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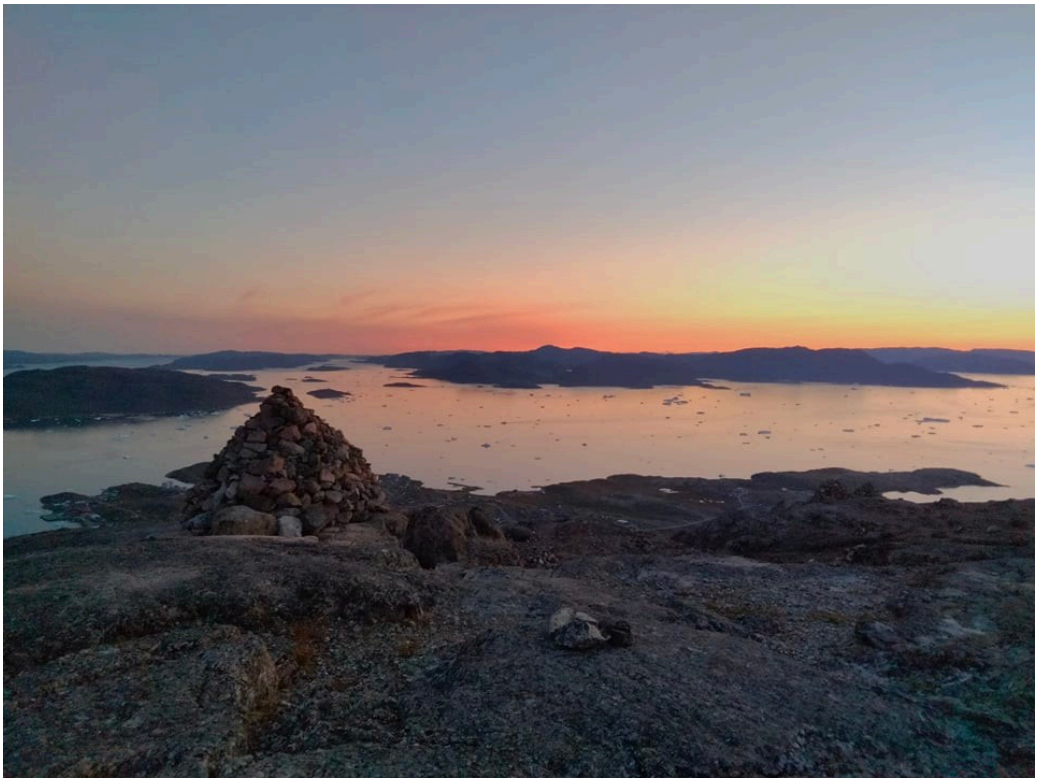

(Ayoe Kristiansen, 2021: A summer night on top of Narsaq).

Preface

I would like to express my deepest gratitude and appreciation to all businesses, organizations and to everyone who engaged in my thesis, especially to the people of Narsaq who was willing to provide me with the best data in form of survey answers and interviews, without your engagement and honost thoughts in regards of the chosen subject, it would not have been possible to analyze the challenges Greenland is currently facing.

I will also like to express my gratitude towards *Narsaq International Research Center* who let me be the first master thesis student from the University of Greenland to use their facility in Narsaq. Additionally, a great thankyou to my absolutely fantastic supervisor Rachael Lorna Johnstone who always supported my vision for this project and never doubting me for one second, your support was crucial and im certainly going to miss our good laughs and great discussions. Furthermore, I would like to thank the Head of Institute of Social Science, Economics and Journalism Annemette Nyborg Lauritsen from the University of Greenland for her leadership skills and incredible support towards me, the university is lucky to have you and im especially going to miss your lessons in the classroom.

Lastly, I will like to say a great thankyou to Greenland Business Association (GE), who sponsored a fantastic working space in a proffesionel and calm atmosphere, were their ressources e.g. meeting rooms, contacts and advice was made available for me to use in order to improve my writing process. This meant everything for my process and it gave the thesis a real focus on "*how can this thesis be used"*- and *"who are this thesis important to?",* moreover a great thankyou to the CEO of Greenland Business Organization (GE) Christian Keldsen, who never hesitates to provide support and insigt.

This thesis was written from the perspective of an Inuk who grew up with the mining discussion in Nuuk but the thesis has been written in as objective- and neautral manner as possible, in order to provide the reader with an overall indsight of the chosen subject.

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Index

Abstract

This thesis is centralized around mining in Southern Greenland and the importance of a Social License To Operate regarding the two mining projects; Kuannersuit and Killavaat Alannguat. Moreover, will the thesis examine how the cooperation between the respective mining firms, Naalakkersuisut (the Government of Greenland) and the locals in Narsaq. Additionally, through interviews and surveys, will the thesis explore what the respondents has of opinions about the two mining firms and Naalakkersuisut's handling of these companies' mining projects. Finally, will the thesis examine to what extent the differences between the two mining companies, can explain eventual differencent public attitudes towards the mining projects.

The research presents results analyzed from 40 survey answers and 17 semi-structured interviews from various relevant stakeholders, whereas only some of these interviews are applied in the thesis e.g. CEOs, locals from Narsaq, experts, and Greenlandic businesses.

The applied theory, method, fieldwork- and interview results indicates that mining companies who wishes to open a mine in Southern Greenland, do not have to gain a Social License To Operate (SLO), which can be seen from the two case studies, there only has limited public acceptance. Furthermore, were the respondents not satisfied by Naalakkersuisut's (Greenlandic government) handling of the process of the two mining projects and some respondents expressed a need for an increased communication and earlier inclusion between the mining firms and Naalakkersuisut, towards the respondents.

The respondents from the survey and interviews, did have a larger familiarity and stronger opinions about Greenland Minerals Ltd. and their mining project Kuannersuit, than for the TANBREEZ mining project Killavaat Alannguat. This can be attributed to the fact that Greenland Minerals Ltd. has prioritized a larger scale of stakeholder meetings and has prioritized to inform various Greenlandic towns, settlements, and cities about their project.

The results did not describe which mining company was viewed more positively than the other, but through semi-structured interviews, it became clear that more of the respondents did not have a clear opinion about the TANBREEZ project and they lacked available information to create a clearer

opinion and familiarity with the project. The respondents are mostly opposed to both mining projects; Killavaat Alannguat (TANBREEZ) and Kuannersuit (Greenland Minerals Ltd.), however, despite this opposition, TANBREEZ has gained an exploitation license and Greenland Minerals Ltd. still has an exploration license.

The structure of this thesis is as follows;
Chapter One, "Introduction" which introduces the thesis to the reader, "Research question" there capsulizes what the thesis is researching, "Research design" there gives a graphical overview of the thesis and "Motivation" there explains why the researcher chose the subject. Chapter Two, includes a "Literature survey" which presents various research articles there is similar to this thesis research and "Empirical background" there goes through the Greenlandic mining political history. Chapter Three, introduces and explains the applied methods chosen for this thesis and how they can be applied to supports the chosen research subject. Furthermore, does the section explain which kind of data there is used and how they support answering the research questions. Chapter four, presents the chosen theories and how these will be applied, moreover how they will be used to analyze the chosen research area. Chapter five, analyzes the gathered data in a three-step model. Chapter six, provides a conclusion in which the answers to the research questions are presented.

1. Introduction

This thesis is based on the following research questions; what is the role of the Social Licence to Operate in respect of two mining projects in South Greenland? The project researches how the cooperation between the respective mining firms, Naalakkersuisut (the Greenlandic government), and the local citizens of Narsaq influences the decision-making in regards to the licensing of different stages of the projects. Additionally, what are the opinions of the people of Narsaq regarding the two mining firms, and their opinion of the handling of these projects by Naalakkersuisut? and to what extent do the differences between the two mining companies TANBREEZ (Killavaat Alannguat mine) and Greenland Minerals Ltd (Kuannersuit mine) explain eventual different attitudes the locals have towards these projects?

The chosen subject was found highly relevant because of two main factors; The need for Greenlandic economical revenue and development and the wellbeing of the Greenlandic people. Which is based on the fact that the world wants- and needs minerals, light- and heavy rare earth in order to develop a greener energy source and therefore, needs to attract possible investors and mining companies to be able to explore its the subsoils.

Moreover, the 21st century is a time where the people of the world are connected on diverse social media platforms and is also a virtual place where people judge, discuss and rate different institutions e.g. mining companies and their operations. This means that everyone can have an opinion about everything and can share this opinion with basically everyone, this means that people can encourage other people to like- or dislike another company. This provides extra pressure to a company because people want companies there is transparent with their information and are ethical in their way of running a business.

A modern and forward-looking company should not only care about the judgement by the relevant authorities or the company`s economical revenue, but also the judgement by the general public and relevant stakeholders.

Greenland gained power over its rare earths and minerals in 2009, which has led to an increased global focus towards economic potentials Greenland holds in its subsoils.The Greenland Mineral Strategy, which was introduced in 2020, states that Greenland will aim to develop the industry of

mineral resources into a leading industry and the Greenlandic government wants to establish a more enhanced governmental framework to be able to attract various mining companies to invest in Greenland.

Vittus Qujaukitsoq, former Naalakkersuisoq (Minister) for Finance and Mineral Ressources *"Over the years, Greenland has seen considerable exploration activity, but there are still areas which are virtually unexplored and which can contribute to further development" (Greenland Mineral Strategy, 2020, p.2)*.

The strategy explains that the development of the Greenlandic mining industry must follow the environmental safety requirements and have the protection of Greenlandic nature as a top priority. Moreover, is the government aiming towards improving five strategic priority areas e.g. simplified transition from exploration to exploitation license, competitive tax and royalty models and the mining industry shall increase the socio-economic benefits of these activities *(ibid. p. 9)*.

This strategy was regulated in 2021 because Greenland had a governmental election, which resulted in a change of the main governing party, and a zero-tolerance policy towards uranium was reinforced soon afterwards. Moreover, did the Greenlandic Ministry of mineral resources has explained that the industry of rare earths and minerals would be ideal to develop in order to diversify and add to the Greenlandic economy.

The subject of Greenlandic mining has caused several discussions in the Greenlandic population and goes all the way for the possibility of economical independence from the Danish block grant to which mining company to trust, whereas it makes the subject relevant for Greenland in the year 2022.

The Stakeholder- and the Social License To Operate Theory will be used to explain and present a company's prioritized stakeholders, moreover will it provide the researcher a chance to look into how the application for a mine is, and how the respondents are experiencing it. Following methods have been chosen in this thesis; fieldwork, the Most Similar System Design (MSSD) method as part of a comparative study of two cases, and mixed methods; quantitative and qualitative.

2. Research question and follow-up questions

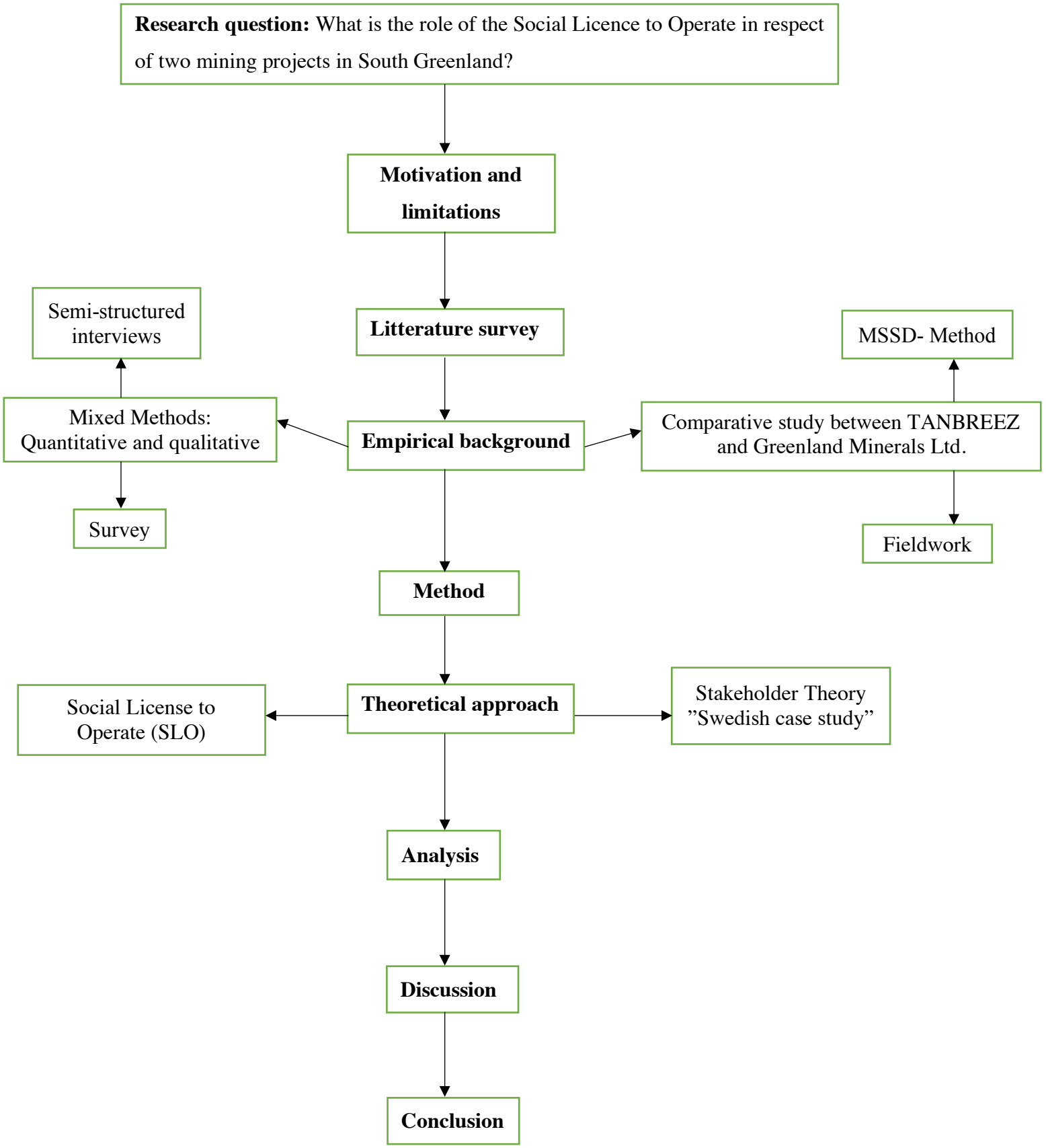
What is the role of the Social Licence to Operate (SLO) in respect of two mining projects in South Greenland?

1. How does the cooperation between the respective mining firms, Naalakkersuisut (the Greenlandic government), and the local citizens of Narsaq influence the decision-making regarding the licensing of different stages of the projects?

2. What are the opinions of the people of Narsaq regarding the two mining firms, and the decision-making governed by the government of Greenland in regards to who shall, and who shall not, open their respective mining operations in Greenland?

3. To what extent do the differences between the mining companies TANBREEZ (*Killavaat Alannguat mine)* and Greenland Minerals Ltd (*Kuannersuit mine*) explain the different attitudes the local people have towards the projects?

3. Research design



4. Motivation

The researcher's motivation for choosing a thesis subject that is centralized around mining in the Southern part of Greenland is based on that the researcher is an Inuk living in Greenland, meaning that the choice of subject hits close to home for the researcher, and is of great interest. Moreover, when the thesis was about to be written, Greenland had a parliamentary election which resulted in a change of Greenland's main coalition party from SIUMUT (S) to Inuit Ataqatigiit (IA). IA's top priority and key argument to get elected was to reinforce the zero-tolerance policy, and place a limit on 100ppm (100gram uranium pr. ton rock) on mining projects. The change of the national party and the support of the majority of the Greenlandic voters to the zero-tolerance policy; making for an interesting and relevant research topic, because it would influence the Greenlandic mining industry.

The reinforcement of the zero-tolerance policy happened on the 9th of November 2021, with 12 parliamentary members voting in favor of the policy and 9 against, which resulted in the Kuannersuit (Kvanefjeld) mining project, which is owned by Greenland Minerals Ltd., did not live up to the new set of governmental guidelines (they did meet the previous), because Kuannersuit was estimated to contain 300ppm *(Brøns, 2021)*. Furthermore, with the Kuannersuit project being paused and with the reinforcement of the zero-tolerance policy, another Australian mining firm, TANBREEZ gained an exploitation license in 2020 to a mine, not located far from Kuannersuit. Leaving the researcher with the question of how much the mining projects could differ from each other.

In 2009, Greenland gained power over its own minerals, which used to be managed by the Danish government and this meant that Greenland more than ever before, needed to govern and control the mining industry.

The researcher developed an inquisitiveness as well as a sense of curiosity, for who the mining firms were, and what the process of opening a mine was.

Prior to the writing of this thesis, the researcher did have a certain amount of knowledge of the controversies surrounding Kuannersuit and who was for and against the mine, due to being exposed to discussions about pressing issues in Greenland, such as when and how Greenland should become financially independent from the Danish realm. The researcher also had minor knowledge of the Killavaat Alannguat mining area which holds a well-known fishing spot, and this project is not

located far from the Kuannersuit mine. The Killavaat Alannguat mine, however, does not have the same level of media attention or discussion as the Kuannersuit mine, which is rather curious, and brings up the question of what the difference is between the two mines. In terms of distance, they are not located far from each other, so why was an exploitation license granted to one mine and not the other? Could the type of rock in the Kuannersuit mountain differ significantly from the Killavaat Alannguat mine? Or was there some significant difference between the two Australian mining firms that wanted the rights to the mines, favoring one over the other?

Consequently, this thesis subject was selected. The researcher chose to look at the issue through the stakeholder- and the Social License to Operate theory perspective, because they are centralized around the concept of whether a company will be more successful and prosperous in the modern cosmopolitical world by prioritizing a company's stakeholders and making value for both shareholders and stakeholders.

Chapter II

5. Litterature survey

In this part of the thesis, different research papers relating to the chosen subject have been reviewed. The research that has been done in the field concerning Greenlandic mining in Southern Greenland is narrow, and has mostly been done by non-Greenlandic researchers, with the exception of Anne Merrild Hansen who is of Danish origin but grew up in South Greenland. Nonetheless, the research has been done with a good sense of detail. Furthermore, a reasoning will be given regarding the choice of sources used in this thesis. It is crucial for the researcher to demonstrate to the reader that a series of considerations went into the choice of sources used in this thesis, explaining the choices of the main sources used, as well as why some studies were not included in this thesis.

The first article that was used in this thesis was: *In the Shadow of the Mountain: Assessing early impacts on community development from two mining prospects in South Greenland* by Hansen and Johnstone in 2019. The article was based on fieldwork in Southern Greenland in 2017 in the following towns: Narsaq, Qaqortoq, and a sheep farm near Narsaq. The fieldwork was based on an interest in gaining more knowledge about how the local people of Narsaq and Qaqortoq saw their future with the two possible mining projects and if these possible mines have had an influence on individual- and community growth. The research was constructed through a series of qualitative interviews with the locals, from which the researchers discovered that even though the mines were not yet a reality, the mining projects had already affected the locals' perceptions- and plans for their future. Moreover, the researchers found that no matter where the respective individual's standpoint was, they wished for clear answers of what they could expect *(Hansen & Johnstone, 2019)*.

The article provides some relevant knowledge to this assignment, seeing as the locals of Qaqortoq, Narsaq and the sheep farm near Narsaq, were significantly affected by the possibility of the nearby mines in 2017, and the research presented a clear issue regarding a lack of transparency as well as a general need by the locals for clear answers from the mining firms and the Greenlandic government. This thesis' fieldwork is similar to that of Hansen and Johnstones. However, there are some differences regarding the fundamental perception, social dimensions, and points of view of the local population. Furthermore, the previous authors' fieldwork was done in 2017 at the prospect of the two

mines and what impact this had on the locals' future plans, whereas this thesis research focuses on the present interest and stake of the entities around the aforementioned mines *(ibid)*.

The second research paper was a thesis named *Saving or destroying the local community? Conflicting spatial storylines in the Greenlandic debate on uranium* by Bjørst. This is a discourse emphasis study which was used in the Greenlandic uranium mining discussion, particularly on the subject of saving or destroying the locals who may have to live close by or right next to a mine. Furthermore, Bjørst's research looks into the *Greenlandic mining is the way for Greenlandic economic growth-* argument, and its associated debates in the communities based in Narsaq/ Southern Greenland (*Bjørst, 2016*).

Bjørst's research findings provide an insight to this thesis regarding the uranium mining debate from 2015/2016 in Narsaq, and what kind of argument was spoken for- or against. Furthermore its ethnographical research has a similarity to Hansen and Johnstone's fieldwork, because both of them were located in Narsaq. However, this thesis does not follow Bjørst's research approach, because this thesis is mainly centralized around the opinions and feelings of the locals in Narsaq, regarding how the mining firms are cooperating with the locals and the Greenlandic government and vice versa.

The third research article also has emphasis on discourse analysis, but the difference lies the analyzing of the debate from a Danish- Greenlandic perspective. This research, done by Thisted, surrounds the arguments and debates on how Greenland should make it possible to extract and export uranium from the possible mining projects in Southern Greenland. Furthermore, her research indicates that this particular discussion has its roots back in colonial Greenland, illuminating Greenland's need for equality, and independence from the Danish realm. However, she argues that due to lack of economic development, the term *independence* is being put under the loop (*Thisted, 2019*).

Thisted's research gives an insight into the core arguments and discussions that have surrounded this topic, and investigates how the mining projects, which are being portrayed as positive projects, will benefit and develop Greenland as a society and country. The findings by Thisted are not similar to the findings this thesis, because Thisted uses a more discourse analytical perspective in her research which provides an in-depth perspective with a broad point of view

of the uranium mining in Greenland and its main actors, whereas the focal point of this thesis is from a fieldwork related perspective.

The fourth research article was published in 2016, but has its starting point in 2009 when Greenland gained self-rule from the Danish realm, meaning that the Greenlandic government also gained control over the mineral resources of the country. This article was written by Tiainen and analyzes the Greenlandic government's framework surrounding the mining industry and how this has not always received support from the Greenlandic community. It is argued to have been improved over the years to better include the general public, but even with these developments, the environmental and social sustainability have been strongly ignored (*Tiainen, 2016*).

This article provides the knowledge that the Greenlandic government tried to develop and adjust the governmental framework for the mining industry in Greenland in 2016, aiming for more inclusion of the general public. This article has multiple similarities to this thesis' chosen research subject, such as the significant importance of social sustainability, but they also diverge in terms of choice of theory and the focus on the discourse, which this thesis does not engage in.

The fifth research article is by Bent Ole Gram Mortensen, and looks into the perspective of the Greenlandic Mineral Resource Act of 2009. Mortensen argues from the historical standpoints of 2009, when Greenland gained self-rule and took over the mineral resource area, and 2013, when the zero-tolerance for uranium got lifted because the Danish realm decided that uranium could not be controlled by the Greenlandic government alone. In 2016, Greenland and Denmark signed an agreement, agreeing to cooperate on the matter of export and exploitation of uranium etc. Mortensen's approach differs from that of this thesis. However, it does shed some light on past and present challenges relating to this subject, but from a perspective of international law (*Mortensen, 2018*).

The sixth review was the third chapter of the book *Regulation of Extractive Industries* by Rachael Lorna Johnstone. This chapter explains the use of the concept of Free, Prior and Informed Consent (FPIC) which is a specific right that is applied and frequently used to ensure that small or big operations operate with the necessary respect towards the indigenous peoples and their land; meaning that the specific operation is inclusive and supportive towards the respective indigenous peoples that

may be in the potential mining area that the company is seeking to start their operation in, and that the operation is sustainable and righteous towards the indigenous peoples. This right is recognized under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and gives the respective indigenous peoples the right to approve or deny any operation that would in any way affect their land and territories. In this chapter, Johnstone explains that this right is not, however, available to all communities, e.g. non-indigenous groups. This theory was strongly considered to be applied in this thesis, but was chosen to be excluded, the reasoning being that when a citizen votes in a Greenlandic election, the Greenlandic citizen votes on a basis of Danish citizenship and Greenland residency. Even though citizens can aquire a Greenlandic passport, which states that the person is a resident of Greenland, the passport will also state that the citizen lives within the Danish realm, and hence, internationally, the person would be considered Danish. This explains why the Greenlandic government and its indigenous bodies are conflicting in the matter of the legal perspective (*Johnstone, 2020, p.47-61*).

The sources that have been used in this thesis are divided into two categories: primary and secondary sources. Primary sources are, in short, a type of knowledge that is new and can be gathered first-hand; this can be in the type of either surveys, present research projects, and Ph.D. Dissertations etc. Secondary sources are a type of knowledge that is not original, but rather has been recalled; this is often seen in the shape of books or lexicons (*Dahl, Dich, Hansen, Olsen, 2005: Styrk projektarbejdet*).

Various primary sources have been used in this thesis, the main one being in the form of a survey which provides the researcher with specific information about the locals in Narsaq, Greenland, such as their opinions concerning the two mining companies and what they think of the political and/or governmental processes regarding the opening of a mine. This data was collected by the researcher herself. Although previous surveys have been conducted relating to mining in Southern Greenland, these did not have an emphasis on how much the locals trust the specific mining companies. Moreover, the researcher has performed a series of semi-structured interviews which provide direct and varying perspectives on the chosen subject. This presents direct knowledge of how the people that have been interviewed feel and think concerning the subject matter.

Furthermore, multiple secondary sources have been applied in this thesis, the first one of which is *Stakeholder management theory meets CSR practice in Swedish mining* by Helena Ranängen, which shows the stakeholder theory in practice in how a Swedish company prioritized their stakeholders and the importance of doing so. Another theory which has been used in this thesis is the Social License to Operate (SLO) and is explained with the help of Ian Thompson and Robert G. Boutilier's *Modelling and Measuring The Social License To Operate: Fruits of a dialogue between Theory and Practice*, and Thornton, Kagan and Gunningham's *Social License and Environmental Protection: Why buisnesses go beyond compliance*. The choice of including both the stakeholder theory and the SLO is because the stakeholder theory describes the process of obtaining a SLO, and therefore is important for this thesis in order to provide a fuller picture of the chosen subject.

