measure, as described earlier. This is done to fit a traditional scientific method that ensures that the findings are reproducible. To value the different areas, the IA 2013 draws on an adaptation of guidelines from Norwegian Water Resources and Energy Directorate (NVE) and the Reindeer Herding Management from 2004. A different methodological approach is used in the 2019 report developed specifically for IA and reindeer herding by the (Swedish) Sámi Parliament, the National Union of the Swedish Sámi, and the County Board of Västerbotten. Sweco also states that the 2019 IA has less focus on categorising values, impacts and consequences than the Norwegian Public Roads Administration's guidelines used in the first report does (Sweco, 2019, p. 4). While keeping in mind that the two reports have different mandates and therefore a different scope, both reach the same conclusion concerning the impacts on the RHCs. The methods used to conduct the 2019 IA indicate a more thorough description of the land use and potential impacts on the RHCs.

Both IAs describe the impacts of the proposed mine. As outlined in the empirical chapter, the 2013 IA assesses the value of the reindeer herding around Násávárre relating to calving land, winter location, migration and moving areas, reindeer herding facilities, and ventilation spaces (luftingsplasser). Most of these are categorised as having a high value. The value assessment of areas used for reindeer herding on and around Násávárre is equally given medium to high value (Sweco, 2013, p. 105). The IA from 2013 assesses the following effects of direct and indirect loss of land, mixing the herds, from the quarry, the access road and the effects of other measures in the area (Sweco, 2013). The assessment of consequences, however, primarily focuses on the quarry and the access road and states that they will have medium to large negative consequences in the development- and operational phase of the mine.

According to the 2013 IA report, the RHCs are one of the assessed aspects that will experience the largest negative consequences. Yet, there is little involvement of the knowledge-holders that have most expertise on the topic. Based on Åhrén's Sliding Scale Theory, the Sámi people

have the right to significant influence in decision-making processes when projects could potentially have negative effects on their livelihoods and land. Even so, the potential of negative effects is not met with a change in procedure but with a few alternative options and mitigation measures as provided in the report. However, it is unclear whether these measures have been developed in dialogue with the RHCs. Given that the 2019 IA explicitly states that the RHCs have refrained from entering such discussion, it can be presumed that there was no dialogue for the report from 2013.

### 5.1.3 Effects and Consequences described in the IAs

In the 2019 IA report, Sweco focuses on describing the effects and consequences on the RHCs and the pastures rather than the grading of values, effects, and consequences. As briefly summarised in the empirical chapter, the IA 2019 also provides a description of how each RHC works and uses Násávárre. This information was provided by the RHCs themselves. This provides a good basis to understand the areal usage and time periods that are important to each RHC. It also shows how Násávárre is used to various degrees throughout the year. Sweco describes what possible effects and consequences the mine would have with direct loss of pastures and reindeer exposure to disturbances, the measures' barrier effects, the change of behaviour in the reindeer to avoid the mine, the safety effects especially around the access road, and the increased risk of collisions on the railroad and the E6 highway (Sweco, 2019).

One representative of a RHC stated that they found that the first report lacked information and was rather descriptive even though they had shared information with Sweco (Interview B). They referenced experiences from previous cases of incursions and by providing a clear and well-presented case it was a useful strategy the RHCs applied when they contributed to the development of the 2019 IA. However, as pointed out in the interviews, some of the information was not included in the 2019 IA, despite of time and resources spent on producing this information (Interview B).

A concern raised, were the potential effects of the mine on the herds and how diminishing numbers of reindeer in the herds could impact a RHC significantly. While some of the RHCs affected cover large areas, and have limited personnel working in the RHC, loosing reindeer would affect the personnel they are able to keep (Interview A). Here, the severity of the mine's impacts needs to be emphasised. The decrease of reindeer and personnel can lead to a loss of tradition and knowledge altogether, especially since RHCs have different customs. The livelihoods of the Sámi reindeer herders are, therefore, substantially negatively influenced.

Following Åhrén, this assessment of the impacts should entail more influence for the RHCs in the Násávárre case.

Representatives from the RHC referred to different traditions of reindeer herding, and how the RHCs had developed a cooperation to handle these differences. The impacts of the mine could weaken this cooperation (Interview A). A reluctance to include the historical injustices of forced relocation and the silver mine on Násávárre into the IAs was also highlighted by one RHC (Interview B), who stated that Elkem had argued against including these. The research participant argued that the silver mine still contaminates the nearby lake. This silver mine on Násávárre is referenced several times in the 2013 IA as cultural heritage, including a brief description that does not refer to the forced labour of the Sámi (Sweco, 2013, p. 62). The 2019 IA refers twice to the silver mine, once regarding the hiking path, and again regarding its contaminated spill water from the mine (Sweco, 2019, p. 55).

Cumulative and psychosocial impacts were brought up in RHCs in interview A and B. A point made was that lack of focus on the bigger picture and the scale of measures taking place (Interview A). There is usually not only one case that incriminates the right for reindeer herders to use the land as one interview participant noted, and listed examples including national parks, protected areas, outdoor activities, and cultural development plans. These examples represent other measures that the RHCs must deal with simultaneously (Interview A). One interview participant (interview B) noted that there was a concern from the RHCs when providing information about the use of Násávárre. They were worried about the challenges of mixing the herds and of the consequences this can have for the RHCs' relationships. This ties in with potential cumulative impacts which were only partially included in the reports. The psychosocial impacts concern amongst others the impacts of loss of reindeer and impact of workload on the social scale and the possible implications. One concern was the importance of potentially not being able to herd reindeer in the area also for the generations to come (Interview B). Although the psychosocial impacts are referenced in the IA 2019, in interview A the person did not believe it was covered sufficiently. While the IA report from 2013 has no reference to psychosocial impacts, Sweco states in the IA 2019 that their "(m)andate does not include analysing psychosocial consequences for the reindeer herders and their families or others" (Sweco, 2019, p. 5). Sweco refers instead to some possible questions of conflict they have raised without going into potential consequences. On the question of cumulative impacts, the IA 2013 has no specific reference to cumulative impacts but the report states in the beginning that "(f)or some of the topics assessed, the consequences of this measure (the mine) will also be dependent

on other measures and activities in the region of Saltfjellet. Especially for the reindeer herding (…)" (Sweco, 2013, p. 2). It further states that "for the reindeer herding on Saltfjellet RBD other development leading to area intervention of pastures will affect the operational patterns and pasture use (of the RHC)" (Sweco, 2013, p. 24). The report further lists development measures in the surrounding municipalities (Sweco, 2013, pp. 110-112). Although this is not explicitly referenced as cumulative impacts, it paints a picture of the measures that pose challenges for the area's reindeer herding. Sweco only refers that the combined effect of these measures will contribute to the overall strain on four of five affected RHCs and does not include Ildgruben RBD. The IA 2019 report does provide an insight into cumulative impacts and specifies how it understands the term as "how the different types of interventions (road, cabins, wind parks) and disturbances (tourism, hunting, predators, etc.) correlate, and how they in sum affect the reindeer herding" however they limit this understanding to a radius of 25 kilometres around the mine (Sweco, 2019, p. 5).

