The relation between tourism and mining
Case study from Greenland

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30 ECTS thesis submitted in partial fulfillment of a
Magister Scientiarum degree in Environment and Natural Resources

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Abstract

The government of Greenland has a strong belief in gaining independence from Denmark, and is therefore willing to increase emissions in order to establish new industries to support political and economical independence. Although Greenland's governmental budget is currently balanced, it is forecasted that the budget will require a significant improvement in order to keep the level of public services that are currently provided. Tourism and mining, in addition to fishing, has been identified as the three pillars that the future economy depends upon, although the tourism and mining industries has not experienced the growth desired. This study aims at understanding stakeholder's views and perception on the relation between mining and tourism in Greenland, and the future potential of these in terms of responsible tourism development in the region. Interviews with six stakeholders were conducted, and coupled with results from the literature review and analyzes of selected strategies created for the tourism-and mining industries. The results showed that there has not been any known connection between the tourism and mining industry in Greenland so far, although there seem to be a strong belief that the tourism and mining industry in Greenland can impact each other in the future, both positively and negatively. Both the mining industry and the tourism industry might benefit from a joint cooperation, as Greenlands vast distances and poorly developed infrastructure is challenging both the industries. The findings of the study revealed shortcomings in the strategies analyzed, and it is recommended that they address the relations between the tourism and the mining industries more clearly.

Útdráttur

Sjálfstæði Grænlands frá Danmörku hefur verið stefnumál grænlenskra stjórnvalda síðastliðin ár. Fjárhagslegur stöðugleiki hefur verið álitinn forsenda þess að Grænland öðlist sjálfstæði og því hefur áhersla grænlenskra stjórnvalda nær eingöngu verið á uppbyggingu hverskyns iðnaðar og atvinnustarfsemi, þá oft án tillits til mögulegra neikvæðra afleiðinga sem atvinnugreinar geta haft hver á aðra. Fjárhagsáætlun ríkisstjórnarinnar er stöðug en samkvæmt spám þarf að auka hagvöxt á næstu árum ætli ríkið að standa áfram straum af kostnaði af þeirri þjónustu sem boðið er upp á. Stjórnvöld telja að ferðaþjónusta, námuvinnsla og fiskveiðar muni vera stoðir slíks hagvaxtar. Þessari rannsókn er ætlað að varpa ljósi á viðhorf hagsmunaaðila innan ferðaþjónustu og námuvinnslu, til sambands þessara tveggja ólíku atvinnugreina, þá sérstaklega með tilliti til uppbyggingu ábyrgrar ferðaþjónustu. Tekin voru viðtöl við sex hagsmunaaðila og niðurstöður greininga á þeim voru svo paraðar saman við greiningu á mismunandi aðferðum sem lagðar hafa verið fram fyrir uppbyggingu ferðaþjónustu og námuvinnslu. Niðurstöður leiddu í ljós að ekki hefur verið hugað markvisst að tengslum námuvinnslu og ferðaþjónustu. Ljóst er að hagsmunaaðilar telja að greinarnar gætu haft bæði jákvæð og neikvæð áhrif á hvor á aðra. Báðar atvinnugreinar gætu haft hag af meiri samvinnu þar sem miklar fjarlægðir og lítt þróaðir innviðir eru sameiginleg áskorun. Færð eru rök fyrir því að stefnumótun stjórnvalda þurfi að taka tillit til tengsla ferðaþjónustu og námuvinnslu í ríkari mæli.

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1 Introduction

Politicians in Greenland started to discuss the topic of climate change relatively recently. Greenland, together with Denmark, ratified the Kyoto Protocol in 2001, but did not introduce their first climate strategy until 2009. However, it is claimed that local politicians in Greenland are trying to maintain a double climate strategy, where they support reduction of global CO_2 emissions (Bjørst, 2008, in Bjørst & Ren 2015), while simultaneously not wanting to be "limited by global standards in a national context" (Bjørst & Ren, 2015, p. 95). The Greenlandic government states

> [...] that the country might increase its emissions in the future as investments in large-industrial projects and mining take off. This should be seen against the background of Greenland moving towards increasing political independence for which economic independence remains prerequisite (Government of Greenland, 2014, in Bjørst & Ren, 2015, p. 95).

It is not specified how much they intend to increase the emissions, although it is claimed that it is done in order to establish new industries to support political and economic independence (Government of Greenland, 2014, in Bjørst & Ren, 2015). The strong belief in independence has made climate change and environmental concerns less prioritized issues in Greenland (Bjørst & Ren, 2015). Tourism and mining, in addition to fishing, have been identified as the three pillars that the future economy of Greenland depends upon. The industries are believed to be the source of a greater economic prosperity for Greenland (Rambøll, 2014). However, the development of tourism is in its formative stage (Ren, Bjørst & Dredge, 2016) and the mining industry is currently at "a very low state" according to one of the thesis participants.

The aim of this study is to understand stakeholder's views and perceptions on the relation between mining and tourism in Greenland, and the future potential of these in terms of responsible tourism development in the region. To better understand the stakeholders' perceptions I will analyze selected strategies created for the tourism- and mining industries, as well as conduct interviews with various stakeholders. The data gained through this will

be illuminated by the literature review presented in the thesis, and will be used to answer the following research question:

What is the stakeholders' perception of the relation between the mining- and tourism industry in Greenland in the context of responsible resource development?

This study is divided into seven chapters, where the thesis aim is to gain a better understanding of the relations between the mining industry and the tourism industry in Greenland, seen in the context of a responsible resource development. The main focus in the theoretical framework will be on mining in remote areas, development of tourism in Arctic peripheries as well as the relations between the tourism and mining industries. Thereafter, a brief introduction of Greenland will follow, with particular focus on both the mining industry and the tourism industry in Greenland. A description of the country's financial situation will be presented as well, in order to foster a better understanding of the government of Greenland's ambitions and choices made in order to develop the country's industries. Then the research methods employed in this study will be outlined. The focus will be on qualitative research and methods used to collect data, as well as the researchers' considerations regarding reflexivity. The chapter ends by presenting a list of participants for the interviews conducted for this research. In the latter parts of the thesis I present an analysis of three selected strategies and policies developed for the tourism and mining sectors in order to provide a clear perception of the industries' future development plans. In this section I also summarize the findings of my interviews'. The thesis ends with a discussion of the findings, where the theoretical perspective is incorporated. The final chapter also discusses implications of the study, and suggests potential areas for further research.

2 Theory

There has been little research conducted on the relations between mining and tourism, and no similar research has previously been conducted in Greenland. However, research that has been conducted separately on mining and tourism in rural areas is applicable for this study and will be outlined in this chapter, as it can help contextualize the research.

2.1 Mining in remote areas

The mining industry has in general experienced great changes in the last decades due to globalization, innovation and technological development, causing restructuring in the sector (Knobblock & Pettersson, 2010). Although the organizational structure of the industry has undergone changes, it has been under governmental regulations and control as it is of political and economic interest for most societies, whether the industry has been privately- or state-owned. After the Second World War state-ownerships of the Western world's mineral industries increased as a result of nationalization in developing countries and strong metal markets. This trend reversed in the late 1980s as a shift in global politics occurred, where private sector initiatives and the free market were emphasized. Additionally, state-owned companies had struggled with ineffectiveness and poor management, causing a need for change. The privatization of the mineral market occurred at a time when the mining industry was facing a continuing decline, where industries were not able to meet their social responsibility, and profits were failing. The metal prices started to increase again in 2003/2004, leading to a renewed interest from governments all over the world, with a pause in 2008 due to the financial crisis. There are only a few countries rich in minerals that are seeking direct control over their mineral resources, as most countries are seeking new ways to increase potential benefits of mineral resources in terms of renewed mineral policies (World Bank, 2011). Apparently 6 out of 10 state-owned companies are deemed by the Resource Governance Index (RGI) rank as "failing", as they have not been performing or achieved the country's development goals. Governments are therefore recommended to take into account the six suggestions presented in Table 1 when they are in the process of creating, developing or reforming a state-owned mining company (Manley & Wake, 2015).

Table 1: Recommendation for state-owned mining companies

1. Leadership of state-owned mining companies should have realistic ambitions, clear goals and well-defined corporate mandates.
2. State-owned mining companies should aim for commercial efficiency.
3. State-owned mining companies should plan for the long term.
4. Incorporation and organization of state-owned mining companies should promote efficiency and accountability.
5. State-owned mining companies should generally not hold licensing powers.
6. National mining companies should adhere to the same or higher standards of disclosure as private companies face and should be subject to clear oversight.

Source: Manley & Wake, 2015.

A new type of international cooperation is needed in order to meet the new challenge the mining industry is facing, which concerns how "to deliver sufficient volumes of metals and minerals at prices, which do not fuel inflation or encourage substitution, while ploughing back a reasonable share of profits into local and national host economies" (Ericsson, 2012, p. 2). The new international cooperation referred to will secure economic and social development in developing countries. This is dependent upon cooperation between governments and industries, rich and poor countries, experienced as well as new mining nations (Ericsson, 2012). However, the combination of fluctuations in the market prices and the uncertainty of the mines' richness and profitability make the production periodically very profitable, and not profitable during other periods (Knobblock & Pettersson, 2010).

An example of these dynamics can be seen in Knobblock and Pettersson's (2010) study of the employment situation in the Västerbotten area in Northern Sweden. Västerbotten has been dependent upon natural resources, but the mining sector experienced a decline in mining employment between 1990. Implementation of flexible strategies, however, reduced the rise of unemployment. Mining employment was transferred into other sectors, ranging from core activities to activities involving development of equipment and manufacturing. Knobblock and Pettersson (2010) found that job opportunities in related

activities were higher than the amount of jobs in the mining industry itself. The shift in demand of minerals and short-term mining investments affected the region when developing plans for e.g. housing and social services. There were also challenges in terms of getting the labor force to become residential and contribute to local and regional growth in areas where the mines were small and short lived. In these cases it was not likely that opening of new mines would have any long-term effects on employment and population figures in the region. This case shows the importance of how the development of the mining industry can result in a long-term employment growth in a region, if strategic decisions are being made on regional and local levels (Knobblock & Pettersson, 2010).

The next case presents the demographic and economic differences mining has on remote statistical local areas (SLA) in Australia compared to non-mining SLAs. The Australian Statistical Geographical Standard categorizes areas by the physical road distance between the SLAs and their closest urban center. The research included areas labeled as either "remote" or "very remote" (Kotey & Rolfe, 2014). Large iron ore deposits and mining operations are usually found in Australia's remote regions, and mining is thought to have the potential to improve the economy in these areas. In addition to this, mining can lead to other positive impacts on a region; population growth, improved infrastructure and improved health services (Petkova, Lockie, Rolfe & Ivanova, 2009). It is argued, through the use of socio-economic indicators, that mining has an overall positive impact (Hajkowicz, Heyenga & Moffat, 2011), however, if the long-term socio-economic and environmental impacts are considered as well, it would be rather unlikely that the net effect on mining communities would still remain positive (Kotey & Rolfe, 2014). Demographic differences between mining and non-mining SLAs were also found. The former SLAs had bigger populations, particularly in the working age group (25-54 years) with fewer children and retirees. The mining SLAs were also characterized by a higher male-to-female ratio and smaller populations of indigenous people. The research also found that mining SLAs had lower unemployment rates and higher incomes compared to the non-mining SLAs. There was not found, however, any proof of the high incomes being invested back into the mining communities (Kotey & Rolfe, 2014). In general, mining tends to negatively affect low-income groups, who do not have the required skills to work in the mining industry, as they are not equipped to meet the increasing living expenses (Sachs & Warner, 2001), which particularly apply to the indigenous peoples in Australia who tend to relocate to

smaller and cheaper areas (Kotey & Rolfe, 2014). In general, large, modern mining projects tend to leave the social and environmental costs to the affected communities, while the economic benefits tend to benefit domestic and foreign metropolitan centers. In addition to this, large-scale mining operations generally provide few jobs compared to the massive investments that are needed. The environmental impacts of large-scale mining are significant: it generates large quantities of waste every year, uses large quantities of water in addition to absorbing extensive land areas. The social and environmental impacts on nearby communities can be long-lasting, and continuing after the mining ends, meaning that while the current generations are benefiting from mining, the future generations might have to live with the environmental and social impacts for a long time after the mining ends (O'Faircheallaigh, 2015). It is argued that a willingness to involve the public early on, gain trust between the various actors and to try to understand and manage the social impacts on the planned development can result in increased benefits for all stakeholders (Vanclay, Esteves, Aucamp & Franks, 2015).