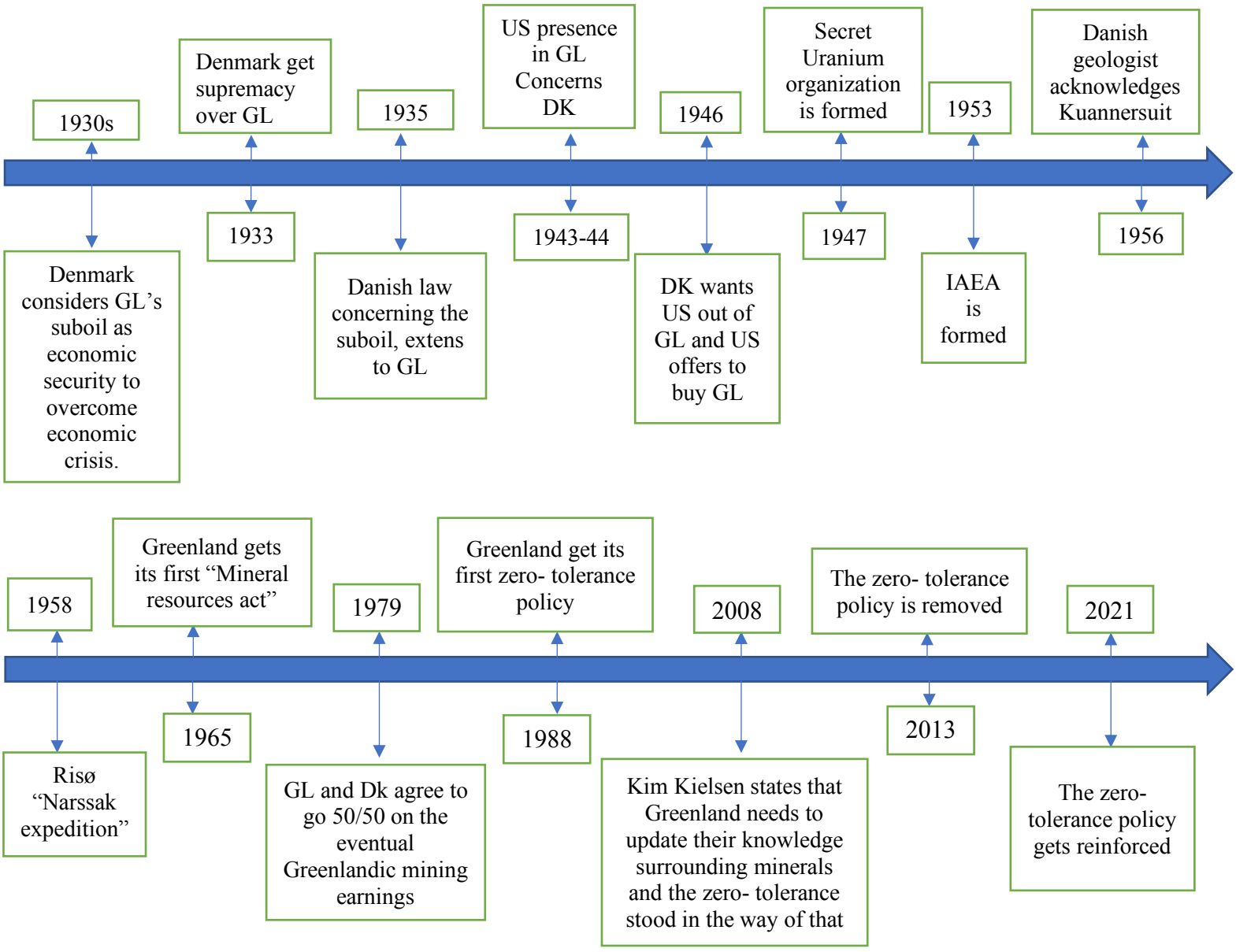
Moreover, Knudsen and Nielsen's *Uranbjerget- Om forsøgene på at finde og udnytte Grønlands uran fra 1944 til i dag*, has been used as one of the main secondary sources because it provides this thesis with an essential historical overview of mining in Greenland, and more specifically in Southern Greenland *(Knudsen & Nielsen, 2016)*. Lastly, a number of governmental websites relating to the Greenlandic mining process have been used in this study to create an understanding of the Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) reports for both TANBREEZ and Greenland Minerals Ltd., and furthermore to shape an understanding of how the process of opening a mine works from the perspective of the Greenlandic government.

6. Empirical background

6.1. Greenland's history concerning the politics behind mining minerals and rare earths

In this section a concentrated historical background is presented, which is focused on the Greenlandic mining politics from 1930 to 2021, and this will be presented with the researcher's own elaboration of a two-part timeline, including brief explanations of important events and the periods of time in which these occurred. Followingly, a presentation of the two mining projects in Southern Greenland; TANBREEZ and Greenland Minerals Ltd. will be given *(Knudsen & Nielsen, 2016, p. 50 -51)*.

Figure 1. Historical evolution of the rare earth/uranium mining in Greenland.



In the begining of the timeline, the 1930s presents a time where the world was in an economic crisis. Therefore, Denmark, knowing about Greenland's suboil potential, considered Greenland as a economic asset. Not many people knew anything for certain about Greenland's suboil and whether or not, it contained valuable minerals and rare earths. In 1933 Denmark gained full supremacy over Greenland due to Norway showing an interest in Greenland (*Knudsen & Nielsen, 2016, p. 50 -51*).

The Danish prime minister, Thorvald Stauning, saw an opportunity for the Arctic colony in Greenland to become modernized in 1935, and this could be finanzed by a strong mining industry. Hence, the Danish law concerning the Greenlandic suboil got extended in 1935, which meant that the Greenlandic underground was now Danish, and belonged to the Danish realm *(ibid, p. 52-53)*.

The Danish Ministry For Foreign Affairs received, in confidentiality, information about the American interest in the Greenlandic minerals and suboil in 1943-1944, which worried the Danish Ministry For Foreign Affairs because there already had been a significant American presence in Greenland since World War II when Demnark was occupied by Germany *(ibid, p.54)*. The concern was not without justification; in 1946 the Danish and the American Ministers Of Foreign Affairs met in Washington. Denmark wanted to negotiate the existence of American presence in Greenland, but the American foreign minister refused and gave Denmark three choices:

1) The USA wanted to buy Greenland from Denmark.

2) Denmark agreed to a 99-year agreement, allowing the US to move freely around in Greenland as they pleased.

3) The USA got the total responsibility for the military and defense of Greenland.

Both ministers eventually agreed to stick to status quo, where Danmark remained the ultimate power over Greenland and the American presence stayed in Greenland aswell *(ibid, p. 60)*.

In 1947 the Danish magazine Berlingske wrote as their front page, that there is in fact uranium in Greenland, according to American researchers and later the same year, the government official Eske

Bruun asked the Foreign Legal Political ministry to create a secret uranium organization to clear the Greenlandic Uranium capacity and its potential *(Knudsen & Nielsen, 2016, p. 78-86)*.

In 1953, the American president Dwight D. Eisenhower made a speech to the UN General Assembly, where he spoke about how the development of nuclear power, shall only be developed for peaceful purposes. Thereafter, the International Atomic Energy Agency (IAEA) was created to make decisions on the matter of international nuclear projects *(ibid, p.102-104)*.

This was reminded three years later in 1956 by Danish geologists there acknowledged the existence of Kuannersuit, whereas the mountains level of rare earths and minerals has been known for longer and had the rumor to contain radioactive materials (ibid,p.11). The Narssak expedition there was led by Risø in 1958, it was estimated that the Kuannersuit mountain contained approximately 500 gr. pr. ton uranium and there was an increasing international interest in extracting these (ibid, p.158). The interest for so, grew throughout the years and in 1965, the Danish government created a commission there had the task to work on a law concerning the matter, and in 1965 this law was adopted and was focused on making mining in Greenland economically attractive (Lovgivning.gl, 2009,p. 4).

The optimism for using nuclear power as fuel around the world was rising in the 1970s, mainly because it is 100 times more effective in terms of creating energy and is cheaper than normal power-driven by oil and in the 1970s IAEA held a panel meeting *Uranium Exploitation Geology* in Vienna where other countries who had Uranium in their land participated e.g. USA and South Africa, Kuannersuit was mentioned. The goal of this meeting was to present the plan to run preferably on nuclear power by 1990, instead of fossil fuels. For Denmark to be part of this plan, the land needed to intensify the uranium research and that meant Kuannersuit *(Knudsen & Nielsen, 2016, p.172-175)*. This lead to that in 1979 during the Greenlandic home rule negotiations with the Danish government, did a majority agreed to go 50/50 of the money made from Greenlandic mining but the department of rare earths and minerals were still under the Danish government *(Lovgivning.gl, 2009,p. 4)*.

In 1980 there were extracted 5000 Ton of Uranium malm from the Kuannersuit Mountain in a project led by Risø in 1980 *(Knudsen & Nielsen, 2016, p. 204)*. Later on, in 1988, did the government in Greenland introduce a zero-tolerance policy, which represented that Greenland was against mining

there contained mining of heavy rare earths, this was however a (non) law *(Nielsen & Knudsen, 2016, p. 40)*.

An Australian mining company called Greenland Minerals gained a research license in 2007 and was a special move in Greenlandic history in terms of politics, because Greenlanders were politically divided into two political groups, whereas the one group wanted to minimize the negative economic status quo and sees mining as a way to do so, whereas the other group does not want to change the negative economical status with the use of mining, because of environmental concerns *(ibid, p. 40-41)*.

The Greenlandic government and The Danish Parliament agreed in 2008 that Greenland should be acknowledged as a People under international law and the Greenlandic language should be the official language. Futhermore, Greenland should have the power over its rare earths and minerals, but for this, did the Danish Parliament require that Greenland should not stand in the way of the overall interest concerning the Danish Realms foreign policy. Additionally, if the earnings from the potential Greenlandic rare earths and minerals projects should be over 75 Mio DDK. Pr. Year, then the Danish grant shall be reduced by 50% *(Knudsen & Nielsen, 2016, p. 244)*. With this, Kim Kielsen there was the former leader of the national party Siumut, wanted Greenland should update their knowledge about the Greenlandic underground and that the zero-tolerance policy was standing in the way of so *(ibid, 252-253)*.

By 2013, the zero-tolerance (non- law) policy was repealed because Siumut got re-elected in Greenland. Shortly afterwards, the Inatsisasrtut (Greenland Parliament) voted by 15 to 14 to remove the zero- tolerance policy. Later same year, a Danish journalist revealed that there was actually never an actual zero-tolerance policy, the policy was discussed but there was never an actual official legal policy there forbid uranium research or other radioactive products *(ibid p. 254-255)*. The zero-tolerance policy however was (re)introduced by law in 2021, through parliamentary vote sought by the leadning coaliation party IA. This introduced a 100 ppm limit (100-gram uranium pr. ton), which has serious repercussions for the Kuannersuit project of the Australian mining company Greenland Minerals Ltd. *(Brøns, 2021)*.

6. 2 Mining in Greenland

Greenland's suboil has been researched for more than 200 years, which reasons in that Greenland is geologically unique and is enrichen in rare earths and minerals e.g. gold, zink, cobber, and niobium, etc. The extensive research has given an wide geographical knowledge for potential mining areas, which has resulted in that several mining firms have opened mines in Greenland throughout the years e.g. The firm *Conico LTD* worked at the mine called *Mestervig* (zink) from 1956 till 1963, the firm AEX gold works the *Nalunaq* mine (gold) from 2009 till 2033 and the firm Øresund worked with the Danish government at the mine *Ivittuut* (cryolite) from 1954 till 1987 *(Johansen. Et al, 2001, p. 7).*

6.2.1 The mining licensing process in Greenland

The process for a mining company to open a mine in Greenland is arduous and typically lasts years. It furthermore differs if the mining company wants to open a small scale mine, big scale mine or a rare-earths mine etc. The process involves the Greenlandic Government, a scientific independent institution and the respective mining firm there analyses and researches anything there is needed in form different rapports e.g. Social Impact Assement report (SIA/ in danish VSB) and an Environmental Impact Assement (EIA/ in Danish VVM) reports where certain guidelines and standards of technology, etc. needs to be followed. This is not a simple process, but it is to make sure that the potential mine won't damage or hurt its surroundings unnecessarily, when it opens- and closes. The introductory process is described by the Greenlandic Government, as follows;

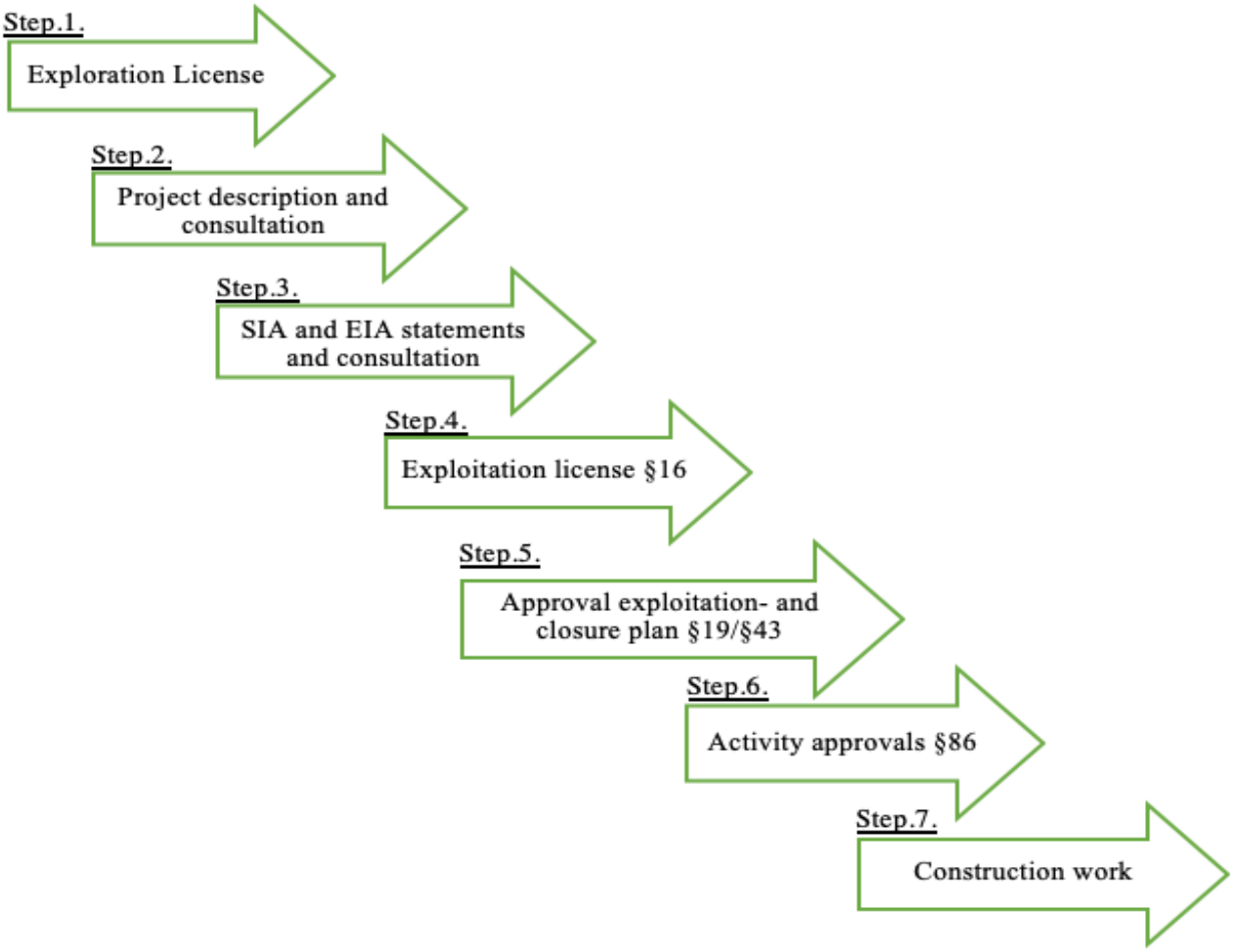
A) Submit Exploitation plan (§19) and a closure plan (§43). The exploitation plan involves a detailed description of the mineral deposit, infrastructure, geology, environmental, fiscal, health, and safety, etc. The closure plan is a highly detailed report that describes the removal of e.g. technical installations and other equipment. The plan shall also include a restoration plan for the environment there may have suffered through the time of the mine and there shall be a rapport about the cost of the closure plan, which shall be based on the worst-case scenario, etc.

B) Submit Specific Plans for activities (§86): Technical standard terms for construction applications. This involves site-, layout- and floor plans, furthermore documentation about the firms' environmental plan, explosives, financial security, and reporting requirements, etc.

(govmin.gl, 2020: How to start mining- Steps to start mining.)

The process for a rare earths mine to get approved by the Greenlandic Government, is complicated but can be explained by a step-by-step visualization, as follows (where it is assumed that the companies who begins the process has done some prospecting beforehand);

Figure.2. *Demostration of the process to open a big scale rare earths mine.*



(Naalakkersuisut, 2021: Høringsmøder vedr. Kuannersuit- Projektet. Pp.5)

When an exploitation license has been granted to the respective mining company, then an Impact Benefit Agreement (IBA) is formed, which describes how the coorperation between the mining firm, the Naalakkersuisut and the local community shall be managed. The IBA is divided into two parts; A general- and project-specific part, whereas the general part is non-negotiable and the second part is based on the SIA report and goes through various appendixes e.g. Monitoring, evaluation plans, and processing of minerals. These appendices are important in order to create rational and specific goals of the mining project and can be regulated every year, moreover are the different parties involved committed to live up to the goals there has been set *(govmin.gl, 2020, Impact Benefit Agreement)*.

However, even if the respective mining firm follows the stated governmental guidelines, the Greenlandic Government can change and/ or regulate the Mineral Resource Act, due to different circumstances e.g. sudden election. The changes of guidelines may result in the respective mining company process changes or its otherwise necessary licenses can be revised, delayed or altogether cancelled *(Brøns, 2021)*.

The reason for the continuous regulations of the Greenlandic Mineral Resource Act, is based on that former mines as Mestervig and Ivittut, which has caused environmental pollution in their respective geographical areas, which explains why the closure plans for a mine in 2022, shall be out from the worst-case scenario *(Johansen., Asmund., Glahder., and Aastrup, 2001, p. 41)*.

The process to gain an exploitation license is a complicated process but some firms do find their way through and do, operate in Greenland anno 2022 e.g. The firm Greenland Ruby a/s they opened in 2017 with a focus on pink sapphires and ruby mining operation there is located in the mine Aappaluttoq in the Southwest of Greenland (Greenlandruby.gl, 2022). Furthermore, there is the Anorthosite project by Lumina Sustainable Materials and is located near Kangerlussuaq (hudsonressourcesinc.gl, 2022).

These mines do not contain any significant amount of heavy/ light rare earths elements, as Southern Greenland is enrichened with. This has brought two Australian mining companies to Greenland; TANBREEZ and Greenland Minerals Ltd. Whereas TANBREEZ have gained an exploitation license in 2020 and Greenland Minerals Ltd. has an exploration license.

6.2.2 The TANBREEZ project: Killavaat Alannguat (Kringlerne).

TANBREEZ Mining Greenland A/S is an Australian mining firm there was formed in 2001 by Rimbal Pty Ltd. Which is owned by The Barnes Family Trust, but in 2010 the company created a daughter company there is located in Nuuk, Greenland and is called TANBREEZ Mining Greenland A/S *(Tanbreez.com, 2022)*.

The CEO of the TANBREEZ is Greg Barnes, which began having an exploration license to Kuannersuit/ Kvanefjeld, which he later sold to Greenland Minerals Ltd. Greg Barens still holds a minor shareholder till present day *(Denton, 2021)*.

The interest in the Killavaat Alannguat mine dates back to 1986, when A/S Carl Nielsen began exploring the area of Killavaat Alannguat and two years later, other companies began exploring the area as well. The high interest resulted in approximately 60 holes of together 2500m and 70 tons of ore which was collected for further studies. Rimbal Ltd. Gained an exploration license for the particular area in 2001 *(Orbicon, 2013: Tanbreez Project Environmental Impact Assessment, p. 16-17)*.

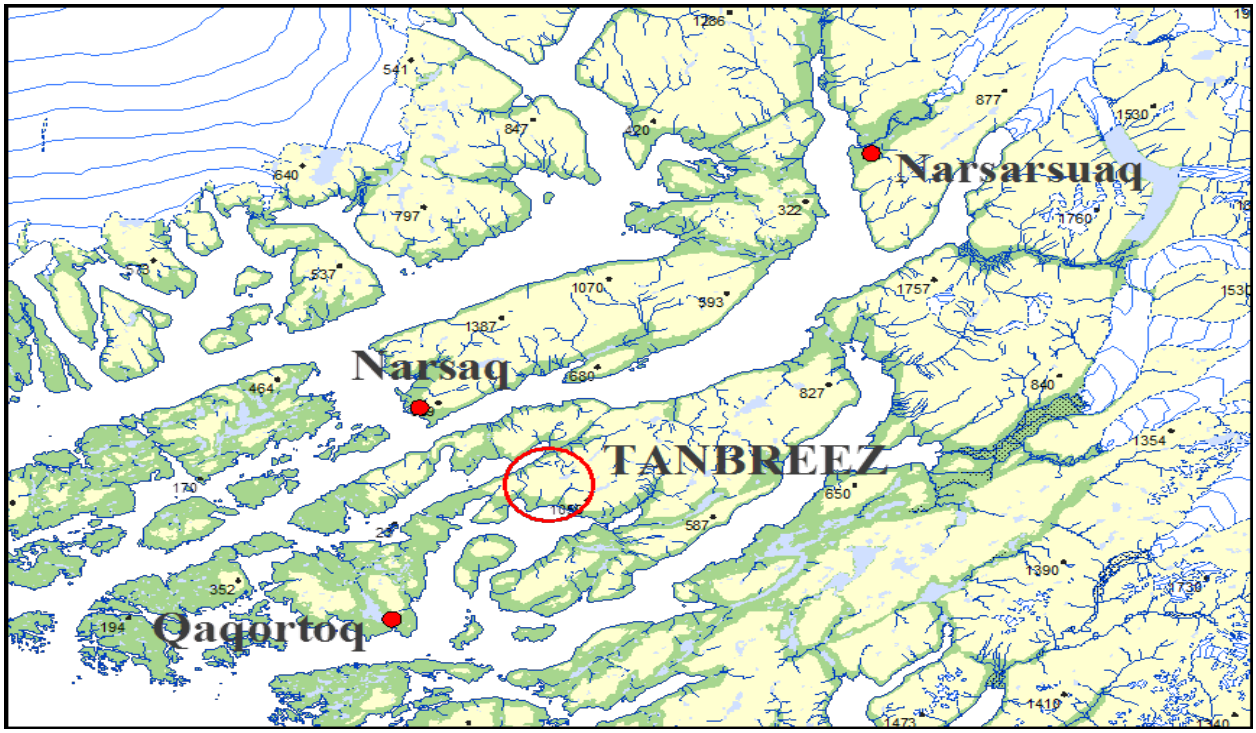
Rimbal Pty Ltd. acquired an exploration license in 2001 for the Killavaat Alannguat (Kringlerne) area, exploration of the mine was done in 2007 and in 2010 TANBREEZ Mining Greenland A/S was formed and is currently located in Nuuk, Greenland's capital (*ibid, p. 16)*.

TANBREEZ plans to open the mine in Killavaat Alannguat to extract, process and export concentrated- and rare eaths elements. Moreover, will the mine be located 12 km from Narsaq and 20km from Qaqortoq, but the mining site itself, is connected geographically to Qaqortoq (i.e., on the same peninsula and connected by road in due course) even though Narsaq is closer as the crow flies.

The TANBREEZ mine will have two open pits, where the first will be near the fjord (fjord pit site) and will be excavated for five years and the second pit will be on a hill for the next five years (hill pit site). The company will create a facility in the nearby area where they will crush and magnetically separate the minerals from the collected rocks and then send them to outside of Greenland for further processing. From the pits there would be produced 500.000t of ore pr. year and 300.000t of mineral

concentrate will be shipped and processed outside of Greenland *(Orbicon, 2013: Tanbreez Project Environmental Impact Assessment, p. 11)*.

Image. 0. Visualization of where TANBREEZ mine is planned to be located

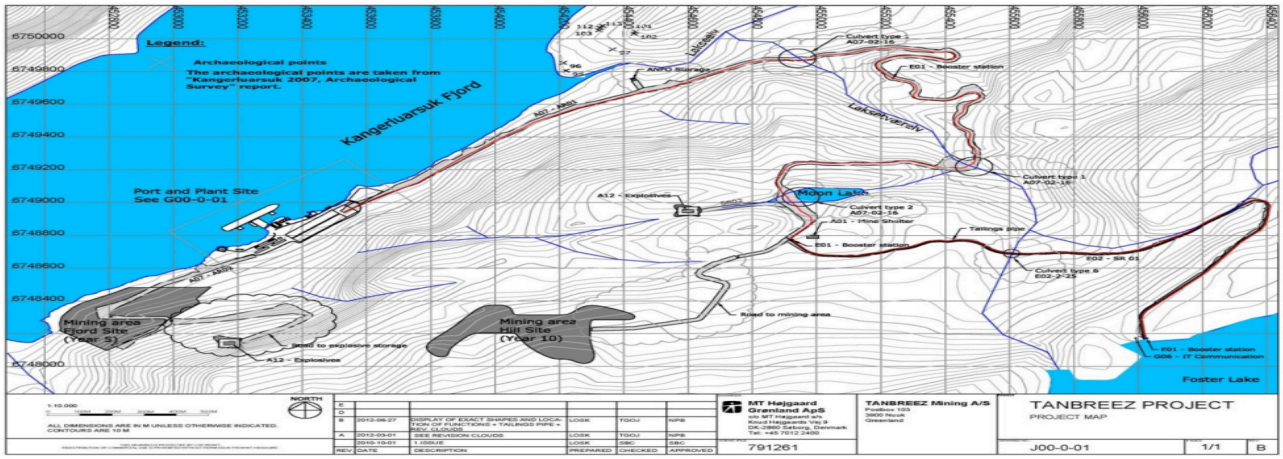


(Naalakkersuisut.gl (2013): Visualization of where TANBREEZ mine is planned to be located).

The waste rock there would be produced from this mine, will be deposited in a natural pond called Fostersø there is a height of 470 m in altitude and it is not itself inhabited by fish, but Fostersø goes through another pond called Laksetvæelv, which finaly goes to Lakseelv. Lakseelv is the largest pond and is inhabited by fish, etc. the waste rock will be transported with help from a pipeline from the pit to the natural pond Fostersø *(Orbicon, 2013: Tanbreez Project Environmental Impact Assessment, p. 10-12)*.

The waste rock will be placed in Fostersø and can have an impact to the fish there lives in Lakseelv and can affect other organisms in the river, there is critical for the fish to thrive in Lakseelv but the level of metals there would be released from the tailings would be within the guidelines made by Greenland Water Line *(ibid, p.28)*.

Image.1. Visualization of how the TANBREEZ mine is planned to look



(Naalakkersuisut, 2013: Social Impact Assessment Tanbreez Mining Greenland A/S. p.33).

TANBREEZ began their public hearing process in 2013 and visited four cities/ smaller settlements in Southern Greenland, whereas the company presented their plans and answered questions from the locals in these cities/ smaller settlements e.g. questions about their Social Impact Assessment report (SIA/ in danish VSB) and their Environmental Impact Assessment report (EIA/ in danish VVM), as follows;

Table. 1. ***Public hearings in Southern Greenland 2013.***

Location	**Date and time**
1. Qaqortoq	17th of November 2013
2. Alluitsup Paa	18th of November 2013
3. Nanortalik	18th of November 2013
4. Narsaq	19th of November 2013

(Naalakkersuisut.gl, 2013: Offentlig høring om rapporterne Vurdering af den samfundsmæssige bæredygtighed (VSB) og Vurdering og Virkninger på Miljøet (VVM), som er udarbejdet i forbindelse med Tanbreez Mining Greenland A/S ansøgning om udnyttelsestilladelse for den sjældne jordart eudialyt samt mineralet feldspat ved Killavaat Alannguat (Kringlerne)).

According to the company it is expected that the mine will employ 91% local workforce (72 Greenlandic people) and the remaining 9% would be a foreign workforce (8 people), this is the expected number and can easily change because it is highly dependent on how many workers the firm

can hire *(Naalakkersuisut, 2013: Social Impact Assessment Tanbreez Mining Greenland A/S, p. 13-14)*.

TANBREEZ was granted the necessary exploitation license in 2020, which means that the company has the right to exploit elements found in the eudialyte mineral, but even though TANBREEZ gained this license, the company still has to make the decommissioning-, utilization- and activity (updated) plans for the Greenlandic government to approve by the end of the year of 2022, therefore have not yet begun the opening process *(Naalakkersuisut. gl, 2020: Tanbreez får meddelt udnyttelsestilladelse)*.

