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EXECUTIVE SUMMARY

The project report discusses geopolitical tensions and drivers affecting the development of major industries in the European Arctic, namely, aquaculture, forestry, mining, and tourism. The analysis is based, first, on national Arctic strategies developed by European Arctic states (i.e., Finland, Sweden, Norway, Iceland, and regions under the Danish kingdom, i.e., Greenland and the Faroe Islands) treating the development of different industries in the future. Certainly, national strategies also play an important role in business development. Also, national industry-specific strategies and relevant EU strategies were examined and reflected on for this purpose. Second, 60 interviews were carried out to explore how geopolitics can affect the development of different industries and how informants related to these industries understand their operations in the Global North.

Geopolitics is a concept used in political discussion, media coverage, and various academic disciplines. In this report, we apply two mainstream geopolitical approaches: traditional and critical. *Traditional geopolitics* refers to politics of states with their sovereignty over territories and state-based international political bodies. *Critical geopolitics* recognizes that an understanding of the political governance of territory is also constructed through discourses, ideas, ideologies, and values of different actors, not only by state jurisdictions and international entities.

Different relevant themes are related to specific industries. Fish are farmed in coastal areas of littoral states, but fisheries in open seas are very much an issue of national interests and international treaties. International politics come into play in the form of trade wars, in which even a Nobel Prize can shut out products from important Chinese markets. Nevertheless, Arctic fish have large global markets, being framed as sustainably produced, nutritious food for consumers who pay close attention to their diet. In forestry, an issue at stake in the early 2020s is the conflict between conservation, promoted by the European Union, and national interests in Finland and Sweden seeking to intensify the wood-based production of various kinds of products. Mineral exploration and mining are expanding in northern Scandinavia as the European Union intends to be self-sufficient in minerals and metals, especially the critical ones needed for a sustainable transition to a carbon-free society. In tourism, Covid-19 has highlighted the meaning of national borders and shown that tourism in the North is vulnerable when flights and cruise ship travel are challenged.



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1. Introduction

There is no single definition of the *European Arctic* – as we call our research area in the ArcticHubs project – nor is there a single definition of the *Arctic* as a whole. For example, Finland has defined the whole country as part of the Arctic, although the capital of the country is around 800 kilometres south of the Arctic Circle, often seen as the southern border of the Arctic.²⁷ Who defines the Arctic and how is a matter of political, economic, and cultural debate. Definitions are not just words, as they have concrete implications for the physical world, for example, concerning where European Union (EU) funding for developing northern areas is targeted. The ArcticHubs' definition of the European Arctic follows the definition proposed in the Arctic Human Development report, according to which the European Arctic comprises the following: Lapland County in Finland; Nordland, Troms, and Finnmark counties in Norway; Norrbotten and Vesterbotten counties in Sweden; and the whole of Iceland, the Faroe Islands, and Greenland.²⁸

ArcticHubs' research areas in different countries can be called northern peripheries, as they are in many ways under the control of nation states and are subordinate to the authority of southern capital centres. In the system of nation states, "the centre represents the seat of authority, and the periphery those geographical locations at the furthest distance from the centre, but still within the territory controlled from the latter". Peripheries are seen as distant, different, and dependent from the perspective of central areas. On the other hand, such a geographical understanding of areas and places does not seem right to those living in, for example, northern areas in light of their daily lives. A periphery can also be described "as an *opportunity structure*, that is, a space offering several possibilities of action to those people living and working within it". 30

In the ArcticHubs project, hubs are understood as opportunity structures. As defined in the project application, hubs are places or areas acting as sociocultural, economic, and industrial nodes that are interconnected via geographical, infrastructural, and economic networks. They are typically concentrated in historically important areas that have formed organically or were strategically planned according to flows of people, goods, capital, information, organizational activities, and power relations. Each hub also lies at the heart of vast tracts of sparsely

³⁰ Ibid., p. 115.



²⁷ Finland's Strategy for Arctic Policy (2021).

²⁸ Larsen and Fondahl (2015).

²⁹ Rokkan and Urwin (1983, p. 113).



populated land with different land-use modes. Locations and types of different hubs are shown in Figure 1.

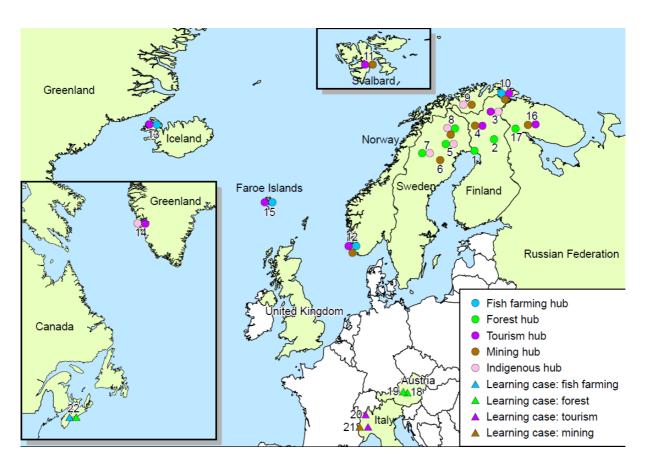
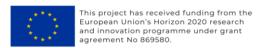


Figure 1. Locations of hubs and learning cases targeted in ArcticHubs. Green indicates countries with consortium members. Numbers in the map refer to the locations of the 33 hubs and seven learning cases: 1. Kemi, 2. Kemijärvi, 3. Inari, 4. Kittilä, 5. Jokkmokk, 6. Kristineberg, 7. Gran Sameby, 8. Gällivare, 9. Kautokeino-Kvalsund, 10. Varangerfjord, 11. Svalbard, 12. Egersund, 13. Westfjords, 14. Nuup Kangerlua, 15. Suðuroy Kommuna, 16. Khibiny mountains, 17. Kovdor, 18. Ennstaler Alpen, 19. Liezen, 20. Alagna Valsesia, 21. Germanasca Valley, and 22. Halifax, Nova Scotia. 31

This project reports responses to Task 1.2. *Geopolitical tensions and drivers in the Arctic affecting the development of different industries and Arctic hubs*. This task consists of two subtasks. Subtask 1.2.1. *Identification of EU and national frames in promoting the development of different industries* involves the analysis of key EU and national Arctic policy documents to assess how they frame present and future developments of different industries in the hubs. Subtask 1.2.2. *Geopolitical*

³¹ The map is from the original application. Learning cases in Canada (22), Italy (20 and 21), and Austria (18 and 19) were not involved in the study. Hubs in Russia (16 and 17) were reflected on, but are not discussed in this report due to limited data.





tensions affecting the development of different industries and hubs is intended to understand how geopolitical drivers can affect the development of different industries/hubs.

In other words, the main research question addressed in the project report is: What geopolitical drivers are affecting key industries in the European Arctic? By geopolitics we mean the political governance of the area, but also the geographical and locational imaginaries of what the European Arctic is. When applying geopolitical approaches, we first conduct traditional geopolitical analyses of industrial developments by discussing legal regimes. This includes nation states' interests and legislation, international bodies and collaboration (e.g., via the EU and Arctic Council), and international treaties affecting different industries. Another theme is based on critical – or constructivist – geopolitics, which leads to questions of how the European Arctic is narrated, described, known, and therefore actually "made" in the discourses of different industries. These two themes are discussed in their respective chapters, both starting with analyses of national Arctic strategies, in order to reach an overall understanding of how nation states see the current situation in the Arctic and of how the states define the European Arctic.

The report is structured as follows: In the next section data and method are described. Traditional geopolitics and critical geopolitics are addressed in the main chapters of the report, structured so that, first, the input of national Arctic strategies is analysed and, second, the geopolitics of different industries are described. As usual, the paper ends with brief conclusions.





2. Data and method

The material for this project report consists of three types of data: (1) future-oriented policy papers at the national and EU levels, (2) national industry-specific strategies and industry-relevant EU strategies, and (3) interviews with informants operating as specialists in one of the four industries (i.e., aquaculture, forestry, mining, and tourism) and/or having a special interest in the Arctic at the national and international levels. A full list of the policy papers, industry-specific strategies, and interviewed organizational representatives appears in Annexes 1 and 2. In total, the data consist of 60 interviews and 59 policy papers.

The method used for policy paper and interview analysis was qualitative thematic analysis (TA), as the data corpus was large, comprising hundreds of pages. As the research approach was based on forecasting, we identified and thematized megatrends, trends, weak signals, and wild cards. Other themes treated in the TA were definitions of the Arctic, sustainability and its three pillars, themes related to indigenous people, and Covid-19 as an actual world challenge in the early 2020s.

For the purposes of this project report,³³ the data were analysed in line with two geopolitical approaches: traditional and critical. In the traditional geopolitical approach, all mentions and discourses of nation states operating in the European Arctic, international bodies and collaboration, and international treaties affecting different industries were identified in the interviews. In the critical geopolitical approach, definitions of the European Arctic and discourses describing different industries operating in it were analysed. These main themes were discussed among all researchers collecting and analysing the data to achieve a common understanding of the concepts. In reading the contents of the data in light of these themes, the TA applied an inductive approach in which the analysis proceeded in terms of the data.³⁴

The researchers conducted the interviews, summarized the texts and organized them according to the thematic sections described above, and shared them with the research group via the common platform "Tiimeri". After all the data were available, research groups for different industries were formed based on their fields of interest and expertise. The data were discussed and analysed by the research groups for the different industries, after which the groups gave their input for the report. Lead editors compiled texts and, after proofreading, the

³⁴ Braun and Clarke (2006); Nowell et al. (2017).



