Conflicting interests in natural resource management

- A case study on mining in northern Sweden

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ABSTRACT

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Sweden is the leading mining country in Europe and the Swedish government intends to retain this position by fostering innovation, investments and cooperation. However, mining is an extractive industry with massive consequences on the surrounding environment and the people living there. In resource abundant northern Sweden mineral extraction is a contested subject, not least in respect to the traditional land use by the Sami population. This study intends to increase the understanding of the current mining trial process in Sweden, the effects on sustainable regional development and the implications for local communities. To do so, this study aims to identify which aspects that are brought forward during the trial for exploitation concession and how different interests are evaluated. For the purpose of this study, the bureaucratic mining trial process is examined and 15 mining cases studied in detail considering the exploitation concession phase. The material indicates that conflicts over the bureaucratic process is based both in what aspects that should be included in the assessment, how these aspects are evaluated and at what stage in the formal process various aspects should be brought up. Guided by the concepts of extractivism and subnational resource curse, the main finding identified is that the mining trial process is state-centred. This is displayed in the limited influence of local actors on the decision and in the use of national interest as a policy tool to evaluate conflicting land use claims. These characteristics can in turn increase the risk of a subnational resource curse in northern Sweden.

Key words: mining, natural resource management, sustainability, resource curse, extractivism, Sweden
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<td>Environmental Impact Statement</td>
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<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<td>SDG</td>
<td>Sustainable Development Goal</td>
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CHAPTER 1

INTRODUCTION

1.1 Introduction

Northern Sweden is sparsely populated and characterised by vast intact nature areas, abundancy in natural resources and the Sami cultural heritage. It’s a popular destination for tourists as well as opportunist seeking to commodify its resources. Nevertheless, the region is often referred to in terms of declining populations, unemployment and deterioration of small local economies. The existence of a subnational resource curse in northern Sweden have been scrutinised by the Swedish journalist Arne Müller. In his book, *Norrlandsparadoxen – En utvecklingsdröm med problem* [The paradox of Norrland - A problematic dream for development], Müller investigates the situation for local communities in northern Sweden. Huge investments have been made in mining and wind energy projects in different parts of Norrland, but the small societies in the region do still not flourish. The author finds that the investments did not result in vast employment opportunities, increased populations or improved services as is usually promised. The local communities have thus not experienced any major long-term benefits, instead they often bear the costs of environmental degradation and outcompeted businesses. The author brings forward increased efficiency in the mining industry, centralised business centres, irregular mineral prices, rushed decisions (the projects must start to make profits soon after initiated to pay back investments), restrained municipalities, and profits ending up elsewhere as underlying reasons for the poor outcome. Müller argues that the problem is the huge gap that occurs between the investments and promises made, and the actual outcome for the local communities (Müller 2015).

To use the natural resources provided by earth is a fundamental feature of how humans develop societies all over the world. Still, there is not usually consensus on what to withdraw, where and when. Instead conflicts arise between actors with diverging values and perceptions. What is regarded as a good and proper use and management of natural resources differ between actors. For this study, mining in northern Sweden is used as a case of natural resource management. Opinions on mining is diverse in Sweden, both between actors on a local level but also between national and regional governmental agencies. Especially apparent in this case
is the fundamental different understandings of the central government and the Sami Parliament, on land in northern Sweden and how it should be managed. Their views on mining in Sweden, and especially in the regions inhabited by the indigenous Sami people, are described in the national mineral strategy titled *Towards a sustainable usage of Swedish mineral assets, creating growth for the whole country and the Sami Parliament view on minerals and mines in Sápmi*. The aim of the national mineral strategy is to promote innovation, research, infrastructure, cooperation and to remove barriers for international investments in order to foster a growing mineral sector in Sweden. The objective is to increase the competitiveness and strengthen Sweden’s position as the leading mining country in Europe. To mine in harmony with the environment, cultural heritage and other businesses is identified as one of five strategic areas. Emphasis is put on early dialogue between actors with competing interests and to always strive for coexistence (Ministry of Enterprise and Innovation 2013). The Sami Parliament acknowledges that they, as an indigenous people, have special rights to the land and water resources. The need for land and water resources to ensure their livelihoods and preserve their cultural heritage should be prioritised. The standpoint put forward is that the Sami Parliament, affected Reindeer Herding Districts and affected individual Sami should have the right to veto against exploitations in their land (Sami Parliament 2014).

1.2 Mining and conflicting interests in Sweden – a literature review

Research on mining in Sweden has previously centred around technical aspects. However, much research is currently conducted on mining from a social- and political science perspective. Perceptions among various actors about specific projects and the mineral strategy, resistance against mining, and possibilities for cooperation and coexistence are identified as major focus areas in research currently. Selected publications that depict the contemporary research agenda on mining in northern Sweden is presented below.

A research project on mining in the mountains in northern Sweden, financed by the Swedish Environmental Protection Agency (SEPA), was conducted between the years 2013-2015. The involved researchers, Karin Beland Lindahl, Anna Zachrisson, Roine Wiklund, Simon Matti and Daniel Fjellborg, studied the possibilities for long term sustainability in these areas in relation to mining. More specifically the focus was on perceptions about mining among

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1 Sápmi is the traditional homelands of the Sami indigenous people, reaching across parts of Sweden, Norway, Finland and Russia.
stakeholders and the wider public. Using the mining trial processes in Kallak and Rönnbäcken as cases studies the investigation found that all actors wanted a sustainable regional development, however, opinions on how that would be achieved differed significantly between the parties. This result in conflicts over which development paths to follow (Lindahl et al. 2016).

Simon Haikola and Jonas Anshelm critically examine the Swedish mineral strategy and the efforts made by the Swedish government to facilitate international investments in the mining sector in their paper *Mineral policy at a crossroads? Critical reflections on the challenges with expanding Sweden’s mining sector*. They find that the Swedish mineral politics is both praised and criticised. Moreover, the authors identify a need for facilitating discussions among the parties (Haikola & Anshelm 2016).

Conflicts over mining developments in northern Sweden and emerging resistance have been investigated not least in relation to the case in Kallak. Angelica Sjöstedt Landén have identified how diverse groups united and formed new alliances against the developments in Kallak (Sjöstedt Landén 2014). Moreover, Coppélie Cocq have studied the same conflict, emphasising the Sami perspective and the role of the land for the cultural identity of the indigenous population (Cocq 2014). The relationship between the indigenous peoples, the Sami, and their land, and how that connection is threatened by extractivist activities in northern Sweden have further been addressed by Kristina Sehlin MacNeil (Sehlin MacNeil 2017).

The relation between mining and reindeer husbandry in northern Sweden has been investigated from various perspectives. The Norrbotten County Administrative Board recently studied means for increased cooperation between reindeer husbandry and mining. Conducting interviews and one workshop, they identified that the conflicts between mining and reindeer husbandry are based on fundamental different interests that cannot be eliminated. However, the Norrbotten County Administrative Board stressed that consultations, dialogue and exchanging experiences could be used as means to mitigate the conflicts (Norrbotten County Administrative Board n.d.).

1.3 Research problem
Can we prioritise between the conflicting interests over natural resource use in a way that ensures sustainable livelihoods for the citizens and protect the environment for future generations? Contemporary mining in Sweden do often not create the local and regional
development as planned. Instead it seems as the mining companies extract most of the benefits while the local communities bear the burden of intrusions and damages on the environment.

The diverging interests over mining in northern Sweden are the point of departure for this study. However, as underlying values and perceptions among actors have been thoroughly studied previously, this study aims to investigate the problem from a bureaucratic perspective. Focus is put on the process preceding a new mine and what the decisions to allow or not allow a new mine are based upon. More knowledge is needed on what interests and what aspects that are actually included in the trial process before a mine is allowed, and how these interests are weighed against each other. This study take a subnational approach on natural resource management, to better understand how local, regional and state interests are adhered to in the process. Especially the evaluations over competing land and water resources is studied. National interest is an important policy tool that is used in the mining trial process to evaluate and guide trade-offs over land and water use, consequently this will be discussed at several points throughout this paper.

1.4 Aim & research questions
This study intends to increase the understanding of the current mining trial process in Sweden, the effects on sustainable regional development and the implications for local communities. To do so, this study aims to identify which aspects that are brought forward during the trial for exploitation concession and how different interests are evaluated.

For the purpose of this study, the following research questions will be addressed:

- How is the mining area interpreted in the bureaucratic trial process?
- In what way does the bureaucratic mining trial process pay attention to local, regional and state interests?
- Which national interests are colliding with the mining industry in northern Sweden?
- How are trade-offs between different interests considered and evaluated?

1.5 Disposition
This thesis is divided into eight main chapters. After this first introductory chapter, presenting the topic, previous research and the aim of this study, the second chapter will further describe the field for the research more in detail. A more detailed background on mining in Sweden, environmental impacts of mining, the northern context and the policy tool national interest
provide the settings in which this thesis is situated. In the third chapter the theoretical framework is presented, focusing on sustainable development in relation to mining, and the concepts of extractivism and subnational resource curse. Furthermore, the methodology of the study is presented in chapter four. This chapter also contains a discussion of the research scope. In order to understand the bureaucratic settings and answer the posed research questions, the formal trial process for mining projects are examined and described in chapter five. This chapter present the structure of the entire mining trial process, from the first application to the last stage before a mine could be initiated at site. In chapter six the result from the review of the case specific documents on the exploitation concession stage is presented. This is followed by chapter seven that discuss the major findings in the empirical material taking departure in the theoretical concepts. A short discussion on the current approach towards natural resource management and future developments can be found in chapter eight, including some suggestions for future research. Lastly, chapter nine concludes the paper by highlighting the main findings of this study.
CHAPTER 2

BACKGROUND

2.1 The Swedish mining industry

Sweden is one of the major metal producers in the European Union (EU). The Geological Survey of Sweden (SGU) reports that Sweden accounted for about one third of the zinc and lead produced in the EU during 2015. For iron the share was 90%. However, compared to the global production of metals, EU and Sweden provided only small amounts of metals. Of the world metal production, the EU use somewhere between 25-30%, while providing for just about 3% of that production (SGU 2016-b).

During the last 15 years the number of mines in Sweden has remained more or less constant around 15-16 mines (SGU 2016-a). Currently 16 mines are operational in Sweden, of which two are clay-producing mines located in southern Sweden. The remaining 14 mines are used for extracting metals (SGU 2017). Most of the Swedish mineral resources are concentrated in three ore districts Malmfälten in Norrbotten county, Skelleftefältet in Västerbotten county and Bergslagen in central Sweden. The metal mines currently active are concentrated in one of these three ore districts (SGU 2016-b). See figure 2.1.

The Swedish ore production experienced a steady increase from 1990 up to 2015, when the trend reversed and ore production suddenly declined with 11%. SGU reported in 2016 that most of the new mineral exploration in Sweden has been conducted in Norrbotten and Västerbotten counties and the major prospectors are the Swedish based company Boliden and LKAB, which is owned by the...
Swedish state. About 6900 people were employed in the Swedish mining industry during 2015 (SGU 2016-a).