2.2   Tourism development in Arctic peripheries

Tourism is perceived as being a safe development option for countries, and globally it is one of the fastest growing industries, with good prospects for further growth. Additionally, it is perceived as a way for both less developed and industrialized countries to achieve economic growth and development, as it potentially provides employment, foreign currency and a growing source of income (Sharpley, 2009). It is in principle an effective way of transferring capital from richer countries to poorer areas, through direct expenditures or international investments. Arctic tourism is not a new concept, even if the interest in the Arctic as a destination has received increased attention in the last few decades (Lundgren, 2001; Sletvold, 1997). Müller (2015) argues that the Arctic is not a remote destination, as the physical distance of the Arctic is more closely situated the global demand markets in North America and Europe than, for instance, Asia. It is the "cognitive perception of a different climate and ecosystem" (Müller, 2015, p. 149)*, in addition to high travel costs due to the limited market demand that creates the perception of the Arctic as remote, rather than the distance (Müller, 2015). The development of tourism in peripheral areas can be challenging, and Table 2 shows a list of problems that are present in these areas.

Table 2: Problems with the development of tourism in peripheral areas

Lack of political and economic control over decision-making
Geographical remoteness from demand markets
Weak internal economic linkages creating dependency on imports
Decreasing population figures, ageing societies
Comparative lack of innovation
State intervention
Poor information flows within and from the periphery
High aesthetic natural value due to underdevelopment
Poor infrastructure
Lack of human capital

Source: Müller (2011), p. 132.

Tourism has continuously been used as a tool for developing local economy in peripheral areas, while resource extraction industries tend to be the dominant activities in peripheral areas. Resource extraction industries can challenge the development of tourism with competing or conflicting interests in terms of land use, in addition to market variations. (Müller, 2011). Arctic tourism is generally highly concentrated to certain areas due to the infrastructural conditions, leaving great parts of the region unvisited. A remote location, which is time consuming and expensive to visit, will most likely have a limited number of visitors. This requires the product to be of high quality, particularly if the livelihood is dependent on income gained from a limited number of visitors. Arctic tourism is most often seen as an opportunity for a community to create economic diversification and employment, particularly without leaving the area. Tourism has often turned out to be an alternative way of creating economic growth in periods of industrial decline. The tourism industry has, however, been criticized for not being an attractive industry to work in, due to

low salaries and seasonal characteristics. It is nevertheless perceived as a solution when an area is facing industrial decline, and can easily can be abolished if it is no longer needed (Müller, 2015).

Arctic tourism has in recent times experienced a growth, partly because of the increased attention the region has received in the wake of climate change and geopolitics. It is important to stress that even if the Arctic may be perceived as one destination by the media and tourists (Müller, 2013), it must not be perceived as one homogenous region as it is comprised of "various biomes, political systems, cultures and economies" (Müller, 2015, p. 155). Tourism is seen as an alternative for small communities within the Arctic to make a living, where the economy has been dependent upon extractive industries for a long time. Similar to how the Arctic should not be seen as one destination, Arctic tourism should not be perceived as a single form of tourism (Müller, 2015). It is claimed that Arctic tourism consists of tourism to the Arctic, tourism for the sake of the Arctic (e.g. participation in industry and scientific meetings) as well as tourism to areas outside the Arctic which focuses on the history and the environment of the Arctic (e.g. the Fram Museum in Oslo) (Maher, Stewart & Lück, 2011). Both the tourist industry and the tourists themselves have been accused for holding stereotypical interpretations of the Arctic and of marginalizing Arctic communities, despite many communities being modern and well connected to global networks (Müller, 2013; Keskitalo, Malmberg, Westin, Wiberg, Müller & Petterson, 2013).

Increasing amount of tourists has potentially negative, and in some cases destructive, effects on the destination's environment and societies (Sharpley, 2008). Telfer and Sharpley (2008) refer to it as the *tourism development dilemma* when a destination needs to effectively manage the development of tourism, meaning that the balance between the development of tourism and its negative consequences must be found. The concept of sustainable tourism development has since the 1990s been known to be the solution to the dilemma presented above; measuring economic growth against socio-cultural, political, environmental and economic dimensions. It has been implemented in local, national and international planning and policy documents for the tourism sector. Despite being a globally recognized term, there is "limited evidence of its implementation in practice" (Sharpley, 2009, p. 25). Although sustainable tourism development has been discussed in the academic study of tourism for almost 20 years, it has not yet succeeded in transferring

its principles and objectives successfully to policies and practices in global tourism. In order to keep the level of negative consequences from tourism development within acceptable limits, effective management of the development is required, particularly since there is little empirical evidence that tourists adapt to a more sustainable behavior of their own accord, despite being aware of the environmental impacts caused by their activities (Sharpley, 2009). Sustainable tourism is often replaced by similar terms such as "eco tourism", "ethical tourism" and "responsible tourism", but the lattermost term is by far the most favorable in the industry (Caruna, Glozer, Crane & McCabe, 2014). Responsible tourism must not be perceived as a synonym of sustainable tourism. Responsible tourism builds on sustainability-based strategies and policies seen in conjunction with sustainable actions and behavior, meaning that it is the result of the move towards actual tourism that to a greater extent is based upon sustainable values. This makes responsible tourism practice-oriented, as it refers to responsible behavior that is in line with sustainability values. Sustainable tourism, on the other hand, is built on sustainability-based strategies and policies, making it a concept-oriented term (Mihalic, 2014). The definition of the term "responsible tourism" is still being discussed amongst researchers; Caruna, Glozer, Crane and McCabe (2014) emphasize the 2002 Cape Town Declaration which stresses that responsible tourism is characterized by the following:

Table 3: Characteristics of responsible tourism

Minimizing impacts
Generating economic benefits of host communities
Involving local people in decision making
Conserving natural and cultural heritage
Providing meaningful connections between tourists and local people
Being accessible and culturally sensitive

Source: Caruna, Glozer, Crane & McCabe, 2014, p. 116.

Although responsible tourism has become an established term in tourism research, the tourists themselves tend to interpret the term slightly differently, even if the consumer

perspective on the concept is not stable and fixed, but rather fluid and contingent. Results from a survey made in 2014 revealed that consumers defined their personal definition of responsible tourism as "different aspects of their own behavior, their interactions with host populations within tourists destinations, the types or characteristics of destinations or the impacts of their activities or the outcomes for local people" (Caruna, Glozer, Crane & McCabe, 2014, p. 127). The concern about the relationship between tourism and the environment has been the main driver towards responsible tourism (Mihalic, 2014). It is claimed that the tourist industry needs to adapt more environmentally and socially responsible market practices in order to be able to meet the future demands from tourists and maintain their levels of satisfaction (Caruna, Glozer, Crane & McCabe, 2014).

Tourism is known to be a good way of creating economic growth for a nation. A rapid development of the tourism sector can, however, happen at the expense of other areas of interest, if not taken into account early on. This has been the case in Iceland, who experienced an increase from 360 400 visitors arriving in 2004 (Icelandic Tourist Board, 2015) to approximately 1.3 million visitors arriving in 2015 (Icelandic Tourist Board, 2016). Iceland's experience from the rapid development of tourism the last decade can serve as an inspiration for nations who seeks growth in tourism in general, and for Greenland in particular, as they look towards Iceland when developing their tourism industry. The lessons learned from Iceland can support Greenland with initiating preventive measures in order to avoid meeting the same challenges as Iceland when developing their tourism industry. Tourism is one of the main pillars Iceland's economy depends upon, and it became particularly important for the country's economy after the financial crisis in 2008. Tourism was perceived as a way of attracting foreign currency into Iceland's economy, as well as a way of creating economic diversification for the country (Jóhannesson, Huijbens & Sharpley, 2010). Although the rapid growth in tourism has contributed to an improvement of the Icelandic economy (Icelandic Tourist Board, 2015), the government has been criticized for not prioritizing the tourism sector unless the economy is facing a regional crisis (Jóhannesson, Huijbens & Sharpley, 2010). It has been argued that the development of Iceland as a tourist destination has reached a critical stage, and the growth in tourism illustrated a lack of knowledge in the tourism policies and practices on how to meet the increasing number of tourists, their spacio-temporal concentration and the framework for entrepreneurial activity. Four themes have been identified in terms of

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improving the future development of the tourism sector in Iceland, based on the past directions of the country's tourism policies:

- Planning
- Environment and sustainability
- Research and education
- Image and marketing

(Jóhannesson, Huijbens & Sharpley, 2010, p. 292)

A more effective planning is called for in order to improve the socio-economic potential tourism has along with creating better possibilities for entrepreneurship. In Iceland's case it was a need for reviewing the tourism situation in terms of its resources as well as tourism as a way of creating socio-economic growth. The tourism policies have been lacking measurable indicators and concrete initiatives concerning the environment and sustainability, in order to reach the main objectives. This has resulted in too little response to the challenges that the natural environment is exposed to, due to the growing number of visitors. Lack of research and knowledge in the field of tourism has also made it challenging to produce strong policies and planning directives in the field. This need to be improved in order to be better prepared for a sustainable tourism development. Iceland's unique and unspoiled nature has been used in the promotion and image created when marketing Iceland as a destination. It can be challenging to develop the tourism industry when it is based on the image of its unspoiled nature, while the state at the same time is supporting and actively building up industries that are in conflict with this image, like for instance commercial whaling and the construction of aluminum smelters (Jóhannesson, Huijbens & Sharpley, 2010). A destination's image is essential to destination choice in tourism (Baloglu & McCleary, 1999; Jenkins, 1999), and of significant influence when tourists are choosing a destination to visit. Image can be perceived as the tourist's general impression about a destination (Rynes, 1991, in Castro, Armario & Ruiz, 2007) and as an important factor in the tourist's final evaluation of a service (Bitner, 1995; Grönroos, 1984, in Castro, Armario & Ruiz, 2007). The tourist's experience of the destination may vary from the expectations, either positively or negatively, and hence impact their future travel decisions (Chon, 1992). People's personal recommendations tend to be more credible than

recommendations from commercial sources, meaning that the word-of-mouth influence can have a great impact on consumer buying behavior (Kotler, Bowen & Makens, 2014).

2.3   The relation between tourism and mining

Tourism and mining operate on different financial scales. A competition between the two industries is not realistic, since mining can potentially provide high revenue in a shorts pace of time. Tourism, conversely, normally provides more modest and uncertain revenue and is an insecure investment if searching for a steady income. It requires, amongst other things, political will, infrastructure, determination and innovation in order to succeed in tourism (Bjørst & Dredge, 2016). Research conducted in Northern Sweden found that tourism entrepreneurs did not trust the local politicians ability to prioritize the development of tourism when opening up a new mine in the same area, since mining will provide higher tax incomes which tourism cannot achieve (Müller, 2015). However, an example from Northern Australia showed that large mining companies are formally committed to involve in social, economical and institutional development of the regions where they are operating mines (O'Faircheallaigh, 1999). Many of these mining operations are situated on, or next to, Aboriginal land and communities. The relationship between indigenous people and mining companies has not been positive throughout history, as they tend to have conflicting values. This relationship improved after many of the mining companies adopted a Corporate Social Responsibility (CSR) strategy that addressed the importance of ethical behavior, as well as the importance of the companies' impact towards a sustainable development for the local community (Buultjens et al., 2010). In order to be effective towards indigenous people, the CSR strategies have to secure a financial future that is independent of mining (Banerjee, 2001; Eweje, 2006). Tourism is perceived as an opportunity to develop remote areas and provide indigenous people with economical development (Eagles, 2001; Pitcher et al., 1999). This, seen together with some of the mining companies' initiative on supporting indigenous entrepreneurship, is perceived as a good combination in terms of facilitating small-scale indigenous tourism ventures. It is further claimed that initiatives like these can benefit from the synergies between mining, pristine nature and indigenous communities (Buultjens et al., 2010). Although there is a growing interest towards industrial heritage tourism, including mining related tourist attractions (Cegielski et al., 2000; Edwards & Llurdés, 1996), there has been little

involvement with indigenous people concerning mine related tourism (Brereton et al., 2006). The results from the case study from Northern Australia showed that the employees of the mining company Comalco were interested in facilitating a diversification of the local economy, and were therefore supporting the local tourism industry by giving access to some of the mining infrastructure, as long as it did not interfere with the mining operations. The tourism industries were heavily dependent on infrastructure built up by the mining companies, like for instance roads, airports, water, sewage and power. This example shows that mining companies can be well positioned to support indigenous businesses, and that the company's CSR strategies can provide direct support to such developments (Buultjens et al., 2010).

Mines have a limited lifespan, and usually the mining companies are obliged to reclaim the land back to its original state when mining ends. A study was conducted in order to look into the possibilities for the Ha Tu coalmine in Vietnam to be adapted for use in tourism after the mining closed in 2015. The mine is situated next to the popular Ha Long Bay World Heritage Site, which struggles with congestion, and is therefore strategically located to be used as a tourist attraction (Duc Hoa, Chesworth & Jolliffe, 2011). This could serve several purposes, for instance in dispersing visitors away from the Ha Long Bay, as well as being used as an interpretive center, a recreational area and/or a visitor attraction. The mine can serve as a center to inform or educate the public on various topics like the long and varied history of the mine, the mining business and process, its financial contribution, the consequences of mining, tradeoffs between conservation, the economy and so forth (Henderson, 2000).