Greg Barnes has through the years expressed his frustration on behalf of his company, where he states that the process of applying to open a mine and its following process is too long and complicated, which makes Greenland far from competitive level compared to the international mining areas *(Wedel- Løvschal 2014)*. Greg states that it is necessary to be persistent to get through the process, due to Greenland's administration, but the firm saw big potentials Killavaat Alannguat (Kringlerne) and the company has approximately invested 250 Mio. DDK. *(appendix nr. 4)*.

6.2.3 The Greenland Minerals Ltd. Project: Kuannersuit (Kvanefjeldet).

Greenland Minerals Ltd. has its base in Narsaq, Southern Greenland, and is an Australian subsidiary to the Australian-based Greenland Minerals A/S. Greenland Minerals Ltd. Has since 2007 worked towards, opening the Kuannersuit (Kvanefjeld) mining project there is located in Narsaq. The company is widely known to the general Greenlandic public and has sparked great discussions, there has been centralized around the question of if Greenland should export heavy rare earths/ light rare earths to support the international transition towards green energy e.g. to wind turbines *(Naalakkersuisut. gl, 2020: Greenland Minerals A/S- Kvanefjeld project-Environmental Impact Assessment Non- Technical Summary).*

The former Managing Director/ Executive Director for Greenland Minerals since 2011 until 2021 was John Mair, who has a Ph.D. in economic geology from the University of Western Australia. John has worked with Greenland since 2008 and has widespread of experience there covers working in Western Australia -, Alaska-, Canada and Mexico, etc. *(ggg.gl, 2022: Bestyrelsen for Greenland Minerals A/S).*

John Mair was the managing/executive director for the company from 2008-2021 but his spot has since 2022, been filled by Daniel Mamadou *(ggg. gl, 2022: Directors and Management).*

Greenland Minerals Ltd. got the license to research the possible project area in 2007, where they in 2010 did thorough feasibility studies that lead to the first draft of the company`s SIA report in 2011 (which got updated in 2014). The company has since then, conducted both increasingly detailed feasibility studies (studies there shows the strengths and weaknesses of the respective project) and various consultation meetings, as part of pre-consultation process there involved responding to questions from the general public and experts, furthermore to establish the Terms of Reference (ToR: where the purpose and structure of the respective project is defined) for the EIA and SIA- reports. In 2015 the ToR were approved by the Greenlandic Government with high involvement of the local stakeholders *(Naalakkersuisut. gl, 2020: Greenland Minerals A/S- Kvanefjeld project-Environmental Impact Assessment Non- Technical Summary, p. 3).*

Tabel.2. Greenland Minerals Ltd. Stakeholder meetings 2009-2019

Year	**Stakeholder meetings 2009-2019**
2009	Community information group
2010	Nuuk rotary, town meeting Qaqortoq, Buisness council Narsaq, Narsaq and Nanortalik public meeting, workshop narsaq.
2011	Public meeting Nanotalik- Qaqortoq and Narsaq, stakeholder workshops Qaqortoq- Narsaq and Nuuk, Meeting local buisnesses qaqortoq, Meeting with Sheep farmers, meeting with the Greenland school of mining, community meeting Sisimiut.
2012	Tele conference with sheep farmer, stakeholder workshop Narsaq, four key stakeholder meetings and public meeting in Narsaq
2013	Two workshop Narsaq, town hall meetings Narsaq and Natortalik, public meeting Qaqortoq, Settlement tour of the smaller towns in Southern Greenland.
2014	Meeting with Mayor from Qaqortoq, eight settlement tours and meeting with Transparency Greenland and WWF.
2015	Four info tours, two meetings with Kommune Kujalleq Highschool and a meeting with the mayor.
2016	Info group (hunting fishing Narsaq), Campus Kujalleq, SPS Sheep farmer advisory.
2017	Four meetings with Narsaq info group and kommune Kujalleq-, Sermersooq and the mayor of Kujalleq.

(Appendix nr. 0, 2021)

The Kuannersuit (Kvanefjeld) mining project was planning to exploit REE (rare earths elements) and a small, amount of biproduct of zinc, uranium and fluorspar, etc. The mine itself was supposed to be an open-pit mine with a processing plant, there would be 7,5- 8 km North of Narsaq and whereas the broken ore (the parts of the mountain there has been blasted) would be transported to a mineral

concentrator that produces a rare earth mineral concentrate (REMC), zinc concentrate and fluorspar. The REMC was calculated to be approximately 10% of the mined ore. A second, smaller processing circuit has been planned to refine the REMC to produce a series of rare earth products, and to recover uranium oxide as a by-product. *(Naalakkersuisut. gl, 2020: Greenland Minerals A/S- Kvanefjeld project-Environmental Impact Assessment Non- Technical Summary. p. 1-3).*

The Danish Center For Environment And Energy (DCE) and Greenlands Institute of Natural Ressources have stated in their report *Overordnede kommentarer til project beskrivelse og VVM rapport for Greenland Minerals Ltd - Projekt Kvanefjeld*, that the Kuannersuit project needs to be under surveillance due to being located close to a town, furthermore did DCE and GN state that they need to update their field studies, due to the risk of the dust created from the mine could pollute the air in-and outside the mine. They have assessed the project to have high prospects to be completed, without any serious or extensive environmental consequences if the necessary preparations and precautions are done accordingly *(Naalakkersuisut.gl, 2021: DCE/GN: Overordnede kommentarer til projektbeskrivelse og VVM rapport for Greenland Minerals Ltd - Projekt Kvanefjeld. P. 11).*

For the mine, there would be created two storage facilities (TSF) to handle the tailings (waste) from the mine; a main one for flotation residue (approximately 90% of tailings) and another small one for chemical residue (10%). These will be stored in storage facilities before going to Taseq basin, where the basin itself would be covered in a form of "water cap" *(Naalakkersuisut. gl, 2020: Greenland Minerals A/S- Kvanefjeld project-Environmental Impact Assessment Non- Technical Summary. p. 1-3)*

Image.2. *Visualization of how the Greenland Minerals Ltd. mine is planned to look*

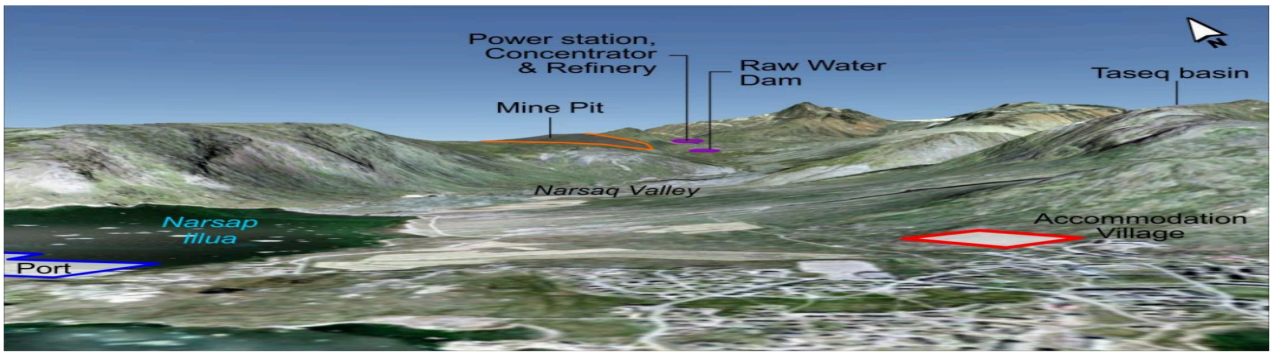


Figure 6 View of the developed Project from Narsaq town (Google Earth 2018)

(Naalakkersuisut.gl, 2020: *Greenland Minerals A/S- Kvanefjeldproject- Environmental Impact Assement Non- Technical Summary, p. 11).*

The finished products will be transported by the GMLs own road and port (they set-up themselves), there would have been located in Narsaq Ilua and the accommodations for the people who were supposed to work on the mine, would be placed in an accommodation village a little outside of the town. The mine itself is calculated to have a lifetime of 46 years, whereas 3 of these years are construction years and 6 of these years are for the closure and decommissioning phase. Throughout the lifetime (construction, operating, and closure) of this mine, there will be approximately 1934 workers, whereas 569 will be Greenlandic and the remaining 1365 would be flown-in foreign workers (*Naalakkersuisut. gl, 2020: Greenland Minerals A/S- Kvanefjeld project- Environmental Impact Assessment Non- Technical Summary. p. 1-3).*

John Mair states that in order for the option of recovering uranium in Greenland as a saleable by-product to be pursued, considerable work was undertaken by the Greenland and Danish governments which have led to new enabling legislation being drafted and passed concerning the production and export of uranium in Greenland. The legislation followed international best-practice and led to Greenland becoming a signatory to the International Atomic Energy Agency (IAEA) *(Appendix 2, p.6).*

The Greenland Government's received the SIA- and EIA reports in December 2020, which meant that Greenland Minerals met the stated guidelines and the company could therefore search for an exploitation license. Greenland Minerals Ltd. proceeded to do further public consultations 2021 but an immidiate national election within the same year, resulted in a change of government where IA (Inuit Ataqatigit) replaced the former national party Siumut and the switch to the IA meant that IA re-enforced the zero-tolerance policy *(Wcecure.weblink.com.au, 2021, p.1-3).*

6.3 Summary of the Greenlandic mining background

Greenland's historical mining sum-up, briefly explains that Greenland has had mining in the country for approximately 200 years but Greenlandic Government firstly gained full power over the Rare Earths and Minerals area in 2009, which used to be governed by the Danish Realm. Furthermore, can it be seen in the historical sum-up, that there is a diversion in which Greenlandic political parties there is for- or against rare earths mining and that explains the on/ off reinforcement of the zero- tolerance policy, there wasn't a full-on legal policy until 2021.

The sum-up also explains that Southern Greenland and in particular, the Greenlandic town *Narsaq* has been an important part of the Greenlandic mining history, where Risø already began to research the Kuannersuit mountain in 1958 for its uranium potential.

Lastly, TANBREEZ has gone to step 5 and/ or step 6 in the application process, without having as many stakeholder- and/ or consultation meetings as Greenland Minerals Ltd . and Greenland Minerals was placed right in between step 3 and step 4, and holds a large history of stakeholder meetings and public consultations.

7. Method

It has been chosen to work with following methods; Mixed methods: quantitative- and qualitative methods, comparative case study with the model Most Similar System Design (MSSD), and fieldwork. In every section, there will be written a description of the chosen methods and a justification on why- and how, these methods were selected and lastly, will there be discussed the chosen methods strengths and weaknesses.

7.1 Mixed Methods: Qualitative and quantitative.

It has been chosen to apply mixed methods, which indicates the use of multible methods, which in this thesis is in form of both qualitative- and quantitative studies. Mixed methods is an interdisciplinary field, where it is essential to systemize the research results in order to not decrease its quality *(Brinkmann & Tanggaard, 2020, p. 257)*.

Mixed methods is referred to as mixed methodology and has the function to gather an abundance of data and then, create a clear coorperation between the two. However, it is important to note that mixed- methods are not always the best method to apply and should always be used for a good reason and it is important to always question, if the gained information from both methods is beneficial for the respective research, and if the chosen methods complements each other to a satisfying degree *(ibid, p. 258-276)*.

In this paper the mixed methods will be with both qualitative- and quantitative methods, and has been applied to provide the thesis with as much relevant data as possible.

The qualitative method is an information source there highly depends on the interpretation by the researcher and is often discussed as a less secure science form. The quantitative method is chosen for this research because it is a more pragmatic method, where the data is build on the grounds of surveys or other number heavy collecting methods.

The reason for including both qualitative- and quantitative methods reasons in that society is a reality where interpretation is a norm, therefore is a combined research methods essential to gain a fuller- and a more ensured knowledge about a certain subject *(ibid, p.259-261)*.

7.1.1 Qualitative method

The method provided this thesis with various relevant perspectives from relevant stakeholders in regards to the possible mines in Southern Greenland, especially Kuannersuit and Killavaat Alannguat. The interviews which includes relevant stakeholders e.g. CEOs, government people, and people from Narsaq, which provides a top to bottom perspective, there possesses both external validity and empirical strength *(Kvale & Brinkmann, 2015, p.51)*.

The qualitative methods is a respected discipline in the world of academia, but what defines qualitative research and methods? The specific definition does, however, not exist, but the method can be recognized by its centralization on how certain things are done, experienced, and developed *(Brinkmann & Tanggaard, 2020, p.15)*.

Society contains more than numbers and is a place where interpretation of situations is a norm, it is even a social skill there can provide a better understanding of the impacts and processes of specific situations. The qualitative method provides an understanding of certain processes there might explain why some people react the way they do, and this kind of information can not be present in a quantitative study alone. Qualitative studies provides the researcher a more nuanced and generalized picture of certain opinions of a situation and/or why some people react the way they do *(Brinkmann & Tanggaard, 2020, p.15-16)*.

<u>Translated:</u> *"(…); it is working with words and not with numbers" (Kvale & Brinkmann, 2015, p.51, l.16-17)*

The qualitative method is demonstrated in form of a series of semi- structured interviews of experts -, citizens -, officials-, politicians and people from a NGO organization. The purpose of the choice to do so, reasons in that the overall subject of the chosen research is highly dependent on having people who are involved (one way or another) in the mines in Southern Greenland and need their

perspectives, views, their life experiences and standpoint etc. to be able to do the chosen research *(Brinkmann & Tanggaard, 2020, p.33-34)*.

Semi-structured interviews are a traditional way for a researcher to approach a subject where an understanding of the respondent's situation is needed. The respective researcher must prepare core-questions for the interview, because it is a discipline where it is easy to ask a series of questions, but the researcher must ask the right ones.

The discipline of an interview cannot be seen as a unbiased method or in any way, a neutral method, as Brinkmann & Tanggard mentions, an interview shall be judged by the fact it is an active and flowing conversation between two (or more) human beings. To do an interview, it is an act of trust between the respondent and the interviewer, thereby the interviewer needs to recognize that specific questions and acknowledge they may can lead to specific answers. The interview will not be used for anything the respondent and interviewer did not agree upon. Even more, the interviewer shall recognize that even though they can get a generalisation of the specific situation or process, the interviewer will never have a complete understanding of the respondent's situation and therefore, is a fundamental understanding and execution of communication with a fundament of respect crucial *(Brinkmann & Tanggaard, 2020, p.33-35).*

The qualitative data in this thesis, is a collection which is centralizd on specific process and situation, there was a total 17 people were interviewed semi-structured, but whereas only some are presented and used in the thesis. The executed interviews include people who are seen as relevant stakeholders in regards of the chosen subject;

a) *Experts:* The CEO of Greenland Mining Ltc, the CEO of TANBREEZ, and two people from DCE (Danish Centre for Environmental And Energy).
b) *Greenlandic Government Officials:* Health Consultant from the Greenlandic government
c) *The general public in Narsaq:* Three people who live in Narsaq.
d) *Greenlandic Politicians:* The mayor of Kommune Kujalleq and Naalakkersuisoq of Rare Earths.

e) *ISG:* Innovation South Greenland.

f) *Greenland Business Association.*

g) *NGO Uraani Naamik:* A non-governmental group called Uranni Naamik where three people was interviewed.

The purpose of executing these interviews, was to research the different perspectives of the possible mines in Southern Greenland etc. how the different respondents views the mining industry in Greenland, what they wish from the Greenlandic government and their thoughts about various mining companies. The variation of the interviewees' reasons in thus it was important to create a fundamental understanding of the Greenlandic mining history and the political standpoint regarding the matter, moreover, was it central to gain an understanding of how it is to live in Narsaq and what the people thought and felt, about the possible opening of the two mines.

By using the semi- structured interview method, it would assistance the interviewer to create a calm and a communicational save space for the respondent, which alloweded asking open questions there may not be core- questions but would bring- or clearify, the respective respondent`s perspectives of the matter. The creating of a calm and safe space would not have been possible with straight and narrow interview. It was additionally ensured that the respondent knew that they at any givin time, could stop the interview and they only had to answer the questions they wanted *(Kvale & Brinkmann, 2015, p.52).*

7.1.2 Quantitative method

The quantitative method creates a set data there can be quantified and can be of various sizes e.g. in form of surveys. In this thesis, it is an important supportive part to the qualitative research method. Which means that it provides a set of data based on the views of the exact same stakeholders as whom was interviewed in the qualitative part, which presents a more adequate picture of the local stakeholders and to analyse the level of the social licence to operate *(Hansen et al, 2020, p. 305).*

It is important to consider which kind of quantitative data there is being collected when this method is chosen, because there is an extensive difference between primary- and secondary data. Primary

data is the kind of data there is collected by the researcher itself and even so, has the researcher a sense of control over the fact when and where the data shall be collected. Secondary data, is information there is collected by others and is usually information there originally was meant for something else, but somehow fits the researcher's purpose, moreover, do secondary data save time and resources if the respective information has been properly checked for their quality *(ibid)*.

A typical method to collect quantitative data is through surveys, virtual and/or physical, and it is categorized by the fact it is samples of data the researcher has gathered related to a specific event and by collecting these data it will allow the researcher to quantify these data by analyzing and visualizing through tables from various computer programs e.g. XL or SPSS *(ibid)*.

There are, of course, various ways to collect survey data and research isn't limited to only relying on one way to do surveys e.g. there is the survey where the researcher goes to people's homes and ask questions and enter their answers in a computer program, there is the telephone interview (same concept of the survey as the interview at home), there are surveys there can be done online and printed surveys, etc *(Hansen, Andersen & Hansen, 2020, p. 306-309)*.

With the use of the quantitative method, there are certain insecurities there is important to consider in terms of quality because even though the method is effective and is a relatively easy arrangement to collect relevant data, there is the question of how representative the collected data is.

Judging the quality of a survey and how representative it is, can be done by following variables;

- Who is this survey for and who answered?
- Which method is used to collect the data?
- Were there any systematic defaults?
- Who answered and is any group under or over-represented?

It is important to consider the strategy for how the researcher wants to collect the survey answers and what the surveys calculated answering time is-, number of questions- and the difficulty level in terms of language. These factors are important to consider, because it does affect the level of responsiveness and determine how successful the survey will be. Additionally, when the answers are collected from the survey and are ready to be coded into e.g. charts, the researcher needs to prioritize a certain amount

resources to do so, which would not have been necessary if the researcher chose to use already computerized factors *(ibid, p.311-321).*

The quantitative method is in this paper in form of a survey which contains 12 questions and takes approximately takes 2-3 minutes to answer. The survey printed in both Danish and Greenlandic to assure more respondents would answer the survey. It was expected that the specific respondent had an opinion about the possible opening of the rare earths mines in Narsaq, Kuannersuit (Kvanefjeld) and near Qaqortoq Killavaat Alannguat (Kringlerne), furthermore was the respondents expected, to have an opinion about the two mining firms TANBREEZ and Greenland Minerals Ltd.

In the making of the survey questions, it was taken into consideration that the questions should be short, simple, and easy to understand, to increase the level of responsiveness and shouldn't have any hidden assumptions and the questions should not show any emotions, which could lead to affect the respondents' answers *(Hansen et al, 2020, p. 336-337)*.
The survey had the following questions;

1. *Male or female, other?: M_/ F_/ O_.*
2. *Age: ___*
3. *Do you live in Narsaq? : Yes __, no __ , where in Greenland:____*
4. *Are you against or for the Kuannersuit mine?*
5. *Are you against or for the Killavaat Alannguat mine?*
6. *Do you have trust in the firm Greenland Minerals?*
7. *Do you have trust in the firm Tanbreez?*
8. *Are you for or against a Greenlandic Mining industry, where uranium is the bi-product?*
9. *How would you rate the Greenlandic government's handling of the Kuannersuit mine?*
10. *How would you rate the Greenlandic government's handling of the Killavaat Alannguat mine?*
11. *Anything you want to add?*
12. *Can I contact you for an interview?*

From question three to question ten, the respondent could answer out of five possible answers; 1. Predominantly for, 2. Less for, 3. I don't know, 4. Less against and 5. Predominantly against.

The questions begins with introducting questions, which is present to support the researcher to categorize the respondents, then the respondents are asked about their level of trust for the respective mining firms and the Greenlandic government concerning the rare earths mining industry. This was asked to make the process of answering more absolute and to decrease the answering time for the people who chose to answer, but this method could result in superficial answers and possibly, not catch the interest of the local stakeholders as this survey was directed towards *(Hansen, Andersen & Hansen, 2020, p. 338-339).*

The strategy was to get as many people from Narsaq to answer the written survey to the public citizen meeting and to do so, there was given an introduction to the survey the day before the public citizen meeting, which was announced in their local Facebook page, where the researcher mentions she will be at the public hearing meeting in some traditional clothing and the participants are encouraged to answer the survey *(Appendix nr.13: Nr.2).*

This provided the research with 40 answers, which will be presented in the analysis section and the results from the survey, will be coded with the use of various tables from the XL computer program were the results like; how many answered this and how many women and men answered etc.

The survey was answered by people who attended the second public hearing meeting in Narsaq and 17 semi-structured interviews were held, which in terms of this thesis limitations, its crucial to mention, because there are approximately 1300+/- citizens in Narsaq and the survey answers and the interviews, cannot present the overall opinion of all 1300+/-people in Narsaq. It can only provide the research with answers from a specific group of people from this exact community and exact situation.

Furthermore, the research project had a limited amount of time to research- and write the research project, which limited the level of focus areas and that means, that there was not a redundant amount of time to explore outside the chosen subject area e.g. the economical perspective of the mines in Greenland, the relationship between Greenland and Denmark in terms of possible different political

perspectives when it comes to mines and their opinions about different minerals-and how they should be used.

7.1.3 Sum- up; Mixed Methods: Qualitative and quantitative methods.

Mixed methods shall, as earlier stated, compliment and support one another, the way the quantitative and qualitative methods are complementing each other and also why they were important to use, reasons in since this papers fieldwork is centralized around a specific event and process in Southern Greenland. The qualitative method provides this paper with special insight into the people in Narsaqs everyday life, and how they are reacting to the possibility of living next to a mine, how they are feeling about the mining firms and their thoughts about the Greenlandic government handling of the increasing rare earth interest in Greenland.

The quantitative method provides this paper with the opportunity to research if there is a general opinion from the people in Narsaq, in regards to the possibility for them to live next to a mine. It is important to state that eventhough the 40 survey answers is a helpfull tool and is supportive to the qualitative interviews, it is limited to the 40 survey answers from a particular context and are not representitative for the whole city of Narsaq and would never be able to stand alone, but together with the qualitative interviews, it will create a certain insight to the subject there couldn't have been done without.

7. 2 Comparative case study with the model Most Similar System Design (MSSD).

This paper has been chosen to be applied a comparative case study with the use of the model MSSD, to see how the two cases Greenland Minerals Ltd. and TANBREEZ are most similar and reasons in, that it provides this paper with a possibility to compare different units with each other and which stakeholder groups the two mining companies has prioritizied and if they prioritize differently.

The method is often used to analyze social phenomena and cultural changes etc. The spectrum of comparative studies is a method there encourages the researcher to analyze multiple case units out from different variables, as follows; how the chosen case began, what kind of decisions did the case do in the past and its plans, and what category does the case belong *(Bryman, 2012, p. 69-74)?*

The comparative case study method has been chosen to be applied with the strategy *Most Similar Design (MSSD)* and is generally applied when the cases has been chosen in the research, are in multiple ways, very similar but does somehow, get different results. The MSSD- method analyzes out from a perception that the chosen cases are similar out from different variables, but in the process of analyzing the reasons on how- and why the similar cases received different results, it becomes clearer why the cases get different results. The variables can be out from specific and strict variables, or out from a "roughly the same- " principle *(Steinmetz, 2021, p. 176-177)*.

The two cases there has been chosen, is not an example of extreme cases and Alan Bryman would argue that the two chosen cases there shall be compared in the MSSD-model is, in a category sense, an *exemplifying* case or a *typical* case. This reasons in that these type of cases has the function to demonstrate the specific environment and its associated conditions. These types of cases illustrate the everyday life or a representation of a common situation and the reason for choosing such a case is justified with that it gives the researcher a chance to analyze social processes *(Bryman, 2012, p. 70)*.

7.3. Fieldwork

Fieldwork is an academic method, where the researcher has a centralized emphasis on a specific situation and/or subject, who is in its natural environment and can be observed and/- or analyzed to different degrees. The method differs from experimental science, where the researcher usually has multiple attempts to set up the optimal situation to execute the study, which makes the fieldwork research method a risky choice because the researcher usually only has one chance to execute the study *(Brinkmann & Tanggaard, 2020, p.67)*.

The method of fieldwork involves a person, which observes and analyzes a certain social situation where other people are involved. The researcher does not only observe the chosen field, but lives with it for a time, and tries not to affect the field with the researchers' presence too much. Furthermore, it is a comprehensive qualitative method where the researcher aims to interview and read about the fieldwork's former local history, etc. to create a more complete picture of a person and/ or situation, to then connect it to theory *(ibid, p.68)*.

The researcher who has chosen to use the fieldwork method, has to accept the risk there follows the fieldwork discipline, which includes prospects for failing or succeeding is approximately 50/50, depending on the researcher's social skills and ability to live with the field and its people.

Additionally, shall the researcher compile a prepared fieldwork frame; What are the researcher's thoughts and ideas of the chosen field, what kind of preparements did the researcher do before going to the field and what kind of environment/ society is the fieldwork located? The researcher shall also accept the fact, that the level of naturalness and objectivity is highly challenged since the researcher is putting him-/herself out in an unknown area and therefore cannot predict the results and/or the reaction, also because the researcher is analyzing the field out from the researcher's perspective and impressions *(Brinkmann & Tanggaard, 2020, p.69-70)*.

The fieldwork as a discipline has various unwritten rules and where the most important is when the researcher is moving around in the field, the researcher must not bring his/her own pace of living and values to the field. The researcher needs to internalize the people who she is surrounded with in the field, and put oneself in unfamiliar situations as if it were completely natural. However, the researcher should consider what kind of knowledge she currently has and what the researcher has experienced in the time of the executed fieldwork. This is all part of creating knowledge about a new location and its people e.g. people living in the capital have a faster pace than people who live in the countryside *(Brinkmann & Tanggard, 2020, p. 72-74)*.

The rules shall be understood as guidance and support, but after all, the researchers' reaction to a social situation in the field can not be predicted or calculated. This is not necessarily, a negative thing, because it can strengthen the results of the fieldwork. After all, the researcher is working with real people and with feeling a strong sense of empathy, only makes the fieldwork more authentic. The ability to internalize and to understand the language in the field gives the researcher the space, to observe and gaining a sense of how the community feels about a certain situation e.g. what is understood and what is implied *(ibid, p. 79- 88)*.

7.3.1 *The actual fieldwork*

The fieldwork method was chosen, because it contributes with a more accurate and direct interpretation of the stakeholders general opinions about the chosen subject, there is done in the stakeholders usual surroundings, it provides a more unambiguous understanding of the chosen subject.

The actual fieldwork was done in Southern Greenland in the following towns; Narsaq (seven days) and Qaqortoq (three days). The choice to do so, reasons in that it made it possible to execute a series of semi-structured- interviews with locals in Narsaq, and get a feel of the town and understand the interviewees' perspectives. Furthermore, is Narsaq and Qaqortoq the closest possible neighbors to the potential mines Kuannersuit (Kvanefjeldet) and Killavaat Alannguat (Kringlerne). Additionally, would the date for the second round of the political citizen meetings regarding the possible mine Kuannersuit and the date for the fieldwork, conveniently collide with each other.