2.2 Environmental impacts
Mining is an invasive and inherently non-renewable industry, causing irreversible damage on the surrounding environment. The Ecuadorian economist Alberto Acosta argues that extracting minerals from low content deposits, which is sometimes profitable due to high world market prices, is especially harmful to the environment as it involves using large amounts of chemicals and water. Various chemicals are used depending on the deposit, and some are highly toxic. Simultaneously, mining of low content deposits requires massive areas and creates huge volumes of waste material (Acosta 2013:69). Over the years, heavy metals and acid rock drainage can leak out from the waste material and pollute the surrounding environment. For open pit mines this issue is generally more severe as the pit lays open for external impacts. Especially problematic is the contamination of water sources which could cause public health problems, and scarcity of water for human consumption and agriculture (Acosta 2013:70).

The environmental impacts from Swedish mines have been reduced significantly during the last decades, according to SGU. Still, SGU acknowledges that mining has severe impacts on the surrounding environment. Noise, dust, changed landscapes, air and water pollution, and energy consumption are identified as the major issues. However, proper management of mining waste is recognised as the most important measure to limit long-term environmental damage (SGU n.d.). Of the 167 million tons of waste material totally generated in Sweden during 2014, 139 tons was mining waste (SEPA 2017).

2.3 Northern Sweden as a location for natural resource extraction
The valuable characteristics of the environment in the northern parts of Sweden, where most of the mining activities occur, is recognized by the government in Sweden’s Mineral Strategy. The northern region feature both natural and cultural values, is rich in outdoor activities and accommodate the traditional reindeer husbandry conducted by the indigenous Sami people (Ministry of Enterprise and Innovation 2013:22). In the environmental goals of Sweden, the sensitive environment in the mountainous areas in northern Sweden is especially recognised under the goal “A Magnificent Mountain Landscape” and should therefore be protected
accordingly. To preserve the biological diversity in the mountainous areas and to ensure sustained outdoor recreation are two examples of the aims with the goal (SEPA 2016).

Livelihoods in northern Sweden has always been based on the use and extraction of the surrounding natural resources, by for example fishing, hunting, reindeer herding, mining, and agriculture. However, urbanisation change the situation in the already sparsely populated northern countryside. New employment opportunities must be created to maintain the population. Nature-based tourism has been one solution to create employment and uphold service supply in the region (Sköld & Moen 2012). New employment opportunities are also one of the main pro-mining arguments used for promoting the establishment of new mines in northern Sweden (Lindahl et al 2016:18).

Land use in northern Sweden is a contested subject. The region is the traditional home for the Sami people, who are recognized as the only indigenous people in Sweden. Today the Sami is a minority people in Sweden, with a unique language, culture and identity. However, centuries of intrastate colonization with acculturation, assimilation and identity change have violated the Sami people and their heritage. Impacts on the Sami and their main livelihood have resulted in a complicated relationship between the Sami people and the majority society in Sweden. The traditional Sami livelihood, reindeer husbandry, suffer from different forms of natural resource use and infrastructure projects. Forestry, mining, hydropower dams are some forms of land use that cause fragmentation of the landscape and limit the causal movement of the reindeers. Furthermore, these developments disturb the reindeers and their inherent movement patterns. As a consequence, the need for transports, helicopters and supplemental feeding of the reindeers increase, causing large economic costs for the herders. These changes limit the capacity of the reindeer herding to buffer, and thus resilience is lost. In turn, this make reindeer husbandry more sensitive to various large scale disturbances, such as climate change. Hence, every new change in land use adds up and the total cumulative effects on reindeer husbandry might eventually reach a threshold when business cannot continue as usual (Sköld & Moen 2012).

Reindeer herding is considered essential for the existence of Sami culture and Sami identity. In 2007 Sweden adopted the United Nations Declaration on the Rights of Indigenous Peoples, implying that indigenous peoples have the right to control their traditional lands and natural resources. As reindeer husbandry is a traditional cultural expression and a livelihood based on the use of natural resources, political scientist Annette Löf argues, reindeer herding should qualify under this principle (Löf 2014:4). Moreover, the Sami rights to reindeer herding are
protected in Swedish legislation. However, these rights are not considered in the Minerals Act. Kristina Sehlin MacNeil argues, in her doctoral dissertation on indigenous people and extractive industries, that this could weaken the rights of reindeer husbandry in relation to the mining industry (Sehlin MacNeil 2017:10).

2.4 National interests

Areas judged especially valuable for various purposes, such as mining, reindeer husbandry and nature conservation are defined as national interests by Swedish law. The purpose of the national interest regulation is to present which interests that are of particular importance for the needs of the general public and thus should be prioritised in a trade-off situation concerning land management. For the discussions later in this paper it is important to note that the inherent meaning of the Swedish term *riksintresse* is somewhat lost when translating it to the English *national interest*. The term riksintresse, puts emphasis on the interest for the “rike”, which is a more traditional Swedish name of a state or kingdom. Thus, the Swedish term refers to interests of the state. The term national interests will still be used throughout this thesis as it is the official name of the strategy.

There are two different forms of national interests in the Environmental Code. First, a set of specific geographical areas that should be protected are identified in the law. These areas are more or less the same as when first initiated and include coastal areas, mountain areas, unexploited waters, and areas for outdoor activities among others. The second form of national interests are the areas that could be of national interest based on how it can be either preserved or exploited. Important areas for mining and reindeer husbandry are both included in this form as well as areas valuable for communications, nature conservation, fishing, energy production, defence etcetera. There are 12 different authorities in charge of identifying and denoting areas in their specific sectors that could be of national interests. The purpose behind denoting a national interest, as well as the values and which specific geographic area that is concerned, should be made clear by the authority. The claims made by these authorities should then be jointly managed by the County Administrative Board and the municipality. National interests of this kind will not be legally binding until a trial process over land use is initiated and a decision is made by a court, a governmental authority, the government or a municipality. The National Board of Housing, Building and Planning coordinate and oversee the work conducted by the responsible authorities and manage the overall use of land and water throughout the country. The County Administrative Boards have similar coordinating responsibilities, but on
the regional level. Moreover, the County Administrative Boards should promote and safeguard the interests of the state in the planning process at the municipality. The municipality in turn designate a comprehensive plan describing how the national interests will be met (National Board of Housing, Building and Planning 2013).

Areas that contain valuable substances or minerals are mapped by SGU. The societal need and the particular characteristics of the substance or mineral influence whether an area is selected as a national interest or not. Additionally, also well investigated and documented deposits gain advantage when identifying the national interests. SGU then report to the County Administrative Board which areas that are deemed as national interests for valuable substances or minerals (SGU 2016-b). National interests will be further discussed in relation to the mining trial process in chapter 5. A comprehensive list of the interests that are included as national interests in the Environmental Code can be found there as well.

2.5 Coexistence of national interests

A study conducted by the Norrbotten County Administrative Board found that the concept of coexistence is often brought up when discussing mining and reindeer husbandry with concerned actors in northern Sweden. However, the concept is interpreted differently between the two business sectors, which could impede dialogue and cooperation (Norrbotten County Administrative Board 2016:10). Moreover, trade-off situations between two or more national interests are considered in the Environmental Code, however the possibility for mining and reindeer husbandry to coexist is not brought forward here. Still, coexistence is always sought if feasible. In Sweden’s Mineral Strategy, coexistence between the two sectors is one of the proposed measures to create a sustainable use of the Swedish mineral assets. Early dialogue between the prospector and the concerned Reindeer Herding District would limit the mining’s disturbance on reindeer husbandry and thus improve the opportunity to coexist (Ministry of Enterprise and Innovation 2013:27). Moreover, in comments to the chapter 3 Environmental Code, it is stated that in a trade-off situation between two national interests precautions could be imposed to safeguard the other national interests. According to Norrbotten County Administrative Board this has been interpreted as that solutions for coexistence between conflicting interests should always be sought by the authority in charge. If it is found that coexistence is not possible even with precautionary measures, then it is decided which interest that should be prioritised (Norrbotten County Administrative Board 2016:10).
CHAPTER 3
THEORETICAL FRAMEWORK

3.1 Sustainable development and natural resource use
In September 2015, the Sustainable Development Goals (SDGs) were adopted by the United Nations member states. The goals represent the universal plan for worldwide social inclusion, environmental sustainability and economic growth (UNDP et al. 2016). How the natural resource base is managed is identified as a cornerstone to achieve a sustainable development. In the common vision portrayed in *the future we want*, the outcome document of the Rio+20 United Nations Conference on Sustainable Development, it is stated that:

We recognize that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development (UN 2012:1).

The specific relation between mining and sustainable development have been deliberated upon in the same report, but it has also been discussed by the United Nations Environment Programme (UNEP) and the UNEP-hosted International Resource Panel. Furthermore, a joint report compiled by the United Nations Development Programme (UNDP), the World Economic Forum, the Columbia Center on Sustainable Investment and the Sustainable Development Solutions Network analyse the role of mining for the SDGs. The report studies each goal and its linkages to mining in order to identify how to manage mining in order to achieve a sustainable development. To better understand the actual and the potential contribution of mining the report present its opportunities, such as furthering job creation, innovation, investments and infrastructure, as well as the challenges, including environmental damage, displaced populations, inequality and increased conflicts. Additionally, the produced minerals are essential for the development of new technologies, infrastructure, energy and agriculture. Still, it is acknowledged that mining has historically actually contributed to the problems that the SDGs address. It is especially problematic as the mining deposits are often located in less-developed, remote, ecologically complex areas inhabited by indigenous populations. However,
the report concludes that the modernization and advances of the industry, to mitigate and manage the problems and risks with mining, makes mining a possible positively contributor to reach all 17 SDGs. Mining is thus identified as a means to mobilize human, physical, technological and financial resources in order to contribute to sustainable development and advance the SDGs (UNDP et al. 2016).

The fundamental conditions for mining to be a positive contributor to sustainable socio-economic development is described in a study on mining and its implications on the local level development conducted by geographer Tuomas Suutarinen (2015). The author put forward three criteria for sustainable socio-economic natural resource use. First, it is emphasised that natural resources should be exploited with a long-term plan with alternative economic potentials in mind. Second, the exploitation should proceed without damaging future potential of the local living environment and possible alternative industries. Lastly, the exploitation should respect the social aspects of local sustainable development (Suutarinen 2015:101).

3.2 Extractivism

Mining is often referred to as an extractive industry, having similar characteristics as other extractive activities such as drilling for oil. The characteristics of the extractive industries have been problematized and studied under the term extractivism, which is now widely used to describe and discuss the phenomenon. Acosta define extractivism as the “activities which remove large quantities of natural resources that are not processed (or processed only to a limited degree), especially for export” (Acosta 2013:62). The concept of extractivism is described by Acosta as a mode of accumulation of raw materials driven by the demands of the capitalistic urban centres. Extracted raw material is typically aimed for export, similarly most of the revenues from the extractive industries tend to be exported as well. According to Acosta, the phenomenon of extractivism begun with the occupation and colonization of America, Africa and Asia some 500 years ago. Extractivism is described by Acosta as a mechanism of colonial and neo-colonial practises, as the exploitation of raw materials on these continents was crucial for the industrial revolution in the global North (Acosta 2013). Extractivism has also been referred to and viewed as a path towards development and a development paradigm as it furthers new jobs, investments and incomes (Veltmeyer & Bowles 2014; Broad & Fischer-Mackey 2017).

