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Abstract

This article will look at the multi-level governance complexities regarding uranium mining in Greenland. The area of natural resources is seen as a savior for getting the Greenlandic economy on its feet for future endeavors. However, the management of natural resources has been disputed and especially when it comes to minerals such as uranium and other radioactive elements. How is this area regulated and how is the Greenlandic Government coping with this issue? There have been controversies between Greenland and Denmark in relation to the management of the natural resources in the past, and especially when we are talking about uranium as a dual commodity, which can be used both for civil and military purposes. What are the relationships between Denmark and Greenland regarding this issue and how are the Greenlandic population perceiving this type of mining?

Introduction

The debate over Uranium has been on and off in Greenlandic politics. The first discovery of Uranium was back in 1955 in south Greenland. In the Law on Mineral Resources in Greenland from 1965, the first mentioning of uranium and thorium is stated as these were resources of a different kind, accompanied by international conventions. With the introduction of Home Rule in 1979 a new Mineral Resources Act was implemented as a joint matter between Denmark and Greenland. This Law was later replaced by the 1991 Mineral Resources Act. However, these laws from 1979 and 1991 are not mentioning anything about radioactive substances. In the 2000s, the discourse of 'zero-tolerance' was coined. However, there has never been any official document stating this matter. In 2009 with the introduction of the new Self-Government Act, Greenland received the competence over all its natural resources. A new Mineral Resources Act was implemented because of this in 2010. There is clearly a division in favor and against extraction of Uranium in Greenlandic politics amongst the political parties and population. *Inuit Ataqatigiit* (IA) and *Partii Naleraq* are against extraction, while *Siumut* and other parties are in favor of extraction to a certain limit.

The multi-level governance perspective will be used to detect the complexities and uncertainties underlying the issue of uranium mining in Greenland. Multi-level governance has often been referred to negotiated, non-hierarchical exchanges between institutions at the international, national, regional and local levels (Peters and Pierre, 2001). The concept of multi-level governance also includes the relationships between governance processes between all above mentioned levels. The decentralization that was implemented in Western Europe during the 1980s and 1990s accompanied

by the European integration expanded regional and local governments to be less dependent on the state (Peters and Pierre, 2001). The linkage between policy change and institutional change can be seen as a two-way street. On the one hand, policy changes trigger or necessitate institutional changes, and on the other hand, institutional changes usually entail some degree of policy change. This can definitely be the result of why the uranium-debate is a sensitive issue in Greenlandic politics.

Multi-Level Governance as an Approach

Multi-level governance (MLG) has been widely used by scholars dealing with European integration and international relations. It was first mentioned back in 1993 and then MLG literature has gained a lot of attention and been used in various ways (Stephenson, 2013). Piattoni (2009) asks whether the concept of MLG has become 'over-stretched' since it has been used in multiple ways. Theoretically, it becomes unclear if MLG refers to processes or to certain situations, or if it refers to strategies or structures. Empirically, it can be hard to detect if MLG encompasses the phenomena we are interested in or if another concept would be more relevant. From a normative view, we need to question ourselves whether decisions made through MLG are more legitimate than decisions made through other processes (Piattoni, 2009: 163-164). MLG has become a catch-all phrase to look at the same phenomena through three analytical levels: politics, policy and polity. This encompasses the political mobilization, the policy-making framework and the state structure. The empirical levels within MLG constitute territorial units (supra-national, national and sub-national) (Piattoni, 2009: 165, 172; Stephenson, 2013). The relationships between the diverse territorial levels are usually theorized through the lenses of center-periphery, domestic-foreign and state-society approaches (Piattoni, 2009: 174). Hooghe and Marks (2003) divides MLG into two overarching ideal models called: Type I and Type II governance. Type I describes jurisdictions with a limited number of territorial levels and are for more general purposes, while Type II is composed of specialized jurisdictions providing various forms of service (e.g. local service, waste management, software solution, water management etc.).