A series of preparations before traveling to Narsaq and Qaqortoq, was crucial and besides doing the obligatory research about the town of Narsaq, its developments, and political standpoints, it was moreover, as important to notify the locals of my arrival and somehow portrait a positive picture of me. Narsaq is especially well- known to researchers around the world, mostly because the city has a complicated history with rare earths and Denmark, it was therefore even more important to stand out from the crowd. This was done with a short introduction on their Facebook group, there emphasizes that I am Greenlandic and therefore do not need any introduction to the Inuit culture or way of living *(Appendix nr.13: nr.1).*

My thoughts as a researcher before I went to Narsaq, was that I prepared myself for the main event of the fieldwork, which was the citizen meeting where the locals and Naalakkersuisut (Greenlandic government) would discuss the possible Kuannersuit mine. The preparations were done in a way where I was prepared for a highly disagreeable crowd and I should prepare for this e.g. how should I use the results and what should my strategy be if no one wanted to answer the survey or be interviewed by me? This turned out to be highly unnecessary, because the meeting was composed and the interest in my research was overwhelming, everyone had a positive attitude towards me and many people had questions for me about my studies.

When the actual citizen meeting in Narsaq began, I made sure that I had my traditional Inuit clothing Amaat/ Amaut, there is sewed to Greenlandic women who want to carry their kids in an enlarged hoodie. This was important, because I am an akutaq (Scandinavian looking inuit) and to reasure the people in Narsaq that I am Greenlandic, traditional clothing was crucial to create less of a barrier between the researcher and the respondent. I was present at all times when the locals answered my survey, and if there was any questions or if they wanted to give me any advice on who could be interesting to talk to, etc. The overall goal was to be as accommodating as humanly possible, and this resulted in 40 survey answers, and from these 40, nine wanted to be interviewed by me.

The interviews was held at Narsaq International Research center and the resident of the interviewees, also at the interviewee's workplace or outside in the nature of Narsaq. I made sure to tell the interviewees all details and gasve them my contact informations if they had any further questions, lastly, I promised that everyone was anonymous and that their names would not be mentioned or included in this paper.

The importance of getting a sense of the Southern Greenlandic environment and society, was of high priority and it involved exploring the nearby nature in Narsaq and the towns atmosphear. This turned out to be criticall knowledge in terms of creating a greater understanding of Narsaqs society and its associated challengdes.

7.4. Ethics in fieldwork and interview.

For this paper, a series of semi-structured interviews were held, and with these, ethical perspectives was important for the researcher to consider, especially if the researcher wanted interviews there was detailed and extensive.

Etchical perspectives

Ethical perspectives are critical in any research there involves interaction with other living individuals, and shall be taken into consideration regardless if the respondent is a CEO, politician, or

local citizen etc. There should be no exploitation of people who are voluntarily contributing to a research project and the researcher must do no harm and aim to do good.

Kvale and Brinkmann has given a strategy, where the researcher is asked to consider seven phases to make the interview questions more ethical and thereby of a higher quality, as follows;

Phase 1) Theme and Purpose: Is important to have bigger intentions than confirming scientific research e.g. how to improve the local people's living situation.

The intention for this paper is to enlighten the Greenlandic mining industry, but it is also the intention to give the locals in Narsaq a voice on how they feel about the possible mines, etc.

Phase 2) Design: To ensure the interviewee's identity it is important to consider potential negative effects the interview can put the interviewee in.

In this paper, the interviewees are put on as anonymous to prevent that the interviewee`s experiencing any negative effects or being put in unwanted situations. However, there is the matter of some of the expert interviews, where it was not possible to make them anonymous e.g. there is only one mayor in Kommune Kujalleq and CEO`s. This has been taking into consideration and the researcher has therefore, validated the sum-up of the interviews with the individual experts, where they could come with their corrections and approve any findings that could be attributed to them personally

Phase 3) Interview situation: Is important to design the actual interview so the interviewee doesn't experience any stress or pressure to answer a certain way in the actual interview.

The actual interviews locations were always held of the choice of the interviewee`s and the questions were designed to be open, and non-leading.

Phase 4) Transcription: The transcription from the interview shall stay true and loyal to the actual interviews statements.

The interviews were all be video recorded with either a phone or computer, of course with the permission the respondents, and that provides a constant loyal interview statement reliability to the reader.

Phase 5) Analyze: The ethical questions in the interviews determine how much in-depth the interviews can be analyzed.

In the interviews, the questions only go as in-depth as the respondent wishes it to, and can form the core questions only be analyzed from the researcher's perspective.

Phase 6) Verification: The researcher shall only pass on knowledge if it is correct and secure for the respondent to know.

The researcher did not have any knowledge there was relevant to pass through to the respondents, and if so, they already knew.

Phase 7) Report: When an interview is done in private, and that interview maybe shall be given to the general public, it is important to consider its possible negative outcomes for the respective interviewee.

In the actual interviews, there was given in form of consent, which was provided by the researcher, and it was made sure that the respective interviewees knew what- and how, the interviews would be used. Additionally, they were promised that the actual video recordings would not be published without their knowing- and their permission.

(Kvale & Brinkmann, 2015, p. 107-108).

The results from these interviews will in this paper, be presented continuously with the papers research questions, but the actual transcriptions and interviews, will not be presented, due to the safety of the interviewees' identities and especially, to avoid the risk of another researcher misinterpreting the interviews *(ibid,p. 107-112)*.

7.5 Discussion of the chosen methods

In this section of the thesis, a discussion of the chosen methods will be written e.g. what are each method's strengths and weaknesses are, can it be analyzed and distinguished. To do so, a table from Brinkmann and Tanggaard, will be used to demonstrate each method's strengths and weaknesses, in both empirical- and validity *Figure.0*. There has been chosen three methods; Mixed methods which

contains both quantitative (survey) and qualitative (semi-structured interviews) methods. Moreover, is the fieldwork research method included, and a comparative study with a MSSD method.

The qualitative method provides an extensive amount of information, which has given this paper various perspectives regarding the possible mines in Southern Greenland, and especially Kuannersuit (Kvanefjeldet). The actual interviews has been done in diverse- but relevant stakeholder groups and vary from CEOs, government people, and to the locals in Narsaq, and this gives a top to bottom perspective, there possesses both external validity and empirical strength. The downside to the chosem method is that the interviews are organic and the researcher can affect the interviewees, therefrom can affect the interview results to a certain degree *(Brinkmann & Tanggaard, 2020, p. 271)*.

It shall be acknowledged, that from an ethical point of view, the researcher's own bias is important to mention, because the researcher was an interviewer and a researcher when the fieldwork was done, this was known to the respondents. When the 40 people in Narsaq answered the survey, the bias did have an impact on the executed interview, because the respondents knew the researcher is present for a purpose other than the majority, and therefore are not in the same situation, or necessarily has the same perspective on the chosen subject *(ibid)*.

The fieldwork provided the research with the validity of interpretation and an empirical totality, furthermore, did the method provide the researcher with a raw interview there otherwise would had been possible. Fieldwork research creates an external validity, which can be seen as a weakness, because even though it contributes with the power of interpretation, the researcher is at risk of interprets too strong. If the researcher interprets too much, it can ruin the interview or research and affect the respondent or subject to a certain degree, there potentially could invalidate the research (*Brinkmann & Tanggaard, 2020, p. 271)*.

The survey was done, as part of the quantitative research method and has the purpose to support the qualitative method (interviews) with an organic measure friendly method there could add validity strength in form of numbers e.g. divide respondents into groups, ages, and gender. Furthermore, the methods produced an empirical strength, which could be used to portray a general opinion from the respondents who participated the survey, which could be used for analytical purposes.

The weakness for the survey method is, that it was only available for a certain group of people who attended the citizen meeting and this, can have empirical weakness e.g. if to few respondents answered the survey could the validity of the survey can be questioned. This has been considered by the researcher, but the research itself, is only based on 40 survey answers- and a certain amount of interviews, which do not represent the whole society of Narsaq and Qaqortoq *(Brinkmann & Tanggaard, 2020, p. 271)*.

The reason for including a comparative method with the use of a MSSD model, reasons in that it provides this paper with an external validity and produces empirical knowledge on how the two mining firms differ from each other. The downside to this method, is that it can be a rather simplistic model and by that, can be restricted because the MSSD model only can be used for the context of this exact paper *(ibid)*.

Table.5. Chosen Research style weaknesses and strengths.

Research methods style	**Data collection**	**Validity Strength**	**Validity Weakness**	**Empirical strength**	**Empirical weakness**
Semi-structured interviews	1. Expert. 2. General Citizen. 3. Officials. 4. Politicians. 5. NGO people.	External validity.	Organic validity.	Can produce and present a general picture and can be used for analytical proposes if presented correctly.	The interviewees can be affected by influenced by causal explanations.
Fieldwork	The researcher is physically present during the interviews.	Validity of interpretation and the `raw` version of an interview and has an organic level of validity.	Extern validity.	The researcher can get the totality of the opinions and situations, furthermore, can the researcher produce their hypothesis.	Limited field and researcher can be affected by the respective situation.
Survey	Physical paper but the researcher was present.	Organic-measurement-friendly validity.	Extern validity.	Can produce and present a general picture and can be used for analytical proposes if presented correctly.	If too few respondents have answered the survey, the validity of the survey is questionable.
Comparative methods with MSSD model	Interviews with the firms two CE0`s multiple documents about TANBREEZ and Greenland Minerals.	Extern Validity and interview with the company CEO.	Simplistic model and there are only found documents there was available and the interviews with the two CEO"s	Can produce empirical knowledge on how the two firms differs from each other	The interviews can only be used in the context of this paper because it is limited to interviews.

			is only one perspective of the firms.		

(Brinkmann & Tanggaard, 2020, p. 271).

Chapter III:

8. Theoretical Approach

The theories there has been chosen for this thesis is as follows; Social License to operate (SLO) which will be explained with Ian Thompson`s and Robert G. Boutilier's *Modelling and measuring The Social license to operate: Fruits of a dialogue between Theory and Practice,* with an additional explanation from Thornton, D., Kagan, A Robert and Gunningham, N in *Social license and Environmental Protection: Why buisnesses go beyond compliance*. Furthermore, will the theory *Stakeholder management theory meets CSR practice in Swedish mining* by Helena Ranängen be presented. These theories were selected because they will provide this thesis with the best tools to work with the collected data and semi-structured interviews. To present the theories, this section of the document will begin with a presentation of each theory and a following explanation of how these shall be used, furthermore their relevance from a Greenlandic perspective.

8.1 *Social license to operate (SLO)*

In today's environment, local communities demand greater benefits and a higher rate of process involvement from the respective mining companies e.g. what will the specific mineral exploitation do to the surrounding environment and will the local community gain anything from the respective mining operation, and is the planned mining operation sustainable? The movement of involving the local community in a otherwise governmental process, reasons in that a government can change its politicians, political standpoints and its processes, but the local community is the one factor there do not change. Therefore, it has through the years become clear to the mining industry that it would profit tremendously from gaining a social license to operate (SLO) from the respective local community e.g. the company can avoid possibly economically heavy disputes and keep their good image, even when the company has made a mistake *(Slocombe & Prno, 2021)*.

The social license to operate (SLO) is a concept, there first and foremost isn't necessarily linked to any legal regulations but it is a way of describing if and to what degree, the respective company`s chosen activities are acknowledged and accepted by the respective local community *(Thornton, D., Kagan, A Robert and Gunningham, N, 2002, p. 6)*.

In recent years, it has been made clear that even though the respective local community cannot directly hurt a corporation, because they are not shareholders or economically involved in the specific company, they can affect and damage the company`s image, which can affect relevant shareholders and economically involved partners *(Thornton, D., Kagan, A Robert and Gunningham, N, 2002, p. 2)*.

The impact of having a social license to operate can be seen in various ways e.g. it can be in form of reputation capital, where the specific company can be known as the "good" company due to their environmental safety and their engagement in the local community. Moreover, would the positive reputation of trust and tolerance from both the local community and the respective government, be beneficial in terms of being targeted or negatively addressed by Non- Governmental organizations (NGOs) and Environmental Non- Governmental organizations (ENGOs). The company shall build this relationship with the local stakeholders in times where there is a sense of tranquility and peace because it is close to impossible to gain any trust when there is a sense of chaos and disrepute. It is important that a company is investing in the future, because if a company makes a mistake, then the local community will give the benefit of the doubt towards the company and would provide the company with the necessary time to fix what went wrong. Whereas a negative reputation could be an evident risk of business because if enough noise is created around a specific operation, the operation could potentially close down *(ibid, p.6- 9)*.

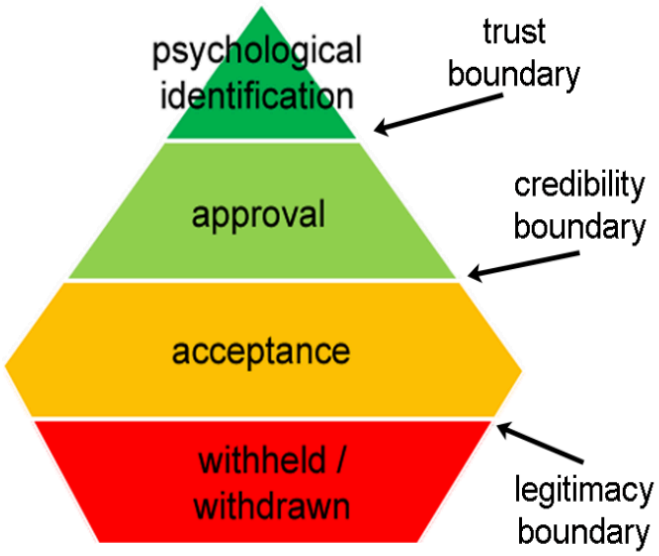
When a company tries to gain an SLO from the local community there are different methods to do so. There is the method of "buying off" the community with different supplies or gifts, there is the "win the hearts and the minds" of the community by engaging in campaigns and/or local organizations, there is also the "finest"- method which is the method, where the respective company sees their social license as part of presence e.g. they work honestly and openly with the local stakeholders, are clear in their future plans and are not apprehensive towards NGO`s or ENGO`s *(ibid, p. 9-11)*.

The perspective of NGOs and ENGOs is crucial, but the relevant government does have a critical responsibility in terms of the eventual procedures and keeping the information about the process open to the public and keeping the local stakeholders informed, etc. Therefore, it is important that the respective company keeps the government involved and informed about eventual changes in the

respective operations and this goes both ways, in order to create an acceptable level of trust in cooperation *(ibid, 2002, p.22)*.

The social license to operate has, according to Boutilier and Thomson, four levels which are presented with the figure *The pyramid model of the SLO,* which visualizes the different SLO steps; the lowest level of SLO a company can have is when they get their license *withheld/withdrawn*, which is a fact of high socioeconomic risk. The next level is *acceptance,* this is a level most companies achieve because it is a legitimacy boundary provided by the relevant authorities, therefore are not related to the acceptance of a community. However, it is important the relevant authorities provide the company with *acceptance,* because it is the fundament for building a relationship with the respective community. If the company then gains a social creditability it moves up to level *approval*. With time, the trust could be established from the local community and the community will have a psychological identification, there is established on the grounds of the boundary of trust *(Thomson & Boutilier, 2011, p. 2-3)*.

The pyramid model of the SLO proposed by Thomson and Boutilier (2011).



Thomson and Boutilier explains that they refer to the *local community* as *stakeholder networks* because they can provide a company with an SLO and therefore aren't just a *local community* but is in fact a community with power, because a company can be affected by the local stakeholders but the

local stakeholders, can just as well, be affected by the respective company. The different stakeholders can be divided in their political belief and in what level the SLO shall be granted to respective company, but they all have the common goal of doing- and gaining what is best for them e.g. both the company and the local stakeholders wants economic revenue, secondly both partners want to exist in the same locality with as little inconvenience as possible *(ibid)*.

8.2 Stakeholder management theory meets CSR practice in the Swedish mining

The stakeholder theory is a specific perspective there addresses the importance of a business's interconnected relations, furthermore, it emphasizes that if a corporation is prioritizing its stakeholders, it will create a positive value for both stakeholders as well as shareholders. The use of this theory is demonstrated in the article with an included CSR approach seen in practice for a Swedish mining corporation.

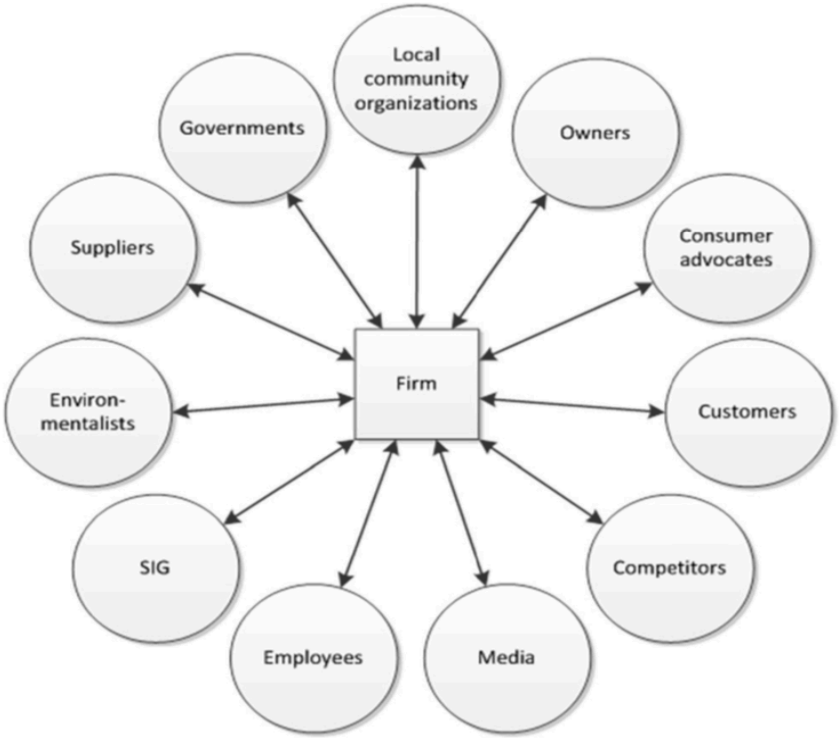
The stakeholder theory was developed by Edward Freeman in 1984 and was developed to understand how a business created value in its corporation in the 20th century, Freemans explains the importance to create an understanding of this field because wherever a company decides to open or move to a new location the business constantly plays with the risk for creating and destroying a business's value. Therefore it is important to prioritize teamwork and even more, to note that value isn't confined to money but also lies in the understanding that every unit is important and valuable for business development *(Stakeholdertheory.org, 2018)*.

CSR stands for *Corporate Social Responsibility* and the article by Helena Ranängen explains the essential need for this specific strategy to be implemented at every layer of a business for it to flourish and develop. CSR has its roots from the industrial revolution but had its challenges to be defined up to the 1960s were Keith Davis was one of the first to define the CSR strategy but the absolute father of the CSR strategy definition is formed from Howard Bowen *(Carrol, 2008, p.19-26)*. The combination of CSR and the stakeholder theory reasons that the main power in a business is considered its stakeholders and with a CSR strategy it is possible to analyze and establish their values *(Ranängen 2017, p.1)*.

The stakeholder management theory meets CSR is written by Helena Ranängen in 2017 and she implements both theory and strategy into praxis in her research article and explains that even though that CSR can prevent negative behavior, the implementation of the strategy should not be a counter-reaction to unaccepted or somehow, negative behavior in a corporation. Ranängen `s research article mentions that Freeman argues that a corporation must consider its stakeholders to become more prosperous and Freeman mentions the importance of knowing what the specific stakeholder wants and values. In Ranängen `s article, she describes how a corporation can identify and analyze its stakeholders and how to categorize these, in order to put them in a form of a prioritizing table *(Ranängen 2017, p.1)*.

The prioritizing table has evolved and changed over the years and the very first version of the prioritizing table was *The stakeholder view of the firm* from 1984, where there are 11 group units and they are all in the same prioritizing category. Freeman mentions and emphasizes the essential need for all group units to be included in the corporation's considerations and its communications processes between the corporation and stakeholder *(Ibid, p.2-4)*.

Figure.3. *The stakeholder view of the firm was adopted by Freeman in 1984*



(Ranängen 2017, p.4).

Freeman et al. saw a need for expansion of the theory in 2007 and especially an enlargement of SIG units (special interest groups), Freeman et. all. This justifies that the world and its society, have changed in multiple ways since the 1980s e.g. and the need to improve and care for the environment and sustainability has become a natural way of being. An environmental understanding and its need for improvement are in everyone`s interest and the specific corporation's view, moreover, its perspective of the matter will affect the corporation's relationship with its stakeholders *(Ibid, p.3-4)*.

Figure.4. *The basic two-tier stakeholder map from Freeman et al. 2007*

(Ranängen 2017, p.4).

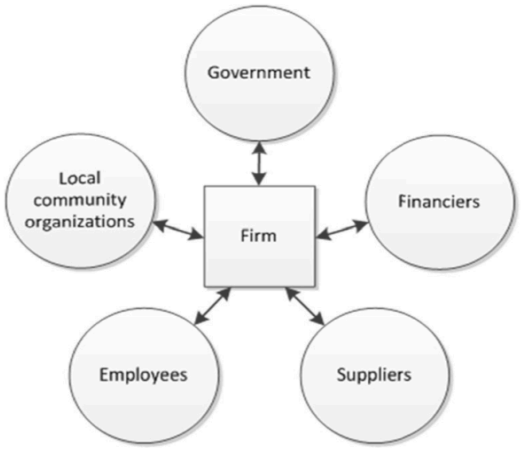
Figure four has in comparison to Figure one a division of stakeholders where a distinction is made between *Primary-* and *Secondary stakeholders*.

Primary stakeholders have significant importance as well are they indispensable for the respective corporation`s continuity and development, also if these primary groups disappear it would have

tremendous consequences for the respective corporation. Primary stakeholders are: customers, employees, suppliers, financiers, and communities *(Ranängen 2017, p.4)*.

Secondary stakeholders are the groups that can affect and influence the primary stakeholders in any possible way, but they are not vital for the corporation but still have an important impact. Secondary stakeholders are: ctivists, governments, competitors, media, environmentalists, corporate critics, and special interest groups *(Ibid)*.

Figure.6. The Boliden stakeholder view 1.0



(Ranängen 2017, p. 9).

The above figure is a simplified version of the previous model, where its only assignment is to provide a overview of the respectives companies' stakeholders.

The article presents from its case study results that the Swedish Mining company *Boliden* do not have greater contact and relations to its primary stakeholders and they additionally discovered that even though the company does not have the greatest relation and communication to their stakeholders, all of their stakeholders were legitimate, even when they didn't have power. These results may seem simple and insignificant, but they can be advantageous for the Swedish mining company's development for their CSR strategy and SMS *(Ranängen 2017, p. 14-16)*.

There are advantages and challenges with the chosen theory with a CSR approach, firstly the advantage is that with the use of the theory and strategy, it is possible to analyze the relationship between corporation and its stakeholders, furthermore, can the respective corporation prioritize its stakeholders and from that, evaluate what counts in terms of improving communication and its interrelated relations. Challenges there can appear with the use of this theory and strategy in a

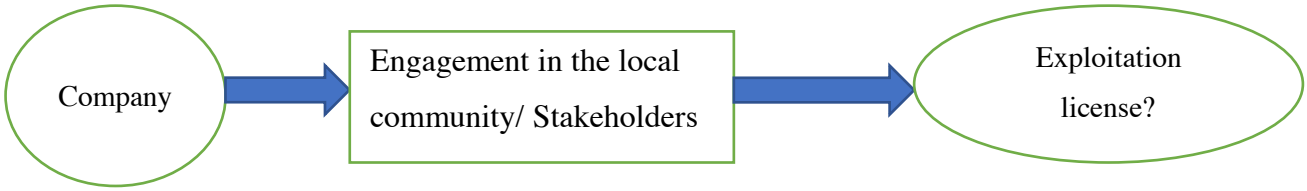
practical matter, is that it holds a high level of complexity and a need for explanation, it has a need to be handled by experts and not by the common person but when you have the resources to hire an expert to research and analyze the corporation with this, it is beneficial for all parts involved and can be a way to develop the respective company.

8.4 How does the theories apply to a Greenlandic perspective and how will it be applied?

The chosen theories can be applied to a Greenlandic perspective because, in the matter of the Greenlandic mining industry, there are several groups and stakeholders there are involved e.g. government in form of the application process, the locals in the respective area, an independent research center, and relevant politicians, etc. They can be used to explain how a company cannot exist in today's social environment without prioritizing the stakeholders and their existing potentials *(Freeman et al, 2010, p.5)*.

Additionally, the theories can be applied in a Greenlandic context because like any other company, the mining companies wants to be successful and prosperous, in order to do so, it is crucial to find a common ground with the people living in Greenland and not only the Greenlandic government and existing shareholders. Capitalism creates development but in order of branding the respective company and provide with a positive and confident image, it needs to prioritize its stakeholders where the company is creating something positive and forward-looking *(Freeman et al, 2010, p.198-200)*.

The theories will be used to create a three-step analysis, where this theory will be used in step.1 to create an overview of the two mining firm`s stakeholders by creating the researcher's own interpretation of the stakeholder model, there is inspired by the figure.6. *The boliden stakeholder view 1.0 (Ranangen, 2017, p.9)*. This model will be done for both Tanbreez and Greenland Minerals Ltd. Where the CEO interviews and the interviews of some of the local people in Narsaq will be applied.



In step. 2 in the analysis, the comparative study will be made with inspiration of the MSSD- model, where the survey results will be presented and the interviews with the various stakeholders to assess what the public in the area think about Greenlandic mining and the two companies *(Ranangen, 2017, p.4)*. This will be done for both companies and shall provide a vision of how the two mining firms have prioritized their stakeholders, which could lead to an explanation of their different outcomes in terms of the license.

In step.3 will the pyramid of the SLO of Thomson and Boutilier be used out from the survey- and the interview results, which will help analyze or come with a qualified guess on where the two mining firms stand in terms of SLO.

All of the above, will hopefully provide this research with an answer there shows that prioritizing stakeholders equals an exploitation license and/or a social license to operate, which can explain why one company may have more social acceptance than the other, if not, then it will provide the research with information on the two mining firms and how they differ from each other, and what the locals in Narsaq think of the two companies and the Greenlandic government, moreover will it enlighten and clarify what the conflict between the mining firms and the relevant stakeholders is centralized around e.g. Is it the locals simply against uranium and is the specific mining company of "just another" foreign body seeking to benefit from Greenland`s natural resources.

Chapter V:

9. Analysis

In this section of the thesis, there will be a three step analysis with an overview of the two mining firms' stakeholders, which is made by the researcher based on provided stakeholder logs from Greenland Minerals Ltd., interviews, and stakeholder logs from the Greenlandic Government's website. A comparative study will also be made, using the MSSD- model to analyze what sets the two companies apart, and lastly, the SLO pyramid by Thomson and Boutilier, is done by using survey and interview results, which will help the researcher analyze where the two mining firms stand in terms of the steps of the SLO.