Social scientists Johanna Dahlin and Martin Fredriksson study extractivism by taking departure in the concept of the commons, understood as resources used by a group of people
and regulated by social norms. They explain the extractive process as “a series of practices aimed at creating property out of resources that are in many cases commonly used” (Dahlin & Fredriksson 2017:2). The idea to extract and produce property from natural resources, sometime viewed as commons, in order to gain monetary value is usually the driving force behind extractivist activities. As described by Dahlin and Fredriksson, extractivism means to create commodities out of resources. It is an accumulative process, to localise, obtain and sell a resource. The extractive process is further elaborated upon by the authors. They distinguish three separate practices involved in the extraction process, namely prospecting, enclosure and unbundling. The practice of prospecting is understood as locating a resource and turn it into property. Enclosure is the moment of restricting the access to a resource by means of privatisation. Lastly, unbundling implies the separation of a resource from its original context. The whole, unified system is thus in a way disregarded in favour of the economic value of the separated resource in the unbundling process (Dahlin & Fredriksson 2017). The capitalistic process to extract and produce new commodities that can ensure constant economic growth is dependent on the commons. New commons that can be exploited is thus continuously required to fuel the system (Hardt & Negri 2004 in Dahlin & Fredriksson 2017:8). There is a risk that development plans on a local level are neglected as income-generating extractivist activities are often prioritised. Still, according to Acosta, it is usually the transnational companies that gain the major benefits from the extractivist activities and most of the revenues are taken out of the country of origin. The risks of exploring and exploiting natural resources taken by the companies is thus paid in monetary profits (Acosta 2013). Extractivism, as a capitalistic impulse, enclosing, privatising and commodifying common resources, is thus directly threatening the ability of communities to protect their culture, livelihoods and societies (Veltmeyer & Bowles 2014:66).

According to Henry Veltmeyer, professor of development studies, it is the communities that suffer the consequences of extractivism. Extractivist activities, particularly mining and oil drilling, harm their health, their environment and their livelihoods (Veltmeyer 2013). People are separated from their lands and ecosystems are destroyed, thus harming the welfare of humans and limiting their abilities to continue with traditional livelihoods that have been created in various cultural and historical contexts over time. Veltmeyer and co-author Paul Bowles, economist, put special focus on how human activities can disrupt the precious balance of the complex interactions in ecosystems, threatening the carrying capacity of ecosystems and climate (Veltmeyer & Bowles 2014:67). Acosta describe how mining and oil drilling have
irreversibly destroyed cultural assets and natural environments (Acosta 2013:69). This becomes especially problematic as the social and environmental costs are not sufficiently valued in the process. Acosta argues that the cost-benefit analysis conducted before a mine is initiated is usually not comprehensive enough. The focus lies on economic gains, while social and environmental costs are not measured in monetary means. One example that should be included, according to Acosta, is the economic cost of pollution on the surrounding environment. Acosta conclude, that the overall view on mining activities is incomplete as the full economic costs are not grasped (Acosta 2013:74). The same phenomenon is emphasised by Veltmeyer, stating that many of the social and environmental consequences of extractive activities are unaccounted for and actually exceed the benefits of economic growth. Ultimately, it is the poorest and most vulnerable parts of society that suffer the major costs of extractivist activities, while the benefits are concentrated in the hands of a few (Veltmeyer 2013). These negative impacts on people and the environment caused by extractivist activities have been described as a form of violence by Sehlin MacNeil. In the doctoral dissertation from 2017, the author take departure in the violence triangle, composed of structural, cultural and direct violence, initiated by Johan Galtung. Sehlin MacNeil then introduce the concept of extractive violence to complement this model. Extractive violence is described as a form of direct violence caused by extractivist activities, primarily affecting people living in close connection to their land. Studying the relation between extractive industries and two indigenous groups, in Sweden and in Australia, the author finds that both groups have experienced extractive violence in the form of threats against their connection to their land (Sehlin MacNeil 2017).

Dahlin and Fredriksson put forward the tensions between commons and extraction and the resistance movements that arise when various actors perceive extractivist practises as a threat against their rights and livelihoods (Dahlin & Fredriksson 2017). Resistance movements emerging against specific extractive industries have also been recognized and further studied in literature elsewhere. Veltmeyer and Bowles have discussed the controversial and conflictual aspects of extractivism, describing how Canadian mining companies and the directly affected communities are in conflict with each other. The resistance formed against a tarsand oil pipeline in Canada have engaged grassroots organisations, communities and civil society movements (Veltmeyer & Bowles 2014). Research also indicate that during these processes, diverse groups have been brought together and formed new resistance alliances (Dahlin & Fredriksson 2017; Veltmeyer & Bowles 2014). New alliances unite over social divisions. Indigenous and non-indigenous communities assemble, as well as movements with different backgrounds and
varying reasons for resistance. Veltmeyer and Bowles note that wider resistance movements against extractivism are often led by the indigenous movements, such as in their example from the tarsand oil pipeline in Canada as well as in cases from Latin America (Veltmeyer & Bowles 2014:67). Similarly, indigenous peoples have been central in opposition movements against mining in Panama, Colombia, Honduras, Guatemala, Peru and the Philippines (Broad and Fischer-Mackey 2017). The resistance movements usually put emphasis on the colonial features of extractivism and unequal national policies, especially in relation to its impacts on indigenous populations (Dahlin & Fredriksson 2017:3).

Many countries in the global South have grounded their development strategies in extractivism and the exports of raw materials, especially in Latin America there have been a boom in primary commodities production. Veltmeyer and Bowles describe how governments in the region turned toward extractivism, and the accompanying foreign direct investments, to create an inclusive development to reduce poverty (Veltmeyer & Bowles 2014:60). However, a recent article, by professor of international development Robin Broad and PhD student Julia Fischer-Mackey, have discerned a shift, from extractivism towards a new environmental friendly development paradigm. The new development paradigm, also referred to as “buen vivir”, has emerged as a concept opposing economic growth-centred development paradigms based on extractivism. The authors describe that the concept of buen vivir includes values such as ecological stability, justice, solidarity, diversity, quality of life, community-based approaches, and indigenous beliefs of living in harmony with nature. In 2012 buen vivir was also portrayed by Salvador Sánchez Cerén, the President of El Salvador, as “struggling for social, economic, political and cultural well-being and a better relationship with Nature” (Broad & Fischer-Mackey 2017:1328). During their research, Broad and Fischer-Mackey identified and documented changed mining policies and mining bans in eight countries, mainly in Latin America, which they argue indicate an increasing priority of the environment. Furthermore, they identify five reasons for the changes in the development path, namely the importance of water-related concerns, the scientific evidence of environmental impacts, concerns for certain unique ecosystems, specific destructive mining projects that catalysed action, and the actions against mining taken by sub-national governments (Broad & Fischer-Mackey 2017:1337-1338). Since this scientific article was published, El Salvador as the first country in the world decided to ban all forms of metal mining in March 2017 (Lakhani 2017).
3.3 The subnational resource curse

States which are abundant in natural resources and more or less dependent on extracting and exporting those resources might trapped in what is known as a “resource curse”, also called “the paradox of plenty” (Acosta 2013:61). This implies that resource-rich states actually tend to perform worse than resource-poor states in economic development and good governance (Humphreys, Sachs & Stiglitz 2007:1). The reasons behind the resource curse phenomenon are varied, and the relationships have been debated. However, the explanations to why some states fail to fully take advantage of their resource wealth can be separated into macroeconomic mechanisms and national governance structures (Humphreys, Sachs & Stiglitz 2007; Cust & Viale 2016). Generally, most research on the resource curse phenomenon has been conducted with a cross-country focus. However, recently focus is being shifted towards the consequences on the subnational, local level (Cust & Viale 2016).

What is most interesting for this study, is how the resource curse plays out within states. Thus, what effects do the resource curse have on the subnational, local level. In a policy paper written by Jim Cust and Claudia Viale at the Natural Resource Governance Institute, the evidence of a subnational resource curse is examined by reviewing studies conducted on the topic. They find that extractivist activities implies both positive and negative effects on different levels and on different groups in society. However, based on the studies reviewed, the authors state that there is no consistent evidence that there is such phenomenon as a subnational resource curse if defined as “an overall net negative economic impact in resource producing regions” (Cust & Viale 2016:1). That means there is no proof for net negative effects on the subnational economy, rather the overall outcome varies. Nevertheless, it is important to note that these findings are limited to effects that are currently measurable in economic terms and the effects that are possible to trace. Therefore, the authors state, more research is needed in order to produce more holistic measures on the actual costs and benefits. Still, on the one hand, there is evidence on increased economic welfare both locally and regionally, as the extraction generate profits, tax revenues and economic linkages to other business sectors. On the other hand, it is also confirmed that extraction causes negative economic, social and environmental consequences, which often are spatially concentrated to the nearby area. Thus, the authors state that the challenge is to maximise the benefits while mitigating the local costs and managing distributional consequences. Still, a blueprint solution for all cases is not possible as the consequences depend on the area and the specific context of the project. Causal relationships
true for all cases cannot be identified, therefore, the authors emphasise, it is not adequate to
generalize about a subnational resource curse (Cust & Viale 2016).

Even though the measured economic impact might usually not be negative, extracting
resources have problematic consequences for the local level. As have been brought forward in
the scientific literature a local resource curse can appear in different ways. Of the effects
brought forward by Macartan Humphreys, Jeffrey Sachs and Joseph Stiglitz in the edited book
Escaping the Resource Curse, the income inequalities within resource-rich states and the
grievances that might occur in the producing regions are especially interesting for this study.
These patterns are further studied by political scientist Michael Ross, explaining that
inequalities within a state can take different forms. The author state that it is difficult to predict
exactly how the revenues from resource extraction might change the income distribution in a
specific case, however, the social and economic impacts can be severe if economic revenues
are substantial. Ross differentiate between vertical and horizontal inequality, where vertical
inequality means the gap between rich and poor populations, and horizontal inequality the gap
between regions that are rich and poor in minerals. Both forms of inequalities can be harmful
for the state, either by impeding development or causing violent conflict (Ross 2007). Exactly
how revenues change the income distribution between populations is difficult to predict
according to Ross. However, inequalities might appear between the groups that get
employments in the extractive sector and those that do not. The development of severe
horizontal inequalities within a state depend on the economic structure of the government and
whether the local authorities can tax mineral revenues in one way or another. Still, the gap
between the income expected by people and the real outcome might cause political and social
unrest. Ross argues that especially peripheral regions, inhabited by ethnic or religious
minorities and that have limited influence over the central government, might feel economically
unsatisfied and be more at risk for violent conflicts. To avoid such conflicts, Ross argues that
governments must respond to the grievances by taking measures such as for example
decentralizing the revenues, increase transparency on revenues and/or initiate direct distribution
systems. Moreover, the governments can give incentives for companies to hire local people,
use local products and engage in local development projects in order to limit the risk for
grievance and conflict. Acknowledging the difficulties to find a suitable solution on how to
share mineral revenues between the central and the local government, Ross argues that it is
important that the local and regional level is compensated for the costs of having extractivist
activities in their jurisdiction. Similarly, the people living in that area, being locals or indigenous, deserve special recognition (Ross 2007).