One research participant highlighted the difference in interpreting the data on impacts and consequences from the reports specifically regarding pastures on the top of Násávárre. The report argues that as there are less suitable pastures on the top of Násávárre where the mine is situated, it is not such an important area for the reindeer herders. However, the RHC pointed out the importance of flexibility for herders in changing seasons and although the pasture quality in high elevation is different from the further down in elevation, there are advantages to the herd moving up high during warm periods (Interview B).

## 5.2 Integration of Sámi Reindeer Herding Knowledge

As has been described in the chapter on IK, traditional skills are a crucial aspect for sustainable usage of land and even more so for recognising Indigenous self-determination. In the case of Násávárre, the TK the Sámi reindeer herders hold, can emphasise the significance the mountain area has for the reindeer and how this relation could be disturbed by the mine. For example, Násávárre is especially important to the reindeer in the summer as they find snow patches there to cool down and avoid the increased number of insects during the summer months. Therefore, it is essential to gain insights into the reindeer herders' knowledge and skills and include them in the process of the IAs. The critique by reindeer herders, however, towards the first report from 2013, indicates that they were not as involved as they expected to be in the IA process. This is exemplified by the usage description of the Násávárre area only in summer and winter by some RHCs. This representation of the use of the area is too narrow, though, and does not

reflect the all-year around use that is happening. The County Governor critiqued with a concern that the mitigation measures in the IA 2013 would not safeguard the reindeer herders and stipulates that: Agreements between Elkem and the RHCs should be reached before beginning operations and that Elkem must establish a forum for dialog between the parties (Kommunal- og moderniseringsdepartementet, 2016). In response to this Elkem commissioned the 2019 IA Analysis report.

A contradicting note concerning knowledge use is already discernible in the methods of the IA report from 2013. As stated before, this IA is based on the Planning and Building Act (2008) and thus must include all available knowledge or produce knowledge that is needed. Ideally, this should include IK concerning the area as well as livelihoods carried out at or around Násávárre. However, the team of 13 people, involved with the report, all worked for Sweco Norway AS and had no apparent Sámi reindeer herding background. Further, the affected RHCs were not included in the process, which was the cause of the aforementioned criticism. The second IA from 2019 was designed to make up for this lack of Sámi involvement and focused on the impacts the mine poses for the RHCs. The IA is modelled after Swedish methodology for environmental assessments as mentioned above. The people involved with this report had a specified background related to reindeer herding from for example a game biologist, zoologist or project management standpoint. Additionally, the affected RHCs were consulted and asked to write reports on their reindeer herding practises and use of Násávárre. The Municipality of Rana found the communication to be good as more and more RHCs got involved. This was based on the understandings gained through the communication about which RHCs would be affected directly or indirectly by the mine (Interview C). In the process of the IA the communication never took place directly between the municipality and the RHCs, though. Further, discontent concerning information conveyance was mentioned in the interviews by the RHCs when asked about the process (Interview B). Not only were the channels of communication stated as impractical but also the presented outcome of information in the IA was deemed insufficient. The whole process of the IA meant consequently a high workload for the RHCs to ensure accuracy of the conveyed information. Still the result was not satisfactory for them (Interview B).

The discrepancy between given information by the RHCs and the result of the IA (2019) is visible in suggestions to counter impacts of the mine on reindeer herding. The RHCs have described the migration of their reindeer including locations for calving season and other crucial points during the 8 seasons of the year. This is depicted in the IA and gives an understanding

of shifts in timeline and location due to weather conditions in each individual year. The respective migration movements are consequently not pinned down to one specific month or date. This means, the IA exhibits reindeer herding as a flexible practise depending on outside influences to some degree. In the interviews, the reindeer herders emphasise the unpredictability of weather conditions and underline that their practises are directed by these (Interview A). The measures, however, which are proposed to the RHCs to accommodate their practises, lack flexibility (Interview A). Therefore, the reindeer herders find it challenging to comply with the measures suggested in the IAs (Interview A & B).

Here can be mentioned as well, that the IA from 2019 suggests strategies and actions to reduce the negative impact the mine would have on Sámi reindeer herding. However, the IA states also that no conversations about damage mitigation measures and compensation measures were held between Sweco and the RHCs. According to Sweco, the RHCs did not want to discuss these issues. Sweco explains, though, that measures would have to be debated with the reindeer herders to grant the greatest cost-benefit effect. To this, the list of damage mitigation measures in the IA seems like a contradiction.

Another aspect which is criticised by the RHCs in the interviews, is the focus on mixing the herds and the IA's lack of addressing psychosocial consequences (Interview A). The RHCs in the area are already under pressure. Conflicts and challenges, which arose due to earlier forced reindeer herding relocations, could again spark and damage valuable cooperation and relationships in the area (Interview A & B). Attempts to include these possible impacts in the IA were rejected by Elkem as being too ambiguous (Interview A). It is mentioned in the IA that this aspect is beyond the scope of Elkem and lies outside of their expertise. Consequently, the RHCs explained their discontent with the description of the consequences that mixing the herds could have (Interview A).

In terms of including IK in the IAs, the 2019 report tried to make up for the shortcomings of the report from 2013. Experts with close relations to the field of reindeer herding formed the team and the impacted RHCs were contacted about their use of Násávárre. In this regard the reindeer herders were to some extent included in the process. Their input was, however, not integrated as extensively as the interviewed RHCs expected. Moreover, their knowledge clashed with that of the representatives of Sweco and Elkem, which showed a lack of understanding for the RHCs contributions. The IA report does not reflect on the apparent problems in communication. Further, it does not address different possibilities of inclusion of IK or the inclusion of it at different moments during the process. What is outlined here presents

a rather narrow use of IK and leaves us with the question of whether the possibilities of IK have been exhausted.

## 5.3 Inclusion of Indigenous Rights and Concerns

Following on from IK, it is relevant to consider how rights of the Sámi reindeer herders were included in the IAs. Their objections and worries are based on their knowledge of the area and its close correlation to their reindeer herding practises. They rely on the recognition of their status as an Indigenous People, which warrants the RHCs certain rights in decision-making processes. As was explained above, Article 27 of ICCPR and ILO 169 compel the Norwegian state to acknowledge the Sámi people's right of ownership and usage regarding their traditionally inhabited land. UNDRIP supports the Sámi in their endeavours to self-determination. Therefore, the state has an obligation which also puts pressure on companies operating in Norway. Consequently, the Sámi reindeer herders are granted for example the right to consultation as the mine on Násávárre directly and indirectly affects them and their traditional livelihood. Both, the IA 2013 and 2019 reports, refrain from discussing the obligation to secure Sámi reindeer herding rights and their material foundation. Also, they do not discuss international legislation including the implications these have for the Norwegian authorities.