Tourism and mining, in addition to fishing, have been identified as the three pillars that the future economy of Greenland is dependent upon, even if the development of tourism is still in its formative stage (Ren, Bjørst and Dredge, 2016). Greenland is experiencing an increased interest as a tourist destination. According to Greenland Spring Visitor Survey Report, tourists who visit have two main focuses for their trip: to experience the nature and culture of Greenland (Visit Greenland, n.d.c). Greenland's natural qualities are important for the country's tourism industry, and it may provide an alternative to more extractive uses of the nature (Kaae, 2007). Kvanefjeld and its surrounding areas like Narsaq and Ipiutaq Guest Farm have been analyzed by Ren, Bjørst and Dredge (2016). They looked at how the

area are presented and imagined by the mining company GME, as well as on how other activities, like tourism, are simultaneously interfering with, or are entirely left out of, the country's strategic planning (Bjørst & Dredge, 2016). Visual pollution is believed to influence tourists' impression and the quality of their experience (Kaae, 2007). The authors analyzed a video published by GME presenting the company's uranium project at Kvanefjeld. The landscape in the video is presented as an open and welcoming summer landscape, and the narrator states that this area is accessible all year round. Normally, the weather in this area is more challenging, with rapid changes causing flight delays and eradications of the roads. The video does not show any other activities except for mining in the area, excluding therefore interactions between people, culture, animals and activities like tourism, fishing and farming that are present in the area. The video has purposely erased a farm from its scenes, presenting the area as if it is not populated with humans. GME presents it as a risk-free area for potential investors, leaving out the potential impacts that mining activities can have on the local environment and community (Bjørst & Dredge, 2016). A more detailed description of Greenland's mining industry will amongst other be presented in the following chapter.

3 Study area: Greenland

This chapter provides a brief introduction of Greenland, the study area of this thesis. Following the introduction is an overview of the mining and tourism sector in Greenland.

3.1 Introduction of Greenland

Greenland, at 2.166.086 km^2, is the largest island in the world, and is situated between the Arctic Ocean and the North Atlantic Ocean, on the northern American continent. Greenland has a population of 56.648, where 14.719 live in the capital Nuuk, which is the largest city in the country. Approximately 85% of the population belongs to the indigenous Inuit, while the remaining part of the population is mainly Danes. The population is settled along the coast since 85% of the island is covered by the icecap, leaving only 15% of the island habitable. The infrastructure in Greenland is poorly developed, so the only way to travel around locally is with fixed-wing planes, helicopters or by sea (Government of Greenland, n.d.a). Greenland, together with the Faroe Islands, is a part of the Kingdom of Denmark, but Greenland gained Home Rule in 1979 and Self Rule in 2009 (Vestergaard, 2014). Greenland gained authority over its natural resources as a part of the *Act on Greenland Self-Government,* and has therefore the right to control and use all its mineral resources, and collect all revenue from these activities (Vestergaard, 2014; Hansen, Vanclay, Croal & Skjervedal, 2015). The Kingdom of Denmark manages Greenland's foreign affairs (Hansen, Vanclay, Croal & Skjervedal, 2015).

3.2 Greenland's economy

The government of Greenland finds the two following resolutions to be of utmost importance in terms of their financial political agenda, and they have been identified as the drivers behind the country's ambitions of becoming a mining nation:

1.   To ensure a balanced self-governed economy during the decades ahead.

2.   To achieve a self-sufficient economy that is independent of subsidies from Denmark and other countries.

(Rosing et al, 2014, p. 11).

Greenland's governmental budget is currently balanced, although it is forecasted that the budget will require a significant improvement in order to keep the level of public services that are currently provided. This is due to expected demographical changes, where the population is expected to consist of more elderly and fewer young people, in addition to increased social spending. This is expected to result in a growing deficit in the next decades (Rosing et al, 2014), as illustrated in Figure 1.
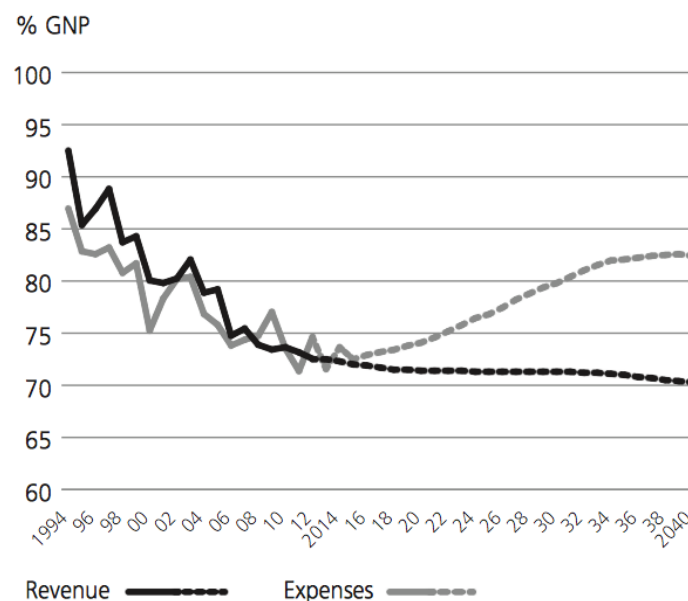

Figure 1: Forecast of the development in Greenland's economy (Statistics Greenland and the Economic council of Greenland, in Rosing et al, 2014)

In order to prevent this deficit, Greenland needs an improvement of DKK 800 million, or around 6% of the country's GDP, over the next 25 years. In addition to this, Greenland seeks to ensure a balanced self-governed economy, which is not dependent upon subsidies from Denmark or other countries. It will require a larger improvement of Greenland's budget to compensate for block grants from Denmark and subsidies from the EU (Rosing et al, 2014). An analysis made by Rambøll Management Consulting between September 2013 and February 2014, found that the following businesses can contribute to an increased economy for the Greenlandic society in the future, based on initiatives that already have been initiated or decided: tourism, fisheries, mining, agriculture and seal products. The oil and gas sector has deliberately not been included in this analysis (Rambøll, 2014). A society that succeeds in creating a broad business structure with an educated workforce is more likely to become more resistant towards economic conjunctions and it will also increase the chances of maintaining a sustainable demography, as well as a sustainable social and environmental development (Rambøll, 2013).

3.3   Mining in Greenland

Greenland has recently experienced a rapid expansion of extractive industries, which has created hope but also fear for the future in the local populations, as it can potentially affect the lives of the local population negatively. The Arctic is particularly vulnerable, and small projects can be risky since they can create social impacts at both local and national scales. One of the main challenges for the local communities is that the mineral companies can move to other areas and new projects if mistakes are made or if the reserves are exhausted, while the communities have primarily one chance to develop. It is therefore of great importance to the local communities to succeed on the first occasion (Hansen, Vanclay, Croal & Skjervedal, 2015). People that live in nearby settlements to project sites and people who live at a greater distance to it will experience different impacts from the sites. Generally, locals are more willing to accept negative impacts in the early phase, since they are gaining access to more jobs and development in the community. Simultaneously, people who do not gain any direct benefits from the projects tend to be more critical towards possible negative impacts the projects might cause. This usually changes over time, and during the production phase the locals tend to become more critical towards the possible negative effects. At this stage, the people living further away have started to forget

about the project, and value the national revenue more than the local impacts (Bjørst, 2016a). The potential impacts on the settlement nearby potential mine sites is a topic of concern in Greenland. Greenland Minerals and Energy (GME), which is a company registered in Australia, has been operating in Greenland since 2007 (Greenland Minerals and Energy, n.d.a). GME explores the potential rare earth metal and uranium site in Narsaq, South Greenland. GME stated that in case environmental problems occur, they are considering relocating the population. This resulted in protests from the local people, particularly since the government in Greenland argues that the mining is implemented in order to secure jobs for the local people and benefit the community (Hansen, Vanclay & Skjervedal, 2015). It is recommended to involve the nearby communities in decisions that impact their future, as it is thought that their involvement can influence their welfare, self-esteem and the social license to work on projects (Dare, Schirmer & Vanclay, 2014).

Greenland's potential for increased revenue has primarily been identified with the sector of mining and minerals. It is thought that this sector will create work and growth in areas connected to operations, but it is not realistic that it will manage to support development across the whole country alone (Rambøll, 2014). It is also worth mentioning that it can be hard to estimate the economic potential, even if the quantity and quality of the ores are well documented. This is due to several factors such as changing prices of natural resources in the global market, changes in the global demand for natural resources in addition to practical difficulties with the extraction and transportation of the minerals that may occur. However, if everything goes well, the mining can contribute significantly to the country's economy already within five to ten years (Rosing et al, 2014).

As a result of the implementation of the Self-Rule Act from 2009 and the economical downturn in recent years, it is predicted that Greenland will face an economic recession in the following years. As a result of this, stakeholders in Greenland started to look for new ways to create growth and attract investors, and tourism and mining have in this context come up as industries with good prospects for development (CGMRBS, 2014; Rambøll Rapport, 2014; Fremtidssenarier for Grønland, 2013, in Ren, Bjørst & Dredge, 2016). Mining, and particularly the Kvanefjeld project in South Greenland, is considered to contribute to an improvement of the country's economy. However, research done in other areas of the Arctic shows the importance of properly addressing social and cultural costs of

mining, and particularly the impact mining has on other economic activities, like for instance tourism (Tester & Blangy, 2013).

Greenland has a long history of mining, and the majority of these activities took place with limited or no focus on the natural environment (Sejersen, 2014; Rasmussen, 2000, in Ren, Bjørst & Dredge, 2016). Social and ecological impacts from mining are better known today, although it receives little attention in the current political debate in Greenland. Bjørst (2016b) followed the debate about Greenland's mining thoroughly between 2012-2015, and particularly the ongoing uranium debate in Narsaq, South Greenland. The study revealed that the argument regarding mining as the primary road to development for Greenland was well stabilized (Bjørst, 2016b). Fishing, which currently contributes to around 90% of Greenland's exports, has not had the opportunity to increase significantly (Rosing et al, 2014). Additionally, there has been a decline in the catch of shrimps, which is the most important species economically for the fishing industry. Greenland has also experienced a decline in the population due to net emigration, causing a downturn in economic activities (Christensen & Jensen, 2014; Bjørst, 2016b; Statbank Greenland, 2016). A large number of the emigrants were resource-rich persons, and if the net migration continues it will become a great loss of human resources for Greenland, which may potentially limit the nation's chances of increasing their self-sufficiency (Government of Greenland, 2014). This has led to a search for alternative ways to create growth and attract investors, and the debate in Greenland regarding mineral resources has been intensified in the last years as a result of this (Bjørst, 2016b). However, it is highly unlikely that Greenland's mining and energy projects will be realized in the near future, as a result of reduced investments and global events the country cannot control (Boersma & Foley, 2015). The general comprehension in the Greenlandic government seems to be the country's potential future as a mining nation, which in turn will create jobs, societal growth and contribute to securing Greenland's future and possible independence from the Kingdom of Denmark (Bjørst, 2016b). The mineral company GME is of a similar opinion. Damien Krebs, GME's Metallurgical Manager, claimed that one of the benefits with the proposed mine at the Kvanefjeld plateau was its sustainability. What he meant with this statement was not that mining of non-renewable resources was sustainable, but that the local community can get a long lasting benefit from it in terms of more jobs and physical revenue. According to Krebs, it was not feasible for the company to operate in the mine

they obtained license for in 2007 in Kvanefjeld if they only drilled for the Rare Earth Elements[1] (REE). In order to make a profit, mining of uranium was necessary. As a result of the strong belief in Greenland as a mining nation, the Greenlandic parliament decided to abolish a 25-year-old zero-tolerance policy towards uranium in 2013 (Bjørst, 2016b). As mentioned in chapter 3.1, Denmark handles Greenland's export and foreign affairs, but Greenland is in control over its mineral resources (Vestergaard, 2014; Hansen, Vanclay, Croal & Skjervedal, 2015). This means that if Greenland wants to exploit and export uranium they would need to formally accept the same export control restrictions as Denmark in order to adapt to international obligations on this (Government of Greenland, 2014).

In 2014, representatives from the University of Greenland and the University of Copenhagen set up a joint committee with 13 specialists in various fields to focus on Greenland's natural resources. Their work resulted in the report *To the benefit of Greenland*, which looks at "the status, potentials, barriers and possible scenarios for Greenland in connection with a potential future that involves mining, quarrying and mineral extraction" (Rosing et al, 2014, p. 5). By May 2016, 149 mineral licenses had been applied for or granted (Government of Greenland, 2016). The map below shows the mineral exploration and exploitation licenses granted until 2014.