However, economic inequalities are not the only reason behind conflicts that emerge in relation to extractivist activities. As touched upon earlier, also land use changes and limited access to water could generate conflicts (Cust & Viale 2016). The relation between mining and land use changes have been extensively studied. Social scientist Gavin Hilson describe how disputes over land use often occur between the mining companies and the local communities as mining require large areas for its activities, land that the surrounding indigenous peoples might depend upon for their livelihoods. Coexistence becomes problematic as additional land and water sources might become degraded due to mining activities, and thus cannot be used by locals as before. However, Hilson argues that the greatest conflicts are caused by unexpected land contamination incidences, such as dam collapses, chemical leakage and leakage of heavy metals. The conflicts between mining companies and locals are furthered by lacking communication, agreements failure and broken promises. Hilson state that the conflicts are in fact based on “fundamentally different socioeconomic values on land” (Hilson 2002:68). The needs of the indigenous peoples and their cultural attachment to their environment are often neglected by the mine management, thus enhancing conflicts over land use management. Furthermore, the severity of conflicts also depends largely on the local attitudes towards a mine. Attitudes are usually based on income, local unemployment rates, land use, land ownership structures, perceptions, and political and social values. To limit and/or mitigate the occurrence of such conflicts Hilson stresses improved community consultation and appropriate compensation for communities. However, the author notes, the loss of land for indigenous groups can rarely be compensated by monetary means (Hilson 2002).
CHAPTER 4

METHODOLOGY

4.1 Philosophical assumptions

This study is based on a constructivist approach. The underlying beliefs and philosophical assumptions inherent in this approach guide the perceptions and understandings of the world presented in this thesis. It also set the limits on what is knowable. Moreover, in their book *Qualitative Inquiry & Research Design*, John Creswell and Cheryl Poth describe how the underlying philosophical assumptions influence how we formulate the research problem and the questions that we aim to answer. In turn, these assumptions, and the problem formulation, guide the research and the choice of methods that are used to collect and analyse data (Creswell & Poth 2017:19). The view of reality in this study is based upon constructivism. This means that this research acknowledges complexities and aims to find holistic understandings of a system as a whole. The research conducted is led by these inherent values of constructivism, hence, the outcome of this study is a result of studying the chosen phenomenon from this perspective. Another point of departure would provide a different view on reality, and thus a different result.

The relation between the author and the topic also shape the study and its outcome. For the sake of this case study, being a Swedish student could enhance my possibilities to find suitable data. Moreover, having Swedish as my native language limits the language barriers. Still, the outcomes of this thesis are based on my worldview, my perceptions about the collected data and the analysis I draw from the material.

4.2 Research design and scope

This thesis is based on a qualitative case study approach. A qualitative case study method is used for this thesis as the aim is to get an in-depth understanding of a social problem in a specific context. For the sake of gaining an increased understanding about natural resource management and its implications on local communities, mining in northern Sweden is used as the case. The underlying reasons for choosing this case has been discussed earlier in this paper. The case study approach is described by Creswell and Poth as exploring a current, real-life bounded system over time by detailed, in-depth data collection (Creswell & Poth 2017:96).
More specifically, the intent of this study is to explore the contemporary decision process behind mining developments in northern Sweden and the bureaucratic system in which it is situated. The timeframe of the study is limited to analyse the current mining trial process and a number of exploitation concession permits that have been in the trial process between the years 2000-2016. This delimitation ensure that the information gathered is up to date and accurate. Moreover, the specific exploitation concession trial processes examined for this study is limited to cases situated in northern Sweden, specifically in Norrbotten and Västerbotten counties. This choice is based on the contemporary discussion on a “Paradox of Norrland”, where the specific characteristics of this region play an important role in the debate.

4.3. Data collection

A literature review is used as the main source of data for the purpose of this study. Information is mainly gathered from policy documents, relevant legislation and official reports. Due to the characteristics of the case chosen, most of the material is originally in Swedish. The information of interest for this study is therefore carefully translated to English. For the sake of guiding the reader a short explanation of some actors important for the process is described at the beginning of the thesis. Moreover, also the titles of the Swedish policy papers have been translated in the list of references to enhance the reader’s understanding of the context.

The empirical material is described in two different sections, first the mining trial process is presented followed by a description of the specific cases studied. The mining trial process is described based on information provided by a recent guideline developed by SGU. This information is complemented by reports, news articles and one press release from the government to be able to cover recent developments more in depth.

The second section of the empirical material elaborates on patterns found in the decision documents on exploitation concession in 15 selected cases. The exploitation concession trial is one part of the whole mining trial process. This specific stage in the trial process is used in this study as conflicting interests of land use are assessed at this stage, mainly based on identification and evaluation of national interests. Statistics on all cases examined for exploitation concession between the years 2000-2016, withdrawn from SGU, guided the selection of which cases to include in the study. The geographical limitation is discussed above. Moreover, only decisions formally contested in one way or another are used for this study as these provide more information about the existing conflicts over the mining developments. Either the authorities had/have conflicting views on whether to allow or deny exploitation
concession, or the decision taken was appealed to the government. Permits for mines currently open were removed from the study. To be able to study the underlying argumentation on land use and national interests, the decision on exploitation concession is used as the document to examine. These documents are assembled and announced by the Mining Inspectorate. The documents are read several times and checked for arguments or concerns raised by various actors. Special focus is put on the trade-offs between various national interests. Information from the documents is collected and organised in an extensive table covering basic information such as the name of the case, county, municipality, and the company. Furthermore, the table addresses which metals to be extracted, date for decision by the Chief Mining Inspector and the current status of the project. Detailed information on the arguments brought forward is recorded in the table for each of the Sami Parliament and the Reindeer Herding Districts, the municipality, the company, the County Administrative Board, the Mining Inspectorate and others. Also the number of other remarks identified in the documents is included in the table. Additional sources are used at some points to validate information from the decision documents and to increase the understanding of the cases from a broader perspective. These sources are official documents and news articles.

The following cases were selected for this study, arranged by date of decision starting with the latest; Laver, Fäbodtjärn, Kyrkberget, Kallak, Viscaria, Eva, Stekenjokk, Rönnbäcken\(^2\), Sahavaara, Tapuli\(^3\), Stortjärnhobben, Fäboliden, Mensträsk, Svartliden and Storliden. For more information about the cases see table in appendix.

4.4 Data analysis

The data collected during research is analysed in this thesis using the concepts of sustainable development, extractivism and subnational resource curse. These concepts are chosen due to the applicability on the specific case. The chosen theories frame the interpretation of the phenomenon studied and further identification of patterns in the empirical material, which accordingly enhance the understanding of the data. Furthermore, the use of the theoretical

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\(^2\) In the case Rönnbäcken there have been three trials for concession permit for three different parts of the deposit. The data provided on the case Rönnbäcken in this thesis is a combination of information from all three documents. This is due to two reasons. First, the differences in the three documents are minor. Second, the project is usually discussed and referred to as one project.

\(^3\) In the case Tapuli two parts of the deposit was examined as separate deposits, simultaneously. The foundation for the decisions and the decisions was identical, therefore it is referred to as one case in this study.
framework put the chosen case in a broader context and increase the possibility to discuss the case in relation to patterns found elsewhere.

As the extractivism and resource curse theories take departure in sustainability, the theory chapter is introduced with some basic ideas on the sustainability of mining in general. This information is withdrawn from policy papers and conference papers, as well as one scientific article. Then, definitions and descriptions of extractivism and subnational resource curse are provided using a wide range of scientific articles, a book, a doctoral dissertation and one policy paper. The concepts are foremost discussed in relation to the consequences that mining have on the local level.

4.5 Research quality
The quality and validity of the methods used and the data collected are essential for the outcome of the research to be reliable. Data is collected mainly from official documents provided by Swedish authorities, providing first-hand information on the processes studied. For some aspects, further information is used from additional sources, both primary and secondary sources, such as news articles and press releases.

It is important to note that the cases studied in the second section of the empirical material is a selection of mining cases in Sweden. Thus, the cases selected could not be used as a representative sample of all mining cases in Sweden. Instead it is important to keep in mind the used sampling strategy. Furthermore, the documents studied provide only a summary of main points brought forward in the exploitation concession trial. The information provided is therefore not a comprehensive description of the cases, rather some aspects regarded as important by the Mining Inspectorate are presented. For these two reasons, the findings presented in chapter 6 are specific for the cases studied and cannot be generalised.
CHAPTER 5

THE MINING TRIAL PROCESS

Several permissions are required before a mine can become operational. See figure 5.1 for a basic overview. The assessment is conducted under the Environmental Code (1998:808) and the Minerals Act (1991:45). The aim of the Environmental Code is to foster a sustainable development that ensures a healthy and good environment for current and future generations. The Minerals Act aims to enable a provision of specifically designated metals and minerals that ensures the societal need (SGU 2016b).

5.1 Exploration permit and work plan
The first step in the process is for the prospector to apply for an exploration permit to the Mining Inspectorate. 122 new exploration permits were approved during 2015, and in late 2015 there were a total of 608 valid exploration permits in Sweden (SGU 2016a). An exploration permit provides the prospector precedence to map the bedrock in the specific area and to investigate whether there is a deposit, and if the characteristics of the deposit make it suitable and valuable to extract. However, just the exploration permit is not enough for the prospector to initiate the investigation. A valid work plan is always required before the mapping could start, including among other things; a time plan, a description of the intended exploration work, an assessment of possible impacts on public interests and information about other specific permits that the prospector intend to apply for. It is also

Figure 5.1 The mining trial process.

The mining trial process • 23
required that the prospector describe the financial security in the work plan, containing information about the ability and plan for how to compensate landowners and stakeholders for potential damage due to the exploration. The work plan should be communicated to identified stakeholders, who can raise their concerns in the following three weeks. If the prospector and the stakeholders cannot agree on the work plan, it can be assessed and approved by the Chief Mining Inspector. Furthermore, the County Administrative Board and the municipality should have the opportunity to raise their concerns during the exploration permit process. The same rights apply to the Sami Parliament in case the area under investigation is used for reindeer husbandry. The authorities are obliged to provide information, advice and assistance concerning rules and regulations that is applicable for the specific cases. However, information brought forward by the County Administrative Board and the Sami Parliament at this stage only serve as recommendations (SGU 2016b).

Except for the exploration permit and the work plan it can also be required to apply for other specific permits before the exploration process could continue. Depending on the characteristics of the specific case it could include for example a licence to drive in the terrain or a permit to explore in or close to a protected area. A special permit, assessed by the County Administrative Board, is required if the proposed activity could affect a Natura 2000 area. Furthermore, special permits could be required for cultural heritage protection, shore protection, species protection, biotope protection among others (SGU 2016b).