Contrary to the IA from 2019, the report from 2013 refers to legislation applicable to the case and mentions among them the Reindriftsloven (Reindeer Herding Act, 2007), the Norsk-svenske reinbeitekonvensjonen (Norwegian-Swedish Reindeer Grazing Convention, 1972) and the Kulturminneloven (Cultural Heritage Act, 1978). The 2013 IA summarises how these laws are relevant to the case. Nonetheless, it does not reflect on that the right to reindeer herding is affirmed as a right since time immemorial acknowledged by the Norwegian Supreme Court (Broderstad, 2013). The 2013 report states that reindeer herding must be preserved as it is an important basis for Sámi culture and the Sámi community (Sweco, 2013). The IA acknowledges at this point the right of reindeer herders to freely use their reindeer grazing areas according to their traditional migration routes. These must not be closed but can be relocated by the King in case of legitimate interests. It is not specified, however, what legitimates new interests. The Swedish reindeer herders' right to use their traditional grazing areas on Norwegian territory is expressed in the Norwegian-Swedish Reindeer Grazing Convention, which pertained until 2005 and was to some extent renewed in 2010. The consequences are said in the IA to be evaluated equally for the Norwegian and Swedish RHCs. Further, by drawing on the Cultural Heritage

Act of 1978, the 2013 IA report recognises the need for approval by cultural heritage authorities, which includes the Sámi Parliament, before making changes that affect cultural heritage. This involves the investigation if there are important cultural sites in the area and it must be done before the zoning plans are conducted. The two IA reports fail to mention the inclusion rights, which specifically are meant to protect Sámi culture, present an understanding of the significance of reindeer herding, and Sámi influence in decision-making processes that affect them. However, the consideration of Indigenous rights and concerns in the actual decision-making process is often a matter of resources. It is not certain that objections and suggestions of Indigenous Peoples are heard by companies or the state and to warrant the exertion of their rights, Indigenous Peoples often must strongly insist on it.

In the Násávárre case, the RHCs' starting point varies severely from that of their opponent Elkem. While Elkem can draw on the resources of a company with billions in sales, the RHCs consist of small, family run businesses. Consultation and involvement in cases such as Násávárre are a time-consuming and cost-intensive endeavour. Composing an outline on the reindeer herding practises for an IA for example takes time which the RHCs cannot spend on their actual work. Further, adding to the workload, reindeer herders often must deal with several cases, in which they have to assert their rights at the same time.

The impression the RHCs communicated in the interviews about the meetings on the Násávárre case, is that of a lack of understanding and knowledge on Elkem's side (Interview A & B). Much time during the meetings was spent on explanations of what reindeer herding is and how it works. This left little time to voice all the concerns which in turn leads to misunderstandings of critical points raised by the RHCs (Interview A & B). One community stated a 10–15-minute short time frame to present not only their concerns but also voice concerns on behalf of other SBs, which was deemed insufficient (Interview B). Initially in the process, Elkem expected the report of one community about their reindeer herding practises to be sufficient, but the RHCs convinced the company, that the input of all RHCs was needed (Interview B).

Besides the issues during the meetings, the RHCs also mentioned confusion and insufficient information from the state surrounding these meetings (Interview B). Meetings and consultations, to which the RHCs are entitled, are not distinguished clearly. This resulted in uncertainty and a felt unpreparedness among the reindeer herders (Interview B). In this way their negotiation base is disadvantaged compared to that of Elkem. Some of the RHCs thought to bring a lawyer on their own expense (Interview B). It was explained to them in the a meeting that the mine project will pass and that they will receive some compensation, but that the

discussion ends at this point (Interview B), in other words, they were given an ultimatum which they declined. They were advised to agree to the amount of compensation (Interview B). Not only does this contradict the premise of free, prior, and informed consent, but also overrates compensation as a tool for decision-making processes. Payments cannot compensate for lost pastures and future losses because there are no equivalent grazing areas to be compensated with (Interview B).

The IA report does not reflect on the way the meetings were conducted and the municipality points to meeting summaries provided by Elkem which present the picture of good dialogue with the reindeer herders (Interview C). The RHCs disagree with this, and it should be mentioned that good dialogue was a prerequisite for Elkem to receive permission on starting their operations (Interview A). Elkem's interest in showing good collaboration is further rooted in them getting commissioned by the state. The interviewed RHCs describe the relation between Elkem and the state as such, that the state has put the responsibility for the future of Sámi reindeer herding in the hands of a Chinese-owned company, Elkem (Interview B). With this, the state passed on the responsibility to safeguard Sámi rights to Elkem.

The transfer of responsibility from the state authorities to Elkem seems like a measure of practicality as for example communication and the distribution of compensations across state borders pose difficulties (Interview C). This leaves the RHCs to face these challenges and enforce their rights by themselves. Not only does this situation create distrust but also the intentions of the municipality are questioned by the reindeer herders. They express awareness of the interest the municipality has in the mine (Interview A). This is supported by municipal statements saying they would appreciate a passing of the construction plans (Interview C). This becomes further apparent by the fact that, even though the negative consequences outweigh the positive ones according to the IA, the Municipal Council approved the regulation plan 2014 (Interview C) (Kommunal- og moderniseringsdepartementet, 2016). This raises the questions of balancing Sámi concerns and impacts with societal gain. Still, the interviewed RHCs are cautious and express additionally their mistrust in Sweco as they are paid by Elkem (Interview A). Consequently, their list of allies in this case grows thin and the RHCs must rely on national laws and the same system that led to the challenges they face today.

## 5.4 The Násávárre Case in Light of the Scalar Framework of Participation

Larsen uses the Scalar Framework to compare IA regimes, however, this thesis being a case study of Násávárre does not assess other cases in the same depth. Still, Larsen outlines a few comparable examples as presented in the theory of this thesis. The following will situate the Násávárre case within Larsen's framework by comparing it with his table of key elements of Indigenous participation in selected IA regimes, (Appendix A).

By using Larsen's Scalar Framework, we can place the Násávárre case as an example of an IA regime in Norway. Following the framework, the data about the Násávárre case provides information on the 'Scoping,' 'Evidence Generation,' and 'Significance Determination' phases, however we can say very little about the 'Follow-up' phase, given that the decision from KMD is pending.