9.1 Step1 of the analysis: Overview of the two mining companies' stakeholders with inspiration from Boliden stakeholder view 1.0

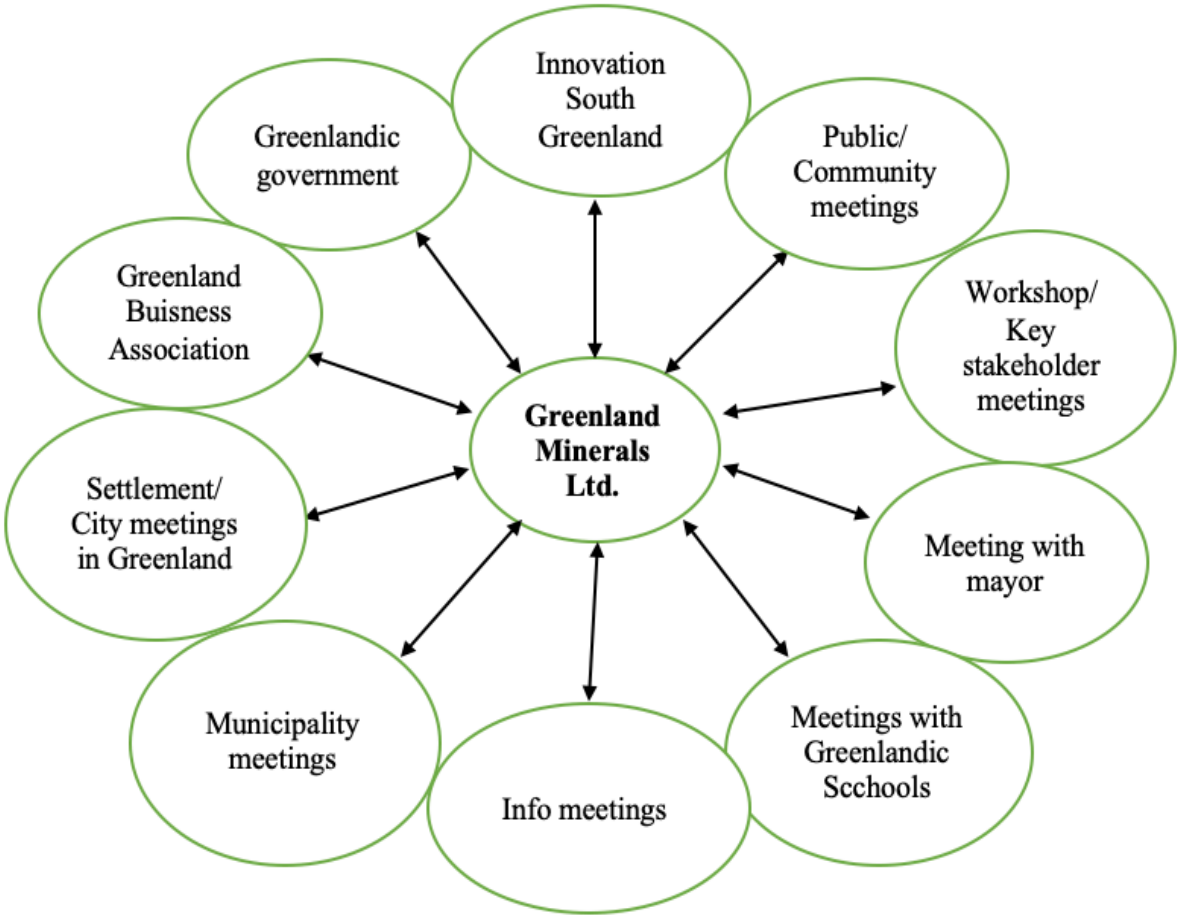
In step 1 of the analysis, an overview is created of the two mining firms' stakeholders, which is created from their stakeholders' meeting logs throughout the years, as well as interviews with the CEOs of each of the mining companies. The models will then be explained, and interviews will be used to support these. The stakeholder overviews are made from given stakeholder logs from Greenland Minerals Ltd., interviews and a TANBREEZ stakeholder log from the Greenlandic Government website. Firstly, in order to give the reader a better picture of the model, a short summary of interviews with both CEOs and locals from Narsaq will be given under the Boliden model below.

9. 1. 1. Greenland Minerals Ltd.

The following model was made by the researcher with inspiration from the Boliden stakeholder overview 1.0 model. Greenland Minerals Ltd. has provided the researcher with a stakeholder log that is extensive and filled with details. The researcher made a stakeholder model in order to summarize

this information. The model presents a complete overview of their stakeholders' activities. The following model is divided into 11 categories, which are as following;

Overview over Greenland Minerals Ltd. Stakeholders based on their stakeholder log



(Ranängen 2017, p. 9).

CEO interview: In the interview, the former CEO of Greenland Minerals Ltd. explains that it is in everyone's best interest and priority, that the respective project is accepted by the local stakeholders. The process of opening a mine in Greenland is a journey which has various stages. Once the potential project has been justified and the company has a certain level of confidence on the material asset, it comes down to local considerations and the geography of the particular location; both the physical- and financial geography *(Kristiansen, 2021: Appendix nr. 2 Sum-up of interview with the previous CEO of Greenland Minerals Ltd.)*.

In the interview, the former CEO explains that Greenland has always been seen as a country with a diverse geology and huge geological potential. Greenland was beginning to study the ability to mine, but this was challenging given the high turnover of Greenlandic politicians over the last 10 years. When a company is dealing with a system that lacks experience while having investors from companies that are educated and has knowledge of the process, a lot of resources are put into educating the people involved who lack experience in the subject, and teaching them how the process works. However, given the high turnover rates, these people typically do not stay in the system for long, and resources will be needed to educate someone new, making it an unsustainable process. He moreover explains, that when there is a potential project, you have to consider whether it has a reliable outcome and if it is done with the best interest of the local stakeholders e.g. is it a real project and is it something that could be financeable?

He also explains that Kuannersuit has significant global interest and is resourceful in terms of international standards, and the material has proven highly efficient in terms of processing - far more than any other hard rock project. For Greenland Minerals Ltd. it was a journey trying to find and get Kuannersuit recognized as something geologically unique, located in a sweet spot from a processing point of view, representing a highly competitive mining operation. This would allow a mining operation in Greenland on Greenlandic terms, accommodating a Greenladic structure in an international forum. Greenland Minerals Ltd. had various meetings in Southern Greenland over the years, as well as a lot of contact with local stakeholders, but being part of a permitting process that kept changing, the company eventually went absent (*Kristiansen, 2021: Appendix nr. 2 Sum-up of interview with the previous CEO of Greenland Minerals Ltd.).*

He further states that in 2014-2015, the company was presented with the impact assessment, which described that chemical processing had to be done in Greenland, and this was a priority of the Greenlandic government at the time. He additionally explains that Narsaq is a place where you can establish a community, which from a global perspective, can grow and develop for decades; Greenlandic people can live there and go home at the end of the day and be amongst family, go fishing and engage in other interests, and be part of an actual community. However, the Kuannersuit project is much larger than anything that has ever been done in Greenland, and the system explains the project from an outsider's point of view, leading the general public to see the project as foreigners pushing

their own agenda. In these cases, responsibility needs to be taken by the different parts involved in the permitting process, because there is a need to run the conversation that the company is paying these people large amounts of money for. This does not imply that the company is paying these people to say something that the company dictates, but rather, they are paying for a certain standard of professionalism which they expect to be met.

The former CEO explains that Greenland Minerals Ltd. have been critized for the structure and language used in their impact assessment. However, the impact assessment framework was created by Greenland's environmental agency and center for the environment (DCE), who required a certain use of language. The former CEO states that if they wish to follow this structure and language, they should give an explanation and quantify what the risks there is, not just point fingers at the firm, because they are the ones who are meant to demonstrate suppliant confidence to local stakeholders concerning proper assessment. Lastly, the former CEO explains that the project can be modified and diversified, and it can start smaller and simpler. There are different opportunities; the international attention is there for a reason, and if it works, it is a proof of concept for Greenland *(Kristiansen, 2021: Appendix nr. 2 Sum-up of interview with the previous CEO of Greenland Minerals Ltd.)*.

The Greenlandic Government is a stakeholder in every mining company that wants to open a operation in Greenland. They are in charge of the process and how/when the public meeting shall begin. It is the ultimate dicison maker of which companies potentially gain an exploitation license. Furthermore, the government acts as a sort of middleman between the prospective mining companies and the general public, conveying information from one to the other.

Innovation South Greenland (ISG) and Greenland Business Association (GBA) have both been interviewed for this thesis. They were found to be highly relevant because although both are not directly involved with the mining firms, they hold and support several Greenlandic business operations under their organization. These could be affected by the potential mine, or might have an extensive interest in the matter.

Innovation South Greenland: *"I don't only cover Qaqortoq even though our headquarters are here, but I also cover all the towns and the settlements and all the sheep farmers; we have 37 sheep farmers*

in South Greenland and two reindeer herders; I represent all of them" (Kristiansen, 2021: Appendix nr.5).

Greenland Business Association: *"The organization represents approximately 330 Greenlandic corporations around the country" (Kristiansen, 2021: Appendix nr.9).*

They both explain in an interview that they only represent their members' opinions, and thereby protect and develop from their points of view. ISG explains that the Kuannersuit mine would negatively affect local operators such as sheepfarmers. The respective sheepfarmer is worried about what the dust from the mine would do to the grassing area of his sheep. ISG further explains that they have not had an official meeting or discussion with Greenland Minerals Ltd. ISG additionally states that when it comes to the Kuannersuit mine, the discussion is very polarized seeing as most are either strongly for it or strongly opposed to it *(Kristiansen, 2021: Appendix nr.5).*

The CEO of Greenland Business Association explains that their communication with Greenland Minerals Ltd. is good, and Greenland Minerals Ltd. is a member of the association. Greenland Minerals Ltd. has prioritized having their business located in Greenland. Greenland, in general, needs an increase in private businesses, because the public sector and the economy associated with it cannot create the jobs and development that the county needs on their own *(Kristiansen, 2021: Appendix nr.9).*

Greenlandic Buisness meetings is a category that represents all the meetings Greenland Minerals Ltd. has held with businesses located in Greenland which involves the following: sheep farmers, Nuuk Rotary club, Hotel Qaqortoq, Permagreen, Inuplan, Orbicon, Hotel Narsaq, Inuili, local fishermen and hunters etc. *(Kristiansen, 2021: Appendix nr.0).*

Settlement/ City meetings in Greenland involves meetings around Greenland in various settlements and smaller/bigger cities which include the following: Nuuk, Narsaq, Qaqortoq, Nanortalik, Aappillattoq, Narsarmijit, Tasiusaaq, Aammassivik, Alluitsup Paa, Eqaulugaarsuit, Saaloq, Narsarsuaq, Ilulissat, Qeqartarsuaq, Qasigiannguit, Aasiaat, Sisimiut, Kangamiut, Manitsoq, Igaliku and Qassiarsuk.

Public/ community meetings are meetings that are open for everyone and invite locals and communities to join the respective meetings *(ibid)*.

Woman from Narsaq: *"she remembers the first time Greenland Minerals Ltd. visited the town for a public hearing about Kuannersuit. She was originally very on board with the idea because they talked about development and jobs which is something she wanted for her town (…)" (Kristiansen, 2021: Appendix nr.11)*.

Workshops/ key stakeholder meetings. Workshops involve locals and local infor groups, and key stakeholder meetings are meetings between key people who represent various businesses and operations based in Greenland *(Ibid: Appendix nr.0)*.

Meeting with mayor describes meetings with the mayor of Qaqortoq and Sisimiut, or meetings done in the mayors office.

Municipality meetings implies meetings with different Greenlandic municipalities which include the following: Kommune Kujalleq, Kommune Sermersooq and Qeqqata Kommunia.

Info meeting is a category that indicates meetings in Qassiarsuk, Igaliku, Narsaq and Qaqortoq where the company invites the locals for a general information meeting.

Meetings with Greenlandic Schools is the final category, and it describes events and meetings with Campus Kujalleq High School, Qaqortoq and Greenlandic School of Mining in Sisimiut *(ibid)*.

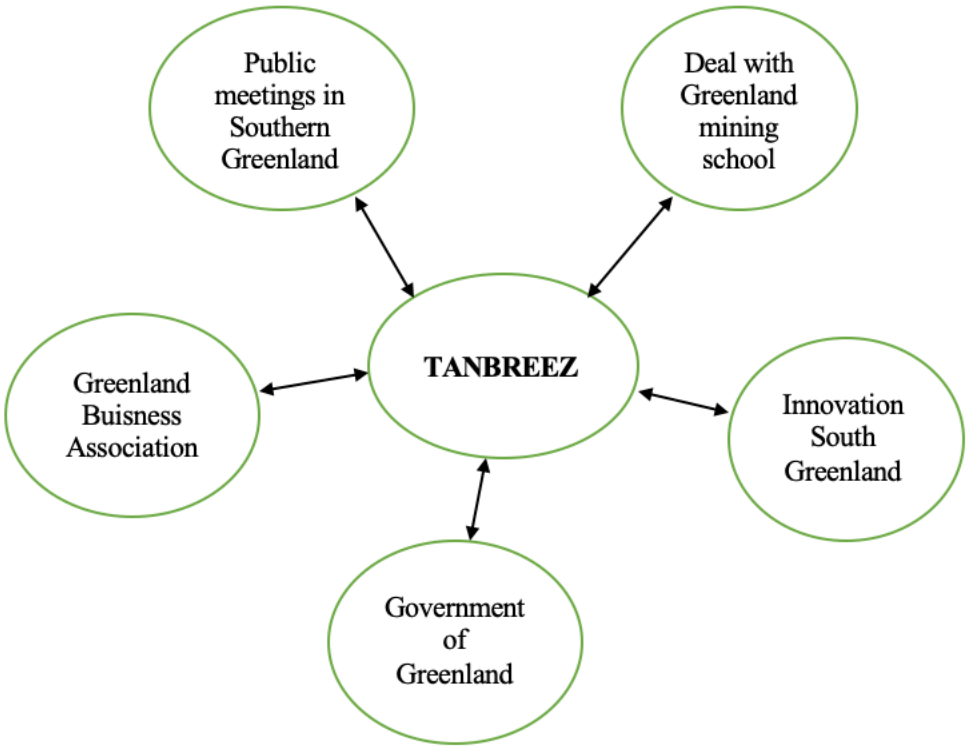
9.1.2 Partial conclusion

Based on the abovementioned information, it can be partially concluded that Greenland Minerals Ltd. has prioritized 11 various stakeholders, but with a total of 73 meetings that have been held between 2009 and 2019, there have been no results in terms of an exploitation license.

9.2 TANBREEZ

The following model was made by the researcher with inspiration from the Boliden stakeholder overview 1.0 model. TANBREEZ could not share their stakeholder log due to confidentiality concerns. However, a stakeholder log was found on the Greenlandic Government's website. The model was made with inspiration from the Boliden stakeholder overview 1.0, which is as following:

TANBREEZ Stakeholders from the governmental meeting log and the researcher's interviews



(Ranängen 2017, p. 9).

CEO interview summary The CEO of TANBREEZ began showing interest in Kuannersuit in 2001-2002, and later on sold a part of the license to Greenland Minerals Ltd. He, however, kept the license to where Killavaat Alannguat is. He states that TANBREEZ is a project with positive potentials because it does not contain uranium or thorium in a quantity that is of any significance. The CEO has

spent 7 months in Southern Greenland, more specifically in Qaqortoq, which he has considered to be very beneficial. People have a tendency to compare TANBREEZ and Greenland Minerals Ltd., but given that TANBREEZ and Greenland Minerals Ltd. operate on two different mining projects, his involvement in the city nearing the mine that TANBREEZ is working on has helped lessen the mix-up of the two companies. TANBREEZ has made a great investment on the Killavaat Alannguat mine, totaling 15 million dollars. The CEO further states, that it is natural for the people of Greenland to be suspicious towards an upcoming mine, but his goal is to have as many local Greenlanders/Inuits to run his mine as possible *(Appendix nr.4: Sum-up interview with the CEO of TANBREEZ)*.

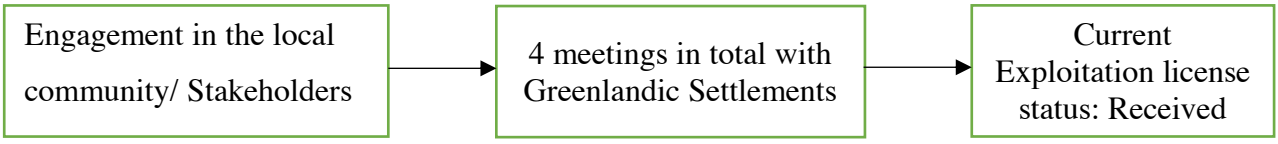
Government of Greenland is, as previously mentioned, a crucial stakeholder in every mining company that intends to open an operation in Greenland. Like in the case of Greenland Minerals Ltd., the Greenlandic government was a big part of TANBREEZ's process of opening their mine.

Innovation South Greenland and Greenland Buisness Association have, as previously stated, both been interviewed and were found highly significant in this matter because they represent various Greenlandic operations and businesses.

Greenland Buisness Association: *"we have both TANBREEZ and Greenland Minerals Ltd. as members. We have a good dialog, and always represent all of our members' views, so we speak for everyone's cause"(ibid: Appendix nr.9)*.

Public meeting in Southern Greenland describes the four public meetings TANBREEZ held in 2013 in the following towns: Qaqortoq, Alluitsup Paa, Nanortalik and Narsaq *(Naalakkersuisut.gl, 2013: Offentlig høring om rapporterne Vurdering af den samfundsmæssige bæredygtighed (VSB) og Vurdering og Virkninger på Miljøet (VVM), (…))*.

Deal with Greenland Mining School is presentent because in the interview with the CEO of TANBREEZ, he stated that the company has a deal with this school *(ibid: Appendix nr.4)*.



Based on the stakeholder overview, it can be analyzed that TANBREEZ has concentrated on few, but crucial stakeholders, as well as the exact governmental processes that were given to them, resulting in an exploitation license.

9.2.1 Partial conclusion

Based on the abovementioned analysis, it can be partially concluded that there is a difference in how TANBREEZ and Greenland Minerals Ltd. have prioritized their stakeholders. Greenland Minerals Ltd. has held an extensive amount of stakeholder meetings with various Greenland based stakeholders, which includes both businesses and the general public, whereas TANBREEZ have had fewer, but more concentrated stakeholder meetings.

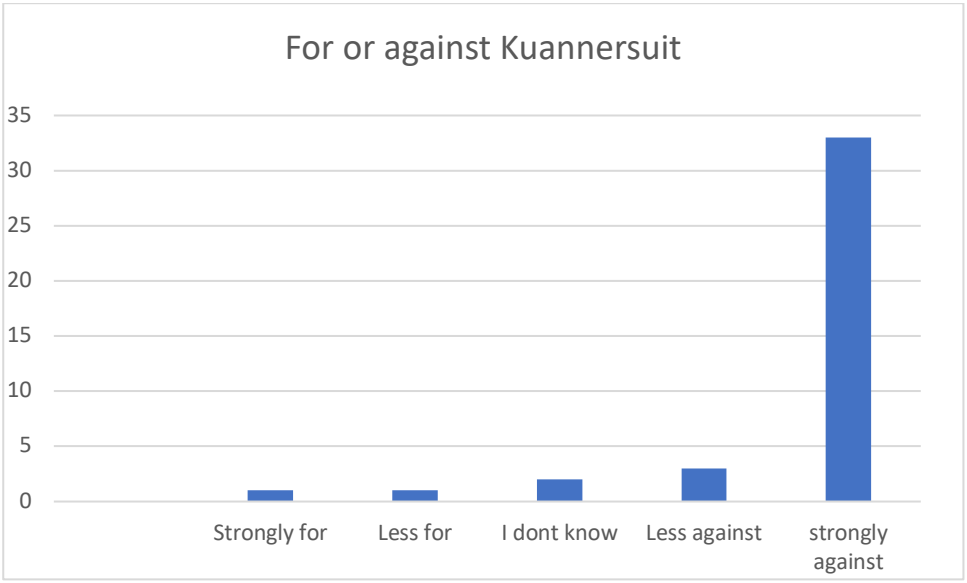
9.3 *Step.2 of the analysis: A comparative study with the MSSD- model with survey results and interview.*

In step two, a comparative study will be done with inspiration from MSSD- model, where the survey results there presents the public in Narsaq will be presented and the results will be supported by the performed interviews, there will provide the analysis with a smaller picture of how they think- and mean about the two mining companies.

There was 40 people who answered the survey, of these 16 were female and 24 were male. The respondents had an average age of 52, 92 years, whereas the youngest was 21 years and the oldest was 77 years. Furthermore, 2 of the respondents were from Nuuk and the remaining 38 respondents were from Narsaq. The majority of the results will be presented in the table, but where the complete presentation of the result wil be explained under the tabel;

Survey Questions	**For or against Kuannersuit?**	**For or against Killavaat Alannguat?**	**Do you have trust in Greenland Mineral Ltd.?**	**Do you have trust in TANBREEZ?**	**How would you rate the Greenlandic government`s handling of the Killavaat Alannguat mine?**	**How would you rate the Greenlandic government`s handling of the Kuannersuit mine?**
Answers	Strongly Against	Strongly against	No trust	No trust.	Very bad.	Very bad.

A) **Question**; For or against Kuannersuit?



Result: Most of the 40 respondents is against the Kuannersuit mining project and very few are is in some level for the mine: 33 respondents are strongly against, 3 are less against, 2 don't know and 1 is less for, 1 is strongly for *(Kristiansen, 2021: Appendix nr.14: Survey chart nr.1)*.

Interviews: *A farther of two in Narsaq* explains that Greenland Minerals Ltd. has not given him any proof that the mine will not hurt the nature, which is crucial to him because him and his family enjoys to go to Narsap Ilua (the back country) as a little get away *(ibid: Appendix nr. 10)*.

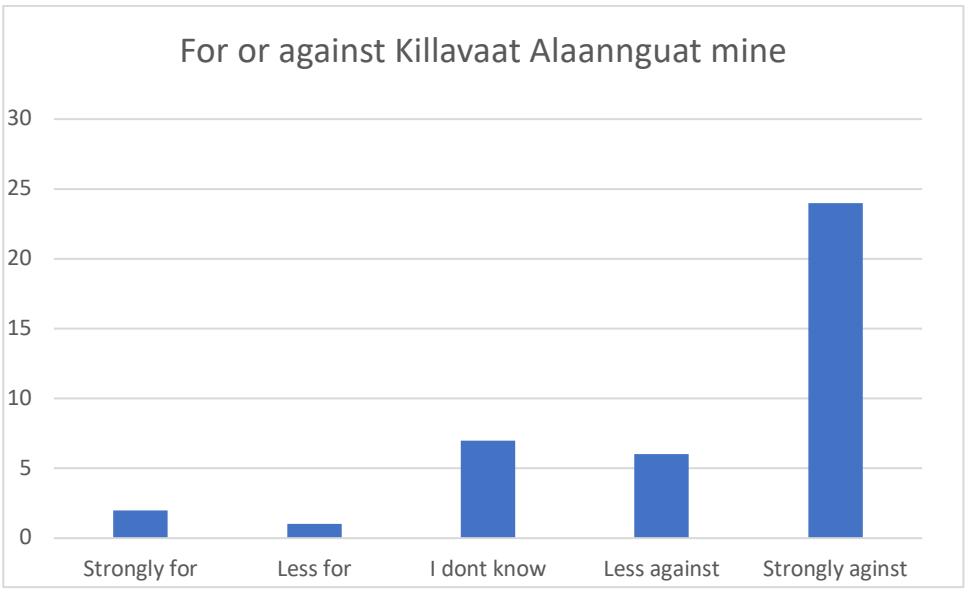
> 60- year old man from Narsaq; *"My biggest fear is the pollution and that whole of Narsaq will close, many of the miners who worked at RISØ so many of them have died of lung cancer" (ibid)*.

Furthermore, the *60- year old man from Narsaq* explains that even without the uranium and the thorium from the Kuannersuit mountain, the whole mountain is highly contaminated and poisonous. He moreover, explains that the communication from the firm to the people in Narsaq is poor, their experts have communicated only amongst themselves *(ibid)*.

Family dad with 1 acre of land; "*there is certain effects on the environment and the society there is important to take into consideration, and when the mine has been open after 5-7 years, Narsaq would become unlivable because the water would be too polluted," (ibid, appendix nr.11).*

Additionally, the *family dad with 1 acre of land* says that he is against the mining project because his town would become unliveable because of the pollution and him and his family who has followed the process since 2007 and have been ready to move away if the Kuannersuit mine opened *(ibid).*

B) Question; For or against Killavaat Alannguat?



Result: From survey chart nr.2 it is clear to see that the majority of the 40 respondents who answered are strongly against the mine, 7 "do not know", 6 is "less against" and 2 are strongly for, 1 less for *(Kristiansen, 2021: Appendix nr.14: Survey chart nr.2).*

Interviews: The *family dad with 1 acre of land* explains that he does not know enough about Tanbreez and their mine, because he has been so concentrated about the Kuannersuit mine *(ibid, appendix nr.11).*

A father of two "I have seen their Facebook and webpage but there was close to nothing" (ibid, appendix nr.10).

A father of two provides a somewhat similar answer, that he doesn not have an opinion about the TANBREEZ mine, but it reasons in that the mine is further away and that Uranni Naamik has been providing him with information about the consequences of the mine and that it would affect us negatively. The *60- year old man from Narsaq* explains that he is against TANBREEZ`s mine because the wind is strong in Southern Greenland and therefore, even with the mine being further away from Narsaq and will be more connected to Qaqortoq, the dust would come to Narsaq *(Kristiansen, 2021, appendix nr 10)*.

C) **Question;** Do you have trust in Greenland Minerals Ltd.?

Result: From survey chart nr.3, 24 respondents answered they have no trust, 5 less trust, 8 don't know and 3 trusts the company *(ibid:Survey chart table nr.3)*.

Interviews: The *60- year old man from Narsaq* states that Greenland Minerals Ltd.`s communication to the locals in Narsaq is poor and in their hearing meetings, it has only been their experts who talked and not directly the company CEO.

> 60- year old man from Narsaq; *"they don't care about us and Uraani Nammik have been in contact with them but they get cut off and they are treated as they don't know or we even are worthy being communicated with" (Kristiansen, 2021, appendix nr. 10).*

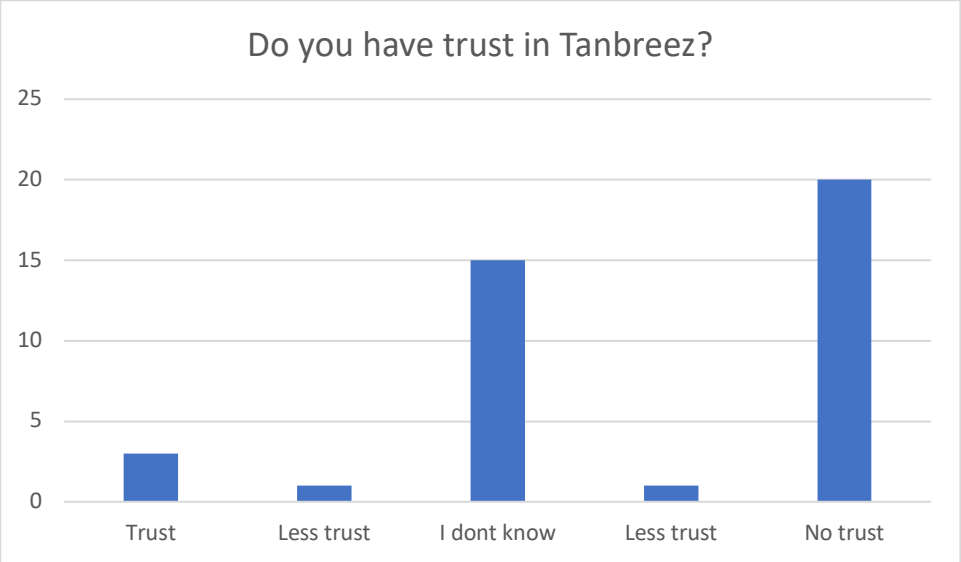
Furthermore, does the 60- year old man state, that he does not trust the company because they have promised things there has never happened, and he feels like the locals in Narsaq are not worthy of being communicated with because Uraani Naamik has tried to communicate with them, but has been cut off. Additionaly, he has experienced that when the mining companies come to Narsaq they keep to themselves, when RISØ came to their town only a few of them meddled with the locals but not many *(ibid)*.