As a part of the exploration work the prospector sometimes wants to test mine to find out more specifics about the material and its usefulness. To do so a specific test mining permit is required under the Environmental Code. In accordance with the environmental legislation a completed environmental impact statement (EIS) should be included in the application. Furthermore, the application should also contain a waste management plan. The requirements under the Environmental Code will be further described in the following sections. Applications for test mining are examined by the environmental assessment delegation at the County Administrative Board. The decision taken by the environmental assessment delegation can be appealed to the Land and Environment Court. That judgement can in turn be appealed to the Land and Environment Court of Appeal (SGU 2016b).

5.2 Exploitation concession

An exploitation concession gives the prospector the exclusive right to extract minerals in a specific area. However, it does not allow the prospector to begin the mining, further permits are
still required. The aim of this step in the trial process is to investigate if the prospector will be able to mine the resource in a way that is economically profitable and appropriate concerning other interests, such as nature conservation and reindeer husbandry (SGU 2016b). In late 2015 there were 157 valid exploitation concessions, of which two were accepted during 2015 (SGU 2016a).

It is recommended that the prospector initiate consultation with the County Administrative Board and other local and regional stakeholders before submitting the application for exploitation concession. Consultations could assist the prospector as to conduct the environmental impact assessment in a way that satisfy the County Administrative Board. The formal application should be submitted to the Mining Inspectorate and it should be accompanied by an EIS, a map over the area, ore evidence that indicate a sufficient mineral resource, and a description of the operations. The Mining Inspectorate can demand additional information from the prospector before sending the complete application to the County Administrative Board for the formal consultation. The County Administrative Board then investigate the application from chapter 3 and 4, Environmental Code, see more information below. The purpose is to study if the proposed activity is compatible with the national interests and that the use of land and water resources is in accordance with the legislation. The County Administrative Board should aim to protect the national interests and if needed the County Administrative Board can add conditions to the concession permit. Conditions should aim to mitigate and compensate for negative effects on other interests. The trial process conducted by the County Administrative Board should include the entire proposed project, in accordance with a judgement from the Supreme Administrative Court in 2016 (SGU 2016b). This is further developed in section 5.2.

At this point in the process also comments from the municipality is obtained. Furthermore, the case is announced to stakeholders and the public. Stakeholder concerns regarding the application or the EIS could be submitted to the Mining Inspectorate or the County Administrative Board within four weeks. The County Administrative Board then takes the comments and concerns into account before delivering their statement about the project and whether it should get the exploitation concession permit or not (SGU 2016b).

The Chief Mining Inspector then consider the remarks from the County Administrative Board before deciding whether the project should get an exploitation concession permit or not. The decision can be appealed to the government. In some specific cases the Chief Mining Inspector should refer the decision about exploitation concession to the government. Such is the case if
the Chief Mining Inspector find the concession application to be particularly important for the public interest or if the Chief Mining Inspector find reason to disregard the opinion of the County Administrative Board (SGU 2016b). Two cases have been referred to the government due to conflicting views between the Chief Mining Inspector and the Norrbotten County Administrative Board, namely the application for exploitation concession for Eva in 2014 and Kallak in 2015 (SGU 2016a). The decision made by the government can be appealed to the Supreme Administrative Court (SGU 2016b).

**The Environmental Code, Chapter 3 and 4**
The chapter 3 and 4 Environmental Code, concerning land and water management, is applicable to the exploitation concession application. This legislation intends to further a management of land and water that secure long-term ecologic, social, cultural, and socioeconomic values. Certain areas can be conserved and protected from developments if they are perceived to be especially valuable from a national perspective. Other areas can be marked as especially valuable for Sweden to use and exploit by constructing facilities and/or withdrawing natural resources. Balancing the different needs is one of the main purposes of these regulations (SGU 2016b).

The County Administrative Boards coordinate the interests of the state in land and water management issues. In accordance with chapter 1 (1§) Environmental Code, the assessment should foster a sustainable development. The evaluation should be guided by the 16 national environmental quality objectives, set by the government (SGU 2016b). Specific areas of particular importance, as listed in chapter 3 Environmental Code, can be identified as national interests by the specific authority in charge. A number of public interests that should be protected is listed in chapter 3 Environmental Code, see table 5.1. These interests are of particular importance for the national development and should therefore be prioritised over other interests. If several of the public interests are applicable for one specific area priority should always be given to national defence and security, as stated in chapter 3 (10§) Environmental Code. For incompatibilities between the interests in 5-8§§, priority should be given to the interest that are most likely to promote sustainable management of land, water and the physical environmental in general (Environmental Code Ch. 3).
Specific areas that are of national interests in their entirety are identified in chapter 4 Environmental Code, see table 5.2. Particular regulations apply to these areas as compared to the national interests in chapter 3. The natural and cultural assets existing in these areas should be protected against all projects or interventions that can damage these values. However, where special circumstances exist extraction of substances and materials, as referred to in chapter 3 (7§), should not be prevented. Special circumstances in this case mean that the area should be identified as a national interest for mineral extraction and have significant positive impacts on business policy and employments. The exception does not apply on Natura 2000-areas or the national urban park (SGU 2016b).

<table>
<thead>
<tr>
<th>Land and water areas that should be protected under chapter 3 Environmental Code include;</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Large intact areas (2§)</td>
</tr>
<tr>
<td>• Ecologically vulnerable areas (3§)</td>
</tr>
<tr>
<td>• Agricultural land and forestry areas of national importance (4§)</td>
</tr>
<tr>
<td>• Areas that are important for reindeer husbandry, commercial fishing or aquaculture (5§)</td>
</tr>
<tr>
<td>• Areas that are important for reasons of public interest on account of their natural or cultural value or for outdoor recreation (6§)</td>
</tr>
<tr>
<td>• Areas that contain valuable substances or materials (7§)</td>
</tr>
<tr>
<td>• Areas that are particularly suitable as sites for facilities for industrial production, energy production, energy distribution, communications, water supply or waste treatment (8§)</td>
</tr>
<tr>
<td>• Areas that are important for total defence measures (9§)</td>
</tr>
</tbody>
</table>

Table 5.1 (Environmental Code Ch. 3)

<table>
<thead>
<tr>
<th>Areas that should be protected as national interests under chapter 4 Environmental Code include;</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Main recreational areas (2§)</td>
</tr>
<tr>
<td>• Intact coastal areas (3§)</td>
</tr>
<tr>
<td>• Highly exploited coastal areas (4§)</td>
</tr>
<tr>
<td>• Intact mountain areas (5§)</td>
</tr>
<tr>
<td>• Identified national rivers and their water areas (6§)</td>
</tr>
<tr>
<td>• The national urban park (7§)</td>
</tr>
<tr>
<td>• Particular protection and conservation areas (8§)</td>
</tr>
</tbody>
</table>

Table 5.2 (Environmental Code Ch. 4)
5.3 Environmental permit

Mining activities are classified as hazardous for the environment, therefore an environmental permit is required under chapter 9, Environmental Code. The environmental permit trial evaluates the whole mining process, from initiating the mine to processing of the materials to depositing the waste materials. If the mining activities will affect the water system in the area, by for example constructing dams, change the natural water flows or drain the mine, a special permit is required under chapter 11, Environmental Code. This step in the trial process aims to ensure that the proposed mining activity can operate with an acceptable impact on the surrounding environment. The application should include a list of potential impacts on the surroundings, use of resources, protective measures, a waste management plan, and information about emissions among other things (SGU 2016b).

The prospector should begin to consult the County Administrative Board, the regulatory authority, other governmental authorities, municipalities, the public, individuals, and organisations that might be affected by the proposed project. An application with an EIS is then completed, having the material from the consultation process in mind, and sent to the Land and Environment Court. See more information on the EIS below. Usually the case is then sent to the authorities for their concerns on how the files should be complemented. The prospector is then allowed to supplement the files in accordance with the remarks before the court announce the case. When the case is announced, the complete application is sent to concerned stakeholders and the public, who can raise their concerns regarding the application and the EIS. The files can also be accessed for the public at the court and at one or several file keepers. The prospector then respond to the raised concerns. Furthermore, the prospector present the finalised application and EIS at a hearing. The Land and Environment Court then announce their judgement. The decision can be appealed to the Land and Environmental Court of Appeal, which judgement can in turn be appealed to the Supreme Administrative Court (SGU 2016b).

Environmental impact statement

The prospector is responsible for the development of an EIS and consequently pay the costs for assembling the required information. The conditions for EISs is regulated under chapter 6, Environmental Code, and in the regulation (1998:905) on EISs. According to chapter 6 (7§) Environmental Code, an EIS should include a description of the design of the project and a plan for how negative impacts should be avoided and/or mitigated. The purpose of the EIS is to
assess the overall effects of the proposed project, including both direct and indirect effects on humans, animals, plants, land, water, air, and resource management. To extend scales and timeframes to include assessment of effects on areas further away and years ahead is important to understand the total environmental impacts of a project. An EIS should thus serve as the basis for the evaluation of the environmental impacts of the proposed project in its entirely (SGU 2016b).

An EIS should be included in both the exploitation concession and the environmental permit trials. Depending on which trial it is meant for, there are differences in what should be included in the EIS. Aspects that are brought forward in the first trial for exploitation concession should not be addressed once again in the second trial. For the exploitation concession, the EIS should be directly related to the regulations about national interests and management of these areas, under chapter 3 and 4, Environmental Code, see above. More specifically, it should among other things describe the deposit, if the mining is planned to take place over or under ground, what activities are planned in connection to the mine, and how the products will be transported from the mine. Alternative locations and/or designs should also be described. If relevant for the specific case the effects on reindeer husbandry should be emphasised in the EIS as well. Depending on the extent of the effects on reindeer husbandry the matter is examined more or less in depth. The EIS should include an overview of the current situation, what effects the proposed mining activity could have on the reindeer husbandry, and how those effects should be mitigated (SGU 2016b).

For the environmental permit the requirements of the EIS is somewhat vague and no norms on what is enough exist. The content of the statement should be adjusted to the characteristics of the specific case. Therefore, it is recommended that the prospector and the authorities discuss what is especially important to bring up for each case. The EIS from the exploitation concession trial can often be used as a foundation, but it should be developed (SGU 2016b).

An EIS for an exploitation concession do not require consultation with authorities or other stakeholders. However, it is recommended to consult local stakeholders to limit misunderstandings and conflicts. Consultations is compulsory when applying for an environmental permit and a description of the held consultations should be included in the application. The description should include who was invited, who attended, what concerns were raised, and how those concerns were considered by the prospector. The location, scope, and design of the proposed project should be discussed during the consultation. Also, the effects on the environment and the content of the EIS should be deliberated. The purpose is to inform the
stakeholders about the plans and let them influence the project. If the project is expected to have significant environmental impacts abroad the Espoo Convention applies. According to the Espoo Convention the public and the authorities in the affected country should have the same possibilities to engage in the environmental impact assessment process as in the country of origin (SGU 2016b).

5.4 Land allocation
The holder of an exploitation concession can request land allocation, which connects the right to exploit minerals to the right to use the land. More specifically, the land allocation states which sites in the concession area that can be used for processing the deposit and where additional activities related to the mining operations should be located. There is an exception for mining activities that will be carried out underground in the concession area that does not require land allocation. If conflicting interests about the land use exist a meeting should be held inviting all known stakeholders. The Chief Mining Inspector takes the decision which can later be appealed to the Land and Environment Court (SGU 2016b).