³³ There are two forthcoming project reports for WP1: *Global drivers of different industries in the European Arctic* (due March 2022) and *Climate change impacts affecting industrial activities in the European Arctic* (due July 2022).



research groups had a second opportunity to check their parts of the text in January 2022. The project report is thus very much based on the collaborative work of scientists conducting studies in their areas of expertise.



3. Traditional geopolitics in the European Arctic: states and sectoral industries

The globalized world is complex, as there have been vertical power shifts from nation states to international bodies such as the EU and NATO, and as states have increasingly decentralized their power to regions and industries in fostering economic development. Related are horizontal power shifts, for example, in the development of various industries, which are increasingly in the hands of multinational companies and influenced by various non-governmental organizations. Despite this, nation states are still important players in the development of their northern territories. This idea is discussed in traditional geopolitical terms, arguing that the state is still an administrative and geographical entity defined by borders, reserving the ultimate right to exercise military power in its own territory. State sovereignty over physical space and natural resources is still valid. Hence, a traditional geopolitical approach is still relevant in the 2020s as it stresses that nation states are major actors also creating the frame for international governance via various kinds of political bodies, regulations, and agreements.³⁵

Before exploring the geopolitics of different industries in greater depth, we first present some general observations based on recent national Arctic strategies, discussing how different states define their roles in the European Arctic.³⁶ Stable development was a prominent theme of the national strategies, and the interviewees also claimed that the European Arctic is peaceful and that negotiations are possible among Arctic countries via the Arctic Council and other fora. On the other hand, the interviewees discussed how the status quo may change, often citing Russia's more active military presence in the North as a reason.³⁷ This discourse may reinforce itself and lead to a future in which northern states increasingly arm themselves.³⁸

3.1 International cooperation for stable development in the European Arctic

Politically, the Arctic is characterized by two major themes: widely extended cooperation and its peaceful status. There are various organizations at multiple levels in which states can voice their opinions and political ambitions, for example, the Arctic Council (AC), Barents Euro-

³⁸ See, e.g., Dittmer et al. (2011).



³⁵ Heininen (2016); Heininen et al. (2019).

³⁶ European Commission (2021a); China's Arctic Policy (2018); The Norwegian Government's Arctic Policy (2020); Sweden's Strategy for the Arctic Region (2020); Finland's Strategy for the Arctic Region 2013 (2013); The Faroe Islands: A Nation in the Arctic (2013); A Parliamentary Resolution on Iceland's Arctic Policy (2011).

³⁷ See, e.g., Bye (2021).



Arctic Council (BEAC), Arctic Economic Council (AEC), and Nordic Council of Ministers. Most of the national Arctic strategies analysed here consider these organizations of immense importance and emphasize the significance of conducting political activities via them.³⁹ These fora are employed to voice concerns at multiple levels and regarding various aspects, such as environmental protection, maintaining territorial sovereignty, managing labour traffic, and resolving any and all potential upcoming disputes.

In recent years, interest in the Arctic as a geographical and political region has grown in scope, as states even beyond traditional Arctic borders have expressed an interest in having their voices heard concerning Arctic affairs and decision-making. China, for example, has been a significant newcomer on the Arctic stage. China has taken a more prominent role as an actor in Arctic matters, as signified by the publication of a white paper on Arctic policy in 2018 and by its admittance to the Arctic Council as an observer state in 2013. ⁴⁰ As part of its agency in the Arctic, China defines itself as a "champion for the development" of the Arctic and as a "responsible major country" with associated responsibilities.

Multiple strategies produced by Arctic states recognize the growing influence of China within the Arctic. ⁴² The tone regarding intensified Chinese presence in the Arctic cooperation matrix is mostly positive, as cooperation with China is seen as possibly fruitful in regard to reducing global greenhouse gas emissions and in regard to future economic gains from Northeast Passage marine traffic and consequent investments in the Arctic states. ⁴³ Yet Sweden, while expressing understandable interest in cooperating with China in, for example, environmental protection, stresses the potential for conflicts arising from China's intensified focus on Arctic decision-making, while simultaneously expressing concern about China's possible military ambitions within the Arctic region. ⁴⁴ Similarly, Finland recognizes in its 2021 strategy the possibility of "conflicts of interest" within the Arctic due to China's increasing presence in the Arctic region and in Arctic matters, and by extension, due to the intensification of

⁴⁴ Sweden's Strategy for the Arctic Region (2020, p. 23).



³⁹ China's Arctic Policy (2018); The Norwegian Government's Arctic Policy (2020, pp. 3, 6, 19–23); Sweden's Strategy for the Arctic Region (2020, pp. 5, 9, 11–12, 14–17); Finland's Strategy for the Arctic Region 2013 (2013, pp. 7–8, 14, 17, 19, 43–44, 59–60); The Faroe Islands: A Nation in the Arctic (2013, pp. 4, 8–10); A Parliamentary Resolution on Iceland's Arctic Policy (2011, pp. 1, 5–6).

⁴⁰ The Norwegian Government's Arctic Policy (2020, p. 22); Sweden's Strategy for the Arctic Region (2020, p. 23).

⁴¹ China's Arctic Policy (2018).

⁴² Finland's Strategy for the Arctic Region 2013 (2013, p. 26); A Parliamentary Resolution on Iceland's Arctic Policy (2011, p. 4); The Norwegian Government's Arctic Policy (2020, p. 22).

⁴³ The Faroe Islands: A Nation in the Arctic (2013, pp. 8, 16); A Parliamentary Resolution on Iceland's Arctic Policy (2011, p. 4); The Norwegian Government's Arctic Policy (2020, p. 22); Sweden's Strategy for the Arctic Region (2020, p. 23).



relationships and tensions between the "great powers". Sweden and Finland have so far been the only parties in the Arctic cooperation nexus to voice concerns at the strategy and policy levels regarding risks related to Chinese presence and potential political conflicts regarding China's military cooperation with Russia and their ambitions in the Arctic region. This could be because Sweden (in 2020) and Finland (in 2021), in addition to Norway (in 2020), have drafted Arctic strategies since 2018, when China published its own white paper, constituting a strategic channel for these states to voice their concerns and reactions to China's intensified ambitions in the Arctic.

3.2 National agency in the Arctic: (geo)political positioning

Each state, in its Arctic strategy, describes its ambitions regarding building its presence within the Arctic region as a legitimate actor. This would suggest an interpretation of the Arctic as a stage where one is not simply in a state of being, but in a state of acting and agency, where "being-in" is characterized through actions, agendas, and performance.

Finland⁴⁶ defines itself as a leader in sustainable development and sustainable practices within the Arctic region as a whole, while relying heavily on the international cooperation matrix. Finland's 2013 strategy for the Arctic region greatly emphasizes Finnish expertise in Arctic conditions, stressing livelihoods and industrial development. This emphasis is less prevalent in Finland's 2021 strategy, in which climate change and environmental protection are more emphasized than in the 2013 strategy.

The Faroe Islands⁴⁷ highlight their integral location near various new and lucrative business opportunities related to new and opening shipping routes and commercial fishing locations. Unsurprisingly, the Faroese strategy emphasizes becoming a "hub" for marine industry for international actors.

Iceland's⁴⁸ resolution expresses a strong message (more prominently than do the other analysed documents) regarding the role and importance of international law and conventions within the Arctic region and cooperation matrix. Iceland also stresses the importance of remaining a recognized littoral state within the Arctic, which could in turn be a response to

⁴⁸ A Parliamentary Resolution on Iceland's Arctic Policy (2011).



⁴⁵ Finland's Strategy for Arctic Policy (2021, p. 18).

⁴⁶ Finland's Strategy for the Arctic Region 2013 (2013).

⁴⁷ The Faroe Islands: A Nation in the Arctic (2013).



the decision by the so-called Arctic Five (i.e., Canada, Denmark, Norway, Russia, and the United States of America) to exclude Iceland from littoral state cooperation. Also noteworthy is the emphasis Iceland places on matters of indigenous peoples of the Arctic, even though it has no recognized endemic indigenous populations of its own.

Norway, in its most recent Arctic strategy,⁴⁹ emphasizes the significance of maintaining Arctic "peace, stability and predictability" through international cooperation and upholding international law. In a separate white paper on Svalbard,⁵⁰ this emphasis on upholding international law is further emphasized, while the importance of preserving permanent Norwegian habitation of Svalbardian territory is also stressed. The Norwegian paper from 2017 posits an important notion regarding Arctic politics, namely, that "Arctic policy is also ocean policy".⁵¹

Sweden, in its most recent Arctic strategy,⁵² positions itself as a pioneer of sustainable development of the Arctic region, a leader of international cooperation, and a guardian of international law and social sustainability in the Arctic.