In the case of uranium mining in Greenland both these types of governance are somehow interlinked. There is clearly a territorial division between the central government in Nuuk and the municipality of how this large-scale project should be outlined, however, there are also the department for natural resources and other departments handling the issues of extractive industries and at the same time we have a multinational company of exercising the right of exploitation. The uranium mining also has international implications, since the extraction of uranium is underneath international conventions and IAEA monitoring. The case is therefore a true example of the complexities with MLG both in case of processes and functions. The relationships between Denmark and Greenland enhances the complexities, since Greenland is a subnational entity within the Danish Kingdom.

Legislative Matters

The first law in relation to onshore and offshore industrial extraction in Denmark was passed in 1932. However, during this time it was only possible to enforce laws in Greenland through a Royal Decree. The law was implemented also in Greenland in 1935. At the time Greenland was functioning as a colony, so all major decisions were made in Copenhagen (Ackrén, 2016). The Danish law on industrial extraction was modified in 1950 and the statement was clear that "all resources in Greenland soil belonged to the Danish state" (Boersma and Foley, 2014).

In January 1960, the Danish Ministry for Greenland appointed a commission to prepare a specific law on mineral resources in Greenland. The outcome was a law, which was implemented in 1965. The aim was to attract foreign investors to invest in extraction activities in Greenland. Later in 1975, political negotiations between Greenland and Denmark took place regarding the future constitutional status of Greenland. These negotiations ended in a referendum in favor of Home Rule in 1979 following the Faroese model (Hansen, 2014; Ackrén and Lindström, 2012). During the negotiations on Home Rule, the issue of ownership of minerals and petroleum in the subsoil of Greenland was discussed, but a separate law, Law on Minerals in Greenland of 1978, established a joint administration and responsibility over the area. A committee consisting of an equal number of Greenlandic and Danish parliamentarians was to make decisions on permits to companies who wished to start operations in Greenland (Ackrén, 2016).

In 1988, the Law on Minerals in Greenland of 1978 was amended for the first time. The principle of sharing revenues from the extractive field shifted in favor of Greenland and the joint Greenlandic-Danish company, Nunaoil A/S was strengthened (Hansen, 2014). In 1991, further minor changes were made in relation to the Law on Minerals in Greenland, the most significant being the requirement to provide more information to the public in Greenland of all activities going on in the field of extractive industries (Ackrén, 2016). In 1998, a further step towards managing extractive industries was taken when the Greenlandic Home Rule Government established the Bureau of Minerals and Petroleum (BMP). The new Mineral Resources Act was passed in 2009 and came into force in 2010 (The Mineral Resources Act).

Greenland took over the control of subsurface resources on 1 January 2010 as a result of the new Self-Government Act from 2009 as well as the new Mineral Resources Act. This meant that Greenland could now have direct negotiations between Greenlandic authorities and companies interested in developing Greenland's resources (Nuttall, 2013; Ackrén, 2016). The Mineral Resources Act regulates onshore and subsoil activities. The Act states that all activities should take social (health and safety), environmental and sustainability considerations in mind. Furthermore, international practices and best practices are acknowledged (The Mineral Resources Act).

BMP has been responsible for management, administrative and regulatory tasks regarding the extractive industries and had sole authority and decision-making power to issue licenses for prospecting, exploration and production until 2013 (Ackrén, 2016). However, as of 1 January 2013, BMP was renamed the Mineral License and Safety Authority (MLSA). The responsibilities of the former BMP were distributed across several administrative units - the Ministry of Industry and Minerals and a new Environmental Agency for Mineral Resources Activities (EAMR), which falls under the Ministry of Nature and Environment (Report to Inatsisartut on Mineral Resource Activities in 2013).

On Thursday 24 October 2013, two historic decisions were made in the Greenlandic Government (Naalakkersuisut) and the Greenlandic Parliament (Inatsisartut) respectively. The first decision made in the Government was related to an agreement, which gave the UK-based company, London Mining, a development and exploitation license for the Isukasia project, located 150 km north-east from Nuuk.

The second decision made by the Parliament was a narrow favor (by 15-14) of repealing the zero-tolerance policy on the mining of uranium and other radioactive materials (Nuttall, 2013).