5.5 Building and ground permits
The last step in the prospection assessment process is the building and ground permits under the Planning and Building Act (1987:10) that are applied for at the municipal building planning committee. Permits are required for constructions and for some groundwork (SGU 2016b).

5.6 A process under change
The assessment of how a mine might affect its surroundings, which is conducted during the trial process as described above, is now under change. In 2016, the Supreme Administrative Court repealed a decision to allow a mine in Norra Kärr, Jönköping county. The Mining Inspectorate earlier granted the prospector a concession permit, which also the government accepted after the decision by the Mining Inspectorate had been appealed (Rundqvist 2016). However, the case was then appealed to the Supreme Administrative Court and the court found the assessment to be restricted to the direct concession area and not including other facilities essential for the mining activity. According to the court, the assessment was too limited and did not comply with chapter 4 (2§) Minerals Act. Therefore, the court decided to repeal the decision to allow a mine in Norra Kärr (SGU 2016b:31).
How this judgement will affect new cases of mining in Sweden is yet to be seen. When writing this thesis, it is still too close to the passing of the judgement to find any scientific literature on how the mining trial process might be affected. Still, the SGU clearly state in their report *Mining trial guidance*, revised in late 2016, that remarks from the County Administrative Board should examine the entire proposed activity, including the concession area and other facilities to be used for the proposed activity (SGU 2016b:31). Until now, four more cases have been affected by the judgement. Four months after the judgement by the Supreme Administrative Court the government decided to refer the case of Norra Kärr to the Mining Inspectorate for a new trial process based on the new practice set by the Supreme Administrative Court. In addition to Norra Kärr also the mining cases Viscaria (nr 7), Kallak and Eva were included in the referral to the Mining Inspectorate (Regeringskansliet 2016). Moreover, it was reported in December 2016 that the government referred one more case to the Mining Inspectorate as a result of the judgement in the Norra Kärr case, namely Kyrkberget (Assmundsson 2016).

Moreover, there have been discussions on at what stage of the mining trial process special permits should be applied for. In the case Laver, the prospector and the Chief Mining Inspector did not agree on the proceedings. The Chief Mining Inspector stated that the special permit for Natura 2000, needed in this case, should be applied for before an exploitation concession could be accepted. However, the prospector opposed this statement and argued that the special permit for Natura 2000 could be postponed and applied for when applying for the environmental permit. As the prospector did not comply with the terms set by the Chief Mining Inspector, exploitation concession was denied. This specific case has been up for debate. Svemin, the Swedish industry association of mines, mineral and metal producers, argued that this decision hamper new mining projects and complicates already unpredictable mining trial processes. In turn this limit the possibilities for Sweden to develop as the major mining nation in Europe (Svemin 2016).
CHAPTER 6

CASE STUDY: INTERESTS IN THE MINING TRIAL PROCESS

The data obtained from studying the decisions to allow or deny exploitation concession (or in two cases the remarks to refer the decision to the government) by the Mining Inspectorate in the 15 cases chosen for this study is presented below. A table of chosen cases can be found in appendix. Some general information about the procedure will be presented before specific data and patterns from the documents are brought forward.

6.1 The procedure

In this specific phase of the mining trial process, applying for a concession permit, national interests that are located at the concession site are of greatest importance as it lays the foundation for the decision, in accordance with the Environmental Code. The County Administrative Board and the Chief Mining Inspector foremost use and evaluate the national interests when deciding their stand. In addition, the Chief Mining Inspector should also evaluate whether the proposed mine would be economically feasible. It is usually stated by the Chief Mining Inspector that the prospector in the specific case has demonstrated that the deposit could be economically beneficial. How this is evaluated by the Chief Mining Inspector is not addressed in the documents studied.

Furthermore, other concerns raised in the decision documents from the Mining Inspectorate are reviews of statements sent to the County Administrative Board or the Mining Inspectorate from other actors. These include statements from private individuals, authorities and NGOs. Moreover, the County Administrative Board always collects remarks from the relevant municipality at this stage. This information is sometimes presented in the decision document. It is important to note that the information provided in the decision document is not comprehensive in a way that it includes all the points raised by all actors throughout the trial process. Instead it can be seen more as a summary of the main points brought forward in the concession trial. Hence, neither this chapter will provide a complete description of the examined cases.
6.2 The cases

The selection of cases for this review was limited to decisions on exploitation concession made by the Chief Mining Inspector between 2000-2016, in Norrbotten and Västerbotten counties, and which had in one way or another been officially contested. See more information about the sampling method in chapter 4. Of the 15 cases, nine are located in Västerbotten county and six in Norrbotten county. In Västerbotten county eight of the cases were allowed concession permit by the Chief Mining Inspector and one case was refused. Of the cases situated in Norrbotten county thee were accepted, one refused and two referred to the government.

It should be noted that although the timeframe for this study was set from 2000 to 2016, the two cases refused during this time was in 2016 for Laver and in 2014 for Stekenjokk. Additionally, the two cases referred to the government between these years occurred in 2015 for Kallak and during 2014 in the Eva case.

6.3 Interests brought forward

Usually mineral assets that are considered as valuable for Sweden are appointed as national interest for valuable substances and materials under the Environmental Code. In some cases, the mineral deposit becomes a national interest during the mining trial process. Of the 15 cases in this study, national interest for valuable substances and materials was brought forward in the Mining Inspectorate decision document on concession permit in 7 of the cases. Checking the latest publication on mineral deposits that are of national interests, 14 of the 15 cases are appointed as national interests for valuable substances and materials (SGU 2016a). Thus, national interest for substances and materials are not always addressed in the documents studied, even if applicable.

In most of the 15 cases the intention to mine a specific deposit conflicts with reindeer husbandry. In seven of the cases the County Administrative Board recognised conflicts between national interests for reindeer husbandry and mining (Laver, Kyrkberget, Kallak, Eva, Stekenjokk, Rönbäcken and Stortjärnhobben). In two of these cases, Eva and Stekenjokk, the County Administrative Board decided that mining impacts would be too severe on reindeer husbandry and should be denied. In Kyrkberget, Rönbäcken and Stortjärnhobben the County Administrative Board argued that coexistence should be possible and concession permit thus granted. In Laver and Kallak the County Administrative Board denied exploitation concession, but for other reasons.
Furthermore, conflicts between the two businesses are also apparent in the concerns raised by the Reindeer Herding Districts. Remarks from Reindeer Herding Districts, stating that reindeer husbandry will suffer from the planned mining activities, was submitted in 12 of the 15 cases studied. These concerns were especially related to physical intrusions and disturbances. Specific examples are brought forward in next section. Also in the other three cases, where the Reindeer Herding District have not submitted their remarks, the relation between mining and reindeer herding has been addressed in one way or another. In the decision on concession permit for Eva it is brought forward that the prospector and the Reindeer Herding District have agreed on the terms and conditions for future mining activities. However, in this case the County Administrative Board decided that the national interest for reindeer husbandry should be given priority over the national interest for valuable substances and materials. As the Chief Mining Inspector did not agree with the County Administrative Board, the decision was referred to the government. Moreover, no remarks on reindeer husbandry were discussed in the decision by the Mining Inspectorate to allow concession permit for Viscaria. However, the local Reindeer Herding District changed opinion about the proposed project after the decision was made, as they feared that the concession area would continue to grow. The Reindeer Herding District thus appealed the decision to the government (Linder 2015). Lastly, in the case of Sahavaara the County Administrative Board obtained remarks from the Sami Parliament, however, their opinions were not further addressed in the decision document. Conflicts between reindeer husbandry and mining activities were thus addressed in one way or another in all 15 cases. Furthermore, the conflict between the two businesses becomes apparent in the terms and conditions stated in the Mining Inspectorate decision document on concession permit. In all cases but one, the mining company is obliged to conduct yearly consultations with the affected Reindeer Herding Districts. The aim of the consultations is to limit the negative impacts from mining activities on reindeer husbandry. The company should allocate sufficient resources and take precautionary measures to achieve this ambition. The exception is the decision for Kyrkberget, which was announced early 2016, where the Mining Inspectorate states that terms and conditions should be set during a possible future environmental permit trial.

The second most common conflict of interests that are brought forward in the Mining Inspectorate decisions on concession permit is the potential effects on the surrounding environment. When applying for exploitation concession the focus is on if the proposed mining activity is appropriate in relation to other public interests, in this case nature protection. The application for exploitation concession is accompanied by an EIS, and concerns about the
effects on the environment are also submitted to the trial process by various actors. The County Administrative Board and the Mining Inspectorate put focus on possible negative impacts on national interests for nature conservation and Natura 2000-areas. In two cases, Laver and Stekenjokk, concerns about significant impacts on national interests for nature conservation and Natura 2000-areas were brought forward in the Mining Inspectorate decision documents on exploitation concession. Moreover, the County Administrative Board resisted the concession permit for Kallak as the effects on the nearby World Heritage Laponia is not yet sufficiently assessed. Laponia is a nature reserve protected both for the reindeer husbandry traditionally conducted by Sami in the area as well as the natural values, including Natura 2000-areas. Furthermore, both the concession areas Stortjärnhobben and Kyrkberget are located nearby areas of national interest for nature conservation, however, the County Administrative Board found impacts from mining on these would be insignificant. Still, the natural values in Stortjärnhobben were proposed to be included in a nature reserve by the County Administrative Board before the decision on exploitation concession. In Rönnbäcken the County Administrative Board stressed that the project should be designed with concern for the high natural values in the surroundings. In the case Fäboliden the County Administrative Board found that mining would have only minor impacts on the nearby stream and therefore granted the company permission to affect the upper part of the stream by operating an open pit mine. Kiruna (Viscaria) and Malå (Storliden) municipalities, raised their concerns on how to protect a lake close to a proposed concession area and nearby areas of national interest for nature conservation.

Except for conflicts in land use between mining and reindeer husbandry, and mining and nature conservation, some other grounds for conflict are found throughout the documents studied. Other national interests that are brought forward in the Mining Inspectorate decisions are national interest for outdoor recreation (Stekenjokk, Rönnbäcken), national interest for communications/transport (Kyrkberget), and national interest for cultural heritage (Stortjärnhobben). However, none of these interests, in these specific cases, were considered to be in major conflict with mining activities. Therefore, these specific land use conflicts did not affect the trial process significantly. Besides the discussions about national interests that are brought forward here, other arguments and concerns have been submitted to the trial process by other actors. This will be discussed below.

To conclude, the following mining projects have been denied exploitation concession, or should be further assessed, due to its effects on other public interests; Laver (Natura 2000),
Kallak (World Heritage Laponia), Eva (National interest for reindeer husbandry), and Stekenjokk (National interest for reindeer husbandry).

6.4 The scope of the concession trial
How the scope of the mining activities and the mining area is set in the assessment procedure have an impact on the final decision on whether a mine is proper land use or not. Some of these delimitations have been discussed in the previous chapter, both in relation to which concerns that should be addressed during which phase in the mining trial process and how the Supreme Administrative Court judgement on Norra Kärr have led to an expansion of the area assessed during trials. This section will bring forward data from the Mining Inspectorate decision documents that relates to this discussion.