3.3 China on the European Arctic

In addition to "traditional" Arctic states, China produced its own white paper on Arctic policy in 2018. It posits China as a "near-Arctic state", signifying a new positioning regarding "Arctic-ness", as a "champion for the development of a community with a shared future for mankind" and as a "responsible major country". This white paper signifies the beginning of a shift in the Arctic paradigm: China is "here" to stay, and is ready to act according to its interests. ⁵³

How Beijing perceives the Arctic region is perhaps more importantly expressed in the Polar Silk Road white paper of 2017, although the matter is discussed only in terms of broad principles and ideal development and policy goals. In October 2017, President Xi Jinping added the Polar Silk Road (PSR) to the Belt and Road Initiative (BRI), originating in 2013, constituting one of several "sub-platforms" such as the Health Silk Road and Digital Silk

⁵³ China's Arctic Policy (2018).



⁴⁹ The Norwegian Government's Arctic Policy (2020).

⁵⁰ Norwegian Ministry of Justice and Public Security (2016).

⁵¹ Norway's Arctic Strategy (2017, p. 9).

⁵² Sweden's Strategy for the Arctic Region (2020).



Road.⁵⁴ The BRI is the world's most ambiguous infrastructure development framework and is actually a Chinese international investment project for domestic companies. In addition, in December 2017, the Chinese Ministry of Foreign Trade and Commerce published a legally binding "opinion" that included a positive (to be enhanced) and negative (to be restricted) list of overseas direct investments. Highest on the positive list were BRI-related investments.⁵⁵ In practical terms, this means that various governmental and semi-governmental financial institutions should facilitate otherwise burdensome approval processes for transferring investments across China's national borders for BRI projects. Notably, on average it takes two years for a Chinese state-owned enterprise (SOE) to gain rights to transfer capital abroad. Many potentially international-calibre Chinese companies have to stay onshore as they lack resources as well as legal and technical expertise to successfully negotiate the mazes of bureaucracy in applying for licenses to invest abroad.⁵⁶

In 2017, the BRI was given the highest possible policy profile: it was included in the Constitution of the Chinese Communist Party, and President Xi Jinping urged companies to rely on BRI when investing abroad. Yet, this biggest investment initiative in world history lacked a governing body and an institutionalized or centralized regulatory framework. As a result, provinces, other local-level administrations, and many companies "self-labelled" their investments as BRI investments without actually obtaining official approval from the Party or state, as there in fact was no BRI body scrutinizing these projects.

As a result, thousands of delegations from all over China were travelling on a monthly basis all around the world proclaiming themselves representatives of the "official" BRI. While it is generally known that the BRI is the flagship project of President Xi Jinping, few people in recipient countries are aware that there is no centralized BRI body scrutinizing these projects and giving them the official BRI stamp. On the contrary, as the general belief is that Chinese political—economic decision-making is centralized and well coordinated, the recipient party easily jumps to the conclusion that the project under negotiation enjoys the political support of central government or even Xi Jinping himself.

This feverish behaviour was unexpectedly halted by the Covid-19 pandemic, which inhibited and eventually altered BRI policies, regulations, and practices. As early as the end of February 2020, the Ministry of Commerce of the People's Republic of China (MOFCOM) and the China Development Bank (i.e., the ministry-level development bank) issued the "Notice"

⁵⁶ Ylönen (2019).



⁵⁴ Kopra and Nojonen (2020).

⁵⁵ Ibid.



on the Development of Financial Services in Support of the New Corona Pneumonia Epidemic to Support High-Quality Co-construction of the Belt and Road Projects and Enterprises". The purpose was "winning a double victory" of containing the epidemic and continuing to develop BRI projects without losing economic momentum. Importantly and revealing is that, in this key rescue plan for the flagship BRI initiative, neither the Arctic nor the Polar Silk Road is mentioned once.

Simultaneously, the Communist Party of China launched an additional strategy activating other "sub-platforms" of the BRI – i.e., the Health Silk Road (HSR) and Digital Silk Road (DSR) initiatives. The HSR is a joint platform between the BRI and WHO established in 2017.⁵⁹ The DSR was launched in 2015 to enhance the development of global logistical chains, information and communication technology (ICT), and the sophisticated usage of "big data" in supply-management processes.⁶⁰ HSR activities included concrete measures to contain the epidemic in Chinese infrastructure projects abroad and also provided critical resources for China's "mask diplomacy" of sending coronavirus-related medical help and equipment to more than 90 nations.⁶¹ While the Party's own rescue strategy activated these BRI "sub-platforms", i.e., the HSR and DSR, the Arctic region or Polar Silk Road have not been prominent, not even mentioned.

To conclude, China's BRI institutional structure (or lack thereof), the practical implications of changes in BRI policies in 2017, subsequent local- and company-level "BRI fever", eventual BRI rescue strategies during the Covid-19 outbreak, and the apparent absence of the Arctic and Polar Silk Road from relevant documents suggest that the importance of the Arctic is still limited in comparison with the overall overseas interests of the Chinese party-state. The Arctic has essentially disappeared behind the horizon as party-state leadership concentrates on rescuing more immediate and core overseas interests.

However, Chinese discussion of and engagement in the Arctic region cannot be ignored. One essential approach is to follow the actual Arctic policies and decisions of the party-state and to interpret them in the context of broader Chinese strategic discussion. Based on analyses of discussions with Chinese representatives and on analyses of the policy decisions and actual strategies guiding Chinese investment trajectories, it seems that the leaders of the party-state have directed their attention elsewhere than on planning to gain a strategic upper hand in the

⁶¹ RMHB (2020); Escobar (2020); Beg (2020).



⁵⁷ Shangwubu, Ministry of Commerce of PRC (2020).

⁵⁸ Ibid.

⁵⁹ Beg (2020).

⁶⁰ Wheeler (2020).



Arctic region. Nevertheless, it is obvious that even comparatively small Chinese investment in what is a rather desolate but critical region or sector could play a huge role in the Arctic region. Likewise, there must be awareness that the cumulative impact of small separate Chinese investments could generate potentially dangerous dependency on China.

3.4 Traditional geopolitics of different industries

Globalization is not a single, uniform phenomenon but includes various global cultural, political, and economic processes. International trade and financial markets are globally networked, and transnational corporations lead the way in many industries. This global networking is reinforced by the digitalization, making businesses operate 24/7. On the other hand, there are also global concerns, such as climate change, that are being raised by, among others, supranational NGOs. Despite these developments, national jurisdiction still impinges on many factors affecting various industries, as discussed below.

3.4.1 Aquaculture: national interests in oceans, trade wars, and even single species

The Northeast Atlantic and the Barents Sea are attractive areas for future industrial development. Oil and gas, fisheries, aquaculture, tourism, offshore wind, and offshore mining are all expected to increase their demand for ocean space, even though expectations are diverse and based on different assumptions about future development. Future industrial development is of course a contentious issue for individual nation states, and it might lead to even more contention and uncertainty in international waters. Fisheries and aquaculture produce healthy food for a growing population, and these activities become relevant to geopolitics as soon as nation states dispute access to marine areas and fish stocks.

In 2010, a protracted dispute between Norway and Russia over areas in the Barents Sea was resolved,⁶⁴ including jurisdiction over the "Loophole", but there are still large international waters closer to the North Pole as well as in the "banana hole" between Norwegian, Icelandic, and Greenlandic waters. These are rich fishing areas, particularly for pelagic species.

⁶³ Arbo et al. (2013).

⁶⁴ Treaty Between the Kingdom of Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation (2010).



⁶² Beck (2000).



International cooperation in matters of marine jurisdiction is clearly needed for successful coexistence.

An exemplary case of national interests in oceans and aquaculture is that of Svalbard, which, because of warming waters, is becoming of commercial interest for both aquaculture and fisheries (e.g., salmon and cod farming, and crab fisheries and processing). Svalbard has a special status, making it of geopolitical interest. In 1920, Norway was granted sovereignty over the archipelago by the Svalbard Treaty ("Treaty Concerning the Archipelago of Spitsbergen"), but its territory and surrounding waters are subject to shared international rights. The Svalbard Treaty is an international agreement that ensures Norway's "full and unrestricted" sovereignty over Svalbard. At the same time, the treaty stipulates conditions that Norway must fulfil in the management of the area, including equal treatment of citizens and companies from all countries that have acceded to the agreement and restrictions on use for certain military purposes. 65 The Svalbard Treaty states that citizens of all countries have an equal right to fish and catch marine resources in Svalbard waters. Norway's claim to exclusive rights over the continental shelf surrounding the Arctic Archipelago of Svalbard is controversial, partly due to the unclear scope of the Svalbard Treaty, rendering the controversy an international political issue rather than a judicial matter. ⁶⁶ The "fish protection zone" around Svalbard is a 200-nautical-mile zone where Norway claims the right to regulate fishing to conserve fishery resources; it was established in 1977 based on the Norwegian Economic Zone Act. Based on historical rights, vessels from Norway, Russia, the EU, and the Faroe Islands have been granted access to fish for cod in the protection zone. The regulation of shrimp fishing is also based on the principle of traditional fishing for a given period, and means that only vessels from Norway, Russia, Canada, the EU, Greenland, the Faroe Islands, and Iceland can participate.