In the Scoping phase, Larsen places the Norwegian IA regimes under consultation with limited influence. This is because the consultation process with the Sámi Parliament prior to new measures is a legal requirement. As Larsen puts it is an obligation "(…) in some sectors and limited parts of the planning process, to meet and hear the views of the community" (Larsen, 2018, p. 210). This is supported by the data from Násávárre that also indicated consultation with the Sámi Parliament and meetings with the community. The interviews (Interview C) show that the SBs were involved late in the process after a notification from the Swedish Sámi Parliament. The IA from 2013 indicates some dialog with the Sámi Parliament and the communities but to a limited degree. The 2019 report has stronger involvement of the RHCs and the Parliament.

During the Evidence Generation phase the Násávárre case demonstrates the inclusion of social and cultural impacts which is in line with Larsen's placement of Norway. However, the IAs do not address the loss of reindeer herding as cultural practise through the impacts. Larsen further describes the incorporation of IK in the phase through "traditional use studies and through oral testimonies" (Larsen, 2018, p. 210). The 2013 IA indicates this to some degree however the data showed that it was not to a satisfactory degree for the Sámi RHCs, Sámi Parliament, or the County Governor (Kommunal- og moderniseringsdepartementet, 2016), although Sweco stated that they had a good dialogue with the Sámi RHCs. I further argue that both reports pay little or no attention to IK as they do not sufficiently include the knowledge of the RHCs to describe the impacts. This is supported by the interviews with the RHCs (Interview A & B) describing

how in their meetings with Sweco and Elkem, they had to use most of their time to explain reindeer herding. The time they spend on lecturing about reindeer herding meant lost time for the reindeer herders to voice their concerns. The 2019 IA has included IK from the RHCs in describing the herding and use of the area.

In the Significance phase, Larsen places Norway under Notification as the IAs are carried out entirely by a "public licensing agency", Sweco. He also places Norway under Consultation as the Sámi Parliament has a right to veto until agreement has been found or until the Norwegian Government overrules the veto. Supported by the data, the significance determination is left entirely to Sweco, whose services are at the cost of Elkem. If we are generous, it could be argued that the 2019 determination was advised by the input from the RHCs, whereas the 2013 IA shows very little involvement. It could also be argued that the RHCs had no input on the significance determination as this is in the hands of Sweco.

In the follow-up phase, Larsen describes Norway's position in the table as "Public authority defines permit conditions, incl. management and mitigation plans, with inputs from Sámi communities." (Larsen, 2018, p. 210). As the Násávárre ministerial decision is still pending, it is unclear how the case will unfold. However, while the authorities have provided the permit conditions the inclusion of Sámi communities is not done sufficiently and authorities require a dialogue between the RHCs and Elkem (Kommunal- og moderniseringsdepartementet, 2016). We can ascertain that conditions of the permit are defined by public authorities but that the data shows the Sámi RHCs were not included in the mitigation plans although they were still presented in the IAs.

The level of participation outlined above shows the level of influence the Sámi can have in the process and by placing the case within the framework, the Sámi reindeer herders have limited to no influence in the Násávárre case. We can understand the level of influence in decision making processes, that affect them and their culture directly, as an indicator of the degree of self-determination. The Swedish parties were not informed in due time, they came in afterwards after the Swedish Sámi Parliament has notified the municipality. If we understand the level of participation as enabled through consultation, which has been unclear to the RHCs and the municipality, then their participation of the reindeer herders has been limited. Furthermore, the 2013 report is an example of very limited participation where it is unclear if the RHCs were contributing to the report at all, whereas the 2019 report has more clarity as it has contributions directly form the RHCs, e.g. description of the use of Násávárre and their reindeer herding. Larsen places IA regimes in Australia, Canada, and New Zealand, higher on the scale. In

Norway even though the Sámi people have a strong recognition of their rights they have limited to no influence. This raises the question whether strong recognition of Indigenous rights equates a high level of influence in IA processes in general.

## 5.5 Findings

### 5.5.1 Násávárre and IK

Both IAs have a group of 'experts' as authors of the report. However, all interviewed RHCs experienced the competences of these experts as insufficient, and all expressed a discontent with this. The RHCs had to devote the little time they had in meetings to explain basic knowledge about reindeer herding rather than using the time to address their concerns. This ties into their experience of not including the RHCs own contributions or IK in the IAs sufficiently. The IAs do not account for certain aspects of reindeer herding and Sámi culture to be none negotiable or out of human control, like for example when calving season starts and ends. The 2019 IA does, however, exhibit how flexible reindeer herding needs to be as it is dependent on many factors, among others weather conditions. As reindeer herding is a practise that is connected to Sámi culture, it is also noteworthy that the impacts on maintaining Sámi culture are not included in the IAs. This is a staggering circumstance. As brought up, this is also the case with the psychosocial and to a large degree the cumulative impacts. The list of the IA 2013 about strategies to minimise negative impacts appears to ignore the fact that input from the reindeer herders is needed although it reminds of the necessity of a dialogue. The RHCs could have been included differently and in other points along the process.

The findings in this thesis indicate a pressing need for greater integration of IK into IA procedures. While IA processes typically adhere to Western scientific methodologies, I argue for the necessity to incorporate IK into IA frameworks in Norway and early in the scoping phase, particularly regarding impacts on Indigenous Peoples. It is imperative that the Norwegian IA regime transitions towards including IK as a standard practise rather than a privileged exception.

Land expropriation and displacement are common causes leading to decreasing the land that reindeer herders can use to practise their traditional livelihoods, something that the state is obligated to protect under international and national legislation. Reindeer herding is a practise that requires land for seasonal migration but also land that provide flexibility depending on seasonal conditions i.e. vegetation, weather, temperature, snow quality, and more.

### 5.5.2 Násávárre in a Greater Context

The IA from 2013 includes a 0-Alternative, explaining what would happen if Elkem should not get the permit to extract quartz from Násávárre. This part highlights Elkem's high costs and time already spent in the process. It further stresses that Elkem would have to look to other countries with other environment and work principles. Further, it is said that Elkem would have to transport the quartz to Norway entailing economic and environmental impacts. The IA 2013 report also emphasises that although the municipality will not receive much income in taxes from the mine, it will benefit the local economy. The IA 2013 states in the 0-Alterinative that, beside climate change effects such as increased vegetation in high altitudes and raised forest lines, Násávárre without the mine, will not face significant changes (Sweco, 2013, p. 25). This would be beneficial for reindeer herding. I argue that Elkem by putting pressure on the municipality by insinuating the lost financial and developmental opportunity for the municipality and the increased environmental consequences when looking for quartz elsewhere. This is a common dynamic between industry and authorities who collaborate for short term financial gains leading to the disregard of negative impacts (O'Faircheallaigh, 2015). The RHCs' opposition to the mine could, therefore, be misinterpreted as opposing development. From the RHCs' perspective the 0-Alternative means, however, that the RHCs could continue practicing reindeer herding, without impacts of the quartz quarry. Nonetheless, the RHCs still face other encroaching measures in the area and must devote time and resources to deal with these.