The number of other remarks that the County Administrative Board and the Mining Inspectorate have received during the concession trials for the cases studied has varied between zero and 17. Remarks have been received from private individuals, NGOs, and in some cases other authorities. Rönnbäcken and Kallak stands out from the rest of the cases, having 17 and 16 remarks each. For the other cases the number of remarks received is seven or less. Concerns include for example impacts on the local environment, residents and human health, drinking water, tourism, hunting and fishing, outdoor activities, cultural and historical values, nearby buildings and farmland. There are worries that information is biased (Fäboliden) and that planned dam safety is lacking (Kallak). According to one remark (Kyrkberget) experiences from previous mines constructed in the municipality should be considered. Arguments that mining not is a part of a sustainable, circular economy (Kallak) and that the magnificent environment should be preserved rather than taking the utmost account of the economy (Fäboliden) have also been raised. Most of these concerns and arguments are not well answered in the Mining Inspectorate document on concession permit, instead the response from the Chief Mining Inspector often include postponing these issues to the next phase of the mining trial process at the Land and Environment Court, where more detailed terms and conditions could be set. This was the case for remarks raised in the cases: Mensträsk, Fäboliden, Tapuli, Rönnbäcken, Sahavaara, Viscaria, and Kyrkberget. Remarks have also been rejected because the sender is not perceived as a stakeholder in the specific case. This was the case in Sahavaara where the Mining Inspectorate stressed that the private individual that submitted remarks during the trial process was not regarded a stakeholder. The discussion on who is regarded a stakeholder have been brought forward in some of the 15 cases. In Rönnbäcken the local
Reindeer Herding District have stressed that they should be considered as stakeholders and thus their rights should be taken into account. Furthermore, in the same case a local NGO have also presented their views on stakeholders. In the Storliden case it is emphasised by the Mining Inspectorate that the local Reindeer Herding District enjoy stakeholder rights regarding the placement of the mine, land access and compensation for damage and intrusion.

The judgement from 2016 on Norra Kärr, taken by the Supreme Administrative Court, determined that the entire proposed activity should be assessed during the trial process. To include all activities surrounding mining, to assess the complete impact of the entire intrusions in the environment and to evaluate the combined effects of different forms of intrusions on current forms of land use have been stressed earlier, primarily by the Reindeer Herding Districts and the County Administrative Boards. The County Administrative Board have stated that mining in Eva cannot be considered as an isolated and limited occurrence for reindeer husbandry operating in the area. Similarly, the County Administrative Board (in the Stekenjokk case) and several Reindeer Herding Districts have referred to the cumulative effects, of numerous mining activities and/or other forms of land intrusions, on reindeer husbandry in Mensträsk, Stortjärnhobben, Rönnbäcken, and Stekenjokk. An overall assessment of the total impacts of all mining establishments in the area on reindeer husbandry must be made according to the Reindeer Herding District in the Stortjärnhobben case. Besides mining, increased number of predators, forestry, wind power, infrastructure and tourism are activities that constrain reindeer husbandry, according to one Reindeer Herding District in the Stekenjokk case. Furthermore, some arguments brought forward by the Reindeer Herding Districts in these cases emphasise the timeframe used in the assessment process. The Reindeer Herding District in the Fäbodtjärn case argued that mining is not a proper long term use of the land and the Reindeer Herding District in Fäboliden stated that sustainable development would be impossible with a mine in the area. The Reindeer Herding District in the Stortjärnhobben case fear that the ability to herd reindeer in the traditionally, ecologically and economically sustainable way will become restricted. Furthermore, the same Reindeer Herding District state that the continuous changes constrain their livelihood.

There have been disputes on the scope of the assessment during the trial for exploitation concession. Two examples will be presented below where the discussion could be followed in the decision document by the Mining Inspectorate on exploitation concession, namely Kallak and Kyrkberget. First, in the Kallak case it was discussed if transports, as a result of the mining activities, should be included in the assessment for concession permit. The County
Administrative Board stressed that transports are significant and must be included in the assessment. The prospector, on the other hand, argued that the transports could not be efficiently assessed yet, and that the assessment should be postponed to the application for environmental permit, later in the process. Correspondingly, the Mining Inspectorate noted that questions about transports and road routes should be assessed during the trial at the Land and Environment Court. In the second example, the decision to allow concession permit for Kyrkberget was taken by the Mining Inspectorate shortly before the judgement on Norra Kärr was made public. The scope of the trial for exploitation concession was discussed by the involved actors before the decision was taken. The Reindeer Herding District argued that the entire proposed mining activity should be assessed at this stage and that the trial couldn’t be limited to just assess the concession area. The prospector opposed this remark and stated that only the proposed activity should be assessed and not possible future activities. The County Administrative Board referred to the SGU Mining trial guidance, stating that the parts not included in the current trial should be assessed during the trial for environmental permit later. Lastly, the Chief Mining Inspector made clear that her decision was based on the concession area only, and not areas and/or activities outside this area. Currently, when writing this thesis, both these cases are once again in the hands of the Mining Inspectorate for new assessments to be made, as described in section 5.6.

Lastly, in two of the 15 cases chosen for this study the decision on concession was passed after the Supreme Administrative Court judgement on Norra Kärr, which was passed in February 2016. In the Mining Inspectorate decision on concession permit in Fäbodtjärn, from September 2016, it is made clear that the remarks from the County Administrative Board evaluated the “entire specified activities” under chapter 3 and 4, Environmental Code. Moreover, it was specified that also the Chief Mining Inspector considered both the concession area and future land use for additional operational facilities in this case. The second case where the decision was passed after the Norra Kärr judgement (of the 15 selected cases) was for Laver. In the decision document by the Mining Inspectorate on this case there were no discussions or specifications about the scope of which areas and activities that were included in the assessment. Nevertheless, there were disagreements on when in the mining trial process that a Natura 2000 permit should be applied for. The prospector argued that it could be postponed to a later stage in the process. However, the Chief Mining Inspector noted that concession permit could not be granted if Natura 2000 permit was not permitted. Thus, the Chief Mining Inspector decided to deny exploitation concession for the proposed project.
6.5 Main results

The material provided in this chapter indicates that the conflicts over different land use claims is not only a conflict of natural resource use as such, but also over the bureaucratic process in which these interests are handled. The information from the decisions on exploitation concession shows that local actors, such as Reindeer Herding Districts and private individuals, are not satisfied with which aspects that are assessed in the process. Furthermore, even the aspects brought forward are not considered and evaluated in accordance with the view of the affected stakeholders. Additionally, the result shows that conflicts exist over at what stage during the mining trial process specific aspects should be brought forward and evaluated.
CHAPTER 7

ANALYSIS

Mining could have positive effects on the society, but it is also a problematic and often contested industry. It is recognised by the UNDP, the World Economic Forum and other international actors that mining could be beneficial for reaching the SDGs. More specifically, mining can enhance investments in infrastructure, bring job opportunities and increase economic revenues. These factors are essential for the survival of many local communities in northern Sweden. Still, extracting minerals damage the environment and cause conflicts between actors with different interests, conflicts with the indigenous Sami population are especially evident. The following analysis aim to further the understanding of the mining industry in Sweden using the concepts of sustainable development, extractivism and subnational resource curse brought forward in chapter 3.

7.1 A state-centred process

Mineral deposits all over Sweden are valued as national interests, just as areas essential for reindeer husbandry, nature conservation, cultural heritage, outdoor recreation, and communications among others. These are of interest for the public good, and the state, and should thus be secured against competing forms of land use. Areas of national interests are appointed based on how the characteristics of the specific place can be valuable for the state. However, there is no clear link to what interests that are important for sustainable local and regional development. Therefore, the process of evaluating the interests based on what is good for the nation limits the recognition of local and regional interests. Thus, it can be argued that the local interests must stand back for the interests of the state. As described by Acosta (2013), extractivist activities are often given priority over local level development plans, due to its income generation. Taking departure in the national interests when deciding whether a proposed mine should be given exploitation concession permit or not can thus be argued as a means to prioritise the national needs over the local interests. However, as the local and regional levels can influence the process of designating national interests, the situation is not fully state-centred.
Moreover, extractivism has been described as a colonial and neo-colonial practise where the demands in the urban centres foster the exploitation (Acosta 2013). Studying the mining trial process in Sweden, it becomes apparent that the government and the authorities on a national level have great influence not only over the national interests, but over the whole mining trial process. Studying the decision to allow or deny exploitation concession it becomes clear that the process is rather state-centred. The decision is foremost taken by the County Administrative Board and the Mining Inspectorate, thus influenced both by the regional and the national level. The affected municipalities are invited to comment on the proposed project, like any other interested stakeholder, but do not take part in the formal decision. In addition, if the responsible authorities cannot agree on the outcome, or if the decision taken is appealed, the government take the final decision. The possibility for municipalities and other actors at the local level to affect the decision on exploitation concession is thus limited.

7.2 Colliding interests
Coexistence of various national interests are not uncommon. For example, reindeer husbandry often coexists with nature conservation and tourism. However, coexistence with mineral extraction can be more difficult as mining is dependent on using large amounts of land and water, which often becomes degraded in the process. This case study show that mining can be perceived as a threat against traditional reindeer husbandry, nature conservation, tourism, human health etcetera. This means that both the health and the livelihoods for the local communities, as well as their surrounding environments, are threatened by mining. Impacts on the surrounding environment, and in some cases on nature conservation areas, have been brought forward in more than half of the cases examined in this study. In two of the 15 cases, the potential impact on the environment have stopped or halted the process for exploitation concession permit.

To allocate land and water resources to the mining industry in northern Sweden is especially problematic as most of these resources were previously used for reindeer husbandry by the indigenous peoples, the Sami. The connection between indigenous people and their land is not only important for sustaining their traditional livelihoods, but also the cultural connection is brought forward in scientific literature. To separate the indigenous peoples from their land have been discussed as a form of extractive violence (Sehlin MacNeil 2017). In the exploitation concession process, which is especially examined in this study, the County Administrative Board and the Mining Inspectorate base their assessments and decisions on how different
interests of land and water use could be managed to further long-term sustainability. What is detected in the case study is that conflicts between the interest to extract a specific mineral deposit and reindeer husbandry is a common conflict over land management. This do not only affect the livelihoods of the Sami populations, but reindeer husbandry is also a cultural expression important for their identity. To continuously allow more exploitation concession permits in areas of special value for reindeer husbandry is thus to violate the Sami population, by disrupting their livelihoods, their culture and their identity. Of the 15 cases examined for this study, two have been denied exploitation concession due to its potential effects on reindeer husbandry.

In a majority of the cases examined for this study there have been colliding national interests, mainly in relation to reindeer husbandry, but also over nature conservation and other national interests. In total, four of the 15 cases studied have been denied exploitation concession or should be further evaluated due to colliding national interests. Still, in the rest of the cases the national interest for valuable substances and materials have been prioritised and exploitation concession allowed.