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[1] A set of 17 chemical elements in the periodical table; scandium, yttrium and the 15 lanthanides (Rare Element Resources, n.d).
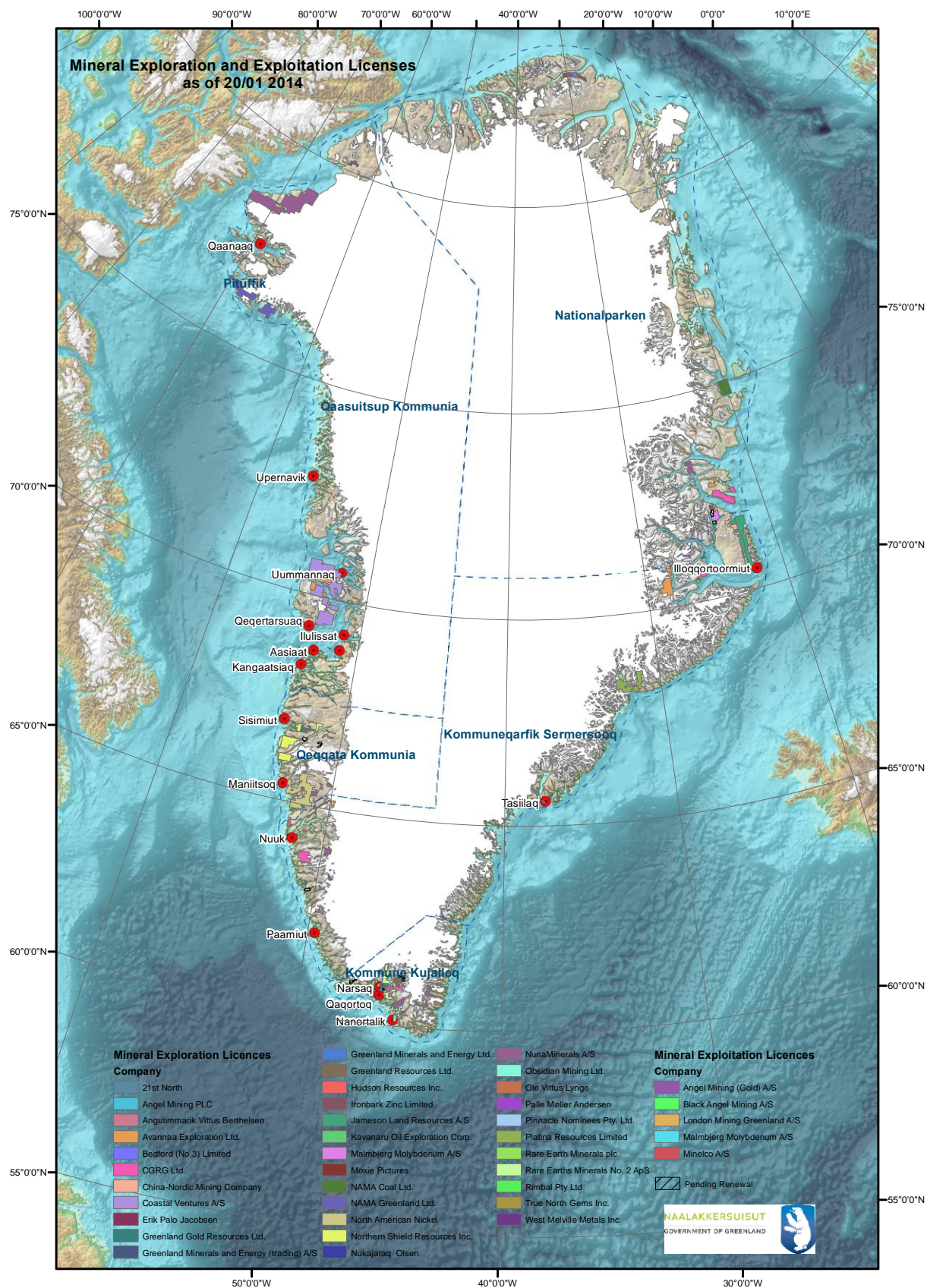
Figure 2: Mineral exploration and exploitation licenses (Government of Greenland, n.d.)

The government of Greenland is planning on having between three to five operational mines by 2018, which will create jobs and revenue for the country, despite the pressure the global economy is currently under, due to falling commodity prices and a lack of willingness to invest in mining and exploration companies globally (Government of Greenland, 2014). One of the thesis participants stated, however, that this was "wishful thinking", and claimed that the mining industry is currently at "a very low state". Questions have been raised whether the extensive plans Greenland has in terms of mineral extraction are the best option in order to increase the country's GDP, and secure wellbeing for both the people of Greenland and the environment in the long run. The mining projects will have both positive and negative effects for Greenland; they will offer an opportunity for change, though not necessarily for preservation, of the society as it is known today. The report states that a rapid development in building mines might not benefit the economy in the long run (Rosing et al, 2014).

It is natural in this context to also consider the sustainable development for the area, which the Brundtland Commission's report defines as "development, which meets the needs of current generation's without compromising the ability of future generations to meet their own needs" (United Nations, 2010, p. 6). This concept is underlining the importance of supporting an economic and social development, while the natural resource base and the environment is being protected. The concept also considers the development's impact on the future generations opportunities (The United Nations Economic Commission for Europe, n.d.). It is stated in Greenland's Mineral Resources Act, section 1 (1), that the "Greenland Parliament Act aims to ensure appropriate exploitation of mineral resources" (Greenland Parliament Act, nr. 7/2009). Kjær, a participant who works as a socio economist at the Ministry of Industry and Mineral Resources for the Government of Greenland, states that "this could in a more indirect way refer to respect of other activities, as the activities have to be appropriate". Additionally, the government of Greenland emphasizes that "field work shall be carried out with due concern to the following: (6) other parties' hunting, catching, fishing or other activities shall not be prevented or unnecessarily impeded" (Rules for field work and reporting regarding mineral resources (excluding hydrocarbons) in Greenland, 2000).

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3.4   Tourism in Greenland

It is important to develop other sectors than mining and minerals in order to support a sustainable development of the whole country (Müller, 2015), and the government in Greenland has for the last two decades put greater emphasis on the development of tourism (Government of Greenland, n.d.b). Greenland has been experiencing an increased interest as a destination, and since the early 1990s the annual number of tourists has increased around tenfold from approximately 3.500 to approximately 35.000. The government perceives the country´s unique and unspoiled nature as the main tourist draw, and describes it as exotic and distinguished from other destinations. Although Greenland has experienced an increase in tourism (Government of Greenland, n.d.b), it is argued that Greenland's expectations on growth in the tourism industry have not yet been met (Christensen & Jensen, 2015). The government is aiming at attracting more tourists and is simultaneously putting greater emphasis on the environment and its sustainability in relation to this (Government of Greenland, n.d.b).

The Arctic region in general has experienced the effects of global warming perhaps more than any other place in the world. The magnitude of temperature increase has been twice as large in the Arctic compared to the global increase, and the Arctic has warmed particularly rapidly in the last four decades. The increased temperature has accelerated the melting of ice from the Greenland sheet, which contributes to a global rise of the sea level (Arctic Council, 2015). The increased global focus on climate change and the idea of the Arctic as it is today has created the "last chance" tourism, attracting more visitors to the region (Lemelin, Dawson, Stewart, Maher & Lück, 2010). Climate change has made Greenland more "open for business" (Nuttall, 2013, p. 373), and "Greenland is moving from the periphery into the center of global attention" (Rosing, 2012, in Ren, 2015, p. 228) as a result of this. Greenland has been used as a "cool" symbol in the global climate debate, which in turn affected the tourism activity in the country. The tourism marketing and the image tourists perceived were that Greenland was a "cool" destination. Being a "last chance to see" destination is claimed to sustainably develop certain regions both economically and socially (Bjørst & Ren, 2015). In order to sustainably manage the development of tourism effectively, appropriate governance and policy decisions are

required. Lack of development or inappropriate decisions can be directly linked to poor governance (Ghani & Lockhart, 2008).

Although Greenland is the world's biggest island (Visit Greenland, n.d.a), it struggles with many of the same challenges as small islands in terms of developing its tourism industry. Research concerning island tourism tends to focus on warm-water islands and their challenges (Baldacchino, 2006a), while cold-island tourism is known to struggle with both the challenges of island tourism in general, but also specific cold-water island challenges (Baldacchino, 2006b), such as:

- Matching limited demand to supply based upon fragile/extreme natural environments
- Distinctive patterns of seasonality
- Socio-cultural consequences of developing tourism within small, self-reliant communities

(Jóhannesson, Huijbens & Sharpley, 2010, p. 281).

The challenges listed in Table 4 are typical small island challenges Greenland in particular is facing, due to its geographical, political and financial situation:

Table 4: Small island challenges Greenland is facing

Distance from markets
Limited economic diversity
Lack of expertise
Difficulty of attracting investments
High seasonality
Highly sensitive environments

Source: Ren, Bjørst & Dredge, 2016, p. 2.

Commentators on small island challenges have been criticized for solely focusing on what they are lacking, and not emphasizing their strengths. This gives an incomplete image of the situation the islands are situated in. Additionally, it creates a generalized image of the islands being vulnerable and in need of help and guidance from the outside in order to develop. It is further claimed that if the focus is only aiming at what is lacking it will be less likely that the locals will act with pride and autonomy when working towards their development goals (Scheyvens & Momsen, 2008).

4   Methodology

Methodology can be defined as "a set of rules, which can be used in a mechanical way to realize a given aim. The mechanical element is important: a method shall not presuppose judgment, artistic or other creative abilities" (Elster, 1980, p. 295, in Brinkmann & Kvale, 2015, p.70). This chapter explains and justifies how the research was conducted, as well as it explains important elements of the study.

4.1   Qualitative research methodology

This study is based on a qualitative research methodology. Qualitative research is perceived as being a good tool for exploring new topics (Hennink, Hutter & Bailey, 2011), which I will argue that to some extent the topic for this thesis is. Even though both tourism and mining in Greenland have received attention from researchers, there has to my knowledge not been any research conducted in Greenland connecting these industries. In order to better understand the stakeholders' views, opinions and behaviours regarding this matter in a way that provides depth to the research issue, I find this method to be the most suitable one for answering the research question. Qualitative research methodology broadly refers to research about "person's lives, lived experiences, behaviours, emotions, and feelings as well as about organizational functioning, social movements, cultural phenomena, and interactions between nations" (Strauss & Corbin, 1998, p.11). Denzin and Lincoln (2008, in Hennink, Hutter & Bailey, 2011) have argued that qualitative research has an "interpretive, naturalistic approach to the world" (Denzin & Lincoln, 2008, p. 4, in Hennink, Hutter & Bailey 2008, p. 9), meaning that researchers are conducting their study in natural settings, in an attempt to interpret people's understandings of the participant's views and experiences (Hennink, Hutter & Bailey, 2011). It mainly focuses on creating an understanding of behaviour, perceptions or experiences, and qualitative research can be seen as an approach that allows the researcher to look at issues from the participant's

perspective. The researcher gets the opportunity to create an understanding over the interpretations expressed by the participants over certain issues, also referred to as the interpretive approach (Hennink, Hutter & Bailey, 2011). One of the strengths with qualitative research is its focus on situations or people, which allows the researchers to be involved in the processes, meanings and understandings through images, words and human interaction, rather than numbers and statistical procedures (Maxwell, 1998). Qualitative techniques emphasizes quality, depth, richness and understanding instead of statistical representation, and this representation can be gathered through direct observation, in-depth interviews, participation in the setting and analysis of documents and materials (Valentine, French & Clifford, 2010).

4.2   Document analysis

As a part of the methodological approach of this research, the literature that has been conducted in the field has been systematically reviewed. Additionally, an analysis of the following policies and strategies developed for the tourism and the mining sector was carried out, in order to get a clear perception on the industries' future development plans:

Table 5: List of analysed strategies

Strategies	Created by
Tourism Strategy 2016-2019	Anders Stenbakken, Visit Greenland
Turismeudvikling i Grønland. Hvad skal der til? National sektorplan for turisme 2016-2020	Vittus Qujaukitsoq, Government of Greenland
Greenland's oil and mineral strategy 2014-2018	Jens-Erik Kirkegaard & Kim Kielsen, Government of Greenland

The government's strategies for both the tourism and mining sectors are analyzed, as they are representative for the whole country, as well as providing an overview over initiatives and the direction the government seeks in order to develop the industries. Visit Greenland's tourism strategy for 2016-2019 was also analyzed. Visit Greenland is the national tourist

board of Greenland, and I found their work valuable as they are constantly working on developing and promoting Greenland as a tourist destination (Visit Greenland, n.d.b). The first steps of analyzing the strategies were to code the text, and hence organize the information into categories based on themes (Lawrence Neuman, 2011). The themes where thereafter further analyzed based on their relevance for this particular research. Coding the data helped in organizing it, which arranged for a better comparison of the strategies. The interviews were transcribed, which helped to develop ideas and categories when analyzing the information gathered through the interviews. Key words and statements were identified during the work of coding, which made the process of analyzing the results more structured. The analysis of the strategies and interviews presented in this research is based on the researcher's personal judgement of the strategies relevant for this particular research. The information may therefore vary if other researchers carry out similar research.