> A father of two; " *GME isn't good at communicating with us and it seems like they don't trust us either, if they don't trust us how should I trust them*" *(ibid, appendix nr. 10)*.

A father of two explains that he does not have a whole lot of experience with Greenland Minerals Ltd. But what he has, he has from the public meeting where they told there would not be any consequences and he does not believe that *(Kristiansen, 2021, appendix nr. 10)*.

The *family dad with one acre of land* explains in the interview that, when the hearing meeting began and they did not get the opportunity to confront Greenland Minerals Ltd. He was sad, because there has been done a whole lot of preparations and they (Uraani Naamik) wanted to have a conversation with them, especially when they compared the reports to the reports from RISØ. Additionaly, he states that they wanted a panel debate but this kind of debate is not approved by Naalakkersuisut and their campagnes is centralized around money *(ibid, appendix nr.11)*.

D) **Question;** Do you have trust in TANBREEZ?



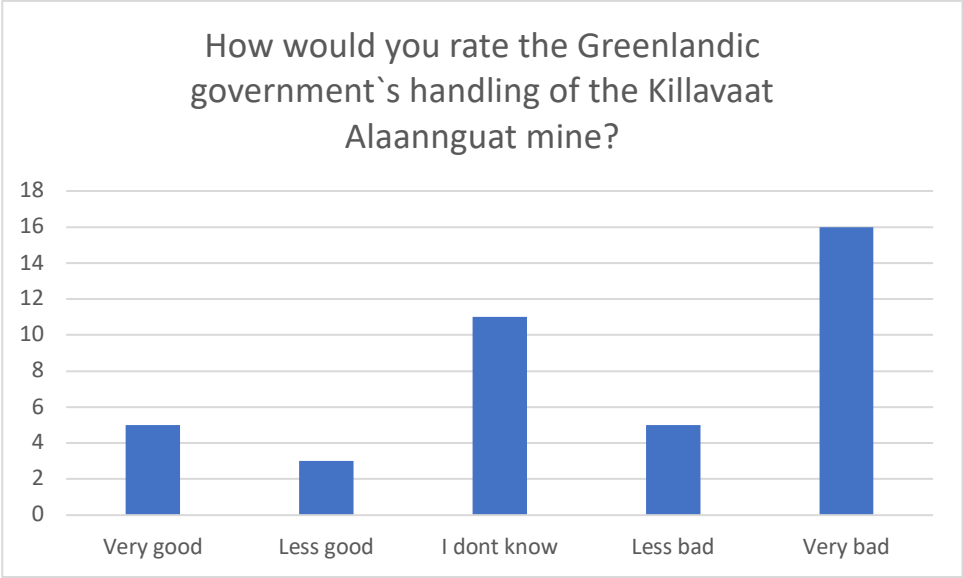
Result: From survey chart nr.4, 20 respondents has no trust, 1 less trust, 15 don't know and 3 trusts the company *(ibid:Survey chart table nr.4)*.

Interviews: *The family dad with one acre of land*, explains that he do not have any thoughts on TANBREEZ because he has been busy with Greenland Minerals Ltd. But he further explains, that he thinks that TANBREEZ and Greenland Minerals Ltd. Is the same and that they only are after the money, where he based this opinion on their campaignes and that he has read about both CEO`s and do not see any difference between the two *(Kristiansen, 2021, appendix nr. 11)*.

> 60- year old man from Narsaq; *"(…) but I do think their mine could get dangerous because the wind is strong here and it is close to town (…)" (ibid, appendix nr. 10)*.

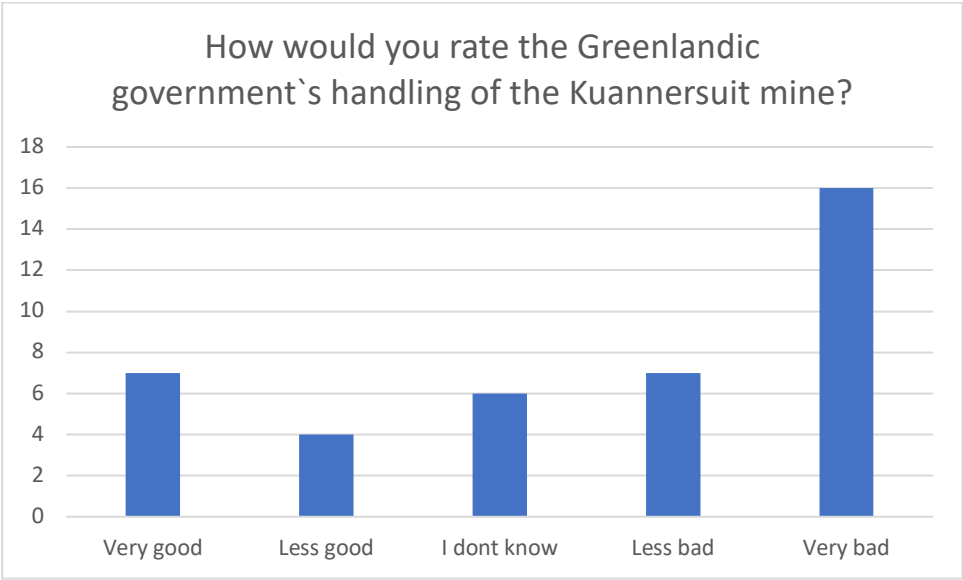
Additionaly, the *60- year old man from Narsaq* explains that he do not trust neither of the companies and that TANBREEZ have not held a meeting in his town. Moreover, does both *The family dad with one acre of land* and the *60- year old man from Narsaq* explains that they worry about their beloved nature would get ruined and it would become unliveable, and in this perspective, there is not a difference to if the mine is close or further away *(ibid)*.

E) **Question;** How would you rate the Greenlandic government`s handling of the Killavaat Alannguat mine?



Result: From survey chart nr.7, 16 respondents answered very bad, 5 less bad, 11 don't know and 3 less good, 5 very good *(ibid:Survey chart table nr.6)*.

F) Question; How would you rate the Greenlandic government`s handling of the Kuannersuit mine?



Result: From "survey chart nr.6" 16 respondents answered very bad, 7 answered less bad, 6 don't know and 4 less good, 7 very good *(ibid:Survey chart table nr.7)*.

Interview where there is answered for both question E and F: The *family dad with 1 acre of land* explains that he is by far, not satisfied with the handling of either processes, especially with his

experience with the process of the Kuannersuit project was not positive, him and the organization Uraani Naammik wanted a real conversation with the company.

Family dad with 1 acre of land*: "(…) We are amateurs and it isn't our job, but we want to save our town and of course it is wrong how the Naalakkersuisut is handling it, (…)"(Kristiansen, 2021, appendix nr. 11).*

They got the report the 16th of December 2020 and then they only had 2 months to read approximately 9000 pages of very advanced and academic material, he states he was very thankful that the hearing got extended to September, but it did not change that they only had 2 months where himself and another person in the organization, did not eat nor sleep, he did not celebrate his birthday or had a vacation because he and the organization needed to be fast to inform everyone about what kind of consequences the mine could have. Furthermore, he explains that the method is filled with flaws but he clearly states that it is not his job to do these things, but in order to safe the town, he had to step up. Additionaly, he explains that he wants the Greenlandic Government to inform and include the locals much earlier in the process because as it is now, a company gains a license and then, a hearing process begins where the local community is involved, which do not make any sense for him *(Kristiansen, 2021, appendix nr. 11).*

Farther of two from Narsaq; *"(…) in the beginning they didn't even held a hearing meeting and it went so far without including the locals, of course people get upset at the firms and the government when it goes so far (…)"(Kristiansen, 2021, appendix nr. 10).*

The *farther of two from Narsaq* states that it does not matter if you are a SIUMUTTER (S) or a IA`s political party person, in the beginning there was not held a public hearing meeting and the proces went far without including the locals. He furthermore explains, that IA won the election because of their zero-tolerance policy but today, he does not hear from them and he states that one thing is Kuannersuit, another is there is a ship there has sunked close to town and have not been removed, moreover is there 200 children in the town whereas 60 of these are placed out of home, he feels that IA does not hear them anymore *(Kristiansen, 2021, appendix nr. 10).*

60- year old man from Narsaq: *"(…) : IA is new, so it is hard to say, but Siumut is working with the mining companies in my opinion and they don't listen to us either (…)" (ibid).*

Similar answer was giving by *60- year old man from Narsaq* since the political party IA is fairly new, it is hard to judge but he feels like they do not listen to them either and he furthermore, do not understand that if a mine opens in their town, they would shield the area for the locals, which he finds bizarre because that land is where he grew up and everyone enjoys being in the area. He states that he has high hopes for the current government because they are not SIUMUT (S) but if the mine opens he will move himself from Greenlandand will tell his grown kids to do the same *(ibid).*

9..2.1 Partial conclusion

From the presented survey- and interview results, it can be partially concluded that the locals of Narsaq are against both the Kuannersuit mining project and the Killavaat Alannguat mining project. Furthermore, the two mining companies do not differ in the perspective of the majority of the locals. However, looking into the details of the survey answers, it tells that when the respondents are asked about the Kuannersuit project, two respondents answered "I don't know", whereas the Killavaat Alannguat project scored seven " I don't know"ˆs.

Additionally, does the respondents not trust either of the two mining companies and it is evenmore interesting to note, that the respondents who where asked about whether or not they trust the specific company, eight respondents answered "I don't know" for Greenland Minerals Ltd., whereas fifteen respondents answered "I don't know" for TANBREEZ. Moreover, are none of the respondents satisfied with the way the Greenlandic government handled either of the two mining projects. From the interview results, it was expressed that there was a wish to increase the involvement of the locals in the public hearings meetings and to make changes to the existing process

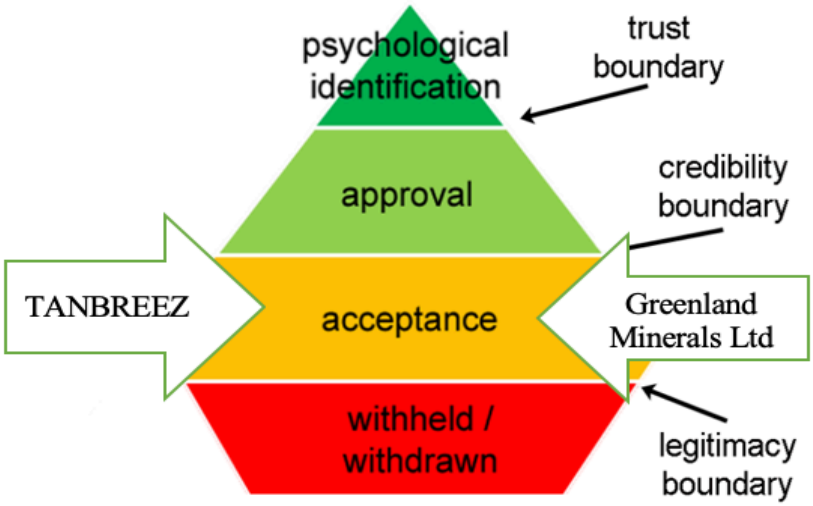
The results presents an inconsistency, there is not found in weather the locals are against the one mining project or the other, the inconsintency is found in the level of familiarity to the mining projects. The survey- and interviews presents that more respondents has a clearer opinion and familiarity with the Kuannersuit project and Greenland Minerals Ltd., whereas the same respondents

lacked of familiarity to the TANBREEZ project, which was stated to reason in lack of available information about their firm and project.

9.3 Step 3 of the analysis: The pyramid of the SLO by Thomson and Boutilier.

In step 3 of the analysis, the pyramid of the SLO by Thomson and Boutilier will be used to analyze the survey- and interview results.

Based on steps 2's analysis, it has been presented that the respondents, who both answered the survey- and participated in interviews, do not trust either of the two mining companies or their operations. However, in regards to Greenland Minerals Ltd. the respondents have a clear opinion about the firm and recognition of the company, whereas in regards to TANBREEZ, they did not have a clear opinion, other than they do not trust the firm or support the project because they lacked information about the company. This observation can be used in the pyramid model by Thomson and Boutilier, and as seen below, the researcher has placed the two companies at the appropriate level of the pyramid.



(Thomson & Boutilier, 2011, p. 2-3).

As previously stated, *The Social License to Operate*, by Boutilier and Thomson, has various levels which is visualized in the figure above. The lowest level indicates when a company get their license withheld/withdrawn. The next level is "acceptance", and marks the level that most companies achieve

and is a matter of legitimacy boundary, that is givin by the relevant governmental authorities and does not necessarily indicate acceptance *by the community*.

The researcher has placed both mining companies on the level of "acceptance", because neither of them has received local community acceptance as shown in the results of the survey and interviews from step 2 of the analysis.

The choice of placement is based on that, eventhough the respondents did have a clearer familiarity with Greenland Minerals Ltd. and the Kuannersuit project, it did not result in trust from the respondents towards the company. The company do not have an exploitation license at the time of writing but they do have their exploration license. WIth the recent reintroduction of the zero-toleance policy in 2021, it will be difficult for the company to gain an exploitation license. However, this have not been decided yet by the new government and therefore, the company cannot be categorized in the *withheld/ withdrawn* category but is currently at the same level as TANBREEZ.

In regards of TANBREEZ, the majority of the respondents ar against the Killavaat Alannguat mining project and do not trust the company. urthermore the survey- and interview results indicate that the respondents had a higher level of unfamiliarity with the company. Which categorises TANBREEZ at the "acceptance" level of the SLO, which is the same as Greenland Minerals Ltd. The choice is based on that eventhough that TANBREEZ has an exploitation license, the project is not accepted by the respondents and therefore cannot reach a higher level of SLO according to the model in this thesis.

Neither of the companies has the SLO level "approval" or "psychological identification", which are built on trust, acceptance and local community credibility, which neither of the companies has been givin *(Thomson & Boutilier, 2011, p. 2-3)*.

9.3.1 Partial conclusion

It can be partially concluded that according to Thomson and Ian's pyramid model, neither of the two mining companies has a SLO, and they are both on the acceptance level which is a more legitimacy boundary provided by the relevant authorities. The interesting detail to keep in mind, is that TANBREEZ has an exploitation license whereas Greenland Minerals Ltd. do not.

9. Discussion of the analysis results and its implications

The thesis has researched the subject of Greenlandic mining, specifically the two possible mines in Southern Greenland; Kuannersuit (Kvanefjeldet) owned by Greenland Minerals Ltd. and Killavaat Alannguat (Kringlerne) owned by TANBREEZ. The presented research question was formed on a basis of inquisitiveness to figure out to what extent the general public is included in the process of opening of a possible mining operation in Greenland e.g. what role does the government have, who is chosen to open a mine and who is not, and on what grounds?

The key findings in this thesis, which are presented in the partial conclusions in the three-step analysis, presents a situation where there is not an outright "black" nor "white" answer, considering there are multiple levels of perspectives and opinions to consider. These perspectives are as follows; the people who are going to live close to the mines; the mining company which shall follow governmental application process and guidelines,; and lastly the government/relevant authorities, who ultimately decide who can or can not open a mine in the specific geographical area.

Greenland Minerals Ltd. Has prioritized 11 various stakeholder groups throughout the project's lifetime and had approximately 73 meetings with various stakeholders from 2009 to 2019 but has not yet secured an exploitation license. However, the number of stakeholder meetings does not decide wether a company shall have an exploitation licens or not, but it is interesting to compare with TANBREEZ because TANBREEZ had much fewer stakeholder meetings compared to Greenland Minerals Ltd. These observations present a certain situation, where there is a divergence in the level of how the two companies have prioritized and engaged in their stakeholders.

Moreover, the survey charts, *Most Similar System Design (*MSSD) - model, and the interviews, showed that the locals in Narsaq are against both the Kuannersuit mining project and the Killavaat Alannguat mining project. However, looking at the details of the survey, two respondents answered "don't know" regarding their opinion about the Kuannersuit mining project, but this number grew to seven "don't know"ˆs when the respondents are asked about the Killavaat Alannguat project. Furthermore, where the respondents asked if they trust the specific mining company in the survey,

Greenland Minerals Ltd. got eight "don't know`s" and TANBREEZ scored almost the double with 15 "don't know`s". This indicates that the respondents who participated in the survey had a larger familiarity and a clearer opinion about the Kuannersuit project, whereas the Killavaat Alannguat project had less familiarity and some respondents did not feel they had a sufficient amount of information about the TANBREEZ project to create a clear and definite opinion.

The majority of the respondents who answered the survey presented a result where the respondents are not satisfied with the Greenlandic government`s handling of either of the two possible mining operations- processes. There is furthermore, a difference between how the government is running the actual process e.g. public hearings, etc., and how some of the respondents want it to be, which some respondents suggested that they could- and should, be included far earlier in the process. Even more, was there a wish for a clearer-, more extensive, and direct communication with the potential mining firms who are interested to open a mine in their geographical area. The locals are firstly introduced to the respective mining firm when they already have received an exploration license and they arrive to their town and the locals are taken, to some extent, off guard, which does not provide the respective mining firms the greatest beginning for the mining company to communicate with the locals and its stakeholders.

The analysis indicates that even though the company differs in terms of the number of meetings and stakeholders, both companies have only achieved the "acceptance level" of Thomsons and Boutiliers pyramid of SLO. However, TANBREEZ has achieved an exploitation license, while Greenland Minerals Ltd. has not. This is interesting when considered in light of the survey and interviews which indicated that the respondents were more familiar with the Kuannersuit mining project than the Killavaat Alannguat mining projects.

Stakeholder- and public meetings are an essential part of gaining a Social License To Operate and part of the process to gain an exploitation license from Naalakkersuisut. The amount of public engagement is however, not a determining factor as e.g. the scale of the possible mining project or what kind of technology the company will use etc.

The differences between the two companies is seen in their the scale of their projects, where the Killavaat Alannguat project will employ approximately around 100 people (this number can change

if TANBREEZ decides to expand) and Greenland Minerals Ltd. will employ approximately 2000 people. Moreover, is there a difference in terms the amount of uranium in each of the projects but this thesis is centralized of the two cases from a stakeholder- and SLO perspective.
From these results, it can be discussed how the cooperation between the respective mining firm, Naalakkersuisut, and the respondents in Narsaq is and how this, influences the decision making regarding the licensing of the possible mining projects. Based on the results, which indicates that the mining firms can choose to engage- and be involved in a local community to what extent the companies chooses but ultimately, this will not necessarily lead to the company obtaining an exploitation license. It is part of the process, to have a certain amount of engagement in terms of stakeholders and public arrangements, it is not sufficient to gain an exploitation license but it is necessary.

The cooperation between the mining firms and Naalakkersuisut is critically imperative because it is the government that shapes the whole application process of either a small scale- or big scale mine and reviews the EIA and SIA reports. Additionally, the government introduces the communication between the specific mining firm and the locals, other relevant stakeholder groups to discuss and answer questions in regards to the potential mine. The locals and the relevant stakeholder groups, are firstly involved in the process when the mining firm already has done various prospecting and research on the geographical area on the potential mines.

The respondents and relevant stakeholders do not cooperate directly with Naalakkersuisut in the licensing process prior to the public hearings, whereas the respective mining company and the government are cooperating from the beginning. Based on this information, it can be discussed that the locals in Narsaq can influence the narrative and shape the discussion, but they are not cooperating with either the respective mining firm or the government in terms of decision-making. They do have their voice and narrative, which can create a key political argument for the government, which would become a key argument of politics for politicians to get elected for the next election.

It can be discussed if the locals and the relevant stakeholders should be earlier included because, on the one hand, the system needs to have a certain level of effectiveness in terms of keeping the specific mining firm updated for progress or delays, where it is not simple to include the local communities when a mining company has a genuine interest to their geographical area.

The relevant stakeholders and the locals in Narsaq should be included earlier in the process and with more direct communication with the respective mining firm, because this would provide the locals with knowledge concerning the mining firm before the firm makes it to the public hearing meetings. Earlier involvement of the locals and more direct communication with the mining firms could result in the locals and relevant stakeholders would feel more included, rather than when they only have two months to prepare their arguments for or against, which could build a greater fundament for the Greenlandic mining industry.

Moreover, does the three-step analysis look into what opinion the people in Narsaq have concerning the two mining firms and their opinion about how the government governs the decision-making on who shall- and who shall not open their respective mining operation in Greenland.

The MSSD comparative table and its following interview presentations, shows that the respondents who participated in the survey are, as earlier stated, against both mining companies' possible operations and that they do not trust either of the companies or are satisfied with the governmental handling of them.

When looking into the interviews it needs to be acknowledged, that the core differences between the two mining firms is that the respondents did have a clearer opinion about Greenland Minerals Ltd. and were more familiar with their possible mining project Kuannersuit. Whereas more respondents, did not have a clear opinion about the TANBREEZ mining project and one respondent expressed that he did not have the time or the surplus to be engaged in the TANBREEZ project because he has been focusing on the Kuannersuit project, where there was 9000 pages of reading materials and only two months for preparations.

From this, it can be discussed if the governmental process of the application process and the public meetings are acceptable to the respondents, because providing 9000 pages to citizens who are not experts in mining, does not provide the best fundaments for communication. It does, however, provide a level of stress and anxiety that does not benefit the locals or the company that seeks to open a mine in the giving area.

Moreover, were the respondents significantly more engaged in the Greenland Minerals Ltd. mining project than the Killavaat Alannguat project by TANBREEZ, this is interesting because the two mining operations are in terms of distance, not far from each other, and are a significant part of the Narsaq and Qaqortoq area.

The differences between the mining companies TANBREEZ and Greenland Minerals Ltd. differ in terms of quantity of stakeholder and public meetings, the governmental process where one has an exploitation license and the other does not and they furthermore differ in acknowledgment of their project, seen from the survey and interviews. These differences can influence the attitudes the locals in Narsaq have on the two projects because the more knowledge and awareness there is to one project, equals more opinions and attention.

It can be criticized that the Greenlandic government should make sure that the respective local people who are going to live rather close to the possible mines, knew more about both projects and from so, had a clear opinion of both operations. Furthermore, the government should include and inform the people in Southern Greenland earlier in the process and make sure that the locals have a sufficient amount of information to create an opinion about the respective mining project, especially now that there is presented dissatisfaction in the governmental handling of the two mining firms and their projects from the respondents.

10. Conclusion

The research in this thesis, aimed to address the main research question; *what is the role of the Social Licence to Operate in respect of two mining projects in South Greenland?* The thesis investigated the cooperation between the respective mining firms, Naalakkersuisut (the Greenlandic government), and the local citizens of Narsaq, as well as how this cooperation influences the decision-making regarding the licensing of different stages of the projects. Additionally, the research aimed to identify the opinions from the people of Narsaq regarding the two mining firms, and Naalakkersuisuts handling of the two mines in regards to who shall- and who shall not open a mine in Greenland. Moreover, is was examined to what extent the differences between the mining companies TANBREEZ (*Killavaat Alannguat mine)* and Greenland Minerals Ltd (*Kuannersuit mine*) explain the different attitudes the local people have towards the projects.

In the process of answering these questions the following theories were used; *The Stakeholder Theory* and *The Social License To Operate* theory. These theories are supported by various methods, such as; Mixed methods: quantitative- and qualitative methods, comparative case study with the model Most Similar System Design (MSSD), and fieldwork.

These approaches were chosen, because the theories are primarily based on if and how, a company cooperates with a local community and how this can have an effect on the overall relationship between the local community, company, and government. Moreover, the methods provided the researcher with tools to compare the two firms, interview relevant stakeholders and gain a feeling of the field which was chosen to research.

The researcher hypothesised that the results would contribute to a clear difference between the firms and that the locals would indicate different levels of trust in respect of each firm. She anticipated that preference for one mining operation over the other. However, through the research for this thesis, the respondents who participated in the survey and semi-structured interviews would indicate a this hypothesis was shown to be false.

From the analysis and the discussion of the results of the chosen theory and methods, it can be concluded that it is not necessary to have a Social License To Operate (SLO) to open a mine in Southern Greenland. This answer is based on Thomas and Boutiliers` SLO pyramid, which shows that neither of the two mining firms in Southern Greenland - Greenland Minerals Ltd. or TANBREEZ - have secured an SLO and have only reached level of *acceptance,* defined as a legal license from the government. This is a legitimacy boundary provided by the relevant authorities and not the respective local community. However, it is a step on the way to gain an SLO from the local community, which means that the "acceptance" level cannot be overlooked if the aim is to gain an SLO, but an SLO not necessary in order to open a mine in Southern Greenland.

There is a certain level of cooperation between the Naalakkersuisut and the respective mining firms because the mining firms needs to follow a given set of guidelines. However, these guidelines can change e.g. when the zero-tolerance was reintroduced in 2021. This concludes the first sub-question: *how does the cooperation between the respective mining firms, Naalakkersuisut (the Greenlandic government) and the local citizens of Narsaq influence the decision-making regarding the licensing of different stages of the projects?* The respective mining company cooperates with Naalakkersuisut and afterwards, the general public and local community is involved. Naalakkersuisut provides the guidelines and then introduces the respective mining company for these and is an important communication conduit between the company and the public. The public and the local people in Narsaq are introduced to these firms from a certain level of the companies` applications process, where the locals are presented to the respective mining company through meetings and other arrangements. Furthermore, after a public hearing meeting, where the SIA and EIA report is presented, then the locals and the local community have a certain amount of time to ask questions about the possible mining project.

The level of cooperation between Naalakkersuisut, a mining company, and the public/ local community, does not directly influence the decision-making regarding the licensing of different stages of the possible mining project, which means that Naalakkersuisut is the ultimate decision-maker and power-holder.

The conclusion is based on the fact there is already provided a set of guidelines for the company to follow from the government and if the company follows the given guidelines, the general public and the local community can present their concerns, but it would not affect the decision-making.
However, the general public and the respective local community can make it harder for the respective mining company by demonstrating and/ or counteract e.g. go to court on the basis of different rights and providing the company with a negative image. This means that the public, or in this case, the respondents from Narsaq, has no direct impact affect on the actual decision but they can have have an essential indirect impact, when an election is being held.

The second sub-research question is: *what are the opinions of the people of Narsaq regarding the two mining firms, and the decision-making governed by the government of Greenland in regards to who shall, and who shall not, open their respective mining operations in Greenland?* The thesis reaches the following conclusion: from the 40 respondents who answered the survey in Narsaq and from the people from Narsaq who agreed to participate in semi-structured interviews, it can be concluded that the majority of these do not trust or support either of the two mining projects in Southern Greenland. However, the respondents are more familiar with the Kuannersuit mine, than with the Killavaat Alannguat mine and more respondents had a clearer opinion about Greenland Minerals Ltd. than TANBREEZ and it was stated by some of the respondents that there was a lack of available information about the TANBREEZ firm and their project.

Moreover, the majority of the respondents is dissatisfied with the way the Greenlandic government has handled both of the two mining projects and this was expressed in one of the interviews, where there was a wish for changes for the existing process e.g. increased, earlier and more direct communication with the mining firms.

Lastly, the third sub-research question is: *to what extent do the differences between the mining companies TANBREEZ (Killavaat Alannguat mine) and Greenland Minerals Ltd (Kuannersuit mine) explain the different attitudes the local people have towards the projects?* This question has the following conclusion: there is an existing difference between the two mining companies, which does affect what the respondents, a selection of the local people from Narsaq, think about the two mining projects. However, the study did not show which mining project is more positively viewed or trusted. Instead, it showed that Greenland Minerals Ltd. has prioritized stakeholder engagement to a greater

extent and has held a significantly larger number of meetings with various stakeholders, which has resulted that more of the respondents having a bigger familiarity with the project. Contrary to this, TANBREEZ has not had nearly as many stakeholder meetings or public meetings, etc. More respondents explained that they did not feel they had enough information or familiarity with the firm to have a clear opinion.