The 2013 IA describes that the quartz will be transported to one of Elkem's silicon plants producing a range of high-quality product. Primarily they produce aluminium, silicone, and electronics sourced from mainly quartz and carbon materials (Sweco, 2013, pp. 10-11). Although it falls beyond the scope of this thesis, the case can be seen in the light of the green transition. By this I mean that the quartz proposed to be extracted in the mine on Násávárre, after being processed, will be used in products like solar panels. This poses an increased demand on resources like quartz coupled with a wish for these resources not to be extracted in developing countries under a different set of ethical codes and work condition, as well as transported over large distances (Sweco, 2013, p. 25). There is in other words a public discourse that welcomes these resources to be sourced from within national borders where possible and I therefore argue that this case could be seen in light of green colonialism (Fjellheim, 2023b). Green Colonialism refers to the exploitation and domination of Indigenous lands and resources with the pretence of environmental conservation and efforts towards sustainability. This is often

connected, in a Nordic context, to cases of wind and hydro power extraction from Indigenous lands.

When keeping the Norwegian Government's strategy for increasing mineral extraction in the North (Norwegian Ministry of Trade and Industry, 2013), cases like Násávárre are likely not the last one. Measures need to be in place to better ensure Sámi participation in these processes in the future. Elkem's argument about the environmental impacts when having to transport quartz from other countries to Norway is an example of trying to outweigh Indigenous rights for the sake of a green transition.

### 5.5.3 Asymmetries in Participation of Sámi RHCs

Elkem has the resources at hand to run their case while the reindeer herders do not. The RHCs are forced to use their spare time to look into these cases. The interviewed RHCs all referenced how time-consuming it was to address this case. It took up several months of work, while another addressed the significant added costs. They had to provide information to the IA as well as attain legal services. All while keeping in mind that they are not remunerated for their time on some occasions. Each of the three interviews emphasised the complexity of the case, given the involvement of multiple parties. This complexity is exacerbated by the case being elevated to the national level, where KMD must make a final decision. Considering that reindeer herders must address this issue in their limited spare time and recognising that they stand to lose the most, they are forced to depend on national laws and institutions to protect their interests and preserve their traditional livelihoods from measures like the expropriation of Násávárre. However, it is noteworthy that these very structures and laws are what allowed the situation to develop in the first place.

### 5.5.4 Násávárre IAs in Light of FPIC Principles

Free, prior, and informed consent are important principles to enable self-determination. By the authorities putting the compensation and mitigation in the hands of Elkem, i.e. alternative land, and other compensatory measure they are not safeguarding the rights of the Sámi. By this I mean, that Elkem has no authority to grant use rights to other land areas suitable for reindeer herding, nor is it a possible option as explained in both the interviews and the IAs. Free, prior, and informed consent principles, as stipulated in ILO 169 and UNDRIP, are disregarded in the practical implementation as supported by the reports and interviews. As described by some of the RHCs they had a meeting in November 2017 with Elkem early on and were given an ultimatum by Elkem (Dalan Advokatfirma, 2020), this does not fall in line with 'Free' consent.

As for the notion of 'prior' the 2013 IA shows very little about their involvement at the early stages, i.e. Ildgruben RBD was barely mentioned, whereas IA 2019 has the involvement of all RHCs to some degree. The interviews further support this by indicating that the Swedish RHCs were not included in the beginning. By 'informed' I refer to the previous two points and add that all interviews describe fragmented lines of communication between the authorities and the RHCs. Even though the OECD's Due Diligence Guidance for Meaningful Stakeholder Engagement in the Extractive Sector (OECD, 2017), provide guidelines that include FPIC principles, Elkem is neglecting their moral responsibility to abide by these. I find that although the principles of free, prior, and informed consent are a means to ensure self-determination, the rights in the Násávárre case paints a picture of FPIC as a privilege used by the authorities and companies when it suits them.

### 5.5.5 Násávárre and the Right to Self-determination

UNDRIP has the strongest language when it comes to Indigenous Peoples' right to self-determination but as a declaration it is not legally binding. This thesis has shown by addressing the inclusion of IK and assessing the degree of Sámi influence on IA processes in the Násávárre case that self-determination has been treated rather as a privilege than a right. Apart from providing information about their reindeer herding practise, in this case, RHCs have little to no influence on how the IA is presented but also on the outcome of the case. The circumstances is contrary to Åhrén's idea that the level of influence of Indigenous Peoples in decision-making processes should increase with the level of impacts assessed (Åhrén, 2016). It is important to highlight that the 2013 IA is representative of how an IA would look in the case if there were no objection from the County Governor and the Sámi Parliament. The 2013 IA is the testimony of a report that had no inputs from knowledge holders that are experts on the issue and who stand to experience the largest negative consequences.

Referring to the picture on the front page of this thesis, which shows a cabin with a sign on it placed on the hiking trail leading to the Násávárre silver mines. It refers to a moratorium on Násávárre by the RHCs and it is a testimony of the discontent with the Násávárre case. Nicholas Rose argues that "creative resistance arise(s) in cramped spaces – within a set of relations that are intolerable, where movement is impossible, where change is blocked and voice is strangulated" (Lawrence & Larsen, 2017, p. 1166). This quote seems fitting to describe the situation in which the RHCs are placed in the Násávárre case.

## 5.6 Aspects of Limitations

The Scalar Framework has proven to be a useful tool to evaluate the Sámi reindeer herders' participation in both IAs. Placing Norway in the scope of limited to no influence for Indigenous Peoples gives the Sámi reindeer herders the possibility to point out their disadvantaged stand in cases such as the planned mine on Násávárre. The comparatively great recognition of Indigenous rights in Norway can thus not hide the fact that the Sámi people experience threats to their culture and traditions which they must face with little leeway in IA processes. The Scalar Framework evaluates the legal measures in place for Indigenous Peoples to participate in IA processes, however, it must be considered that these measures may not prove themselves in practise. Another example is the transfer of responsibility for safeguarding Sámi rights to Elkem, which contravenes measures of supervision in compliance with Indigenous rights. The Sámi reindeer herders have rights, which are not or only partially executed. Consequently, the measures are not assessed through the Scalar Framework by their applicability and whether they are shaped by and for Indigenous Peoples. Further, the use of IA reports as the foundation to judge the influence of Indigenous Peoples is based on the presumption that the IAs reflect the reality and are self-critical. Yet, the conducted interviews have disclosed a significant mismatch in what the IAs describe and what the RHCs experienced. While the IAs draw on Norwegian law considering and protecting Indigenous rights, or declare the dialogue with the RHCs as good, the RHCs' experiences contradict these statements. This raises the question, whether actual Sámi influence in IA processes lies even under the rating Larsen made.