4.3 Semi-structural interviews

The qualitative research interview is intended to seek understanding of the world from the participant's point of view, and to highlight people's experiences and to reveal their perception of the world, beyond scientific explanations (Kvale & Brinkmann, 2009). In-depth interviews have been criticised for not involving feedback from others since it is merely a one-to-one interview (Hennink, Hutter & Bailey, 2011). I find this method suitable for my research since I am aiming at capturing stakeholders' individual perceptions on the topic, and the participants represent different industries and groups of stakeholders. In addition to this the results from the interviews were coupled with academic research in order to get a broader understanding of the research findings. Informal interviews and participant observation were used as well during the research.

I conducted in-depth, semi-structured interviews with stakeholders within the tourism and mining industries in Greenland. A semi-structured interview guide was used during the interviews, which was mainly conducted in Nuuk in March 2016 over a time period of five days, in addition to one interview in Iceland and one phone interview with a politician situated in Denmark. Semi-structured interviews facilitate an open conversation, where the researcher gets the opportunity to understand the topic discussed through the participant's own perspective (Brinkmann & Kvale, 2015). The purpose of this was for me to better

understand how the participants perceive the relation between the mining and tourism industries in Greenland, and the future potential of these in terms of responsible resource development in the region. The interviews were analyzed using the same methods as the analysis of the strategies, as described in chapter 4.2.

4.4   Reflexivity, validity and reliability

Qualitative research has been criticized for its non-objectivity, which makes the emphasis on reflexivity particularly important for such studies (Crang & Cook, 2011). Reflexivity refers to the process where the researchers reflect upon their potential influence throughout the research process. Qualitative researchers reflect on their subjectivity and how they can influence the research process based on behavior, social background, positioning and assumptions (Finlay & Gouch, 2003). There are two aspects of reflexivity that require consideration because they can potentially influence the data, and hence the results, of qualitative research. Personal reflexivity involves the researchers' reflections on how their own background and assumptions can affect their research (Hesse-Biber & Leavy, 2006), while interpersonal reflexivity emphasizes how the setting of the interview and the dynamic between the researchers and participants can affect the creation of knowledge (Hennink, Hutter & Bailey, 2011).

I spent quite a time preparing for the interviews, and particularly in the early stage of this process I found it challenging to not prepare questions of a character that was influenced by my personal perceptions and assumptions on controversial decisions that I do not personally agree with. However, I realized that the result would be of greater value if I presented myself neutrally, creating a relaxed and safe atmosphere during the interviews, and facilitating therefore more open questions for the participants. I encouraged myself to not reflect personal opinions through the interviews in fear of influencing the participants' answers, and hence hope to generate valid results and facilitate personal interpretations. All of the interviews took place at the participants' offices, which created a safe and comfortable setting for the participants. Through the interviews I interacted with various stakeholders in the tourism and mining industries in Greenland and to some extent Iceland, and in these interactions the participants contributed with their own subjectivity. My personal, subjective understanding will influence the process of interpreting the results, as I

will have to interpret the behaviors and answers given by the participants when analyzing the results. Answers vary in relation to who asks and answers, making the results unique, and there are no guarantees that the research will provide the same results if conducted by other researchers or with other participants. However, I would argue that the researcher's perceptions and experiences are a natural part of the results of research, as the topic evolves from a personal subjective interest, influenced by literature in the field.

Validity is a way of determining if the research measures what it intended to measure, as well as if the results are truthful or not. One way to do this is to evaluate if the research question can be answered with the methods selected (Joppe, 2000). This is clarified in the methodology chapter as well as in the discussion chapter, where the reasoning and conclusions made are accounted for.

Joppe (2000) defines reliability as

> […] the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable (Joppe, 2000, p. 1).

Thagaard (2009) claims that the researcher's position in relation to the participants needs to be studied. External characteristics such as age and gender may affect how the participants perceive the researcher. A useful question to ask oneself is what one as a researcher represents for the participants (Thagaard, 2009). In my case I represent a young, foreign female, who is a student at the University of Iceland. The participant's perception of me might have affected how they talked to me and explained their views. However, it is not of my opinion that the information gained from the interviews was affected by my role as a researcher.

4.5   List of participants

The table below shows a complete list of participants. All participants agreed to be named in the thesis. Additionally, it is worth mentioning that some information gained through the field trip is difficult to reference, as it was gathered through participant observations and informal conversations.

Table 6: List of participants

Name	Company	Position
Anders Stenbakken	Visit Greenland	Managing Director
Henrik Skydsbjerg	Tupilak Travel	Manager
Johannes Kyed	Greenland Minerals and Energy	CSR manager
Naaja Nathanielsen	Parliament of Greenland	Independent member of the Parliament
Ingi Þór Guðmundsson	Air Iceland	Head of sales and marketing
Ole Fjordgaard Kjær	Ministry of Industry and Mineral Resources, Government of Greenland	Socio economist

5 Analysis of selected strategies

This chapter presents an analysis of the three selected strategies presented in chapter 4.2. The analysis is based on the content of the strategies' that are of particular value for this research, meaning that some of the content has been omitted from this chapter.

5.1 Visit Greenland's tourism strategy, 2016-2019

Visit Greenland's tourism strategy for 2016-2019 aims at defining a framework for responsible development within the sector, which secures local involvement as well as improvement of the framework for international stakeholders (Stenbakken, 2016).

Development of the industry

It has not been a tradition in Greenland to gather extensive data registration on tourism numbers. 2015 was the first year where it was possible to calculate the exact amount of tourists visiting Greenland in a year, and the result for 2015 measured 67 876 tourists. All of the statistics referred to in the strategy from 2015 are compared with numbers from 2014, except the development of cruise passengers which compares the 2015 numbers annually back to 2008. Due to the late registration of data, these comparisons were made between the second half of 2015 and the second half of 2014. In this period, a 49,4% growth in international tourists was registered, when residents of Greenland and Denmark were excluded. Another finding in the statistics is a growth in cruise tourism in 2015, which is the first year with growth in this sector since 2010. A further growth in this sector is expected since the government of Greenland made a change in the taxation, which will significantly reduce the costs for ships sailing in to Greenland. The change in the taxation is not believed to be the reason for the growth in 2015, as it usually takes at least two years to make the plans for the large cruise lines. However, it is Visit Greenland's strong belief that it will contribute to a further growth in this sector in the near future (Stenbakken, 2016).

The main motivations for developing the tourism industry in Greenland are the belief that tourism, as an export industry, will contribute to the national economy in the form of export revenue and job creation. This will in turn benefit the local population, although the strategy emphasizes that it is up to the tourism stakeholders to ensure this. Each municipality needs to create clear strategies on tourism development and season expansion. It is stated in the strategy that Visit Greenland is prioritizing building closer working relations with municipalities and *other regional entities* on tourism initiatives. However, it is not clear which other regional entities or which tourism initiatives the strategy is referring to.

Growth scenario

Visit Greenland's strategy states that "as a significant growth in tourism in Greenland is well-documented, and as a number of improvements have been made in terms of accessibility and framework, this strategy 2016-2019 relates to a growth scenario" (Stenbakken, 2016, p. 17). The table below shows a growth scenario for the number of tourists arriving in Greenland by airplane. In this scenario there is a 5% annual growth.
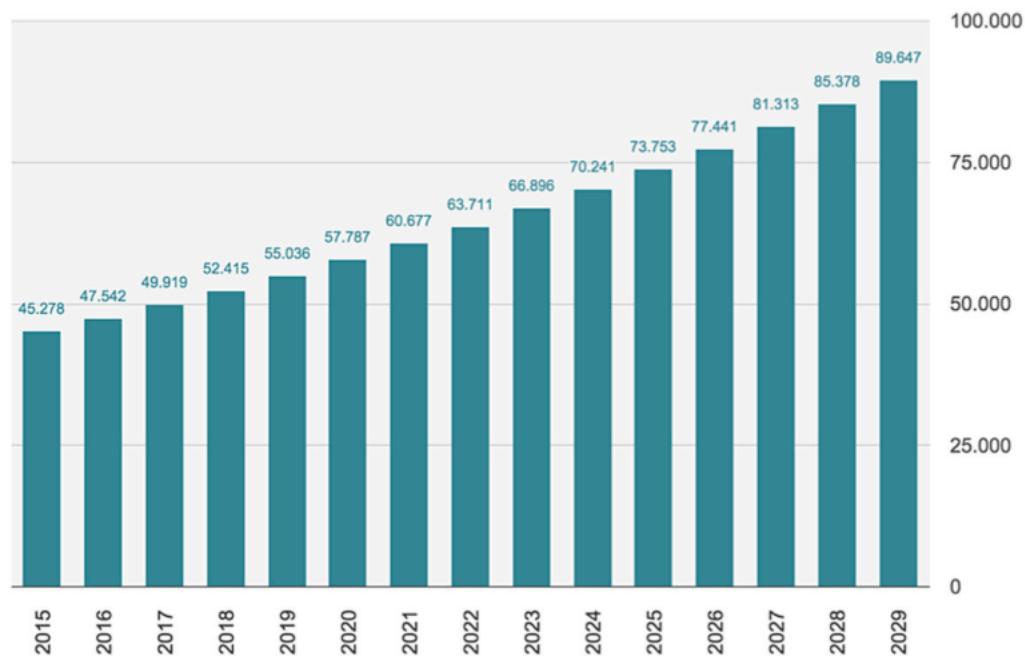

Figure 3: Growth scenario for tourists arriving by plane (Stenbakken, 2016, p. 18)

The reputability of the growth scenario presented above can to some extent be questioned. The strategy claims the growth is well documented, although the strategy heavily relies on

a comparison between a six months timeframe in 2014 with the numbers from the same timeframe in 2015. However, a number of initiatives described in the strategy work in favor of a growth scenario, like the reorganization of cruise taxations and the agreement of improving the airport structure which strengthens accessibility to Greenland.

Main challenges

The main challenge for the tourism development is identified in the strategy for being limited by the availability of airports and ports, in addition to the aircraft capacity and taxation fares. The strategy also states that "other initiatives" (Stenbakken, 2016, p. 24), without explaining it further, need improvement in order to develop the industry's growth conditions, which in turn will facilitate an increased interest in larger infrastructure investments. In order to create better growth conditions for the tourism industry, Visit Greenland will continuously work on improving the framework conditions for the industry, as well as emphasize a development that is focused on sustainability, responsibility and a local foundation (Stenbakken, 2016).

Responsibility

Tourism in Greenland has not yet reached its potential. Although Greenland has increased its visibility in the international market, the number of arriving tourists is not high enough, according to the strategy. Visit Greenland has observed a need to strengthen the initiatives on responsibility and sustainability in the tourism sector in order for adventure tourism to develop without straining the country's resources. Additionally, they focus on support and development of "responsible and culturally- and economically-sustainable experience products" (Stenbakken, 2016, p. 21), and picture that the development of tourism will generate more sustainable revenue. Visit Greenland is also taking into account that the future generations will need to use the shared resources when developing the industry. Table 7 presents what responsible tourism means to Visit Greenland.

Table 7: Visit Greenland and responsible tourism

Involves the local population in tourism development with a view to generate as many local economic advantages as possible
Contributes positively to the preservation of natural and cultural heritage
Minimizes negative environmental and social consequences
Offers experiences that create meaningful connections with the local population and thereby a greater understanding of the local cultural, social and environmental elements
Creates commercial areas of cooperation between local tourism operators and international travel agencies that are aimed at the tourism segments relevant for Greenland

Source: Stenbakken, 2016, p. 21

The strategy lacks detailed information on how they aim to work towards a responsible tourism development and if they plan on cooperating with other sectors in order to achieve their goals. Visit Greenland mentions throughout the strategy the importance of cooperation with stakeholders, local and international tourism operators and other businesses. It is to some extent clear how the work is targeted towards national and international tourism operators through increased visibility and marketing efforts. Cooperation with "other businesses", on the other hand, is not clearly accounted for. The "other businesses" are not identified, nor which cooperation they refer to.

5.2   Turismeudvikling i Grønland. Hvad skal der til? National sektorplan for turisme 2016-2020

The previous sector plan focused on increased marketing efforts (2012-2015). However, the government goals to increase the number of visitors, revenue and to create more jobs in the tourism sector were not met. It is stated in the current national sector plan for tourism (2016-2020) that the government of Greenland for the first time will allocate substantial funding in order to support a broad tourism development. In this period the focus will primarily be on initiatives for improving the infrastructure, securing private investments in the tourism sector as well as new strategies for marketing tourism (Qujaukitsoq, 2016).

5.2.1 Initiatives for infrastructure improvements

The government ambitions for the tourism industry are to increase revenue and the amount of employments within the sector. In order to achieve this, the government has identified that the development of the country's infrastructure is a necessity, as an improvement of the country's accessibility can appeal to a larger group of potential visitors. It has been registered that regions in Greenland which, have a direct flight connection to Iceland, have experienced a growth in tourism. The government therefore supports an improvement of the accessibility to Greenland from Iceland and other destinations. As a part of this process it has been decided to increase the length of the landing strips at selected airports in order to receive larger aircrafts, which can contribute to a price reduction on plane tickets. Additionally, Greenland has a high and advanced tax structure for airports, which is identified as being a hindrance for developing the tourism industry. The government will focus on lowering the taxation fares on airports in the period of 2016-2020 as a step towards facilitating growth in the industry (Qujaukitsoq, 2016).