The introduction of new species into an area can become a national and international political issue. Snow crab (*Chionoecetes opilio*), commercially harvested since 2013, has gradually extended its range. This presented nations in the Northeast Atlantic with a new challenge: How should this resource be managed? If the snow crab was to be managed as a fish, harvest would be managed bilaterally between Norway and Russia or through the Northeast Atlantic Fisheries Commission (NEAFC), in which four coastal jurisdictions e.g., Norway, Russia, Iceland, and Denmark on behalf of Greenland and the Faroe Islands, as well as the European Union cooperate in managing stocks migrating into the international waters of the Northeast

⁶⁶ Pedersen (2006).



⁶⁵ Store Norske Leksikon (2020).



Atlantic. If the research community defined the crab as sedentary, the coastal states of Norway and Russia would have both the right to fish and the duty to manage the snow crab in the Barents Sea. Third partiess (in practice the EU) would not have rights to fish for the snow crab. Both political and economic interests would be affected by whether or not the crab was considered sedentary. The snow crab became Norwegian and Russian property through mobilizing the tools of public administration, such as research, political processes, and jurisdiction. ⁶⁷

Trade policy of the involved states has played an important role in shaping aquaculture in the Northern Atlantic. For example, for Norway the most important product is salmon, and four related trade conflicts can be mentioned to illustrate geopolitical tensions affecting the market for this fish. All four cases illustrate the detrimental effect of trade wars on industries relying on international trade. About 95% of Norwegian seafood is exported, with similar proportions for the Faroe Islands and Iceland as well, making fisheries and aquaculture in these countries extremely vulnerable to the whims of international politics.

In 1991, the United States, then the single largest market for Norwegian salmon, placed a 25% tariff on whole salmon from Norway after allegations of dumping. The tariff was removed in 2012, leading to a six-fold increase in sales over six years. From 1989 to 2006, allegations of the dumping of Norwegian salmon were also made by the EU, mainly in an attempt to protect the less efficient Scottish and Irish producers. The EU has always been the main market for Norwegian salmon, taking around two thirds of Norwegian production. As such, it has also been the main price-setting market for Atlantic salmon. In August 2014, salmon sales from Norway to Russia were effectively stopped by an import ban on Norwegian goods, in retaliation for Norway joining the EU sanctions on Russia after the annexation of Crimea. By 2013, Russia had grown to become the single largest market for Norwegian seafood, but since 2015, exports to Russia have been close to zero. The flip side is of course the opening, or growth, of a new market for others, such as the Faroe Islands and Iceland. For the Faroe Islands, Russia became an important market for salmon, while both the Faroe Islands and Iceland could now sell more whitefish and pelagic species to Russia. A similar effect could be seen when China banned imports of Norwegian salmon after Liu Xiaobo received the Nobel Peace Prize in 2010. The ban effectively stopped rapidly growing exports of Norwegian seafood to China, which then recovered sharply when the ban was lifted in 2017.

⁶⁷ See Kvalvik (2021).





A warming Arctic is expected to open the Northern Sea Route, presenting opportunities for faster ship transport. Today, fish and aquaculture products exported to Asia are either transported frozen, not obtaining the higher prices of fresh products, or as air-freighted fresh (or even live) products. With faster sea transportation, it would be possible to reach markets with fresh products of an acceptable shelf-life, earning the price premiums for fresh fish, while reducing the high carbon footprint of air freight and thus increasing the sustainability of both fisheries and aquaculture. In addition, the likely increase in economic activity in aquaculture and other industries in the North might make some of the planned railway connections in Scandinavia more likely. Will there be a case for realising a railway connection from the Nordic countries to the Far East? Or will the Norwegian Arctic be connected to Europe through northern Finland? Both railways and ship routes require international cooperation but could be of great importance for reaching markets more efficiently.

3.4.2 Forestry: EU-level biodiversity concerns challenge national forest commodities

Forestry-related issues have gradually become incorporated, formalized, and institutionalized in the EU, and with the accession of Finland, Sweden, and Austria in 1995, forest issues took on a new meaning. To start with, the EU's forest area doubled: the Union became self-sufficient in wood products and, moreover, became the third largest exporter of forest products globally. The economic importance of the forestry industry was something new for the EU, which also meant that forestry issues were given greater priority within the Union and globally. Through EU enlargement, the EU's responsibility for the sustainable development of the forestry sector as a whole increased to involve political, economic, social, and ecological aspects. Also apparent is a shift from seeing the forest and forestry as associated with agriculture to instead associating them with environmental issues.⁶⁸ At the end of 2021, this EU-level interest in more sustainable forestry clashed with the national interests of Finland and Sweden, where forests are seen as important national assets, when EU Member States voted and accepted forestry taxonomy as a criterion for sustainable funding.⁶⁹

A non-binding forestry strategy has been in place since 1998 (updated in 2013), and in 2021 a new forest strategy was announced by the EU Commission. The strategy is rooted in the

⁶⁹ Muilu (2021).



⁶⁸ Andersson (2007).



European Green Deal and the EU's biodiversity strategy for 2030. Furthermore, it states that forests will continue to play a crucial role in viable societies in the future, as a means of combating climate change and achieving a climate-neutral EU by 2050. Given the increasing and sometimes competing demands on forests, the amount of wood slated for consumption must stay within the limits of sustainability and be optimally used in line with a circular economy approach. However, the perception of what is optimal varies between stakeholders associated with forest use and forestry (e.g., the forest industry), reindeer husbandry, tourism, and recreational interests. Most interviewees agreed on the importance of the diversified use of forest land as well as on the need to respect different interests according to democratic principles, and some also raised the question of the political level at which decisions and trade-offs should be made. If those are made at the EU level, adaptation to what constitutes a proper balance may be limited in areas such as Lapland, where a main consideration is to ensure that industrial forestry has a future also in the European North.

Concerns have also been raised by, for example, the Swedish Government regarding some of the initiatives and proposals in the strategy that entail increased detailed regulation, increased centralization, and increased supranational elements. Sweden considers forests a profile issue in international cooperation, while also strengthening export and investment promotion. Sweden aims to safeguard the right to self-determination over forest resources and to deepen inter-sectoral dialogue, in parallel with UN goals and the 2030 Agenda. This indicates that the role of the state will remain significant in the North, a finding supported by informants.

Forestry-sector informants argue that northern Finland and Sweden already have many protected forest areas, so to meet the nature conservation objectives (e.g., biodiversity) of the new EU Forest Strategy, further conservation should take place in other parts of the countries. Furthermore, it is crucial that the accounting of what forests are considered protected should be the same in all Member Countries. At present, Sweden and Finland report only formally protected forest, while other Member States include all forests not used for timber production.

The proper balance between protection and production is also problematic because of the increased global demand for forest-based products, and if such production is not done in Finland or Sweden, it will simply be done somewhere else. In this sense, developments in Russia and China are regarded as wild cards. Russia is an important trading partner for Finland, and timber is also imported from Russia to Finland. Russia's political unpredictability was identified as a problem in interviews; as well, the future impacts of the

⁷⁰ European Commission (2013a).





energy transition on the relationship and trade policy between the EU and Russia could create challenges for the trade partnership between Finland and Russia. On the other hand, power politics also affect Finland. China invests in raw materials abroad, and it is uncertain how much China will develop its own forest industry production. At present, pulp is exported to China, but the development of China's own pulp production and changes in future demand in different production categories on Chinese markets are uncertainties. Aside from China, other countries such as India, Brazil, and South Africa are also growing markets offering opportunities to export low-grade forest products.

3.4.3 Mining: need to secure European supply security in global mineral markets

Viewing the mining sector from a traditional geopolitical perspective, the most prominent theme in the interviews was the need to secure European supplies of the rare earth elements (REEs) and other minerals (e.g., cobalt, lithium, and tellurium) and metals needed for the green transition. China is seen as a threat or even as a "villain" in mineral economics. As respondents often argue, China has almost a monopoly on the REEs needed for the batteries of hybrid and electric cars. This is supported by the literature, which claims that China provides 85–95% of the world's REEs.⁷¹ It has large resource potential in its own land area and has bought overseas mineral deposits and mines, for example, in developing countries in Africa. Cobalt is mainly produced in Congo, but under Chinese ownership.⁷² The main line of this argument is that the need for REEs is going to grow in coming decades, a claim supported by scholars as well.⁷³ How these supply chains are controlled is also an issue of global stability and security. One informant referred to "resource wars" – perhaps not military but economic ones – in global markets for REEs. China also manufactures wind turbines and solar panels, and often controls the value chain leading to the final product.

Norwegian informants especially claimed that China wants to invest in European Arctic minerals and industry and is already a player in some European Arctic countries. Elkem is one example, with a substantial supply chain and owned by the China National Bluestar Group. The company develops silicones, silicon products, and carbon solutions by combining natural raw materials, renewable energy, and human ingenuity, according to the company's website.⁷⁴ In northern Norway, the company owns two opencast quartzite mines (Tana-Varanger in

⁷⁴ Elkem (2022).



⁷¹ USGS (2014).

⁷² New York Times (2021, November 20).