The Mineral Resources Act from 2010 was improved in 2014 to include a possibility for applying for funding for various stakeholders in order to do their own investigations. This initiative helps locals, NGOs and associations to gather information from neutral sources already at the stage of the scope study. Another improvement is the inclusion of pre-consultation and consultation in the Act (Ackrén, 2016).

Relations between Denmark and Greenland

In recent years, international companies have begun to explore the prospects and opportunities for uranium mining, either directly or as a by-product of rare earth elements extraction, with the Australian-owned company Greenland Minerals and Energy (GME) focusing on potential development of both uranium and rare earth elements at Kuannersuit (known as Kvanefjeld in Danish), a plateau near the south Greenland town of Narsaq, which has a population of about 1500 (Nuttall, 2013). Even though, GME has been active there since 2007, the prospects of uranium mining at Kuannersuit have been subject of speculation for almost 60 years (Nuttall, 2013; Nielsen and Knudsen, 2013). Kuannersuit is estimated to consist of 575 million pounds of uranium and 10.3 million tons total of rare earth elements (Bjørst, 2017).

In April 2013, 48 NGOs from around the world signed an appeal to the Greenlandic and Danish governments to keep the zero-tolerance policy in place (Bjørst, 2017). But in October 2013 the Greenlandic Parliament lifted this ban as mentioned before. There are disputes that have taken place between Denmark and Greenland due to the mining of uranium and other radioactive substances. Denmark sees the extraction as part of the foreign- and security dimension, while Greenland looks at it as part of internal, domestic policy in relation to other natural resources.

Rare earth elements (REE) are to be found both at Kuannersuit (Kvanefjeld) and Kringlerne in the Ilimaussaq complex. These elements are used in modern technology, everything from wind turbines, solar panels, batteries, iPads, computers to pumps and weapons. China is here seen as the major investor, since China controls about 97 per cent of the production of REEs in the world (Mortensen, 2013). It has been prohibited to explore and exploit radioactive elements in Greenland from the 1980s until the lift of the ban in October 2013 (Mortensen, 2013). However, in the post-war years Denmark was interested in promoting the use of nuclear energy. This included access to uranium within the territories of the Realm (hence Greenland). From 1955 and for a few years following there was exploration for uranium in Greenland. Three nuclear reactors were operated in the period of 1957-2000 (Nielsen and Knudsen, 2013; Mortensen, 2013).

Denmark's interest in nuclear power came to an end with the Parliament's decision, B 103 of 29 March 1985. As a matter of fact, the only nuclear power plant (a non-test reactor) in the Danish Realm was situated in Greenland at the US Research Station Camp Century about 200 km east of the Thule base (Pituffik). It was only in use from October 1960 to July 1963 (Mortensen, 2013).

The prohibition for and exploitation of uranium deposits is therefore seen as a logical extension of the Danish policy. Greenland has in the past had bad experiences of mining operations due to environmental damage. Mining waste has caused problems, including polluting marine flora and fauna. In reference to uranium mining the problem is not as much the radioactivity but the fact that uranium is a toxic metal, which can lead to health problems and environmental pollution in the area where such a metal is extracted (Mortensen, 2013). The prohibition of exploration and exploitation of uranium mining, the so called 'zero-tolerance' policy in Greenland has been strongly politically motivated. As also stated by the MLSA before the lift of the ban regarding licenses: 'The license covers prospecting for all mineral resources except hydrocarbons and radioactive elements, unless otherwise indicated in the license' (Mortensen, 2013).

To the extent that Greenland becomes an exporter of uranium, it will have to comply with the special rules of the International Atomic Energy Agency (IAEA). Mining operations in themselves are not covered by these rules, but they apply for now as enriched substances or as usage for fuel. Greenland is not covered by the agreement between the EU and the IAEA, but there is a separate safeguard agreement for Greenland (Mortensen, 2013).