# 6. Recommendations

The analysis and discussion of the collected data using the Scalar Framework has shown that the level of participation RHCs have in the IA processes of 2013 and 2019 concerning the Násávárre case is non-existent to very limited. The data depicts substantial mismatches between RHCs and their opponents in expectations, consultation, participation, and integration. The aforementioned trend of increased participation and influence of Indigenous Peoples in IA processes today, which Larsen has detected in his research, is only marginally visible in Norway. A discrepancy between the recognition of Indigenous rights in Norway and their execution in practise has been disclosed. Therefore, I argue that the data gives reason to question the placement of Norway in Larsen's table of "Key elements of Indigenous participation in the selected IA regimes" as rather benevolent. Despite the ratification of ILO 169, the vote for UNDRIP and the implementation of ICCPR in Norwegian legislation, the

Sámi reindeer herders have very limited to no influence in decision-making processes concerning the Násávárre case (Ravna, 2020b). Article 27 of ICCPR is implemented in domestic law in Norway and is significant in cases of conflicts between Sámi reindeer herding and industry, as the Fovsen case illustrates (Fjellheim, 2023a).

As explained by the Sliding Scale Theory, Indigenous Peoples' influence needs to increase with the significance of impacts a project has or could have on their livelihoods. Since the practise of Sámi reindeer herding is threatened, though legally secured, the impacts of the mine can be classified as extremely significant. Therefore, the RHCs should be involved to a higher degree. The IA report from 2019 has, admittedly, tried to compensate for the lack of the RHCs involvement into the IA process of 2013. However, inquired knowledge about reindeer herding and the use of Násávárre was insufficiently integrated in the IAs and depicts a limited understanding of IK by Elkem from the beginning.

Based on the interviews, I will now discuss recommendations in relation to the Sliding Scale Theory by Åhrén (2016) to contribute to minimising the mismatch between the right to self-determination and IA processes.

## 6.1 Implementation of Indigenous Knowledge

The contemplations of the previous chapters have exposed the need for a stronger inclusion of the Sámi people in the Násávárre case, specifically, but also of IK in IA practises in Norway, generally. The IA from 2013 followed Norwegian legislation and fell short in representing Sámi interests. This circumstance exemplifies that the IA process in itself is flawed and needs input from Indigenous Peoples. The attempts to compensate these flaws with the IA in 2019 did not succeed either. Learning from the criticism raised in the interviews an improvement of consultation procedures, trust between the involved parties and finding solutions in terms of compensation is based on renumerated collaboration with the Sámi reindeer herders from an early stage on and by default. By placing advisers or knowledge holders from the RHCs at the centre of the IA processes from start to end, it is possible to move beyond the insufficient notification and consultation practise that is in place in Norway today. This would guarantee active involvement in decision-making processes (Åhrén, 2016) and ensure flexibility which is in line with unique implications of each case. Involving Indigenous Peoples and their knowledge in IA processes from the start and as a standard could eliminate the risk of not including all relevant parties, as has happened in the Násávárre case. Moreover, the impacted Sámi communities could express early on whether intensive consultation is needed. As Åhrén

(2016) explains, the degree of Indigenous influence should be adjusted to the individual issue and its importance to the Indigenous community. An outsider might misinterpret the significance of impacts on the community and, thus, advise for or against involvement of Indigenous Peoples. Another advantage of always involving Indigenous Peoples is the potential that their knowledge holds in line with sustainable land use. Drawing on their skills could spark solutions to challenges of climate change even in projects that might not affect an Indigenous community directly. This way, possibilities can be explored that otherwise would not be considered. At this point another noteworthy aspect about the collaboration with Indigenous Peoples is the opportunity to prevent the exploitation and appropriation of IK.

## 6.2 Distrust in Authorities

Another aspect, which was displayed in the interviews, is the distrust of the RHCs in authorities. As laid out, the municipality would benefit from the mine on Násávárre as well as, naturally, Elkem. Their interests are therefore opposed to those of the Sámi reindeer herders. Further, the safeguarding of Sámi rights was placed in the hands of Elkem. These circumstances combined with the aforementioned untransparent consultation practises explain the distrustful stance of the RHCs. This is amplified by the fact that Elkem is the commissioner of the IAs, meaning Sweco is paid by Elkem. Sweco's results of evaluating impacts on the opponents of their commissioner Elkem can therefore be questioned. This is a structural issue leading to mistrust and requires an evaluation of the financial arrangements and obligation to unbiased evaluation processes. Mechanisms to mitigate conflicts as well as a stronger autonomy and unbiased stand from the service provider is needed. Here again, the recognition of the severe impact on the RHCs in the Násávárre case should lead to them holding a co-management position (Åhrén, 2016). This could correct the power imbalance between the opponents to some degree and give the RHCs the possibility to actively shape the process as well as share relevant knowledge. Participation in financial gains would enable the Sámi reindeer herders to employ experts who can represent their interests and stay informed on these cases. However, the involvement of the Sámi reindeer herders should not be handled as a mitigation measure.

## 6.3 Mitigation Measures

Though the RHCs denied participating in debates about mitigation measures, the IA of 2019 presented potential means to compensate for the loss of land. This implementation of measures from Elkem results in fundamental challenges of land ownership and the obligation of a Chinese owned company to compensate the loss of cultural practises. Another challenge is that Elkem

and the RHCs are left to reach agreement. Given the power asymmetries of these parties it contributes to the level on inequality and distrust of the RHCs. Additionally, Elkem has the power to set arbitrary mitigation measures. Further, the idea of financial compensation itself implies that cultural practises and their loss are replaceable with money. This premise entails a disregard for Indigenous cultures, traditions and worldviews. I argue that this neglect has been displayed by the ultimatum proposed by Elkem as mentioned in the interviews. They offered a set amount of money and declared resistance unnecessary since the mine is to happen. Conversations like this disclose rejection of Indigenous rights to self-determination and participation.

It is essential that mitigation measures address impacts of extractive industries on Indigenous communities. There is a need for a just and fair compensation system that equates the losses but considers non-negotiable aspects of Indigenous culture. To do so, it is crucial to approach these processes from an Indigenous background, meaning the inclusion of the Sámi reindeer herders and their worldviews. By following Åhrén's approach, the reindeer herders could use their co-management position to implement Indigenous methodologies in IA processes.

# 7. Conclusion

This thesis aimed to identify the degree of influence that the affected Sámi reindeer herding communities have in IA processes in the Násávárre case and how they are enabled to participate. To do so, two IAs by Sweco Norway AS from 2013 and 2019 were analysed. The data was supported with conducted interviews with RHCs as well as rights holders and authorities. By applying Larsen's Scalar Framework, the IAs were contemplated and re-evaluated in line with criticism towards the methods in IA processes limiting or excluding Indigenous influence. Based on the severity of the estimated impacts of the mine on reindeer herding, the thesis also touches upon possible changes in decision-making processes through Åhrén's Sliding Scale Theory to increase Sámi influence and thus self-determination.