It is of the government's opinion that the tourism industry can develop sustainably when focusing on a broad infrastructural development, as opposed to only emphasizing on the development of one destination, which is not sufficient in terms of creating a long-term growth in the industry. The government lists three societal effects from a new airport structure:

- It gives the opportunity to lower the prices as a result of more efficient flight patterns and intensified competition.
- A change in the prices on tickets to Greenland will increase the demand from tourists.
- The effect will depend on the tourists spending's during their stay and the effect on employment linked to this (Qujaukitsoq, 2016).

The infrastructural development relates not only to airports, but also harbors and development of traffic patterns. The Government will in this strategy period improve the harbors, which will secure a more efficient disembarking for the cruise ships, as well as making it more comfortable for passengers dock. This might encourage more people to

visit the mainland, which in turn can contribute to increasing the income and securing more jobs in towns and settlements (Qujaukitsoq, 2016).

5.2.2 Securing private investments

The government supports private investments in the tourism industry, and they want to create better possibilities for local participation, as it can secure higher economic dividends from the tourism industry to the local population. They further recommend that each municipality prepare regional plans for developing tourism, which gives the operators the possibility to better facilitate their products as well as evaluate future needs of investments (Qujaukitsoq, 2016).

As the tourism industry develops, the government sees the need to continually adapt and develop laws in order not to fall behind these developments. The new framework law on concessions is one example of this, as its purpose is to protect local development. The strategy refers to experiences from Iceland as an example of the effects of not being ahead of the tourism development, as Iceland is facing difficulties with regulating areas receiving high numbers of tourists. According to the strategy there are no regulations for tourists visiting historical and cultural sites. As there are no laws on regulating visitors to these areas the government fears that an increased amount of visitors will make it necessary to protect and regulate certain sites. Based on this a new legislation is under planning for the sites concerned (Qujaukitsoq, 2016).

5.3 Greenland's oil and mineral strategy, 2014-2018

This strategy is created by the government of Greenland, and presents new proposals on the direction Greenland should take in the coming years in terms of its mineral and oil resources. Emphasis will solely be given to the mineral sector of the strategy in the following description.

5.3.1 Future development

The strategy states that as "long as the mineral resources remain in the subsoil, they will create no value for Greenland" (Kirkegaard & Kielsen, 2014, p. 19). The government's goal with the mineral resource sector is to promote prosperity and welfare that will be created

through new income and opportunities for employment within the mineral sector. Greenland seeks to improve the national economy, and a growth in the private sector is important in order to generate revenue and job, which can then create ripple effects on the national economy. Increased mining activities are also believed to create indirect effects in terms of subcontractors and induced effects in the form of additional turnover in society. When this strategy was published, the authors estimated that three to five mines would be opened within the next five years (Kirkegaard & Kielsen, 2014), but due to recent changes in the global economy and mineral demand these plans have been slowed down, as stated by Kjær.

Due to the decreasing population, which is described in chapter 3.2, the mining sector would be forced to recruit workers from abroad, particularly in the start-up phase of the projects. The government, however, stresses that it is important to achieve "the highest possible employment rate of national workers" in the operational phase (Kirkegaard & Kielsen, 2014, p. 18). It is predicted that three simultaneous projects in the operating phase will provide around 1.300 jobs, where 60% of the jobs will be filled by unskilled workers with quasi-specialist worker courses, 30% of the jobs will be filled with skilled workers and 10% will be filled with workers with further education. It is desirable that a part of the country's unemployed workforce shall be employed in the mineral sector in the long term. In order to achieve this there will be training offered so that the unemployed workforce can improve their skills to qualify for jobs in the sector. It is stated in the strategy that if the mineral resource sector is expanded it will be a stable work source for the local population, since it will lead to a constant demand of workforce in areas like transport, services, drilling techniques, blasting, maintenance and catering. However, the recruitment of local labor depends on the results of the negotiation of the Impact and Benefit Agreements (IBA) (Kirkegaard & Kielsen, 2014).

5.3.2 Sustainability

Greenland aims at becoming an important provider of minerals globally, and focuses on iron ore, copper, zinc, REE, gold, uranium and gemstones. The strategy emphasizes a growth in the mining sector as well as the importance of environmental protection in order to prevent and combat "pollution of soil, sea, seabed, subsoil, water, air and ice, negative

effects on climatic conditions as well as vibration and noise pollution" (Kirkegaard & Kielsen, 2014, p. 42). When a company applies for an exploitation license they need to submit and have approved an Environmental Impact Assessment report (EIA) before the activities can begin. The EIA report is a tool used in order to identify and provide solutions for the potential environmental impacts of a mining project. The EIA report needs approval from the Danish Centre for Environment and Energy, the Greenland Institute of Natural Resources as well as the government of Greenland (Kirkegaard & Kielsen, 2014).

The government of Greenland emphasizes the importance of sustainability when developing the mineral sector, particularly since the environmental protection within this sector is considered a "pioneering area" in Greenland, based on the perspective of:

- New demands on environmental protection being placed on the companies.
- New knowledge about the nature and environment is being generated.
- Financially and technically contributions from the mineral resources sector to protection and conservation of the environment and nature.

The government's work towards a socially sustainable development of the mineral resource sector requires support from stakeholders and citizens that are affected by this, as their support plays a key role for the mineral resource sector in becoming a leading industry in Greenland. The government states that the mining sector is a driving force behind social development, and emphasizes the importance of the transition so that citizens can adjust to new challenges, requirements and possibilities. The government stresses that the transition must take place in a way that enables the local communities to adjust to new challenges, possibilities and requirements (Kirkegaard & Kielsen, 2014).

5.3.3 Infrastructure

Most of the mining projects are situated in open land areas, outside towns and villages, with no connection to infrastructure. The mining companies must therefore establish harbors and berths near the mines that match specific requirements. The strategy recommends investigating if a financial agreement in a public-private partnership could be possible in Greenland. This means cooperation between mineral resource companies and semi-public institutions or institutional investors. Separating projects into parts can reduce

substantial capital investments, for instance when parts of the investments are transferred to a company, which manages it independently from the mining company. This cooperation might raise the necessary financing for a project, and hence increase the profits and investments in Greenland (Kirkegaard & Kielsen, 2014).

6 Results from interviews

This chapter presents the results from the interview analyses. The results are categorized into different themes relevant for this research. Although this research includes all of Greenland, results for Narsaq is shown in its own sub chapter, as most of the participants described Narsaq as a "special case" due to its close location to the open uranium mine that is planned at Kvanefjeld.

6.1 Mining

Greenland has had active mines for longer or shorter periods of time over the last 200-300 years, but they have been spread over such a long period of time that it has not contributed in developing a formalized mining industry in Greenland. The government does not have the funds to pay for exploration activities, but it has nevertheless done a lot to promote the mining sector. According to Kjær, the focus has been on greater "socio economic aspects and focuses on how we can get a lot more out of activities from companies that comes to Greenland in terms of tax payments, royalty and Impact Benefit Agreements". After the financial crisis in 2008, the Greenlandic government registered a drop in exploration expenditures used by various companies. This is not a uniquely Greenlandic phenomenon, as the trend has been seen in other countries as well. Greenland's slow development in the process of harvesting mineral resources is being perceived as an opportunity, however, Nathanielsen stated that

> […] we are lucky enough that our mining industry has started relatively late, so we can learn from other countries and what they have done in regards to both the extraction, the environment, the physical regime surrounding it […]. I mean, we can thrive from other experiences around the world, both good and bad, and I think that is very good for our country.

Greenland is being blamed, however, for lacking relevant experience in terms of developing the mining industry. The strategies created on this topic have for many years presented "kind of a dream scenario", where the government has not been realistic enough about the mineral industry. Nathanielsen explains:

> If you want to engage in the mining industry as a country you need to make sure that you all the time have a couple of mines open so the workforce will be able to move to different areas and the expertise won't leave the country, so in order to have a successful industry of course you need to have at least a couple, maybe up to five mines open all the time […]. We are a pioneer nation in that regard, so it's nothing we can base a workforce or economy on, as it is now.

It was perceived that the mining industry in Greenland was suffering from various challenges. Extraction of minerals in Greenland is expensive, as a result of many of the mines being remote and the country's lack of infrastructure. Additionally, the falling commodity prices over the last two years have been a threat to the political side of developing a national mining industry.

6.2 Tourism

The main challenge for the development of tourism in Greenland is perceived to be the high costs, although the industry has experienced increased interest over the last few years. Stenbakken presented two suggestions in order to deal with the high costs. The first option is to "reduce the price as much as possible" while the other option is to improve the products and thereby making it more exclusive. The importance for the Greenlandic tourism industry to have the hands on the steering wheel was emphasized, in order to prevent making the same mistakes as other small destinations that have also experienced growth. This can help Greenland to avoid becoming just a spectator to international companies running operations in the country, or to developing an industry based just on a few commercial centers. Stenbakken finds it valuable to keep the "pristineness" of Greenland and not loose the "core of the product".

The new tourism strategy created by the government to address the challenge of high costs by reducing fees, as well as improving the infrastructure and hence the accessibility. However, little faith was expressed to the central government, as there were many politicians arriving from Denmark who lacked local knowledge about the political history of the country. Skydsbjerg accused the Danish politicians of coming "with the same ideas as they have done before, and they think it's new and exciting". It is not typically addressed in Greenland that there are many individuals who only work in government for a short

period of time, and hence their work cannot be used most efficiently. The lack of continuity in offices was perceived as a challenge to the creation of steady policies. The new tourism strategy from the government was criticized by Nathanielsen for being "a product of organization work", which lacks direct experience from the operators. It shows an outdated culture in the government system when creating strategies "is sort of something you do on your own desk, at your own time, it don't really involve anyone else". This has resulted in the tourism strategy not being the viable operation it could have been. Skydsbjerg recognizes this, and claims that

> […] there is a conflict between the industry, if you can call us industry, and then the government. That's more because of who is to stand in the front with the tourism development, government or private. Government of course has to be along to do the infrastructural… but we don't have very good experience with the government driving or making business you know.

A lack of professionalization within the tourism industry has been recognized, and it was claimed that tourism has not been perceived as a profession or an industry within the government. However, Nathanielsen claimed that the work done by Visit Greenland the last 5-6 years has been "very fruitful", as they placed greater emphasis on targeted analyzes of tourists and products. Their way of thinking is not adopted all the way through the system, but it is believed that Visit Greenland's professionalization of the industry will eventually spread to the government, as it has shown promising results.

6.3 Relation between the tourism and mining industries

Greenland is financially challenged and should rely on other primary businesses than the fishing industry. It would therefore be "arrogant and irresponsible" to not develop tourism and mining into becoming primary businesses in Greenland. There has not been observed any connection between the tourism industry and the mining industry so far, as the mines that have run have been situated far from tourist destinations. It was claimed that the industries are developing "side by side", without any future prospects for the industries developing together. According to Skydsbjerg, the "mines will be where the minerals are", and tourists "might as well go somewhere where it's not a mine, where it's not big lorries driving around, where it's not dust and pollution". This means that the tourism and mining

industries will not benefit from each other, as the tourists will chose to go to locations that are not situated near mines. Although this is not where the industries are at the moment, it was believed by most of the participants that a connection might eventually occur. The two industries support each other well as they are both dependent upon a good infrastructure and both benefit from developed harbor facilities, airport facilities and hotel facilities. However, Kjær argues that

> […] in theory there could be a clash when it comes to the actual activities on site, because you could have a tourist attraction place close to a upcoming mine site, but we have seen in other countries that a mine site can actually be a tourist attraction.

It should be possible to run both industries in the same area, as it is regulated in the mineral resources law that mining companies should perform their activities with respect to other industries in the same area. Having the same industries present in the same area can, however, cause a possible conflict, particularly if the industries grow, although Kjær claims that "so far we haven't seen any big conflicts". It is believed that there is a great potential of combining tourism and extraction industries, particularly in terms of developing infrastructure. Nathanielsen explains:

> The infrastructure needed for both industries is very explicit, you know in many places you need roads, you need harbors, you need landing strips, and I think the tourism industry and the extraction industry have this in common, that they need these things and I think if the authorities work together with this they might be able to lay out the new infrastructure in a way that is great for both industries.

Cooperation between the tourism and mining industries will give them a stronger voice when in dialogue with the government concerning infrastructural development, which will be of immediate gain for both the industries. Although it is a political responsibility to make this connection, concerns were expressed regarding the mining industry's awareness of this potential. It was perceived as an opportunity to develop more tourism in mining areas, particularly in Southern Greenland. It was pointed out that the area will experience increased flight connections since GME will use the airport as their fly-in and fly-out base. Kyed claimed that "if we have space we can maybe have people coming as tourists and bring more people to the area". It could also be a segment itself to develop the tourism industry on friends and relatives visiting workers in the mines, as well as organizing visits

to mining sites as a way of creating a connection between the tourism and mining industry. Nathanielsen stated that it is

> […] interesting for both adults and kids to go and see a mine and what it's all about. And I think it would be a good way for our own population to get a greater understanding of what "is this industry all about" and "how can we combine it", so I am thinking it could be a good partnership.