⁷³ Ragnarsdóttir (2008); Svedrup et al. (2017).



Finnmark and Mårnes in Nordland) and two industrial facilities in Nordland (Salten and Mo i Rana). Elkem is also planning a new opencast quartzite mine at Nasafjell (Saltfjellet), which will conflict with reindeer herding.⁷⁵

On the other hand, there is a "dilemma of dependency" in the mineral sector and related markets, and China cannot be excluded. For example, mobile phones require small amounts of tens of REEs, many of which are dependent on Chinese production, whether in China or Africa. The problem was already identified in the European Commission's raw material initiative in 2008:

There are three main reasons why some of these materials, such as platinum and indium, are particularly critical: first, they have a significant economic importance for key sectors, second, the EU is faced with a high supply risks [sic], associated with e.g. very high import dependence and a high level of concentration in particular countries, and third, there is currently a lack of substitutes. The EU already experienced a supply crisis in 2000, when the boom in mobile phones has led to a sudden demand for tantalum. Such events can be expected to occur more frequently due to the multiple uses of these materials, and temporary supply bottlenecks can no longer be excluded.⁷⁶

On the other hand, the EU is seen as a double-edged sword with its sectoral developments. The EU is striving for more self-sufficient mineral production, with a significant focus on extraction in northern Europe; at the same time, the EU is developing a sustainability taxonomy, which some interviewees saw as a possible challenge for mining, as it might make the industry less attractive for investments. In general, environmental legislation and regulation are tightening around Europe, which is generally seen as a "good thing". Nevertheless, changes in national legislative frameworks for mining, scheduled for Norway and Finland, will entail some uncertainty for mining investments as their final outcome is uncertain.

In addition to increased self-sufficiency in Europe, resource nationalism was a theme in some mining interviews – i.e., mining should be developed in national territories under domestic ownership, which then could secure the supply chain. This theme is evident, for example, in the first (2010–2013) national mining strategies in Scandinavia.⁷⁷ Some interviewees believed that it is easier to gain social acceptance for a mining project if the involved company is

⁷⁷ Geological Survey of Finland (2010); Norwegian Ministry of Trade and Industry (2013); Swedish Ministry of Enterprise, Energy and Communications (2013).



⁷⁵ Nasafjell is the summer grazing area for Gran sameby, whose representatives are partners in ArcticHubs where they lead the research on indigenous issues.

⁷⁶ European Commission (2008, p. 3).



domestically owned. However, mining developments need vast amounts of capital investment, which, for example, in Finland has led to recent larger mining projects mainly being owned by international mining companies.⁷⁸ International companies and funding are seen as prerequisites for developing mining, but there are also voices critical of foreign ownership in Finland. How political discussions and sentiments among the general public will develop and how possible changes will affect foreign investments are open questions.

Mines in Congo were cited as examples when raising global justice issues. Many developing countries are dependent on mining, whereas, for example, Scandinavian countries may choose to leave discovered resources in the ground. At the same time, countries such as Congo have much lower standards for health and safety in workplaces, child labour is used, and there is weaker environmental protection. Increased mineral production in the European North is seen by its proponents as a response to a responsibility for global justice, although it hardly helps Congolese miners.

In national contexts, rural areas are seen as resource regions. As one Finnish informant stated, "When talking about the future of the Finnish mining industry, it is almost the same as talking about Lapland's future". Mineral exploration and mining expansion are fostered by the EU's Green Deal and the drive for a carbon-neutral Europe in a few decades. A question especially raised by Sámi informants on behalf of indigenous people without their own state was whose deal is the Green Deal. Among these informants, mining is seen as a critical threat to traditional livelihoods and ways of life – in short, a threat to the whole Sámi culture. Despite their small numbers, the Sámi people, living in northern Sweden, Norway, Finland, and Russia, have gained considerable power to postpone mining projects, but they still struggle to influence the national policies needed to protect the continuation of their traditional livelihood of reindeer herding on indigenous land. Indigenous cooperation at the international level in the UN, Arctic Council, and Sámi Council has strengthened indigenous input, even when in conflict with mining interests.

3.4.4 Tourism: borderless industry within northern nation states

Arctic tourism is regarded as an important source of economic development in European Arctic countries. This interest is demonstrated, for example, by the fact that almost all Arctic

⁷⁸ The state-owned Suomen Malmijalostus Oy (Finnish Minerals Group) has taken the lead in Terrafame (former Talvivaara) in Eastern Finland and in the Sokli mine in Finnish Lapland.





Council member states have developed some kind of tourism strategy.⁷⁹ Tourism also has political and geopolitical implications for international political and economic relationships, border management, risk, treaties and regulations, infrastructure development, and power struggles in disputed territories.⁸⁰

Starting with governance issues, the Arctic geographical area is divided among many state jurisdictions. There is an ongoing lack of a comprehensive and consistent policy for industrial development, although such a policy might be needed, for example, as such development has impacts on the environment and indigenous people's rights that are not limited by state borders. In particular, a shared tourism policy is missing: the Arctic Council, which has indeed developed important documents and guidelines about sustainable development and tourism, has failed to be effective in their implementation, so individual national strategies and regulations remain dominant. A crucial consequence of the lack of shared tourism policies and a shared regulatory framework is the absence of clarity in allocating responsibility, for example, when it comes to cruise tourism and negative environmental externalities such as oil leaks and wildlife disturbance from ships or search and rescue actions. Each of the lack of shared tourism and rescue actions.

Other significant actors in Arctic governance are the EU and UN, which have treaties with indigenous people, for example, but neither of them addresses Arctic tourism directly. 83 Finally, as often stressed by the interviewees, local authorities should play a central role in tourism planning and development, since they represent the local communities' immediate institutional level. To obtain sustainable tourism, local people must be included in order to accrue a fair share of the benefits and revenues, to allow for participative decision-making about how and what should be included in tourism products, and to avoid disruptive impacts on resources and livelihoods.

Second, the Arctic is becoming a hotspot for international interest. Competition for Arctic natural resources and for strategic control over important new Arctic sea routes as well as exacerbate geopolitical tensions which may manifest in the form of militarization. This may have important impacts on tourism. Increased militarization of the area is further important in relation to the "geopolitical risk" factor. Tourism suffers greatly from the real or perceived presence of geopolitical risk in destinations, since travellers avoid visiting places perceived as

⁸³ Ibid.



⁷⁹ Hall and Saarinen (2010).

⁸⁰ Hall (2017); Laine (2017); Zelenskaya (2018).

⁸¹ Horejsova and Paris (2013); Zelenskaya (2018).

⁸² Horejsova and Paris (2013).



risky.⁸⁴ This is highly relevant according to many interviewees because, together with pristine nature and traditional livelihoods, security and stability are two of the most appealing aspects of Arctic tourism. Tourism development and initiatives can be used as part of wider strategies for asserting national presence and jurisdiction over disputed areas and for promoting state power. Tourism development can overlap with new military infrastructure development. Militarization can also lead to stricter access regulation and restriction, for example, through visa requirements, making the possibility of actually conducting touristic activities uncertain and costly.⁸⁵

Third is the issue of borders. Tourism is described as embodying freedom of movement, but this freedom must deal with the geopolitical structure that shapes the possibilities and kinds of movement actually available for tourists. The data show that the Covid-19 pandemic has been eye opening in this regard: states often decided autonomously, even in the EU, how to manage the inbound and outbound mobility of travellers, and this has deeply affected the flow of both tourists and workers, putting serious pressure on the tourism industry. However, the Covid-19 pandemic is only one boundary-shaping process: friendly or hostile international relationships and power dynamics are another main factor to be considered, as both the literature and interviews underlined. Some interesting insights arise from different visa policies, which can expand or restrict tourist flows from particular countries and/or towards specific destinations. For example, Denmark has created a fast-track procedure for issuing tourist visas to Chinese travellers; in contrast, China excluded Norway from a 72-hour visa-free travel scheme after the Nobel Prize was awarded to Chinese dissident Liu Xiaobo. ⁸⁶

Another interesting example is how border tourism between Finland and Russia has evolved over time, increasing considerably in both directions after WWII and acting as a means to strengthen cooperation. After the Soviet Union's collapse, the flow of tourists continued expanding until the Ukraine crisis, which caused a significant shift in the EU's (and also Finland's) perception of Russia, now seen as an unpredictable threat. ⁸⁷ As could be deduced from the interviews, potential and unpredicted protectionist political turns, such as those presented by the Trump administration or Brexit, can modify border enforcement and have a significant impact on tourism too.

Furthermore, regulation is relevant not only when it comes to border management. There are various ways in which legislation could have an impact on the tourism industry, as the

⁸⁷ See also Laine (2017).



⁸⁴ Neacşu et al. (2018); Demir et al. (2019).

⁸⁵ Zelenskaya (2018).