The analysis of Sámi participation in the Násávárre case shows that the reindeer herders' influence can be rated as "limited" to "no influence" according to Larsen's framework. Even though, Sámi rights concerning traditional land use, preservation of culture and self-determination are supported by ILO 169 and ICCPR and other legally binding obligations, as well as UNDRIP principles, in Norwegian legislation, the RHCs face immense structural obstacles in executing these rights. The IA processes display little regard to Indigenous

worldviews and are rooted in systems, whose interests run opposed to the Sámi reindeer herders in this case. Through the construction of the quarry on Násávárre, the Sámi reindeer herders would suffer loss of land, changed migration routes, reduction in herd sizes and personnel and consequently the loss of traditional customs. Based on the severity of the impacts as accounted for in the Sliding Scale Theory, the RHCs should be granted a co-management position and financial gains. However, the chosen method of inclusion by Elkem and Sweco shows the minimum and warranted efforts to include the Sámi reindeer herders by law.

Criticised right after its publication in 2013, the mistake to not involve the Sámi reindeer herders in the process was sought to be compensated through a second IA Analysis. Modelled after prescribed principles in Norwegian legislation, the IA of 2013 already displayed structural issues concerning the inclusion of Sámi voices in decision-making processes. These problems in structure were neither addressed by the second report, nor made up for to a noticeable degree. While the IA of 2019 stated good dialogue with the RHCs, the latter explained untransparent communication, misunderstandings, limited time, distrust, and insufficient conveyance of information. Little knowledge about reindeer herding on Elkem's side – even though a team of experts had been employed – led to misunderstandings. Requested information on the use of Násávárre was unsatisfactorily employed, albeit the additional work this caused for the reindeer herders. The case strains the RHCs financially and burdens them with multiple hours of unpaid work. This adds to the already existing imbalance of resources between the opponents.

Through the example of the Násávárre case, this thesis has disclosed a severe mismatch in established Sámi rights and their execution in IA processes in Norway. This strengthens Larsen's assertion of Indigenous influence being often treated as a privilege rather than a right and emphasises the need for structural re-evaluation of the Norwegian IA regime. Since the RHCs are those most impacted by the proposed mine and in a way that threatens their livelihoods, this thesis advocates for their significant influence in the Násávárre case.

To establish more influence in decision-making processes for the Sámi people, I argue for using the Sliding Scale Theory as well as to include Sámi people as a standard and from the start of IA processes. By measuring the severity of impacts which respective Sámi communities face through proposed projects, the level of influence the communities have can be adjusted on a case-to-case basis. The involvement of Sámi people from the start and standardly allows for appropriate evaluation of affected communities and necessary influence. Further, IK offers understandings and insight relevant in today's endeavours of sustainable resource management.

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# Appendix

## Appendix A

**Table 1.** Key elements of indigenous participation in the selected IA regimes.

| | | | | |
|---|---|---|---|---|
| *Community-owned (total influence)* | | • Extraction and re-insertion of SIA from formal EIA process and/or SIA with full community control. Recruitment of indigenous researchers into SIA team. Consultants supporting community with negotiation positions (AUS)<br>• Communities (iwi and hapu) undertake own cultural IAs and employ their own IA experts (A/NZ) | | |
| *Co-management (shared influence)* | • Review Board members are nominated by community and government (50–50%) and drafts TOR for studies. Work funded jointly by developer and government (NWT)<br>• Permanent Coordinating Committee composed of equal numbers from community and developer. Funding in-part provided by the developer (AUS)<br>• Maori legally recognized as partners to government (A/NZ) | • All parties actively invited to submit evidence for hearings. Broad view on evidence, incl. testimony and other traditional knowledge, physical objects, photos, site visits. All matters of substance publicly disclosed online (NWT)<br>• Culturally appropriate consultation process designed by elders. Legitimacy and weight to indigenous knowledge, oral submissions permitted, ample time for contributions and hearings, avoiding overt adversarial nature. Confidentiality agreements regulating disclosure of sensitive knowledge (AUS)<br>• Culturally customized impact assessments (A/NZ) | • Decision by majority vote, aiming for consensus. The Review Board explains views on and weighing of evidence (NWT) | • IMAs play watch-dog role throughout project lifetime (NWT)<br>• Private agreements guaranteeing role in the project's Management Committee, benefits, funding, and protection from subsequent undermining of agreement (AUS)<br>• Joint management agreements and long-term co-management and performance monitoring bodies (A/NZ) |
| *Consultation (limited influence)* | • Centralized consultation with the Sami Parliament prior to new developments (NO)<br>• Statutory requirements, in some sectors and limited parts of the planning process, to meet and hear the views of the community (SE, NO) | • Statutory requirement to consider social and cultural impacts. Incorporation of Sami traditional knowledge, i.e. in traditional use studies and through oral testimonies (NO)<br>• Voluntary corporate practice of inviting inputs to specific 'reindeer herding analyses' (SE) | • Determined by public authority through professional judgment and decision support tools (AUS)<br>• Determined by subnational government (i.e. councils) (A/NZ).<br>• Legal mandate for the Sami Parliament to temporarily veto permit processes till agreement is reached or government overrules the Sami Parliament. Obligation of authorities to consider social and cultural impacts (NO) | • Public authority defines permit conditions, incl. management and mitigation plans, with inputs from Sami communities (SE, NO) |
| *Notification (no influence)* | • Some sectoral legislation, e.g. for mining, places no requirements on the developer to meet or hear the views of the affected community (SE) | • Preference to Western and scientific knowledge. Failures to account for cumulative effects (SE) | • Determination made entirely by public licensing agency (SE, NO) | • Confidential and private compensation agreements disconnected from IAs (SE) |
| | SCOPING | EVIDENCE GENERATION | SIGNIFICANCE DETERMINATION | FOLLOW-UP |