The results of the research questions did not match the expectations the researcher originally had towards the beginning of the research, but the research provided valuable information about the subject of mining in Southern Greenland, which presents respondents their wishes for increased communication between the respective mining firms and the local community. These findings are also supported by Johnstone and Merrild research, which presented the amount of impact the mines have had towards them as a community *(Merrild and Johnstone, 2017).*

Moreover, even though the Kuannersuit- and the Killavaat Alannguat mines are in terms of distance, not far from each other, or from the town of Narsaq, did the respondents have a bigger familiarity with the Kuannersuit project. One respondent who participated in the semi-structured interviews explained the reason for his lack of familiarity with the TANBREEZ project, reasoning that with the Kuannersuit project and Naalakkersuisut's timeframe to ask questions, etc. about the project was so short, therefore he did not feel the surplus of energy to gain a familiarity with the TANBREEZ project as well. Another respondent explained that he could not find enough available information about the project to be able to create a clear opinion of the Killavaat Alannguat mine.

These findings are supported by those identified in the literature review, where most of the literature is centralized around the subject of uranium, mineral resource act, the effect of the potential mines on the local community in Narsaq and the possibility of independence from Denmark, etc. Where the knowledge of this research and its results, provides a present picture of the situation of mining in Southern Greenland and some of its challenges. For example, Tianian found that the government had tried to develop a framework to increase public involvement in mining project development and whereas this research suggest that the government has not fully succeeded in this respect as the respondents in Narsaq remain dissatisfied with the consultation process *(Tianian, 2009)*.

With limited time, resources and wordcount to present the findings, this research project contains some important limitations. Only forty persons took part in the survey and seventeen semi-structured interviews were held. These numbers are insufficient to obtain statistically significant results. Furthermore, the respondents were not necessarily representative of the local population as they were recruited from those already engaged with the public process by virtue of attending a civic meeting. The interviewees were selected on the basis of they had answered the survey at the public meeting and the companies there where interviewed, where selected because they represented a larger group of stakeholders e.g. Greenland Buisness Association represents 350 companies throughout Greenland, which counts to approximately 7000 people.

Further research could confirm or curtail the findings in this thesis, for example, a much larger and more representative number of respondents to the survey and a wider range of interviewees. Additionally, the findings only concern Narsaq. It would be valuable to obtain similar information from every town and settlement in South Greenland which would require a much longer time and a research budget.

Additionally, there is a need for more time for fieldwork and research, but due to this thesis only had a certain amount of resources and time, this was not possible. This research indicates that further studies could be done to confirm or refute the implications of the analysis, including the application process for opening a mine and to include the general public more and what it would demand of the specific mining company to gain a Social License To Operate. Moreover, it would be interesting to do further research in terms of looking into the details of the different EIA- and SIA reports and compare the quality and transparency between Greenland Minerals Ltd. and TANBREEZ. There could also be done research in the area of, if the public had a bigger decision-making power in terms of chosing who should open their mining operations in Greenland. Would the public then go for a company which invest time and ressources in stakeholder meetings and other arrangement, or would they choose the company they knew less about? In other words, does more stakeholder meetings and greater levels of information translate to a higher level of SLO or can they actually reduce the level of social acceptance?

This thesis showed from the research that the respondents who participated the research wishes for an increased communication with the respective mining companies and Naalakkersuisut.

Furthermore, that the governmental frame of mining applications is complicated there takes years to get through, which may affect possible big scale mining operations or smaller mining operations, there only has limited economical funding.

Moreover, that if the Greenlandic mining strategy shall increase and actually play a significant part in the Greenlandic economy, Naalakkersuisut needs to include the public more and provide them with an sufficient amount of informations, which can result in a stronger base of cooroperation between the public and the company.

The researcher hopes that this thesis can have an impact there provides the reader with an amount of knowledge into an area in Greenland there is under development, and needs emprovement in terms of communication, research and governmental framework.

Bibliography

Books:

1. Brinkmann, S & Tanggaard, L (2020): *Kvalitative metoder- En grundbog*. 3rd edition, Hans Reitzels Forlag. Denmark.

2. Bryman, A (2012): *Social research methods*. 4th edition, Oxford University Press, New York.

3. Hansen M. Kasper, Andersen B. Lotte & Hansen W. Sune (2020): *Metoder i statskundskab*. 3rd edition, Hans Reitzels Forlag. Denmark.

4. Knudsen, H & Nielsen, H (2016): *Uranbjerget- Om forsøgende på at finde og udnytte Grønlands uran fra 1944 til i dag*. Forlaget Vandkunsten. 1st edition. Denmark, København.

5. Kvale, S & Brinkmann, S (2015): *Interview- Det kvalitative forskningsinterview som håndværk*. 3rd edition, Hans Reitzels Forlag. Denmark, Copenhagen.

6. R. Edward Freeman, Jeffrey S. Harrison, Andrew C. Wicks, Bidhan Parmar and Simone de Colle (2010): Stakeholder theory- The state of the Art. Cambridge University Press The Edinburgh Building, Cambridge CB2 8RU, UK.

PDF"s:

1. Govmin.gl (2020): *Greenland Mineral Strategy 2020-2024*. Naalakkersuisut/ Government of Greenland, The Ministry Of Mineral Ressources February 2020. [PDF] Available at: https://govmin.gl/wp-content/uploads/2020/03/Greenlands_Mineral_Strategy_2020-2024.pdf [Accessed: 13.3.2022].

2. Johansen, P., Asmund, G., Glahder, C and Aastrup, P (2001): *Minedrift og miljø i Grønland*. Danmarks Miljø undersøgelser, afdeling for Arktisk Miljø, Tema rapport fra DMU. [PDF] Available at: https://www2.dmu.dk/1_viden/2_publikationer/3_temarapporter/rapporter/tema38.pdf [Accessed: 4.1.2022].

3. Johnstone, L Rachael and Hansen, M Anne (2020): *Regulation of Extractive Industries Community Engagement in the Arctic*. Routlegde Research Polar Law. Chapter.3: *What is required for free, prior and informed consent and where does it apply?* [PDF] Available at: file:///Users/ayoekristiansen/Downloads/Ch3%20FPIC%20RLJ.pdf [Accessed: 26.2.2022].

4. Lovgivning.gl (2009): *Bemærkninger til forslaget- Almindelige bemærkninger*. Lovafdelingen, Formands departementet. [PDF] Available at: file:///Users/ayoekristiansen/Downloads/L_nr_07-2009_bemaerk_dk.pdf . [Accessed: 3.1.2022].

5. Nielsen, H & Knudsen, H (2016): *Uranbjerget*. aktuelturvidenskab.dk, Videnskabshistorie. [PDF] Available at: https://aktuelnaturvidenskab.dk/fileadmin/Aktuel_Naturvidenskab/nr-2/AN2-2016uranbjerg.pdf [Accessed: 3.1.2022].

6. Naalakkersuisut.gl (2021): *DCE/GN: Overordnede kommentarer til projektbeskrivelse og VVM rapport for Greenland Minerals Ltd - Projekt Kvanefjeld*. Fagligt notat fra DCE – Nationalt Center for Miljø og Energi og GN - Pinngortitaleriffik, Grønlands Naturinstitut, 26.januar, 2021. [PDF] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2020/1812_kuannersuit/Answers/Uafhaengig/010221_DCE%20og%20GN%20-%20Overordnede%20kommentarer%20til%20Kvanefjeld%20REE%20projekt%20DK.pdf [Accessed: 27.1.2022].

7. Naalakkersuisut (2013): *Social Impact Assessment Tanbreez Mining Greenland A/S*. [PDF] Available at:

https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2013/Tanbreez/Documents/3%20-%20SIA_EN_for_TANBREEZ_August%202013.pdf [Accessed: 25.1.2022].

8. Naalakkersuisut.gl (2020): *Greenland Minerals A/S- Kvanefjeldproject- Environmental Impact Assement Non- Technical Summary*. [PDF] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2020/1812_kuannersuit/Documents/EIA%20Non-technical%20summary%20ENG.pdf [Accessed: 22.1.2022].

9. Orbicon (2013): *Tanbreez Project Environmental Impact Assessment*. Naalakkersuisut.gl, Environmental Impact Assessment, TANBREEZ Mining Project, Killavaat Alannguat, Greenland 3/112. [PDF] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2013/Tanbreez/Documents/EIA%20MainRepor%20Eng.pdf [Accessed: 22.1.2022].

10. Wcecure.weblink.com.au (2021): *Consolidated Financial Report*. Directors report, Greenland Minerals Ltd. [PDF] Available at: https://wcsecure.weblink.com.au/pdf/GGG/02419847.pdf [Accessed: 25.1.2022].

Internet sources:

1. Brøns,M (2021): *Nej tak til uran: Inatsisartut stemmer for forbud med spinkelt flertal*. [Online] Available at: https://knr.gl/da/nyheder/nej-tak-til-uran-inatsisartut-stemmer-forbud-med-spinkelt-flertal [Accessed: 3.1.2022].

2. Dahl, A., Dich, T., Hansen, T., Olsen, V. (2005): *Styrk projektarbejdet*. [Online] Available at: https://kub.ku.dk/biblioteker/frederiksberg/vejledninger/kildekritik/primaer_sekundaer_kilder/ [Accessed:14.2.2022].

3. Denton, Jenny *(2021): 'Red-carded' Australian miner signals intention to play on in Greenland*. MONGABAY- News & inspiration from nature`s frontline, news.mongabay.com. [Online] Available at: https://news.mongabay.com/2021/07/red-carded-australian-miner-signals-intention-to-play-on-in-greenland/ [Accessed: 21.1.2022].

4. ggg.gl (2022): *Bestyrelsen for Greenland Minerals A/S*. [Online] Available at: https://ggg.gl/dk/home/bestyrelsen/ [Accessed: 24.1.2022].

   ggg.gl (2022): *Directors and Management*. [Online] Available at: https://ggg.gl/investors/directors-and-management/ [Accessed: 24.1.2022].

5. ge.ga.gl (2022): *Om grønlands erhverv*. [Online] Available at: http://ge.ga.gl/da-dk/Om-GE [Accessed: 8.2.2022].

6. Gosh, Peter (2018): What *did Max Weber mean by the 'spirit' of capitalism?* Aeon.co. [Online] Available at: https://aeon.co/ideas/what-did-max-weber-mean-by-the-spirit-of-capitalism [Accessed: 15.10.2021].

7. govmin.gl (2020): *How to start mining- Steps to start mining*. Naalakkersuisut, Government of Greenland. [Online] Available at: https://govmin.gl/exploitation/start-mining/how-to-start-mining/ [Accessed: 4.1.2022].

8. govmin.gl (2020): *Efterforskning i Grønland i tal*. [Online] Available at: https://govmin.gl/da/ [Accessed:11.2.2022].

9. govmin.gl (2021): *Greenland says yes to mining but no to uranium*. [Online] Available at: https://govmin.gl/2021/05/greenland-says-yes-to-mining-but-no-to-uranium/ [Accessed:11.2.2022].

10. govmin.gl (2020) :*Impact Benefit Agreement (IBA)*. [Online] Available at: https://govmin.gl/exploitation/get-an-exploitation-licence/impact-benefit-agreement-iba/ [Accessed: 14.3.2022].

11. Greenlandruby.gl (2022): *About Us- Our mine*. [Online] Available at: https://www.greenlandruby.gl/about-us/ [Accessed: 5.1.2022].

12. Hudsonesourcesinc.com (2022): White Mountain Anorthosite Project- An operating mine producing green products. [Online] Available at: *https://hudsonresourcesinc.com/projects/white-mountain-anorthosite-project/* [Accessed: 5.1.2022].

13. Lindstrøm, M (2021): *SIK- Formand: Åben minen i Narsaq*. Sermitsiaq.ag. [Online] Available at: https://sermitsiaq.ag/sik-formandaaben-minen-i-narsaq [Accessed: 24.1.2022].

14. Lindstrøm, M (2021): *Borgermøde i Narsaq præget af uro*. Sermitsiaq.ag. [Online] Available at: https://sermitsiaq.ag/borgermoede-i-narsaq-praeget-uro [Accessed: 24.1.2022].

15. Naalakkersuisut.gl (2020): *Minneral Ressource Act*. [Online] Available at: https://govmin.gl/exploration-prospecting/get-an-exploration-licence/mineral-resources-act/ [Accessed: 29.11.2021].

16. Naalakkersuisut.gl (2020): *Tanbreez får meddelt en udnyttelsestilladelse*. [Online] Available at: https://naalakkersuisut.gl/da/Naalakkersuisut/Nyheder/2020/08/130820-Tanbreez-faar-meddelt-en-udnyttelsestilladelse [Accessed: 21.1.2022].

17. Naalakkersuisut.gl (2022): *Grønland har nu to aktive miner i produktion*. [Online] Available at: https://naalakkersuisut.gl/da/Naalakkersuisut/Nyheder/2018/12/0612_miner [Accessed:11.2.2022].

18. Stakeoldertheory.org (2018): *About the stakeholder theory*. [Online] Available at: http://stakeholdertheory.org/about/ [Accessed: 11.10.2021].Tanbreez.com (2022): *Tanbreez people*. [Online] Available at: http://tanbreez.com/en/tanbreez-people/ [Accessed: 21.1.2022].

19. Wedel Løvschal, J (2014): *Tanbreez: Det går for langsomt i Grønland*. Knr.gl. [Online] Available at: https://knr.gl/kl/node/89577 [Accessed: 21.1.2022].

Research articles:

1. Barten U., & Mortensen, B. O. G. (2018): *Uranium in Greenland: Questions of Resources and Security in a Self-Government Setting*. The Yearbook of Polar Law Online, 9(1), 183-200. [Online] Available at: https://doi.org/10.1163/22116427_009010009 [Accessed: 1.10.2021].

2. Bjørst,R Lili (2016): *Saving or destroying the local community? Conflicting spatial storylines in the Greenlandic debate on uranium*. ScienceDirect- Journals & Books.[Online] Available at: https://www.sciencedirect.com/science/article/abs/pii/S2214790X15001495?via%3Dihub [Accessed: 1.10.2021].

3. Carrol, B Archie (2008): *A History of Corporate Social Responsibility: Concepts and Practices*. The Oxford Handbook of Corporate Social Responsibility, Oxford University Press. [Online] Available at: file:///Users/ayoekristiansen/Downloads/AHistoryofCSRConceptsPractices.Oxford.2008%20(1).pdf [Accessed: 7.10.2021].

4. Johnstone, L Rachael & Hansen, M Anne (2019): *In the Shadow of the Mountain: Assessing early impacts on community development from two mining prospects in South Greenland*. ScienceDirect- Journals & Books. [Online] Available at: https://www.sciencedirect.com/science/article/abs/pii/S2214790X18301710?via%3Dihub [Accessed: 1.10.2021].

5. Ranängen, H (2017): *Stakeholder management theory meets CSR practice in Swedish mining*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 7.10.2021].

6. Slocombe, S and Prno, J (2021): *Exploring the origins of "social license to operate" in the mining sector: Perspectives from governance nd sustainability theories*. ScienceDirect- Journals & Books. [Online] Available at: https://www.sciencedirect.com/science/article/abs/pii/S0301420712000311 [Accessed: 24.2.2022].

7. Thisted, K 2020: *Emotions, finances and independence. Uranium as a "happy object" in the Greenlandic debate on secession from Denmark*. Polar Record, vol. 56, no. e1. [Online] Available at: https://doi.org/10.1017/S0032247419000433 [Accessed: 1.10.2021].

8. Tiainen, H (2016): *Contemplating governance for social sustainability in mining in Greenland*. ScienceDirect- Journals & Books. [Online] Available at: https://www.sciencedirect.com/science/article/abs/pii/S0301420716300551 [Accessed: 1.10.2021].

Figures:

1. Figure. 1: *Historical evolution of the rare earth/uranium mining in Greenland*.

2. Figure.*2: Demostration of the process to open a big scale mine*. Naalakkersuisut (2021): *Høringsmøder vedr. Kuannersuit- Projektet*. Holm- Hammeken, J. Government of Greenland. [Powerpoint presentation] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Attached%20Files/Raastof/2021/Kuannersua

q/3%20%20DANSK%20Pr%C3%A6sentation%20Departementet%20for%20R%C3%A5stoffer.pdf?fbclid=IwAR0huFyl0nafN17QIHM5hXrd6pGS-tw4j5hquAjB4NvOUY8_aPtTiRLg6ls [Accessed: 28.1.2022].

3. Figure.3. *The stakeholder view of the firm was adopted by Freeman in 1984*. Ranängen, H (2017): *Stakeholder management theory meets CSR practice in Swedish mining, p.4*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 12.10.2021].

4. Figure.4. The basic two-tier stakeholder map from Freeman et al. 2007. Ranängen, H (2017): *Stakeholder management theory meets CSR practice in Swedish mining, p.4*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 12.10.2021].

5. Figure.5. Mitchell et al.'s model for stakeholder management from 1997. Ranängen, H (2017): *Mitchelletal.'s(1997) model for stakeholder management*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 13.10.2021].

6. Figure.6. The Boliden stakeholder view 1.0 . Ranängen, H (2017): *Mitchelletal.'s(1997) model for stakeholder management*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 13.10.2021].

7. Figure.7. The Boliden two-tier stakeholder map inspired by Freeman et al. 2007. Ranängen, H (2017): *The stakeholder classes in Mitchell et al.'s (1997) model are described*. Mineral Economics. [Online] Available at:

https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 12.10.2021].

Images:

0. Image.0: Naalakkersuisut.gl (2013): *Visualization of where TANBREEZ mine is planned to be located*. [Online] Available at: https://naalakkersuisut.gl/en/Hearings/Hearing-Archive/2013/Tanbreez [Accessed: 25.2.2022].

1. Image.1: *Visualization of how the Tanbreez mine is planned to look*. Figure.9. Naalakkersuisut (2013): *Social Impact Assessment Tanbreez Mining Greenland A/S*. [PDF] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2013/Tanbreez/Documents/3%20-%20SIA_EN_for_TANBREEZ_August%202013.pdf [Accessed: 25.1.2022].

2. Image.2. Visualization of how the Greenland Minerals Ltd. mine is planned to look. Naalakkersuisut.gl (2020): *Greenland Minerals A/S- Kvanefjeldproject- Environmental Impact Assement Non- Technical Summary*. [PDF] Available at: https://naalakkersuisut.gl/~/media/Nanoq/Files/Hearings/2020/1812_kuannersuit/Documents/EIA%20Non-technical%20summary%20ENG.pdf [Accessed: 25.1.2022].

Tablets:

1. Tabel.1: Public hearings in Southern Greenland 2013. Naalakkersuisut.gl (2013): *Offentlig høring om rapporterne Vurdering af den samfundsmæssige bæredygtighed (VSB) og Vurdering og Virkninger på Miljøet (VVM), som er udarbejdet i forbindelse med Tanbreez Mining Greenland A/S ansøgning om udnyttelsestilladelse for den sjældne jordart eudialyt samt mineralet feldspat ved Killavaat Alannguat (Kringlerne)*. Nalaakkersuisut- Goverment of Greenland. [Online] Available at: https://naalakkersuisut.gl/da/H%C3%B8ringer/Arkiv-over-h%C3%B8ringer/2013/Tanbreez [Accessed: 22.1.2022].

2. Tabel.2: Greenland Minerals Ltd. Stakeholder meetings 2009-2019. Appendix nr. 13, 2022.

3. Table. 3. The relationship attributes with explanations and definitions based on the work of Mitchell et al. (1997) presented for the focus group. Ranängen, H (2017): *Stakeholder management theory meets CSR practice in Swedish mining, p.4*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 12.10.2021].

4. Table.4. The stakeholder classes in Mitchell et al.'s (1997) model are described . Ranängen, H (2017): *The stakeholder classes in Mitchell et al.'s (1997) model are described*. Mineral Economics. [Online] Available at: https://www.researchgate.net/publication/311774535_Stakeholder_management_theory_meets_CSR_practice_in_Swedish_mining [Accessed: 12.10.2021].

5. Table.5. *Chosen Research style weaknesses and strengths*. Brinkmann, S & Tanggaard, L (2020): *Kvalitative metoder- En grundbog*. 3rd edition, Hans Reitzels Forlag. Denmark.

E-books:

1. Steinmetz, J. (2021): *Politics, Power, and Purpose: An Orientation to Political Science*. Fort Hays State University, Kansas. FHSU Scholars Repository, Open Educational Resources. [E-bog] available at: https://scholars.fhsu.edu/cgi/viewcontent.cgi?article=1000&context=all_oer [Accessed: 10.11.2021].

Appendix

Appendix nr.1: Interview questions

Interview questions for the different people there was interviewed for this paper.

a) <u>The CEO`s had the following questions:</u>

1. *Can you tell a little bit how you got into this occupation and how you got into Greenlandic mining?*

2. *Do you think that the prospects of Greenland's mining are positive? What are the possibilities and challenges in long run?*

3. *Aside from Kuannersuit/ Killavaat Alannguat, are there other critical minerals that the company ore you consider important to explore?*

4. *There has been some controversy about the two rare earth projects in South Greenland, one is Killavaat Alannguat/ Kuannersuit, how does your mine differ from this mine?*

5. *Given that the second round of the public hearings took place without the companies representatives, do you think the comments addressed in those hearings are relevant for your applying process to receive an exploitation license?*

6. *How does your company addresses the issue of social sustainability of the Greenlandic local community?*

7. *How do you plan to extract the rare earth from the Kuannersuit/ Killavaat Alannguat mine? And what are your export plans to generate an income from the mine?*

8. *Some Greenlanders are concerned about living close to a mine, what would you tell those people who are against- ore predominantly against uranium and mining in Greenland? How would you get them more "on board"?*

9. *How would zero-tolerance affect the Kuannersuit project?*

b) <u>*The Greenlandic Government Officials (health consultant) had following questions:*</u>

1. *If you could begin with telling a little bit about yourself and your function at Naalakkersuisut?*
2. *How is the process when a firm is interested in opening a mine in Greenland?*
   - *2.1 The process for the firm?*
   - *2.2 The process for including the people?*
   - *2.3 Who takes the final decision og how is the decision made?*
3. *Can you tell me about Kuannersuit and Killavaat Alannguat, what makes these specific mountain so interesting?*
4. *How is the cooperation between the two mining firms (Tanbreez and Greenland Minerals*

c) <u>General public Narsaq had the following questions:</u>

1. Could you tell me a little about yourself and your affiliation to Narsaq?
2. What is the first there comes to your mind when you are thinking of mines in Greenland?
3. Which kind of thoughts do you have about the Greenlandic mining industry? Do you think there is a way to make mining work in Narsaq? Or should Greenland aim for another industry?
4. Concerning *the mining firms there wants to extract rare earths e.g. Uranium, would you be more into the idea of a Greenlandic mining industry if the extraction process didn't include uranium? What could get you more into mining idea?*
5. Will you tell me about your experiences with the mining firms there comes to your town?
6. What are your thoughts about Tanbreez?
7. What are your thoughts about Greenland Minerals?
8. Is there one company you prefer more than the other?
9. Do you feel like the mining firms listens to the public in Narsaq?
10. What do you think the Greenlandic government is handling the growing mining interest in Greenland good enough?

d) Greenlandic Politicians: Naalakkersuisoq of Rare Earths had the following questions:

1. *Could you introduce yourself and what your job as Naalakkersuisut for Rare Earths consists of?*
2. *What is Greenland's economical status today? Increase/ decrease and challenges?*
3. *What is the Greenlandic government's opinion about Greenlandic mining operations? Challenges and opportunities?*
4. *In the year 2013 Siumut lifted the zero-tolerance policy, and now in 2021 with IA in power, is it your top priority to reinforce the zero-tolerance? Could you tell me about this period and why wants to reinforce the zero tolerance, furthermore what does the zero-tolerance policy entail?*
5. *Concerning the firm who are interested in opening a mine in Greenland, are there specific firms you are ready/ or not ready to cooperate with? Can the zero-tolerance policy scare some firms away?*
6. *How is the cooperation with Tanbreez and Naalakkersuisut? The firm did receive an extraction permit and is preparing to open their mine, is uranium a concern in terms of this mine or pollution, other?*
7. *Hvordan er samarbejdet med Greenland Minerals og Naalakkersuisut?*
   De har ikke fået en udvindings tilladelse enu, ligge dette i en bekymring for uran- og/ eller forurening?
8. *How is the cooperation with Greenland Minerals and Naalakkersuisut? The firm has not received an extraction permit, is this because of the concern of uranium and/ or pollution, other?*
9. *Is Greenland against a Greenlandic mining industry or is Greenland for a mining*

E) Greenlandic Politicians: The mayor of Kommune Kujalleq had following questions:

1. *Could you tell me a little about yourself, what you do and about your overall tasks and what you have been doing before?*
2. *What are kind of priorities do you have as the mayor of Kommune Kujalleq?*
3. *Can you tell me about the process from a company shows an interest in opening in your area till you receive an application from them?*
   3.1.What is the process?
   3.2.What do you focus on when you look at the reports?
4. *How is the corporation with Greenland Minerals?*
5. *How is the corporation with Tanbreez?*
6. *Could you tell me about the consultation response Kommune Kujalleq gave to the possible mine in Kuannersuit?*
7. *Is Kommune Kujalleq for or against a Greenlandic mining industry?*
   7.1. Could there be a way to make the Kuannersuit project work e.g. maybe without the uranium?
8. *Which kind of industry could be developed in Kommune Kujalleq? Challenges and opportunities?*
9. *Anything you would like to add?*

F) ISG: Innovation South Greenland got following questions:

1. *Could you tell me a little about yourself, what you do and about your overall tasks and what you have been doing before?*
2. How has ISG developed in the years you have been part of the company? Can you set it up in "then" and "now" terms?
3. How do you corporate with the local people in Southern Greenland? Do they find you or do you find them?
4. How would the possible mines from Greenland Minerals and Tanbreez affect your business? And mines in Southern Greenland in general?
5. Have you been in contact with these mining firms? Or had somewhat of a communication?
6. Do you think there would be as much tourism if the mine opens in Narsaq? And the mine from Tanbreez?
7. The isn't much development happening in Narsaq and Southern Greenland, Narsaq is also known to be called "the dying city", what do you think Narsaq and Southern Greenland could do to gain economic development?
8. Related to the last election were IA won, up to this election HS Analyzes made the analyzes that showed that people in Narsaq do know what they mines could provide the town with but they still said no to have a mine, what is your thoughts on this?
9. Do you think that The Greenlandic Government is prioritizing Southern Greenland enough?
10. What are the biggest challengdes and opputunities in Southern Greenland?

G) *Greenland Business Association got following questions:*

1. *Could you tell me a little about yourself, what you do and about your overall tasks and what you have been doing before?*
2. *What is the overall and/ or main subject GE is centralized around?*
3. *What is GE`s goal for the future concerning the Greenlandic industry?*
4. *What kind of challenges is the Greenlandic industry facing?*
   4.1 *Is these challenges something you discuss when the whole organization is gathered?*
5. *Concerning Greenland`s social-economic growth, do you think there are some industries there should be developed more e.g. rare earth and tourism?*
6. *What are GE`s thoughts and considerations about uranium and other rare earth elements? Could it be a way for Greenland to gain a self-sustaining economy to develop the Greenlandic mining industry?*
7. *Concerning the mining companies Tanbreez and Greenland Minerals, including other relevant mining companies, how is the relation and communication between these and GE?*
8. *What opinion does GE have in terms of the possible re-enforcement of the zero-tolerance policy? Thoughts?*
9. *What are GE`s thoughts and considerations for the Greenlandic mining industry?*

H) NGO Uraani Naamik: They got the same "core" questions as the general public.