6.4   Narsaq – a special case

Narsaq is perceived as a special case due to its close location to the Kvanefjeld project, where extraction of uranium was approved. Skydsbjerg explains:

> Narsaq is special because the mine is just outside the town […]. I mean if you had a uranium mine up close to the ice where nothing else happens, for hundreds of miles or out, then I don't think it would be a big problem. Then it would just be a political problem if people want it or not want it. But right down there it is in the middle of a tourist area also. So that will be a problem.

However, the opposition towards uranium mining in Kvanefjeld is diverse, and Nathanielsen describes that

> […] you have people like me who are against uranium mining for various reasons. Mine personal is the footprint on the world as a whole, it's not necessarily just the footprint in Narsaq, it is also what you do with the tailings and the use of it, on a bigger perspective. Some are very concerned about the effect locally.

On the other hand, there are people who do not perceive uranium as a particularly dangerous mineral, and people with that view are accused of not having any "emotions or no complications" towards the extraction. Nathanielsen further states that

> […] if you don't worry about having the effect for hundreds of thousands of years, then it's just business. So those two view points set across each other are very powerful because they can never reach each other, because their thinking is so very different. And if you don't try to bridge that gap, or at least try to find an understanding than you have a big conflict, and that is what you see in Greenland right now.

Greenland is a young democracy, which Nathanielsen claim "lacks the habit of open political dialogue". The case of uranium mining in Kvanefjeld has been badly handled, as the government is not listening to the opposition, nor the people who are afraid or in doubt. Politicians are being blamed for shutting down the discussion regarding uranium mining in the area, which Nathanielsen find to be "a very bad strategy for any politician". In order to improve this, a more open debate about the uranium mining is recommended.

The participants acknowledge that there are some complications regarding having mining and tourism in the same area. Until now the mines have been located far from tourist destinations, so it has not been an issue, with the exception of Narsaq. Skydsbjerg is of the opinion that mining of uranium near Narsaq will "for sure disturb tourism possibilities, really, really much", and there are "so many other places in Greenland people can go to instead of Southern Greenland". The main concerns people have towards the uranium mine were are the risk for radiation, dust pollution, tailings as well as pollution of Narsaq's drinking water. The town's drinking water does not have any direct connection to the mine, but there are concerns regarding dust polluting the water. The risk of pollution was perceived as one of the biggest challenges in this area. Questions were asked regarding why tourists would chose to go to an area that has an open uranium mine close at hand, since tourists to Greenland expect to see a country that is not polluted, with clean air and big, untouched wilderness. Politicians were blamed for denying the effect the mine would have on tourism, which to some extent was understandable due to the political desire for creating industrial growth. The industry is not yet in a position to opt out of the mining projects in the area, as tourism in Southern Greenland is considered to be a small industry, which has not developed much recently. It is difficult to predict if the extraction of uranium will affect tourism in the region. It is the mining company's job to answer this as they are bound by law to prepare a Social Impact Assessment in addition to a land use study for the area. Kjær explains that the reports need to describe

> […] what activities are taking place right now, what do they expect in the future, and then they have to look at the impacts, or possible impacts, and then they have to come up with, not only describe the impact, but come up with a suggestion on how to mitigate those negative impacts.

At the time of the interview the government had not received the final Social Impact Assessment report, Environmental Impact Assessment report or land use study from GME. Detailed comments concerning this were therefore not made, beyond that it is the mining company's responsibility to describe and come up with solutions on how to avoid conflicts between industries.

6.4.1   Environmental responsibility in Narsaq

As part of the Environmental Impact Assessment the mining company needs to map out the status of the environment surrounding the mining area before, during and after the mining takes place. This is done in order to map out potentially negative effects from mining, and the company responsible for the particular mines are then in charge of returning the environment back to its existing quality during the remediation period. The cooperation between GME and the government has been good, as there has been a mutual understanding that the process needs to run smoothly, with as few delays as possible. However, Kyed states that

> […] it's never easy to predict how the government will handle our application, so it depends on what we have given, if it's to the standards that they have required and of course if we meet those we would have a better process.

It is claimed by Stenbakken that mining companies "have to earn some money on the project, otherwise it's a no-go for them", even though the projects have to be within the environmental limits. It is all about finding the right balance between the government's interest in protecting the environment and the company's interest in promoting their industry.

6.5   Social responsibility

Tourism is perceived as a way of improving the socio economic situation before, during and after mining ends since "every time you have a tourist locally it puts money directly into that local community, so it is an immediate gain in that local community". Visit Greenland is focusing on creating new primary markets abroad, and will in this matter aim at having the steering wheel in terms of being aware of what kind of tourists they want in

Greenland. It is important to get tourists who want to interact with the locals, as it can contribute to the creation of local jobs.

Mining companies need to prepare a Social Impact Assessment report in addition to the Environmental Impact Assessment report. This was implemented legally in 2009. Earlier the focus was solely on environmental aspects, where some of the social aspects were addressed incidentally within the Environmental Impact Assessment report. However, Kjær explains that "within the last five years there has been a change in the view of how you administrate mining licenses, meaning that there is a lot more focus today on social aspects, or what we call social economic aspects". The mining industry is being described as a "high-risk area", and it was claimed that Greenland does not have a strong enough work force to handle this, meaning that if Greenland wants to develop mines they also need to a great extent to rely on a foreign work force. The Kvanefjeld project near Narsaq is a large project from a Greenlandic perspective, and requires around 750 people. GME aims at employing at least a third of the workforce from the local area or from Greenland. In order to educate the local population, GME will amongst other things arrange apprenticeship programs and give scholarships for university students studying e.g. engineering or geology. At the moment these remain just plans, as GME need to be granted the mining license first.

Mining is perceived by the local communities as a big transition, as they are used to the fishing industry. Nathanielsen claims that

> […] it's done plenty of things I think in terms of trying to attract investors, but in terms of trying to explain mining to the population, inhabitants of Greenland, I think there is still some distance to go. In regards to what is it all about; it's very difficult if you haven't been in a mine to imagine what is it about. What is it that you are expected to do, what are the skills necessary, how is life if you are working in the mine? We are already used to many men leaving for periods of time to fish, but is it the same or is it different?

Concerns about the strategies not being realistic enough have been raised, as they for many years have presented a dream scenario. Nathanielsen argues that

> […] it's not enough to have a strategy, you need to have mines that are worthwhile opening and you have to have a workforce that can work there, and you have to have social license

from the community. I mean the communities have to think it's a good idea if you want this to develop, think bigger.

The government is being criticized for failing to address the transition among people and communities to the new industries, which is believed to be important when trying to get a country to shift to a new industry.

6.6   Stakeholders' perceptions on images presented by the industries

Visit Greenland has created the "pioneering nation brand" in order to market Greenland as a modern nation, which is rooted in the Greenlandic culture, but still globalized. Stenbakken states that it is more an "identity brand, saying who has been attracted to Greenland over time, and it crosses regions and it crosses ethnic background and it also crosses trades". Further, Stenbakken does not believe that there are any conflicts between the images presented by the tourism industry and by the mining industry, as

> […] in this universe there is not a conflict on having a mining industry or a fishing industry or anything, this is just a country of adventures or explorers. (…) I think they go together well, being a pioneer is, you know, being the first doing something, off the beaten track, and this is what the mining industry is doing.

The image Visit Greenland tries to project through the "pioneering nation" fits well with the image of Greenland as a mining nation. Nathanielsen says that it is showing

> […] a more modern day Greenland with a variety with both the old culture but also new developments, and I think it will go fine. (…) We are used to using our nature, I mean, to harvest it and if you do it in an ecological way and with respect I think it will be fine.

It is believed to be a definite conflict with the image presented by the tourism industry in areas extracting radioactive minerals, particularly in Narsaq, and Nathanielsen justifies it by stating that

> […] as a mine might be perceived as something interesting and something you would like to look at as a tourist I think a uranium mine is something completely different. It's connected with too much uncertainty and politically different views. […] I think radioactive mining could possibly harm that idea of connecting tourism and mining

industry. But I am against uranium mining, so that is of course also a political point of view.

There are different opinions on this matter, as it is also believed that the industries are representing conflicting images. Tourists who come to Greenland expect to see an untouched place with undisturbed environments, but they need to change those perceptions upon seeing mining projects nearby. Kjær believes that it is all about "finding the right balance between keeping the old traditional Greenlandic culture and nature, and then in some ways implementing new industry projects and hopefully do it in a sustainable way". This conflict needs to be put into perspective due to Greenland's vast distances. Skydsbjerg claims that maintaining this balance can be a problem in some areas, but far from all since "Greenland is so big that it shouldn't be any problem to have mining and still have gigantic areas which are untouched". Although it is believed that the mining industry can stand in the way of development of tourism in Greenland, it does not seem to affect the tourism planning. Air Iceland, for instance, has adopted a "wait and see"-attitude, as the company are used to a lot of discussions in Greenland regarding opening of mines, when in reality relatively few actually open.

7   Discussion and conclusion

The core of this thesis is to identify stakeholder's perceptions on a relation between the tourism and mining industry, in the context of responsible resource development. In the following chapter the results from the interviews will be discussed and coupled with the strategies analysis and theory presented in previous chapters.

Mining. It is claimed that mining can result in improving the economy, infrastructure, health services and population growth in an area (Petkova, Lockie, Rolfe and Ivanova, 2009). In the case of Greenland, the main motivation for building up the mining industry is to create jobs and societal growth, which can support the country on its way to independence from the Kingdom of Denmark (Bjørst, 2016b). Greenland's oil and mineral strategy (2014-2018) aimed at opening three to five mines within the next five years from when the strategy got published (Kirkegaard & Kielsen, 2014), but due to the changes in the global economy and mineral demands these plans have been slowed down, as stated by Kjær. The lack of infrastructure and the remoteness of many of the mining areas are perceived as being the main challenges for development in Greenland, as it makes extraction expensive. Additionally, the government of Greenland has been accused of not handling the mining debate well and of not addressing the transition within people and communities. This is believed to be important when a country tries to shift to new industries. It is argued that a willingness to involve the public early on can result in increased benefits for all stakeholders (Vanclay, Esteves, Aucamp & Franks, 2015), and I would recommend the government, as well as the mining companies, to facilitate a more openness around the mining industry, their plans and its potential impacts. However, it is important to develop other sectors than mining and minerals in order to support a sustainable development of an entire country (Müller 2015).

Tourism. The government of Greenland has for the last two decades put greater emphasis on the development of tourism (Government of Greenland, n.d.b). It is believed that Greenland's expectations on growth in the tourism industries have not yet been met (Christensen & Jensen, 2015), which is reflected in the tourism strategies created by the government of Greenland and by Visit Greenland. The strategies focus on creating growth within the sector, but perceive the high costs and poor accessibility to be the main challenges for tourism development. The strategies are mainly focusing on incentives aimed at improving this, but the strategy created by the government has been criticized for lacking direct experience from operators, making the strategy not as viable as it could have been. I got the impression from the participants that they are afraid of the tourism industry not being taken seriously by the government. Better communication between the government and the tourism industry is recommended, as I believe this can facilitate a more targeted work towards developing the tourism industry and hopefully create results that both parties are pleased with. Cooperation between the tourism industry and other sectors are highly recommended as well, as it will give the industries a stronger voice when in dialogue with for instance the government. I believe it can be fruitful for the tourism industry to seek cooperation with sectors that are highly prioritized by the government, like the mining industry.

Relation between the tourism and mining industries. According to the participants there have been no traditions for the tourism and mining industries to cooperate. One of the reasons for this was identified to be the remote locations of the mines, as well as the slow development of the industries. However, the majority of the participants believed that there was a potential for the industries to cooperate and benefit from each other in various ways. Both of the industries are currently challenged by high costs and are dependent upon a developed infrastructure. The industries can benefit from developed harbor facilities, airport facilities and hotel facilities, and together they can create a stronger voice when negotiating with the government on these matters.

Organized visits to mining sites were suggested as a way of connecting the tourism and mining industries, as it can have a positive effect on the local population and their understanding of the mining industry, which could benefit Greenland's transition into becoming a mining nation. Figure 4 below shows an edited version of Figure 2, where all

the tourism destinations presented at Visit Greenland's web page are added. Note that some changes in the map could exist as the mineral exploration and exploitation licenses presented in the map were granted in 2014.