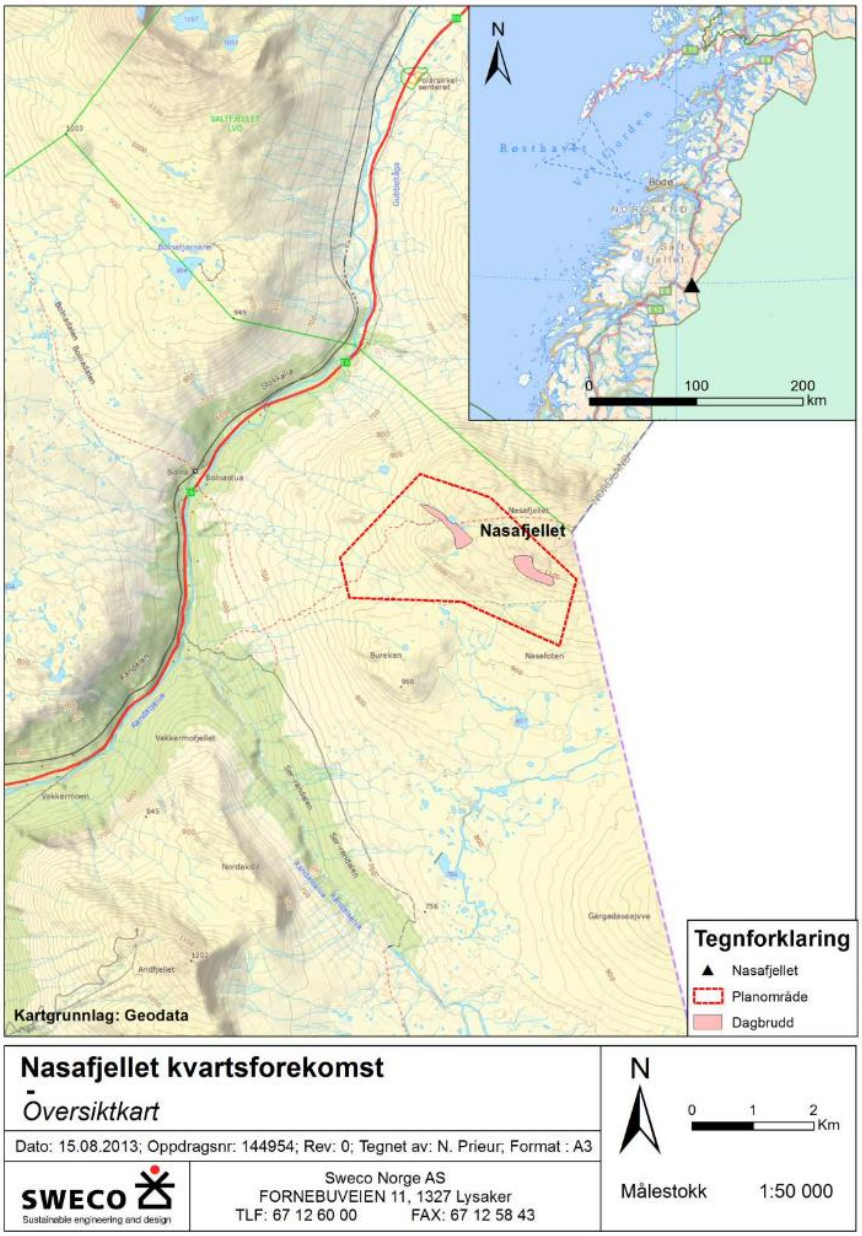
(Larsen, 2018, p. 212)

# Appendix B

## 6 Beskrivelse av tiltaket

### 6.1 Beliggenhet

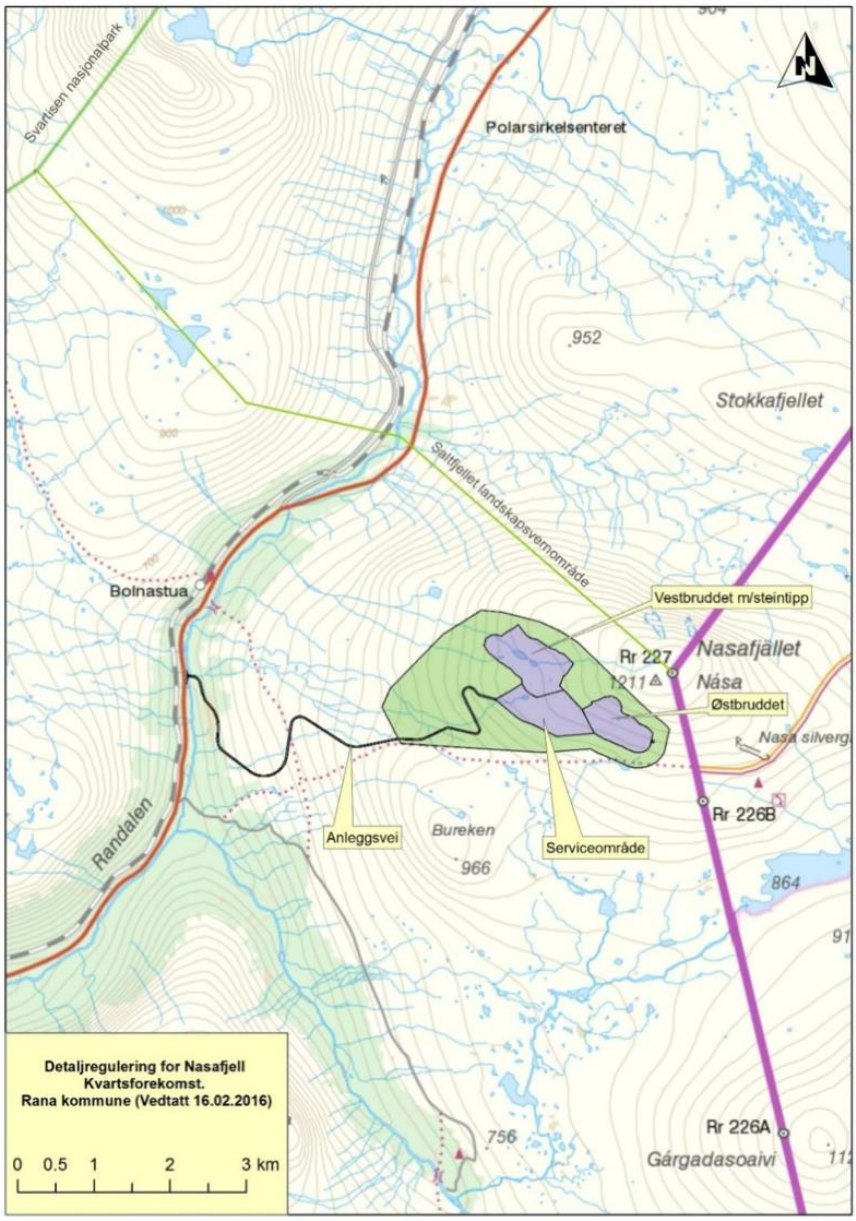
Forekomstene ligger på sørsiden av Nasafjellet på Saltfjellet i Rana kommune, ca 1 km fra svenskegrensen, se Figur 6-1.




**Figur 6-1. Lokalisering av tiltaket på Saltfjellet i Rana kommune. Rosa felt: Planlagte dagbrudd = kvartslinser**

(Sweco, 2013, p. 17)

# Appendix C




*Figur 1-1 Oversiktskart over reguleringsplanen. Lokalisering av dagbrudd, steintipp, serviceområde og adkomstvei. Grønt felt er avsatt til landbruk, natur, friluftsliv og reindrift i reguleringsplanen. (kilde: Rana kommune 2016 B)*

(Sweco, 2019, p. 3)