7.3 Reasons behind conflicts over land use

The reason behind conflicts over natural resource use have been traced to how different actors value land and resources (Hilson 2002). From the results of this study, it is evident that the socioeconomic values attached to land by different actors vary widely. This study has primarily examined conflicts between the government (the bureaucratic process), the mining companies and the Reindeer Herding Districts. For the Sami population, the connection to the land is important for them to sustain their livelihoods and their cultural heritage. For mining companies, it is usually to use the resources to create commodities, that could be used and sold for profit, and to create jobs. The underlying values of the Swedish state can be hard to locate. In the Swedish Environmental Code, various national interests are listed that should be protected against other forms of land use. If a situation of conflicting forms of land use occur, the interest that most likely promote a sustainable management of land, water and the physical environment in general should be given priority. However, mining has a special position and could be valued as more important than other national interests if special circumstances exist, meaning that mining could have a significant effect on business and employments. Therefore, in theory, mining could be given priority over other forms of land use recognised as national interests, if mining a specific deposit just assumes to create a significant number of job
opportunities. As these examples display, the values of the Swedish state can in practise be contradictory. Both aiming for a sustainable use of natural resources and job creation is sometimes clashing in the case of mining. The variation in underlying values, both between and in actors, thus further conflicts over how to manage the natural resources. Moreover, it is important to note that due to variations in underlying socioeconomic perceptions also the timeframe used in the assessments during the mining trial process is contested. As brought forward by Reindeer Herding Districts in several of the cases examined, mining is not a proper long term use of the land, and local sustainable development and the continuation of the traditional reindeer husbandry would be impossible if mining would be allowed. Conflicts thus arise when mining, which could have positive economic effects on a region during a limited time, is compared to traditional livelihoods with a different perspective on time.

Local communities not only bear the physical burden and lack the possibility to affect the process, what areas that become designated as national interests and the decision to allow or deny exploitation concession, but often also the monetary revenues from mining allocated to these societies are minor. As discussed earlier in this paper, it is mainly the companies that obtain the major profits from mining, and these revenues are often relocated abroad (Acosta 2013). The local communities are thus left without the monetary benefits. Ross has argued that grievances often occur in the extractive regions as a result of the limited economic gains and limited influence on the central government. Especially if extractivist activities are located in peripheral regions with ethnic minorities there is a greater risk for conflicts. Usually the local communities in resource-rich regions feel that they are entitled to a higher share of the revenues as they bear the burdens of the extractive activities (Ross 2007). A subnational resource curse, where the local communities suffer more than they gain from mineral extraction in their surroundings, could thus theoretically be visible.

As local communities lack the power to influence the process, they must bear the negative consequences and receive only limited benefits, the resistance against extractivism grows. Resistance movements have engaged communities and civil society organisations, and are often led by indigenous groups (Broad & Fischer-Mackey 2017; Dahlin & Fredriksson 2017; Veltmeyer & Bowles 2014). In the case of mining in northern Sweden, this is confirmed by the large number of remarks received mainly from private individuals and NGOs in some of the cases studied. Two cases were especially contested and got 16 and 17 remarks each during the exploitation concession trial. Reindeer Herding Districts have been involved in the exploitation concession process in all cases studied, raising their remarks. It can thus be argued that the
indigenous people take a lead in opposing mines in northern Sweden as the Reindeer Herding Districts, formed by the Sami populations herding reindeers as a part of their livelihoods, are usually involved in the process.

7.4 Scope of assessment

Social and environmental aspects are not sufficiently assessed during trial processes for extractive industries, as discussed by both Cust and Viale (2016) and Acosta (2013). Most focus is usually put on economic values, thus the profits and the obvious costs of the activity. However, as it is more difficult to measure social and environmental costs in monetary means, it is also more difficult to include these values in the economic analysis. Consequently, the monetary cost-benefit analysis does not provide a comprehensive evaluation of the total costs and benefits of a proposed project. Therefore, it is important to further discuss the scope of the assessments conducted during the mining trial processes. For example, reindeer husbandry cannot be assessed only on the economic opportunities it creates, but the value that traditional reindeer herding has for the culture and identity of the Sami people must be especially considered. From the cases examined for this study it seems as the Reindeer Herding Districts take a more holistic approach of evaluating the proposed mining projects than other actors do (company, County Administrative Board, Mining Inspectorate). Reindeer Herding Districts have stressed in several of the cases that the assessments are too limited, and must be made more comprehensive. I would argue that when the assessment of the social and environmental consequences is limited the bureaucratic trial process in itself furthers a local resource curse, where the economic profits mainly end up in the hands of the mining company and the local communities pay most of the costs.

What physical aspects that should be included in the assessment has been especially debated in relation to the mining trial process. Primarily the Reindeer Herding Districts and the County Administrative Boards have emphasised that the assessment must take a more comprehensive range of aspects into account when deciding whether a mine should be allowed exploitation concession or not. A complete assessment of the entire intrusions must be conducted. Especially the combined effects of different forms of intrusions or disturbances on land of particular importance for reindeer husbandry must be considered and evaluated during the assessment, in order for the outcome to be reliable. In addition to the cumulative effects on reindeer husbandry it has also been stressed that not only the mine as such should be assessed during the exploitation concession trial, but all surrounding activities should be included in the assessment.
in accordance with the judgement on the Norra Kärr case. In two trials, where the decisions on exploitation concession taken before the Norra Kärr judgement, it is clear that the perceptions about what should be included in the assessment differs between the different actors. During the trial in the Kyrkberget case, the scope of the assessment was disputed. The Reindeer Herding District argued that the entire proposed activity should be assessed, while the mining company stated that just the mining in itself should be evaluated at this stage. The County Administrative Board and the Mining Inspectorate went on the request of the company and limited the assessment to just the mining activity. In the Kallak case it was debated when the effects of increased heavy transports should be assessed. The County Administrative Board suggested that transports necessary for the mining project are part of the land use and should thus be included in the exploitation concession. However, the mining company and the Mining Inspectorate opposed this view and the transport issue was postponed to a later stage in the process. Due to the Norra Kärr judgement both these cases are now under assessment once again, and the new decision will be based on the entire proposed activity. Furthermore, it is also debated at what stage certain aspects should be assessed. It is especially clear in the Laver case where the mining company and the Mining Inspectorate did not agree on when a Natura 2000 permit were supposed to be applied for. Hence, the conflicts over the bureaucratic process is based both in what aspects that should be included in the assessment, how these aspects are evaluated and at what stage in the formal process various aspects should be brought up.

7.5 Main Findings
Based on the information brought forward in this analysis chapter, I would argue that there are three major reasons behind the conflicts over the mining trial process, which limits the possibilities for a sustainable management of our natural resources and increase the risk of a subnational resource curse in northern Sweden. First, the differences in the underlying socioeconomic values between the various actors involved in the process complicates the situation and limit the possibilities to reach agreements. Second, there is a gap between reality and applied policies. The use of national interest as a policy tool have been especially investigated in this study. As national interest is a tool for identifying and protecting areas especially important for the nation it lacks taking local plans and interests for development into account. Lastly, and in part due to the focus on national interests, the mining trial process appears centralised. Decisions are state-centred and the national needs seem to be prioritised over the local interests as the evaluation departure in the legislation on national interests.
Furthermore, the involvement of local actors and interests in the exploitation concession trial process is limited and enhance the centralisation of both the evaluation and the decision. The scope of the assessments conducted is limited in this way and do not take a holistic approach on mining. When new mines are not assessed as a whole and in relation to the physical contexts surrounding it, the aspiration to find agreements between various actors will be limited.
CHAPTER 8
DISCUSSION

So, can we prioritise between conflicting interests over natural resource use in a way that ensures sustainable livelihoods for the citizens in northern Sweden and protects the environment for future generations? This case study indicates that this is not the situation in Sweden at the moment. Foremost, the evaluation of new mining projects is not comprehensive enough to ensure that. The current assessment procedures tend to simplify mining and its impacts on societies and nature. To allow mining is to allow extracting a resource from its original context, from a system that has a value in itself, and will be degraded by the operations. I argue that the complex impacts of mining on the local systems must be recognised and evaluated in the mining trial process for the outcome to be grounded in reality. A more inclusive approach has foremost been emphasised by the Reindeer Herding Districts. In addition, the Norra Kärr judgement formally concluded that a more comprehensive assessment should be conducted. If the assessment preceding mining was more holistic in its approach towards land and water management, both for current and future use, the process would at least be better informed.

In addition to the recent Norra Kärr judgement, which shows a change in the legal interpretation of the mining area, another pattern is found in the case study indicating that the evaluation of various interests in the mining trial process has been changing over time. Examining contested cases of exploitation concession between the years 2000-2016, the cases that have been denied or referred to the government occurred in 2014, 2015 and 2016. Thus, all cases in which either the County Administrative Board alone, or both the County Administrative Board and the Chief Mining Inspector, opposed exploitation concession occurred in the last three years of the 16 years studied. Although all cases have different preconditions and characteristics, and thus is difficult to generalise from, I perceive this as a clear sign that the underlying values in the mining trial process is changing.

Moreover, changes from an extractivist approach on resource management towards a more eco-friendly attitude, based on solidarity, justice and quality of life, have been identified in Latin America by Broad & Fischer-Mackey (2017). Huge negative consequences on communities and surrounding nature is not accepted to the same extent as earlier. Especially water related concerns have furthered the process towards more sustainable mining regulations.
El Salvador took the lead when deciding to ban all forms of metal mining in the country, but other minor changes have been identified in other countries as well. Onwards, developments in the field will be interesting to follow as it can take different paths. Will additional countries join the movement towards more sustainable mining, as seen throughout Latin America? Some countries might even follow the example of El Salvador, and ban mining. Or, will the mining industry continue as usual? How this unfolds should be further researched, both by detailed studies of changes within countries and cross-country comparisons. It will be especially interesting to see the implications of the Norra Kärr judgement in Sweden, and how that will affect the overall judgement of mining projects throughout the country. Even though it is still too early to evaluate, the government decided to send cases back to the Mining Inspectorate for a reassessment based on the new praxis from the Norra Kärr judgement. But how the Mining Inspectorate now decides to conduct the new assessments, and the actual result of those assessments, will probably tell more about the future mining trial process in Sweden.
CHAPTER 9
CONCLUSION

Mining is a national interest. An interest for the Swedish state. Mining could bring new jobs, investments and incomes. But it is the local communities and environments surrounding the mineral deposits that must bear the burden of intrusions and disturbances. This study set out to gain more knowledge on the current mining trial process in Sweden, the effects on sustainable regional development and the implications for local communities. The results showed that the bureaucratic process is contested, both regarding what aspects that are included in the evaluation, how these aspects are assessed and during which phase certain issues are considered. The major reasons for these conflicts, as brought forward in this thesis, appears to be the diverging underlying values among the stakeholders, the gap between reality and policies and perhaps foremost, the state-centeredness of the bureaucratic mining trial process. The centralised decisions that characterise the mining trial process in turn increase the risk of a subnational resource curse in northern Sweden.
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Documents used for case-study

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APPENDIX

Decision documents on exploitation concession was studied in the following cases.

<table>
<thead>
<tr>
<th>Case</th>
<th>County</th>
<th>Municipality</th>
<th>Decision by Chief Mining Inspector</th>
<th>Date for decision</th>
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<td>Västerbottens &amp; Jämtland</td>
<td>Vilhelmina &amp; Strömsund</td>
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