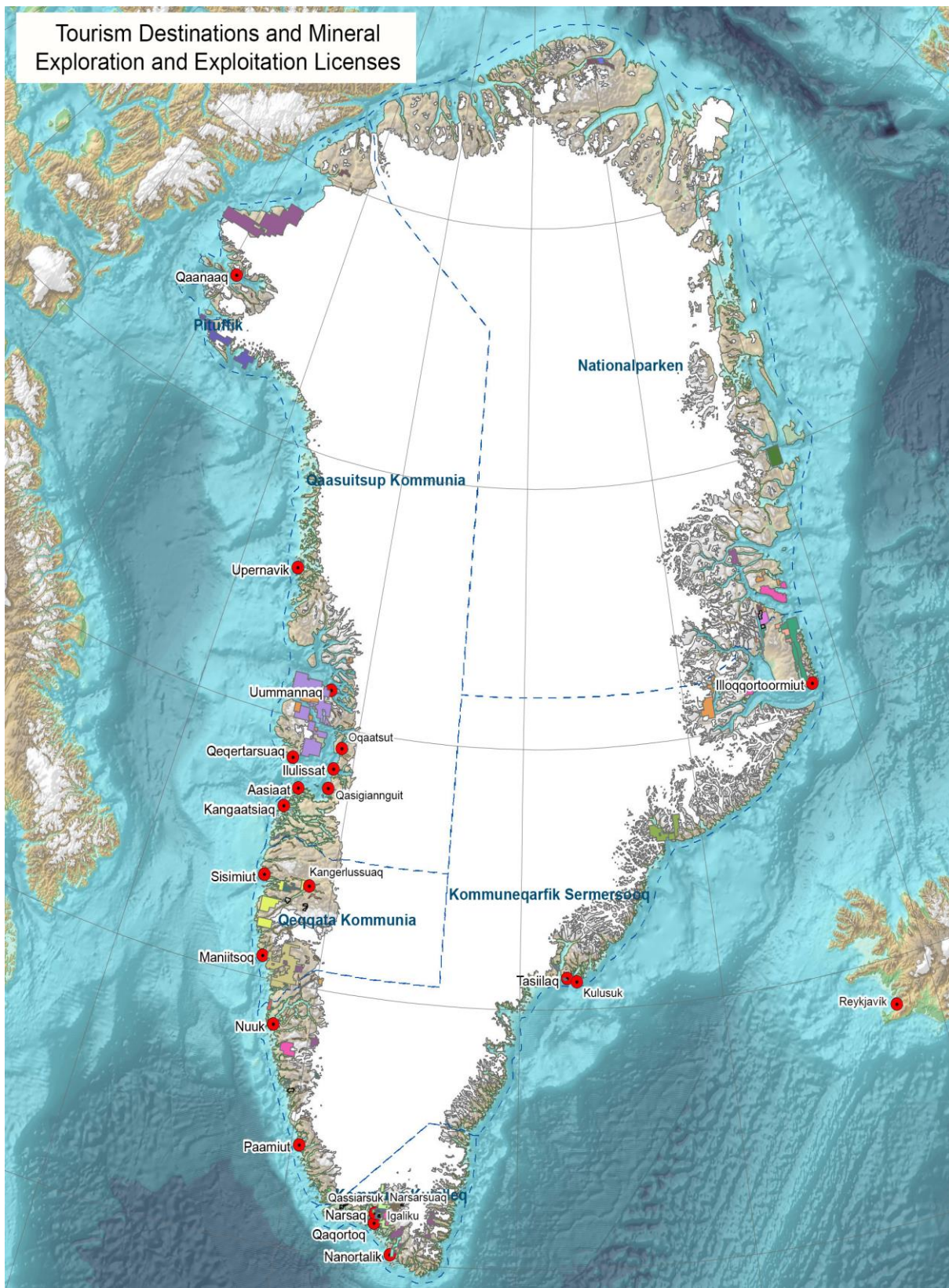Tourism Destinations and Mineral Exploration and Exploitation Licenses

Figure 4 shows that many of the exploration and exploitation licenses are located in the same areas as tourism destinations. Although the licenses have been granted it does not necessarily mean that mines will be opened in the areas, but it is a step on the way. It is of my recommendation for the industries to be proactive, and identify areas where a relation between the industries may occur, whether it is positive or negative, and identify initiatives that facilitate both of the industries.

A lack of trust to the government was expressed during my interviews in terms of seizing the full potential of a cooperation between the industries. The lack of continuity within the government was perceived as being a challenge, particularly when developing steady strategies and the tourism strategy was criticized for lacking direct experience from the tourism operators. The analysis of the tourism strategies presented in chapter 5 did to some extent support this as they tended to be vague in terms of identifying other industries they aim at cooperating with and how they aim at facilitating this cooperation. Visit Greenland´s tourism strategy (2016-2019) mentions for instance the importance of cooperation with stakeholders, local and international tourism operators and "other businesses", without further explanation of whom they refer to. It is further claimed in their strategy that they are prioritizing the building of closer working relations with "other regional entities" (Stenbakken, 2016, p. 43) on tourism initiatives, without explaining this further. The tourism strategy created by the government stated that they *recommend* municipalities to prepare regional plans for developing tourism and evaluate future needs of investments (Qujaukitsoq, 2016). However, these are just recommendations, and the strategy does not mention how the government aims at supporting the municipalities in this work. These shortcomings in the strategies underpin the critics presented in chapter 6. Cooperation between industries is vaguely addressed in the tourism strategies, but it lacks clarification of which industries the strategies refer to, and how a potential cooperation could take place. Although some of the participants saw a clear potential between the industries to benefit from each other, there seemed to be a lack of understanding of the tourism industry from the official side, while the tourism operators themselves seemed to have little faith in the government and their skills in creating businesses. It is of my belief that the strategies can benefit of a clearer communication regarding this, in order to secure cooperation across industries during the strategy period. In spite of the "Rules for field work and reporting regarding mineral resources (excluding hydrocarbons) in Greenland" stating that the

mining industry should not carry out their work if it unnecessarily impeded other parties (Government of Greenland, 2002), concerns regarding potential conflicts between the industries were stressed. The law states that both businesses should be able to run in the same area, but all participants saw a potential conflict between the industries in Narsaq and its surrounding areas.

Narsaq. Due to Narsaq's close location to the Kvanefjeld prospect the participants expressed a concern regarding the area's ability to develop both of the industries. The risk of radiation, dust pollution, tailings and pollution of the town's drinking water are listed as some of the main concerns. Although it is the mining company's job to explain if the extraction of minerals will affect the tourism in the area, I would recommend for the tourism industry to be clearer in terms of how they address the situation in Narsaq. The tourism strategies lack clear incentives on how the industry aims at securing development in the area if the extraction of minerals at the Kvanefjeld prospect starts. As it seems to be just a matter of time until it begins in full, these issues need to be considered in order to be better prepared for the challenges that may occur in terms of the development of tourism. Although it is currently not an issue, Narsaq was emphasized as an area where a potential conflict concerning the destinations image was likely to occur.

Images. Visit Greenland developed the "pioneering nation" brand, which is thought to not present conflicting images of the tourism and mining industry, despite the fact that the Greenland Spring Visitor Survey Report showed that tourists who visit have two main focuses with their trip, which is to experience the nature and the culture in Greenland (Visit Greenland, n.d.c). Here it is important to bear in mind that people's personal recommendations tend to be more credible than recommendations from commercial sources (Kotler, Bowen & Makens, 2014), and that this can vary from the image presented in the market efforts from tourism operators. The general perception amongst the participants was that there can occur a conflict between the two industries in some destinations, but there should be room for developing both the industries due to the vast distances in Greenland. It can be of value to conduct a more thorough visitor survey, focusing on the relation between tourism and mining in Greenland, seen from a visitor's point of view.

Environmental responsibility. Greenland's oil and mineral strategy (2014-2018) impresses the mining companies to submit an Environmental Impact Assessment Report (Kirkegaard & Kielsen, 2014) and are addressing their environmental responsibility to a much greater extent than the tourism industry. Sustainable tourism development has not yet succeeded in transferring its principles and objectives to successful policies and practices in global tourism (Sharpley, 2009). This is to some extent supporting the results from the analysis of the tourism strategies presented in chapter 5. The strategies are partly showing an awareness of environmental responsibility, but they lack detailed information on initiatives implemented in order to support an environmentally responsible development. Greenland is looking towards Iceland when working towards a growth in the development of tourism, and I suggest that the tourism industry in Greenland should take a look at the lessons Iceland learned from the rapid growth of the industry. Greenland has the possibility to be proactive in order to avoid meeting challenges that can follow a rapid increase of tourists. The strategies can be strengthened by addressing the issues of environmental responsibility more evidently and create measurable indicators and concrete initiatives in order to reach their main objective, as recommended by Jóhannesson, Huijbens & Sharpley (2010).

Social responsibility. Greenland's potential for increased revenue has primarily been identified to be within the sector of mining and minerals (Rambøll, 2014). However, it is argued that if long term socio economic and environmental impacts of mining are considered as well as the socio economic indicators, it is rather unlikely that the net effect on mining communities will remain positive (Kotey & Rolfe, 2014). Research from Australia showed that remote mining areas had a higher male to female ratio, smaller populations of indigenous people, lower unemployment rates and higher incomes compared to remote non-mining areas. However, there was no proof of the high incomes being invested in the mining communities (Kotey & Rolfe, 2014). The analyses of the strategies presented in chapter 5 showed that the social responsibility is addressed to a greater extent than environmental responsibility. Still, the government is being criticized for not addressing the transition within people and communities to new industries, and there is "still some distance to go" in terms of including and explaining the transition into a mining nation for the local population in Greenland.

Arctic tourism has often been perceived as an opportunity to create economic diversification and employment for a community, particularly without leaving the area. Tourism often turns out to be an alternative way of creating economic growth in periods of industrial decline, as it is not looked upon as an attractive industry due to low salaries and high seasonality, making it an easy industry to abolish if no longer needed (Müller, 2015). Tourism in Greenland has been perceived as a way of improving the socio economical situation in a community before, during and after mining, as it is a direct gain to the communities. However, a lack of professionalization within the tourism industry has been recognized, which has been standing in the way for the development of the industry.

7.1   Implications of the study

A broad business structure with an educated workforce is more likely to make Greenland more resistant towards economic challenges, and it increases the chances of maintaining a sustainable social and environmental development in addition to a sustainable demography (Rambøll, 2013). Due to Greenland's financial situation the tourism industry and the mining industry have been perceived as two of the three pillars the national economy relies on, in addition to fishing (Ren, Bjørst and Dredge, 2016). However, neither of these industries has experienced the growth desired. The findings of this study outline some of the common challenges the industries are facing in terms of development, like high costs and lack of infrastructure. The participants in general believed there was a great potential for the industries to benefit from each other, although it seemed to be a general agreement amongst the participants that there had been no relations between these industries in Greenland, despite the fact that the industries have common challenges. Even though there are not any problems at the moment, there seems to be a strong belief among the participants that challenges will be encountered in the future. The findings of the study revealed shortcomings in the strategies analyzed, and I suggest that the creators of the strategies to address relations between industries more clearly. As Greenland is a huge country, with large distances and a relatively small population, I would argue that it would benefit the tourism and mining industries in Greenland to look towards each other in terms of cooperation to strengthen their voices when working towards developing the country.

There is a clear potential within the different regions to look for possible trades or conflicts between the industries, and identify incentives accordingly. A joint interest in a certain area may strengthen the cooperation between the industries, and hence improve the development. It is of my recommendation to address this at an early stage, and I will encourage the stakeholders to become more proactive, in order to better be prepared for possible relations that may occur, either positive or negative, in order to support a responsible resource development for both of the industries.

The results from the interviews are to a great extent based on the participants' personal perceptions regarding the research topic, based on Greenland's history and current situation in the spring of 2016. I am therefore fully aware that the results could vary if the group of participants was changed or if the research was conducted at a different time. However, with that said, I am satisfied with the selection of participants as they represent various groups of stakeholders, and therefore provide a good representation of the general stakeholders' views and perceptions regarding a relation between the tourism industry and mining industry in Greenland.

7.2 Areas for further research

This research has provided some answers on how stakeholders perceive a relation between the mining and tourism industries in Greenland, in the context of responsible resource development. However, an expansion of the sample size of this study and the range of stakeholders would strengthen the findings and provide a deeper understanding of the stakeholders' perceptions. Research aimed at identifying tourists' perceptions on this matter would be another interesting area, which could provide local stakeholders in Greenland with valuable knowledge when searching for relations between the two industries. This could also reveal whether the image presented from the tourism and mining industries matches the image that tourists have when traveling to Greenland, or if this could be a potential area of conflict.

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Appendix: Question frame for interviews

1. What is your background?
2. What changes have you experienced in the tourism development in Greenland in your career?
3. How is the company adapting to these changes?
4. How do you perceive that the tourism industry in general are adapting to these changes/challenges?
5. How do you perceive that the government is adapting to these changes/challenges?
6. How do you perceive the Governments efforts in developing the tourism industry?
7. What is your personal opinion/recommendation on how to develop the industry?
8. Has there been any connection/link between the tourism and mining sector so far that you know of?
9. Do you see any possibilities for a trade between the tourism and mining industry in the future development?
10. Do you think cooperation between the industries are desired
11. Do you think cooperation between the industries is realistic, with the current development strategies/situation?
12. What images of Greenland do the tourism industry present in the marketing?
13. What images of Greenland do the mining industry present in the marketing?
14. Do you think those images can conflict or benefit from each other?