Greenland is already covered as part of the Kingdom of Denmark by the Treaty on the Non-Proliferation of Nuclear Weapons. Export controls and relevant regulations on uranium exploitation and exports are likely to have to go through Denmark (Boersma and Foley, 2014). Denmark is party in several treaties within the non-proliferation regime. Amongst these are the Non-Proliferation Treaty already mentioned and the Comprehensive Nuclear-Test Ban Treaty. These are now in force for Denmark but not for Greenland. Changes in competences between Greenland and Denmark may have consequences for these treaties.

As mentioned by Bjørst (2016) there are two major discourses in Greenlandic politics when it comes to uranium mining. The risk analysis or discourse concentrated around the issues of how uranium mining will destroy the local community and global nature as such. This discourse is usually framed by NGOs and hesitant local people. The other discourse is in line with the Government of Greenland to look for a brighter future with economical gains from the mining industry and where the local community will be saved with new job opportunities and benefit the Greenlandic economy as such (Bjørst, 2016). These discourses are very much in conflict with each other.

In January 2016, the Greenlandic and the Danish governments signed an agreement on exploitation and export of uranium and other radioactive substances. This agreement consists of an overall agreement regarding specific foreign-, defense- and security political relations, which are related to exploitation and export of uranium from Greenland. It also includes a joint declaration about security control over nuclear material and a joint declaration regarding export control over products and technology, which can be used for both civil and military purposes (dual-use). Furthermore, the agreement includes an agreement around the safeguard of Greenland's nuclear security in relation to the mining industry (*Aftale med den danske regering om uran*). Uranium is a dual-use good, since it is both a mineral and can be used for foreign and security issues. There is overlapping legislation in this field, since we do have laws which are underneath the Greenlandic Government (such as the Mineral Resources Act), the Self-Government Act, the Danish constitution, Danish law, and added

to this international law regarding nuclear non-proliferation, some of which applies to Denmark but not to Greenland.

All activities within Greenland regarding the uranium mining itself are under the competences of the self-government, but as soon as uranium leaves Greenland, the situation might change, and the Danish Government becomes responsible for the control of the further process. This can be seen as a triggering factor for the 'agree to disagree policy' between Greenland and Denmark. In practice, Greenlandic authorities will issue licenses for pre-studies, investigations and exploitation of uranium and other radioactive material. Any company or other actors involved in these activities will deal with the Greenlandic authorities only. However, nuclear safety is a common competence of both governments. The self-government has the responsibility for all nuclear facilities that are built and run in connection with mining and the direct processing of uranium (*Aftale med den danske regering om uran*). The Danish foreign ministry and the Greenlandic self-government will cooperate closely and share information both ways on all issues relating to the nexus of nuclear material and foreign-, security-, and defense policy (*Aftale med den danske regering om uran*).

Potential Consequences of Uranium Mining

Subnational regions often face difficult environmental legacy stemming from mining and related industries, since there are persistent pollution of water, soil and air. Such regions and their inhabitants therefore face huge challenges to their economic, social and environmental future (Harfst and Wirth, 2011). This holds true also for South Greenland where a future uranium mine might open. The inhabitants are for the time being divided into two fractions; one in favor of mining and one against mining. This means that the region is also stagnating. There is no hope for the future for those who believe in tourism and no investments are therefore done, since everyone is waiting for the final decision about the opening of the mine. Without job perspectives for the future, the region experiences a severe outmigration of young and skilled labor.

There are several problems related to mining regions, which have been detected in previous research. The most problematic issue is the problem of interplay between various levels of policy making. The interplay between different institutions and mismatches between the different layers of government (i.e. national and local policy) as well as problems interlinking actors at the same policy level (i.e. regional level) to establish a common position on certain problems or opportunities (Harfst and Wirth, 2011). Related problems might arise from the issue of fit regarding the spatial area, which might be defined by administrative borders and sectoral policy agendas. A third problem relates to scale, which might involve differences in perception/policy aims between different scales in multi-level governance systems and last but not least the problems of path dependency. This relates to the difficulties of inherited development path of regions, which can hamper future regional development options (Harfst and Wirth, 2011).

Should include examples from the Greenlandic case….

Conclusion

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