⁸⁶ Bennett and Iaquinto (2021).



interviews and national strategies demonstrated. There is the case, for example, of the ban on heavy fuel oil that is predicted to stop older cruise ships arriving at Svalbard, and the restriction on cruises around the archipelago due to limited rescue capabilities. Another example is a hypothetical tax on airlines that would increase the cost of air travel, affecting Arctic destinations with limited, if any, other transport means. Finally, land purchase by foreign companies is a critical geopolitical issue. It allows or denies the assertion of property rights and control over land and resources, highlighting one way in which tourism can be used as a means of power projection and affirmation, opening the way for access to other strategic assets, even at a military level.⁸⁸

At the same time, infrastructure is crucial in providing opportunities for local development and international investments – with all their ambiguities and strategic connotations – and is often critical to realizing them. This is the case, for example, with the Arctic Railway from Rovaniemi to Kirkenes and, as reported in the interviews, the new international airport in Nuuk, for the construction of which a Chinese company offered significant funds, later instead provided by the Danish government, under US pressure.⁸⁹

Finally, there are also references to China-related issues in the literature and in official documents such as national tourism strategies. Chinese tourists are becoming a major group of travellers in the Arctic in terms of both number of visitors and spending, therefore representing an important target for the industry in the region. At the same time, as the previous examples showed, huge investments in tourism development projects by Chinese companies are regarded with a certain degree of caution by other political actors, as they are considered a geopolitical tool with which to expand Chinese influence on national and international affairs far beyond the tourism sector. Nevertheless, in the early 2020s, China's role in tourism investments in the European Arctic is still very limited. 191

⁹¹ Koivurova et al. (2019).



⁸⁸ Huijbens and Alessio (2015).

⁸⁹ Bennett and Iaquinto (2021).

⁹⁰ See also ibid.



4. Critical geopolitics: the European Arctic in national strategies and different industries

A constructivist approach to geopolitics is called critical geopolitics and was established in the 1990s. Critical geopolitics argues that spaces and places such as the European Arctic are produced and reproduced in discursive practices. As Anssi Paasi has claimed, a region "is in a state of becoming, assembling, connecting up, centring, and distributing" different kinds of ideas, ideologies, values and knowledges. Critical geopolitics stresses that not only states define regions. Discourses and narratives, for example, about northern places and regions, are produced and continuously re-produced, contested, and negotiated in the wider context of power relations between actors, be they states, international bodies and organizations, private companies, local people, or travellers. Places are coming to be through various discourses and interpretations, and this also means that definitions of places or physical spaces are also changing along with their concrete consequences in the ensuing policies. In the next sections, the European Arctic and its different regions and industries are discussed, first, in the context of nation states and, second, in the context of different industries.

4.1 National imaginaries of the European Arctic

As an area, the Arctic can be defined through various means. It is simultaneously a region delineated by geographical boundaries, an area defined by environmental factors, a treasure trove of resources, and a conglomeration of shared metaphors and imagery, perpetuated by inhabitants and states alike. This multiplicity of definitions regarding the Arctic is portrayed in the Arctic policies and strategies produced by various states. No definition is the same as another, making every "Arctic" portrayed in every paper unique. The lack of a single geographical definition is reflected in the various delineations of the geographic boundaries of the Arctic in the papers and strategies analysed. The most widely used definition was produced by the Arctic Human Development Report (AHDR), which refers to (geo)political demarcations and governmental borders. 94

⁹² Paasi (2010, p. 2299).

⁹³ Heininen (2018).

⁹⁴ China's Arctic Policy (2018); Finland's Strategy for the Arctic Region 2013 (2013, pp. 8, 18–19); The Faroe Islands: A Nation in the Arctic (2013, p. 7); A Parliamentary Resolution on Iceland's Arctic Policy (2011, pp. 1, 6–7); Sweden's Strategy for the Arctic Region (2011, p. 11).



Most of the states define their "Arctic" on their own, often to reflect individual understandings of the Arctic-ness of their territories. Finland defines its Arctic-ness in terms of Lapland, with southernmost Lapland residing partly below the 66th parallel, whereas Sweden considers its Arctic to begin at Västerbotten (Westrobothnia), on the 63rd parallel. Regarding Finland's definition of its Arctic territory, a shift has occurred within the paradigm since 2013, as the Finnish strategy of 2021 defines the "entire Finland as an Arctic country" as "Finland's Arctic interests and Arctic expertise are relevant to the whole country and, on the other hand, the Arctic character of the entire Finland supports and enhances Finland's international image as an Arctic country in international contexts". ⁹⁵ In its 2013 strategy, Finland posits Lapland as "an essential projection of Finland's Arctic image", whereas the entire country of Finland is said to possess "nationwide interest in the region". ⁹⁶ The point of reference has therefore shifted, from Lapland-oriented projection to nationwide projection.

For Norway, the entirety of Nordland marks the beginning of the Arctic region of continental Norway, whereas Troms and Finnmark as well as Svalbard and Jan Mayen are both defined as entirely in the Arctic. ⁹⁷ Iceland defines its territory to be Arctic in its entirety; however, only the Grimsey Island to its North lays on the Arctic Circle. ⁹⁸ The Faroe Islands, in contrast to these four, give no explanation for their Arctic-ness, but rely on the delineation and demarcation produced by Conservation of Arctic Flora and Fauna (CAFF), which includes the Faroe Islands within the Arctic region. ⁹⁹ Notably, and perhaps untraditionally, a definition of the Arctic and Arctic-ness is offered by China in its white paper, in which China defines a class of "near-Arctic" statehood. "Near-Arctic" is, according to China, a state that is not Arctic by conventional definitions, but has close proximity to the Arctic by virtue of both geographic and environmental factors. ¹⁰⁰

In addition to definitions and delineations of the Arctic as a geographical location, the Arctic is frequently defined in the analysed papers through the use of metaphors and other descriptive figures. The Arctic is often defined as a "special location" or a "unique" environment due to ecological factors¹⁰¹ and expressed through varied metaphorical imagery conveying the notion of uniqueness.¹⁰² This imagery is often repeated when referring to

¹⁰² The Faroe Islands: A Nation in the Arctic (2013, p. 16).



⁹⁵ Finland's Strategy for Arctic Policy (2021, p. 12).

⁹⁶ Finland's Strategy for the Arctic Region 2013 (2013, p. 8).

⁹⁷ The Norwegian Government's Arctic Policy (2020, p. 7).

⁹⁸ A Parliamentary Resolution on Iceland's Arctic Policy (2011, p. 6).

⁹⁹ The Faroe Islands: A Nation in the Arctic (2013).

¹⁰⁰ China's Arctic Policy (2018).

¹⁰¹ Ibid.; Sweden's Strategy for the Arctic Region (2020, pp. 32, 51); Finland's Strategy for the Arctic Region 2013 (2013, pp. 8, 32).



industries benefitting from such uniqueness, as is the case with Arctic tourism. ¹⁰³ One key metaphor regarding the Arctic is that it is a "treasure trove" of natural resources, with reference to the vast deposits of valuable natural resources in the region. In this metaphor, the Arctic is defined in terms of its abundance and richness. ¹⁰⁴ Concurrently with this metaphor, the Arctic is often described through notions of vulnerability and precariousness, related to both its biological and biotic spheres of nature. ¹⁰⁵ Often, notions of abundance – and the exploitation thereof – and vulnerability are communicated in juxtaposition, illustrating a certain dual dynamic of utilization and preservation typical of discourses regarding the Arctic as a region and a source of exploitable resources. ¹⁰⁶

4.2 Industrial discourses of the European Arctic: balancing growth and sustainability

Critical geopolitics recognizes the multiple actors involved in defining and producing places or regions such as the "North", "Scandinavian North", and "European Arctic". Certainly, industries are involved in reconstructing, reshaping, and renaming their operational environments in the European Arctic, having a narrative power over places, politics, and governmental constructions. ¹⁰⁷ This is especially clear in tourism, where the metaphors and images of the North are also reshaping how people outside see and understand the Arctic area.

4.2.1 Aquaculture: clean production and nutrition for global sushi tables

Over time, the aquaculture industry has developed immensely, as has its self-image and the discourses of the industry. In its infancy, salmon farming in Norway was promoted as a side-activity for agricultural farmers, and licences were to be given to small, locally owned firms, benefiting coastal communities. In the 1980s, the Law on Aquaculture also aimed to regulate

¹⁰⁷ Knecht and Keil (2013, p. 11).



¹⁰³ Finland's Strategy for the Arctic Region 2013 (2013, pp. 11, 34); Sweden's Strategy for the Arctic Region (2011, p. 38).

¹⁰⁴ China's Arctic Policy (2018); The Faroe Islands: A Nation in the Arctic (2013, p. 6); Finland's Strategy for the Arctic Region 2013 (2013, p. 10); Norway's Arctic Strategy (2017, pp. 2, 9, 23); The Norwegian Government's Arctic Policy (2020, p. 3); Sweden's Strategy for the Arctic Region (2011, p. 30).

¹⁰⁵ China's Arctic Policy (2018); Sweden's Strategy for the Arctic Region (2020, p. 31); Finland's Strategy for the Arctic Region 2013 (2013, pp. 31, 38); New Swedish Environmental Policy for the Arctic (2016, pp. 1–2). ¹⁰⁶ Finland's Strategy for the Arctic Region 2013 (2013, p. 38); New Swedish Environmental Policy for the Arctic (2016, pp. 1–2).



production capacity according to market growth, and to monitor the industry's environmental footprint, i.e., to prevent pollution, limit disease spread, and ensure that traditional fishing, outdoor life, and other uses of the coastal zone were protected. In the Faroe Islands, salmon farming also started in the seventies, and was again seen as an opportunity for small Faroese communities. Commercial Icelandic aquaculture developed later after the turn of the century, limited mainly to the Westfjords.