I) *DCE: The Danish Centre For Environment And Energy there is connected to Aarhus University where two people was interviewed, had following questions:*

1. *Could you tell me a little about yourself, what you do and about your overall tasks and what you have been doing before? Your role in terms of Greenlandic mining?*
2. *Could you in short tell me about what an VVM and an EIA report is and which reports are needed when you as a company apply to open a mine in Greenland?*
3. *Could you in short tell me about the two possible mines in Southern Greenland; Kuannersuit and Killavaat Alannguat? What differ these to mountains apart?*
4. *Pros- and cons in terms of environment and for citizens if one or the other will open?*
5. *What does it mean for the Greenlandic mining industry that IA is planning to reinforce the zero tolerance policy and what does a limit on 100 ppm mean?*
6. *What opportunities does uranium contain and what is its challenges?*
7. *Why has Tanbreez gained an extractions license, but Greenland Minerals has*

Appendix nr: 12

Local Community Stakeholder Meetings

2009

Date	Consultation Method	Stakeholder	Attendees
2009-06-22	Meeting	Community Information Group	Flemming Grundsoe (Chairman - Labour Union GA), Helgi Jonasson (Outfitter - Narsaq Farmhouse), Suka Frederiksen (Chairman - Local Farming Union), Pavia Rohde (Firefighter), Thorvald (Agga) Isaksen (Fire Chief), Josef Petersen (Inspector - Prep School), Rasmus Rasmussen (Business Committee - Greenland Mining Services), Ib Laursen (Greenland Mining Services), Johannes Kyed (GME A/S), Mike Hutchinson (Chairman - GME), Rod McIllree (Managing Director - GME), John Mair (General Manager - GME) and Shaun Bunn (Project Manager - GME).

2010

Date	Consultation Method	Stakeholder	Attendees
2010-03-09	Meeting and Presentation (Fly-Through)	Nuuk Rotary Club	Shaun Bunn, Rod McIllree, Michael Hutchinson, Cuno Jensen, Magnus Agerskov, Vagn Anderson, Poul Norris Christensen, Svend_Erik Danielsen, Ole Hansen, Ole Kielmann Hansen, Stefan Ittu Hviid, Preben Kold Larsen, Henrik Leth, Carsten Thorndal Pederson, John Rasmussen, Frank Sorensen, Olav Thomsen, Knud Ostergaard
2010-04	Public MeetingPrese	Qaqortoq Town Hall	Ole Ramlau-Hansen, Laila Ramlau-Hansen, Johannes Kyed, Shaun Bunn, Lars-Emil JohansenApprox 50 local townspeople

Date	Consultation Method	Stakeholder	Attendees
-11	ntationMeeting		
2010-04-13	Meeting and Presentation	Business Council Narsaq	Johannes Kyed, Lars Emil Johansen, Shaun Bunn, Laila Ramlau-Hansen, Ib Laursen, Monika Brune, Flemming Grundsoe, Josef Petersen, Finn Lindburg, Aron Kristiansen, Bent Brede Olesen, Grethe Nielsen
2010-04-13	Public Meeting and Presentation	Narsaq Town Hall	Lars Emil Johansen, Ole Ramlau-Hansen, Laila Ramlau-Hansen, Johannes Kyed, Shaun Bunn 145 People townspeople
2010-06-14	Public MeetingPresentation	Nanortalik Town Hall	John Mair, Shaun Bunn, Johannes Kyed26 townspeople
2010-06-Mid	Newsletter Kuannersuit News 1	General Public	Letter box drop
2010-08-08	Community Open Day	Narsaq (GME A/S Workshop)	Approximately 600 local townspeople from Narsaq and Qaqortoq

2011

Date	Consultation Method	Stakeholder	Attendees
2011-02-09	Public Meeting - Nanortalik	20 Local citizens and member of the Local Parliament Association (LPA)	20 Citizens and Ezekiassen (Member of LPA), Ib Laursen-GME, Johannes Kyed-GME, Eric Holmsgaard-GME
2011-02-10	Public Meeting - Qaqortoq	15 Local citizens	15 Citizens/Students, Ib Laursen-GME, Johannes Kyed-GME, Eric Holmsgaard-GME

Date	Consultation Method	Stakeholder	Attendees
2011-02-14	Public Meeting - Narsaq	60 Citizens and Local Parliament Administration (LPA)	60 Citizens, Steffen Petrussend (Engineer for LPA), Monika Bruhne (Member of InfoGroup), Ole Molgaard Motzfeltd (Member of LPA and Chairman for Industry and Trade Development Council), Isak Vahl (Deputy in KNAPK: the hunters and fishermens association), Ib Laursen-GME, Johannes Kyed-GME, Eric Holmsgaard-GME
2011-03-30	Stakeholder Workshop	Key Stakeholders - Qaqortoq	Erik Norskov/Norskov, Jim Riis/Hotel Qaqortoq, Herluf Gronlumt/Perma-Green, Rasmus Thode, Gristonjon/Inu Plan, Daniel Skatte, Jesper Petersen, Poul Erik Pedersen, Niels Chemnitz/GMS, Steen Jokum Motzfeldt/Kommune Kujalleq, Larseraq Poulsen/Kommune Kujalleq, Benny Larsen/QEF, Jan Kjaer/Kommune Kujalleq, Stefan Rahlenback/Atlas Copco, Shaun Bunn/GME, Ib Laursen/GME, Erik Holmsgaard/GME, Johannes Kyed/Kompetence Kompagniet, Flemming Pagh Jensen/Orbicon, Rikke Carlsen/Grontmij
2011-03-31	Stakeholder Workshop	Key Stakeholders - Narsaq	Pavia Nielsen/Piaveersarfik, Borge Brodersen/Privat, Josef

Date	Consultation Method	Stakeholder	Attendees
			Petersen/Ilimmaasaq og Piareersarfik, Dorthe Holding/Hotel Narsaq, Pavia Rhode/GME, Poul Kielsen/Ilimmaasaq, Tittus Egede/Ilimmaasaq, Monika Brune/Allu Design, Peter Lindberg/Privat, Paul Cohen/Tuluttut Translations, Avaaraq Olsen/Narsaq Museum, Nive Sommer/Kommune Kujalleq, Hentzon Petersen/Kommune Kujalleq, Flemming Grundsoe/Permagreen Greenland, Shaun Bunn/GME, Ib Laursen/GME, Erik Holmsgaard/GME, Johannes Kyed/Kompetence Kompagniet, Flemming Pagh Jensen/Orbicon, Rikke Carlsen/Grontmij
2011-04-05	Stakeholder Workshop	Stakeholder in Nuuk	Poul Holm/Nusuka, Aksel Blytmann/KNAPK, Gerth Lynge/Nusuka, Mikkel Myrup/Greenland national museum, Vittus Qujaukitsoq/SIK, Bent Sorensen, Greeeland arbejdsskiver forening (GA), Josephine Nymand and Katrine Raundrup/Greenland Naturinstitut, Torsten Thygesen/Aarsleff a/s, Shaun Bunn/GME, Ib Laursen/GME, Johannes Kyed/Kompetence Kompangiet, Flemming

Date	Consultation Method	Stakeholder	Attendees
			Pagh/Orbicon, Rikke Carlsen/Grontmij
2011-06-03	Meeting	Forum for local business in Qaqortoq	Jim Riis (Chairman - Local Forum for local businesses of Qaqortoq), Leif Baahd (Kommune Kujalleq), Ib Laursen (GME), Shaun Bunn (GME), Siva Chiba (GME), Rikke Carlsen (Grontmij)
2011-06-05	Community Open Day in Qaqortoq	Qaqortoq and Narsaq townspeople	Approximately 1500 townspeople
2011-06-06	Public Meeting - Narsaq	Approx 60 Local Citizens	60 Citizens, Ib Laursen-GME, Johannes Kyed-GME, Shaun Bunn-GME, Rikke Carlsen-Grontmij, Flemming Pagh Jensen-Orbicon
2011-06-07	Public Meeting - Nanortilik	21 Local Citizens	21 Citizens, Ib Laursen-GME, Johannes Kyed-GME, Shaun Bunn-GME, Rikke Carlsen-Grontmij, Flemming Pagh Jensen-Orbicon, Emma Neale-GME
2011-08-22	Meeting	Sheep Farmer at Ipiutaq	Agathe Devisme, Ib Laursen-GME, Siva Chiba-GME
2011-09-25	Student Meeting at Greenland School of Mining - Sisimiut	Students and Lecturers - 60 people	60 Students and Teachers, Ib Lausen / IL, Siva Chiba / SC, Garry Frere / GF, Carsten Olsen / CO, Jenseeraq Poulsen / JP, Erik Holmsgaard / WOW, Hans Hinrichsen / HH
2011-09-26	Community Meeting Sisimiut	22 Local Citizens including the Mayor of Sisimiut	22 Local Citizens, Ib Lausen / IL, Siva Chiba / SC, Garry Frere / GF, Carsten Olsen / CO, Jenseeraq Poulsen / JP, Erik Holmsgaard / WOWS

2012

Date	Consultation Method	Stakeholder	Attendees
2012-04-17	Tele-conference via Tele Greenland	Sheep Farmer-Agathe Devisme.Tele-conference via Tele Greenland	Agathe Devisme, Ib Laursen and Siva Chiba
2012-04-18	Stakeholder_ Workshop	Key Stakeholders -Info Group- GME office Narsaq	Pavia Rohde GME/ Firedepartment, Jacob Sakariasen fire department, Aaron Kleist SIP, Monika Bruhn Allu design/business forum Narsaq, Helgi Jonasson Narsaq farmhouse, Josef Petersen Perersarfiq, Grethe Nielsen Komune Kujalleq, Poul Jørgensen Center leader Qaqortoq and Kurt Pedersen Center leader Nanortalik Perersarfiq.
2012-06-05	Meeting	Key Stakeholder-Sheep Farmer-Agathe Devisme and Kalista Poulsen	Agathe Devisme, Kalista Poulsen, Aqaluaq and Anne Jensen (Agriculture advisory services), Grethe Nielsen (Kommune Kujaleq), Siva Chiba/GME, Ib Laursen/GME, Shaun Bunn/GME
2012-06-05	Meeting	Key Stakeholder-Sheep Farmer-Sofus and Suka	Sofus and Suka, Siva Chiba, Ib Laursen, Shaun Bunn
2012-06-06	Meeting	Key Stakeholders -Info Group- GME office Narsaq	Pavia Rohde GME/ Firedepartment, Jacob Sakariasen fire department, Monika Bruhn Allu design/business

Date	Consultation Method	Stakeholder	Attendees
			forum Narsaq, Helgi Jonasson Narsaq farmhouse, Grethe Nielsen Komune Kujalleq, Paul Cohen/Tuluttut Translations
2012-06-06	Meeting	Key Stakeholders - Hotel Qaqortoq-18 people	Simon Simonsen/Mayor, Erik Norskov/Norskov, Jim Riis/Hotel Qaqortoq, Heidi Moller, Niels Chemnitz/GMS, Rainer Permien, Bent Kragh, Per Holm, Laars Berg, Henrik Christenson/GA, Arkalo Andersen, Rasmus Rasmussen/GMS, Ida Vahl/GMS, JW Johansen, Shaun Bunn/GME, Ib Laursen/GME, Siva Chiba/GME.
2012-06-06	Public Meeting - Narsaq	Approx 41 Local Citizens of Narsaq	41 Citizens, Ib Laursen-GME, Kelly Betherlsen-GME, Shaun Bunn-GME, Siva Chiba-GME

2013

Date	Consultation Method	Stakeholder	Attendees
2013-03-07	Workshop	Info Group Narsaq	Monika Brune business forum Narsaq, Paul Cohen, Poul Christiansen headmaster Inuili , Pavia Rohde fire chef, Vittus Nielsen, Isak Vahl KNAPP,Helgi Jonasson Permagreen, Suka Frederiksen sheepfarmer social department manager, Aron Kristiansen SIK,
2013-05-24	Town Hall Meeting	Narnortalik	GME - Jeremy Whybrow, Jenseeraq Poulsen Local citizens from Narnortalik

Date	Consultation Method	Stakeholder	Attendees
2013-05-25	Workshop	Info Group Narsaq	GME - Jeremy Whybrow, Ib Laursen Monika Brune business forum Narsaq, Paul Cohen, Pavia Rhode fire chief, Vittus Nielsen
2013-05-25	Town Hall Meeting	Narsaq residents	Members of local community, GME - Shaun Bunn, Jeremy Whybrow, Ib Laursen, Jenseeraq Poulsen
2013-05-26	Public Meeting	Qaqortoq residents	Members of local community, GME - Shaun Bunn, Jeremy Whybrow, Ib Laursen, Jenseeraq Poulsen
2013-05-27	Business Forum	Qaqortoq	Members of Business Forum, GME - Shaun Bunn, Jeremy Whybrow, Ib Laursen, Jenseeraq Poulsen
08-2013	Settlement Tour - Aappillattoq; Narsarmijit; Tasiussaq; Aammassivik; Alluitsup Paa; Eqaulugaarsuit; Saaloq; Narsarsuaq	Residents of south Greenland towns	Residents of the towns of Aappillattoq, Narsarmijit, Tasiussaq, Aammassivik, Alluitsup Paa, Eqaulugaarsuit, Saaloq and Nararsuaq.

2014

Date	Consultation Method	Stakeholder	Attendees
2014-01-20	Meeting at GME office in Nuuk	Mayor of Qaqortoq	Shaun Bunn, Ib Laursen, Jorgen Waever Johansen, Frank Hedegaard
2014-06-12	Public Meeting	Narsaq residents	24 local residents, 9 GME staff
2014-08-04	Settlement tour public meeting	Residents of Ilulissat	three employees from MLSN
2014-08-05	Settlement tour public meeting	Residents of Qeqertarsuaq	20 local residents
2014-08-06	Settlement tour public meeting	Residents of Qasigiannguit	6 local residents
2014-08-07	Settlement tour public meeting	Residents of Aasiaat	10 local residents
2014-08-08	Settlement tour public meeting	Residents of Sisimiut	11 locals from the school of mines
2014-08-11	Settlement tour, visit to employees	Residents of Kangaamiut	local employees

Date	Consultation Method	Stakeholder	Attendees
	at local municipality and local store		
2014-08-12	Settlement tour public meeting	Residents of Maniitsoq	10 local residents, 7 from the Artec engineering school
2014-11-17	Meeting	Residents of Nuuk, Transparency Greenland and WWF	Ole Kristiansen, Jess G Berthelsen & John Mair all in the panel, Robert Møller as mediator and Poul Krarup as host. Between 125 to 135 spectators.

2015

Date	Consultation Method	Stakeholder	Attendees
2015-02-19	Meeting	Campus Kujalleq, Highschool	Johanne Thorhauge + 5 other teachers
2015-06-08	Info tour	Qassiarsuk	Settlement citizens and sheepfarmers
2015-06-09	Info tour	Igaliku	Settlement citizens and sheepfarmers
2015-06-10	Info tour	Narsaq	Local fishermen and hunters association, info group, Narsaq town hall meeting
2015-06-11	Info tour	Qaqortoq	Sheepfarmers association, local fisher and hunters association, Municipality deputies, Contractor Nørskov
2015-11-02	Panel discussion	Campus Kujalleq, Highschool	Mikkel Myrup NGO, Mayor Jørgen Wæver Johansen, Lisbeth Søvndahl IA, Johannes Kyed GME
2015-11-03	Meeting	Municipality South	Mayor's office

2016

Date	Consultation Method	Stakeholder	Attendees
2016-08-23		Info group, Hunting Fishing Narsaq	
2016-08-24		Campus Kujalleq High School Qaqortoq	
2016-08-24		SPS Sheep farmer advisory	

2017

Date	Consultation Method	Stakeholder	Attendees
2017-05-08	Meeting - Narsaq	Narsaq Info group	Info group representatives
2017-08-31	Skype meeting - Narsaq	Municipality Kujalleq	Keld Jensen
2017-09-06	Meeting - Narsaq	Municipality Sermersooq	Lars Møller Sørensen, Deputy chief
2017-11-16	Meeting - Qaqortoq	Municipality Kujalleq	Mayor's office

2019

Date	Consultation Method	Stakeholder	Attendees
2019-06-24	Meeting	South Greenland Mayor's office	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GM), Kista Isaksen, Carsten F. Hansen, Ole Christensen
2019-06-24	Meeting	City council Business Committee	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GML), Business and Job market committee
2019-06-24	Meeting	South Greenland Business council	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GML), Rasmus Rasmussen, Jim Riis

Date	Consultation Method	Stakeholder	Attendees
2019-06-24	Public meeting	Public in Qaqortoq	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GML)
2019-06-26	Meeting	Info group Narsaq	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GML), Info group
2019-06-26	Public meeting	Public in Narsaq	Garry Frere (GML), Liz Wall (Share Resources), Johannes Kyed (GML)

Appendix nr.13: Facebook communication with the locals in Narsaq.

Nr. 1.

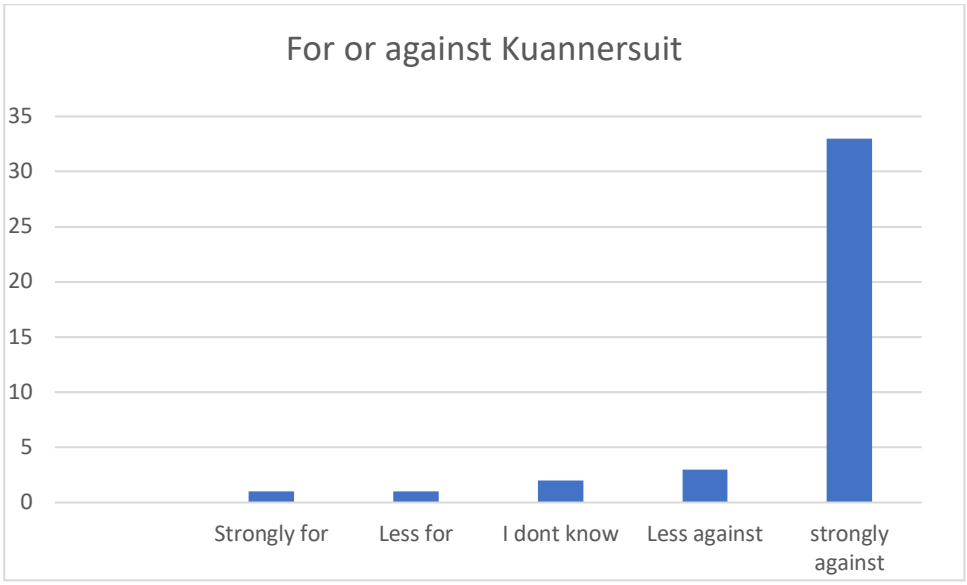
Aluu, my name is Ayoe Kristiansen, and I'm a student from Ilisimatusarfik where I am writing my master's in social sciences. My thesis is centralized around Kuannersuit, Tanbreeze, and Greenland Minerals, additionally about the Greenlandic mining industry. The reason why I'm going to Narsaq and Qaqortoq is that I'm hoping to meet a lot of nice people and maybe, some would let me interview them, where I ask about their opinions regarding the Greenlandic mines and how it is to live in the hotspot for Greenland's future, the whole thing is very casual and everyone will remain anonymous. A little about me, I am a full-blown nuummiutter where my mom is from Uummaanaq and my dad from DK but I have always lived in Nuuk, sadly I only speak Greenlandic to kids and my son, so the actual interview will be done in either Danish or English. I hope some of you want to meet for some coffee and cake and I'm landing on the 24th of august and leaving on the 31st to Qaqortoq. Please do write if you have any questions and/ or advice, Takuss!

Nr.2.

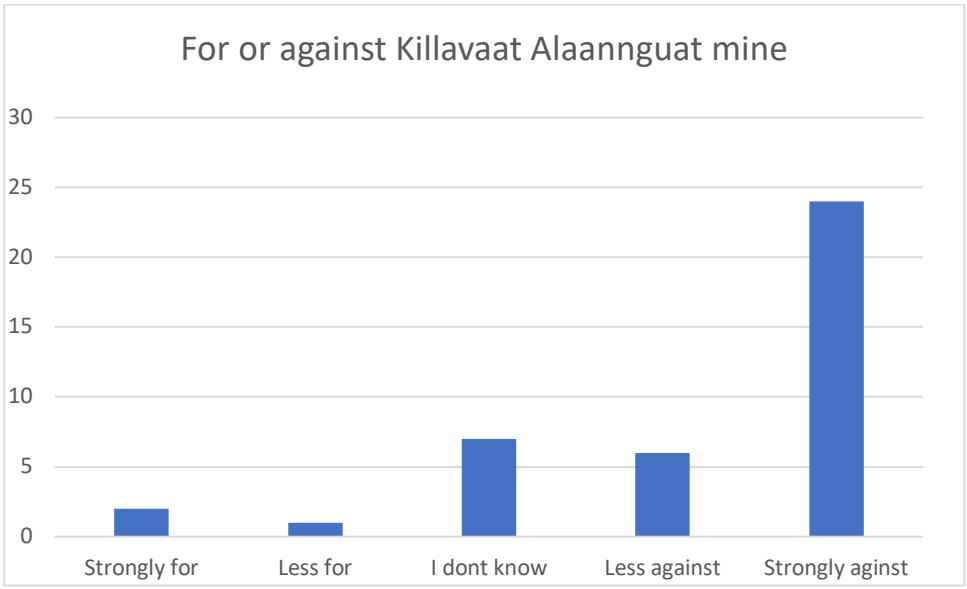
"Aluuukut, now im in Narsaq and what a beautiful place. To the citizen meeting tomorrow, my survey I'm making related to my master thesis from the university of Greenland, will be present and will be available in both Danish and Greenlandic and I would be very grateful if you guys took the time to answer it. I will be at the meeting as well in my red Amaat, so please do come if you have questions or just to say hello. Have a lovely day".

Appendix nr.14: Survey charts.

Survey chart table nr.1

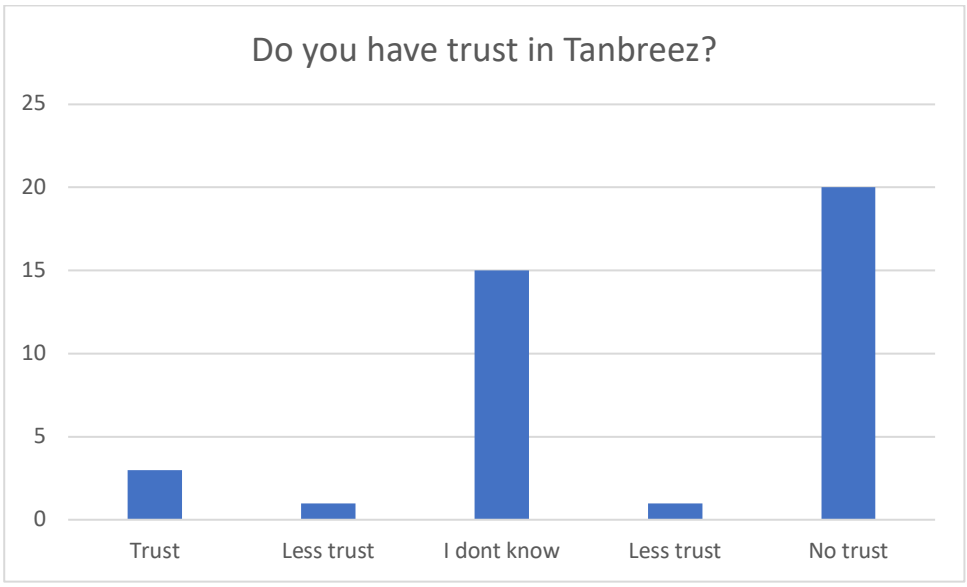


Survey chart table nr.2

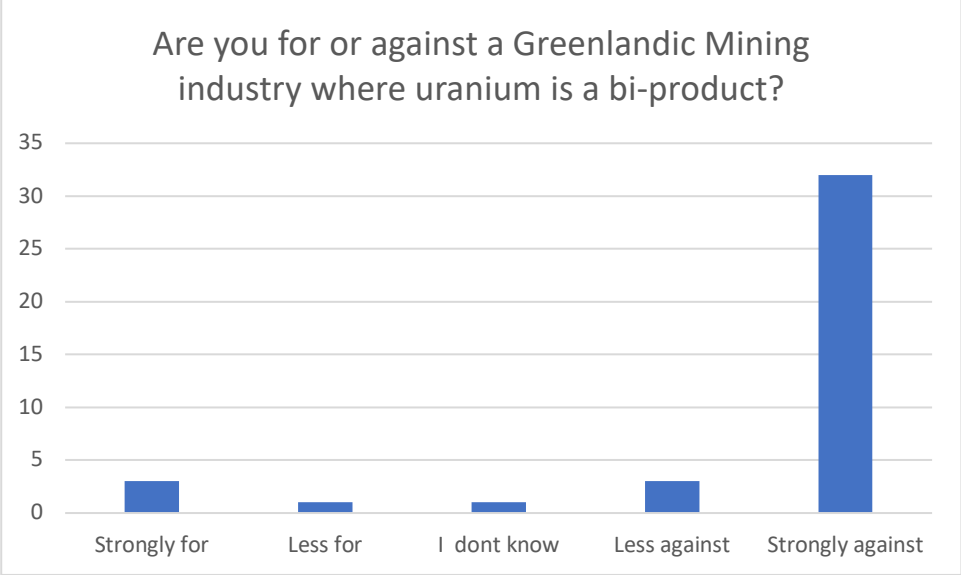


Survey chart table nr.3

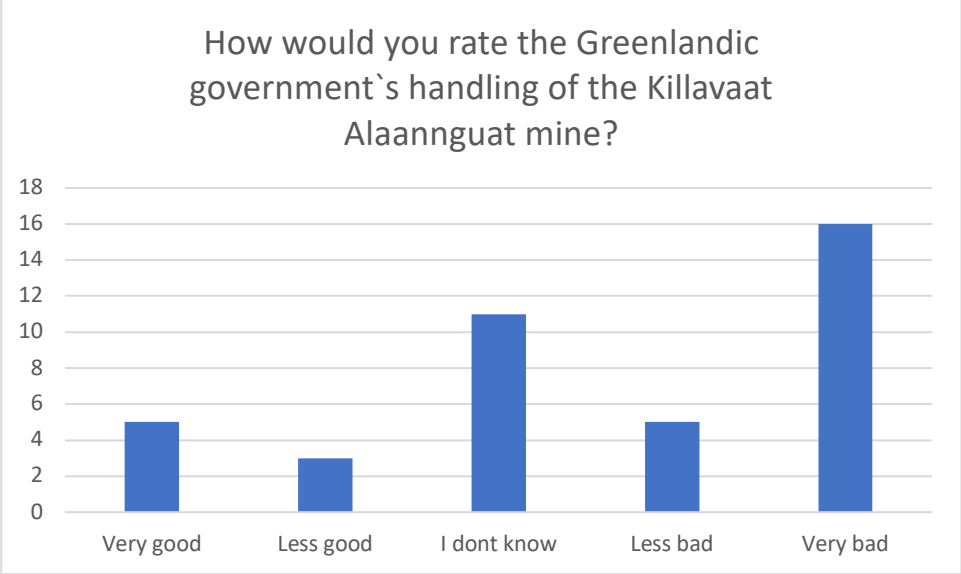
Survey chart table nr.4



Survey chart table nr.5



Survey chart table nr.6



Survey chart table nr.7