In the early 1990s, several crises struck Norwegian aquaculture, and after the turn of the century the Faroe Islands were hit even worse, with infectious salmon anaemia (ISA) wiping out all but three companies. Out of these crises stronger industries emerged in both Norway and the Faroe Islands. At the turn of this century, Norwegian companies led the globalization of the industry, and ownership and social responsibility came up in the discourse. Informants from Iceland and the Faroe Islands brought up foreign ownership and worries about the multinational companies' responsibility for developing local communities.

Another discourse is the drive for healthy and sustainable food production, with farmed salmon having a strong position in European, Asian, and American markets, benefiting from the global sushi trend and consumers' general preferences for nutritious food and for replacing meat with fish. In recent years, the industry has been more widely acknowledged for its sustainability and small-footprint food production, ranking at the top of the Coller Farm Animal Investment Risk and Return (FAIRR) Protein Producer Index¹⁰⁸ as the most environmentally friendly producer of protein. The index assesses the world's 60 largest listed meat, dairy, and farmed-fish producers in terms of material environmental, social, and governance (ESG) issues. Of the 60 largest producers, salmon-farming companies from Norway and the Faroe Islands have ranked first, second, and fourth. The sustainability focus adds to the industry's growing importance as a producer of "marine protein" for the rest of the world. The overall production of farmed Atlantic salmon has grown from zero to around 3 million tonnes in fifty years, now accounting for 3.7% of the world's farmed aquatic animals. 109 Informants mentioned difficulties gaining access to new areas for further expansion in the coastal zone, and the scarcity of suitable areas will continue in the future. One informant from the Faroe Islands claimed that aquaculture has expanded as far as it can in the fjords, and that there is now limited potential for growth. Although the industry is generally perceived as sustainable, and many issues have been resolved (e.g., the 99% reduction in the use of antibiotics), it still has some unresolved sustainability issues. Parasites,

¹⁰⁹ Food and Agriculture Organization of the United Nations (2020).



¹⁰⁸ Farm Animal Investment Risk and Return (FAIRR) Initiative (2021).



disease, mortality, and escapes are all quite well monitored, but not resolved. Interviewees raised the matter of feed ingredients, notably the increased proportion of plant-based feed ingredients and the importance of using waste products from animal protein production. Soybased feed, mostly from Brazil, increases the industry's carbon footprint as it contributes to land-use change in Brazil.

With an even shorter history, the salmon-farming discourse in Iceland is very similar to that in Norway and the Faroe Islands, with a focus on benefits such as increased job opportunities and population growth, which are the effects of local economic growth. While sustainability is an issue that grew over time in Norway and the Faroe Islands, in Iceland it was a prerequisite for growth from the restart of the industry. It seems paradoxical that salmon farming had failed previously in Iceland, as Icelandic waters should be well suited for it. The Icelandic discourse acknowledges the good conditions in the Icelandic fjords, with clean air and pure, cold water. Iceland also has the benefit of geothermal water for land-based salmon farming. In Iceland, the sustainability focus seems to be on environmental and economic sustainability, implying that achieving these will also lead to social sustainability.

4.2.2 Forestry: harvesting "green gold" and integrating remote territories

Many interviewees observed that a change in values regarding forestry is happening to the point that the acceptability of the industry is declining both at the political level, mainly as a consequence of the new environmental focus of the EU, and in relation to the forest owners' mindset. More forest owners are, for example, opting for carbon compensation incentives instead of the productive exploitation of their resource, even though it is less profitable. Climate change and the related sustainability narrative are dichotomous in forestry – as one interviewee synthesized, "the effects of climate change depend on whether forestry is seen more as a solution or a problem". Sustainability is not criticized or opposed per se, but an uneven emphasis on the environmental versus social pillars of sustainability at the expense of the economic pillar is often noted, and a significant number of actors advocate stronger acknowledgment of the benefits derived from the industry in terms, for example, of employment and wellbeing for local communities. "Climate anxiety" and excessive environmental protections are depicted as unsustainable from an economic perspective.

Industry is not the only source of criticism of the mainstream sustainability discourse: even stronger criticisms were expressed by interviewed indigenous representatives. They argued



that the official sustainability narrative is often a matter of greenwashing and asked what should actually be considered "green", exposing the political nature of a seemingly "neutral" discourse. They also reported that "sustainability" is often used as a discursive weapon to marginalize and delegitimize traditional livelihoods, facilitating new industrial exploitation of indigenous lands. The criticism was also applied to the wider relationship between North and South: some interviewees argued that a persistent colonial perspective makes northern resources exploitable for southern benefit, since few people live in northern areas, so the dominance dynamic between large cities and rural, peripheral areas is reproduced.

The importance of state control over forests in Sweden and Finland (and the related production of narratives to justify their centralized exploitation) is nothing new. Consequently, the legal control of forests has been a national interest for centuries, in turn reflected in the circumpolar resource narratives and corresponding state trajectories. For a long time, resource colonialism and nationalism have been central themes of what can be labelled variations of "hinterland narratives". ¹¹⁰

The custom of referring to the Fennoscandian forests as "green gold" may seem dubious in light of the contemporary sustainable development meta-discourse, as the extraction of gold typically has extensive environmental impacts. Admittedly, it can be understood as a metaphor for something precious and enduring, but it should also be seen from the historical and geopolitical perspectives. The forestry-specific metaphor of "forests as green gold" has repeatedly been articulated in official policy documents as well as in the communications of forest organizations and companies. For example, Sweden's National Forest Programme reads: "Forests – our 'green gold' – will contribute to creating jobs and sustainable growth throughout the country, and to the development of a growing bioeconomy."¹¹¹ Similarly, the Finnish Forest Centre claims that the "the possibilities for wood as a renewable, recyclable and ecological raw material are boundless. A wood-based bioeconomy and biofuels processed from wood offer sustainable solutions for human well-being and global energy challenges". 112 In both countries, the multiple uses of forest products and services are emphasized, while the potential and existing conflicts between different users and interests are often typically overlooked, again framing as generally beneficial and "sustainable" the exploitation of a resource that, on closer examination, appears to be "gold" just for some specific actors.

¹¹² Karppinen and Penttinen (2013).



¹¹⁰ Sörlin (2019).

¹¹¹ Regeringskansliet, Government Offices of Sweden (2018).



4.2.3 Mining: necessity for a green transition

In the mining industry, a major discursive turn is evident. Industry representatives acknowledge that the industry has had a bad reputation for several reasons: inadequate communication and stakeholder involvement; critical media coverage such as the documentary series "Blood diamonds"; and the image of dirty old industry originating from coal mining – a field closely targeted in building the carbon-free future. Industry informants talked about green minerals, green metals, and green mining, especially as REEs are needed for carbon-free societies.¹¹³

The industry's message is clear: To tackle climate change, the mining industry is a necessity. Although climate change has raised awareness of the limitations of the globe and of the need for raw materials, the industry is "struggling to get the message out". Poor communication between the mining industry and society is seen as a weakness and social media for are seen as difficult to handle.

The industry is developing its capacity for self-regulation regarding sustainability and responsibility. For example, the Canadian "Towards Responsible Mining" standard¹¹⁴ is well known and applied in the industry. In Finland, mining companies and their stakeholders founded a national network in 2014, the Finnish Network for Sustainable Mining,¹¹⁵ to help major mineral exploration and mining companies develop self-regulatory practices and standards for a more responsible mineral industry. The underlying rationale is that responsibility is also an economic asset and competitive advantage, as end-buyers and consumers are demanding responsible primary production. Several industry interviewees suggested a traceability mechanism for minerals and metals, as the origin of raw materials is of increasing interest to the general public. The adoption of the EU's Conflict Minerals Regulation in 2021 is an answer to this.¹¹⁶ However, creating a traceability method is challenging because, for example, electric cars use dozens of different metals and the raw materials in alloys are difficult to specify.

In the industry, mineral production in the European Arctic is described as especially responsible. From the industry perspective, environmental regulation is strong and becoming even stronger, especially when compared with the situation in developing countries. Companies apply strict health and safety policies, and the mines obviously make no use of

¹¹⁶ European Commission (2021b).



¹¹³ See also, e.g., Smol et al. (2020); Nurmi (2017).

¹¹⁴ Mining Association of Canada (2021).

¹¹⁵ Finnish Network for Sustainable Mining (2017).



child labour. On the other hand, mining-critical interviewees argued that mining can never be sustainable and that even responsibility is challenging, as there are always local adverse impacts. There is still a boom—bust attitude in international mining, meaning that when a mine is empty, there will be very little clean-up or restoration of the mining area by the mining companies. Hence, large areas previously used for traditional northern livelihoods will not be returned to these livelihoods after the ores have been extracted. 117

4.2.4 Tourism: pristine nature as a scarce commodity

The main discourse through which the Arctic is marketed as a tourist product stresses the Arctic's remoteness, wilderness, pristine naturalness, quietness, and authentic and exotic cultural heritage, and this discourse can be detected in all the interviews and national strategies. Arctic tourism can be seen to be about seeking difference and exoticness, leading to a power struggle as to who defines the extraordinary. As a matter of fact, it is impossible to separate this discourse from the sustainability narrative in relation to Arctic tourism.

Since Arctic tourism is based on nature and indigenous cultures, ecological and social sustainability are crucial for the industry's image. We can see this in a number of contexts and actions, and the tourism industry is trying to promote itself as sustainable through producing eco-labels and promoting its benefits in terms of the social and economic development of local communities. National strategies and the interviewees greatly emphasized the necessity of creating a sustainable tourism industry in the future and/or the industry's already improved ecological and social profile. The importance of sustainability was also stressed by external actors, especially Chinese companies, that are trying to gain trust and credibility as investors.¹¹⁹

At the same time, challenges related to environmental sustainability and the carbon footprint were addressed in many interviews. Travel, especially air travel, produces considerable emissions, and "last-chance tourism", for example, to see melting Arctic ice, is putting further pressure on already fragile ecosystems and species. In this regard, it is important to realize that the "pristine nature and cultural authenticity" narrative is an appealing but very fragile market asset. As many interviewees brought to light, interest in nature and environmental awareness often characterizes Arctic tourists, which in turn could lead them to boycott air

¹¹⁹ Huijbens and Alessio (2015); Bennett and Iaquinto (2021).



¹¹⁷ Haikola and Anshelm (2020).

¹¹⁸ Urry (2002); Lund et al. (2016); Viken and Müller (2017).



travel or specific destinations if local practices are perceived as environmentally damaging, as is the case with whaling in Greenland and the Faroe Islands.

High-quality, personalized, and luxury services, selected high-income and highly educated target groups, and avoidance of mass tourism are further elements of the widespread discourse of tourism in the Arctic, in both the national strategies and the interview data. These elements seem to be related to two factors in particular: relatively difficult and expensive travel that makes the Arctic a niche destination, and the strategic decision to preserve a sense of peace and remoteness, avoiding crowds that could threaten major Arctic tourism assets. Many informants saw the growth of tourism as having the potential for over-tourism. This is already a problem in some Arctic destinations, such as Iceland and Svalbard, mostly because of cruise industry expansion.

Tourism is mainly seen by the interviewees as supporting social sustainability by providing local jobs, increasing income, improving livelihoods, and attracting workers from outside Arctic areas, thereby reducing the depopulation and marginalization of remote and sparsely populated areas. There is also the opposing view that although local and indigenous communities can find jobs and income opportunities in the tourism sector, the wages are usually low and the employment is seasonal. Furthermore, the local and indigenous inhabitants experience land conflict between their traditional livelihoods and tourism infrastructural development, and, furthermore, the commodification of handicrafts and traditions may alter indigenous identities. As some interviewees highlighted, local communities can be distrustful or even hostile towards tourism development, imposing significant limits on accessibility, even if tourism and traditional activities are integrated.

Tourism is often an industry of meeting "otherness", of seeking new experiences and different cultures, and hence of crossing borders. Borders do not just shape the actual possibility of moving from one place to another but are also cognitive categories that play a central role in the construction of identities, alterities, and attitudes towards specific groups of people and nations. ¹²⁰ In this sense, tourism as a border-crossing activity that leads to intercultural interactions is a powerful tool with which states can promote positive images of themselves abroad. Tourism can therefore be included in communication and propaganda strategies, as in China¹²¹ and Russia, ¹²² making tourism an instrument of soft power in geopolitical interactions.

¹²² Laine (2017).



¹²⁰ Laine (2017).

¹²¹ Bennett and Iaquinto (2021).



4 Conclusions

States are the most important actors in global geopolitics as they have the ultimate power in their border-defined territories, a theme upheld by the traditional geopolitical approach. Trade wars in aquaculture, protectionism in forestry and mining, and closing the borders to international tourism due to the pandemic all illustrate that, even in an era of globalization, nation states have their own decision-making power and jurisdiction. Another approach, critical geopolitics, understands the political governance of space as also constructed through the discourses, ideas, ideologies, and values of various actors, not only by states and/or international, state-based entities. This approach facilitates discussion of what the Arctic, European Arctic, or Global North actually is, to whom it belongs, and what are the different paths to the future in northern Europe.

Different industries have their own geopolitics. For aquaculture and fisheries, the open sea is a disputed place. Striving for natural resources in the North is still an obvious theme in industry-specific discourses of forestry and mining, but the tone is different from that of earlier discourses. Bedrock or forests are no longer seen only as national assets, but as parts of global chains of consumption of mineral-based, metal devices and wood products. The borderless tourism industry is suddenly shackled, chained by pandemic restrictions at national border-crossing points.

A review of geopolitics shows that economic development even in the northernmost parts of the world is dependent on and interconnected with chains of events and sudden incidents around the globe.



References

Andersson T (2007) En gemensam europeisk skogspolitik? En integrationsteoretisk studie av ett politikområde på tillväxt. *Statsvetenskapliga institutionens skriftserie*, 2007:4. Statsvetenskapliga institutionen. Umeå universitet.

Arbo P, Iversen A, Knol M, Ringholm T & Sander G (2013) Arctic futures: Conceptualizations and images of a changing Arctic. *Polar Geography*, 36(3). https://doi.org/10.1080/1088937X.2012.724462

Beck U (2000) What is globalization? Cambridge. Polity Press.

Beg Z (2020) "The Health Silk Road": Implications for the EU under Covid-19. https://www.eias.org/news/the-health-silk-road-implications-for-the-eu-under-covid-19/ (Accessed 20.11.2021)

Bennett MM & Iaquinto BL (2021) The geopolitics of China's Arctic tourism resources. *Territory, Politics, Governance*, p. 1–22. https://doi.org/10.1080/21622671.2021.1887755

Braun V & Clarke V (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology* 3:2, p. 77–101. DOI:10.1191/1478088706qp063oa

Bye HG (2021) Norway Pulled Stronger into Great Power Rivalry between the USA and Russia, Argues Defense Researcher. *High North News*.

Demir E, Gozgo G & Paramati SR (2019) Do geopolitical risks matter for inbound tourism? *Eurasian Business Review*, 9(2), p. 183–191. https://doi.org/10.1007/s40821-019-00118-9

Dittmer J, Moisio S, Ingram A & Dodds K (2011) Have you heard the one about the disappearing ice? Recasting Arctic geopolitics. *Political Geography 30(4)*, doi:10.1016/j.polgeo.2011.04.002

Dutta T, Kim K, Uchimiya M, Kwon EE, Jeon BH, Deep A & Yun ST (2016) Global demand for rare earth resources and strategies for green mining. *Environmental research 150*. p. 182–190. https://doi.org/10.1016/j.envres.2016.05.052

Elkem (2022) *About Elkem.* https://www.elkem.com/about-elkem/ (Accessed 17.1.2022)

Escobar P (2020) China rolls out the Health Silk Road. *Asia Times*. https://asiatimes.com/2020/04/china-rolls-out-the-health-silk-road/ (Accessed 15.12.2021)

European Commission (2021a) *A stronger EU engagement for a peaceful, sustainable and prosperous Arctic.* https://eeas.europa.eu/sites/default/files/2_en_act_part1_v7.pdf

European Commission (2021b) Conflict Minerals Regulation.

European Commission (2020) Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability.



European Commission (2008) The raw materials initiative — meeting our critical needs for growth and jobs in Europe. https://eur-

<u>lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0699:FIN:en:PDF</u> (Accessed 25.10.2021)

Farm Animal Investment Risk and Return (FAIRR) Initiative (2021) *Coller FAIRR Protein Producer Index*. https://www.fairr.org/index/key-findings/protein-types/ (Accessed 18.1.2022)

Finnish Network for Sustainable Mining (2017) *Finnish Towards Sustainable Mining (TSM) Standard*. https://www.kaivosvastuu.fi/app/uploads/2017/03/Kaivosvastuujarjestelma_EN_13-03-17.pdf. (Accessed 18.1.2022)

Food and Agriculture Organization of the United Nations (2020) *The State of World Fisheries and Aquaculture 2020*. https://www.fao.org/state-of-fisheries-aquaculture (Accessed 18.1.2022)

Haikola S & Anshelm J (2020) Evolutionary governance in mining: Boom and bust in peripheral communities in Sweden. *Land Use Policy*. DOI:10.1016/j.landusepol.2019.104056

Hall CM (2017) Tourism and geopolitics: The political imaginary of territory, tourism and space. *Tourism and geopolitics: Issues from central and Eastern Europe*, p. 15–24.

Hall CM & Saarinen J (2010) Polar Tourism: Definitions and Dimensions. *Scandinavian Journal of Hospitality and Tourism*, 10(4), p. 448–467. https://doi.org/10.1080/15022250.2010.521686

Heininen L, Everett K Padrtova B & Reissell A (2019) *Arctic policies and strategies: Analysis, synthesis, and trends*. International Institute for Applied Systems Analysis.

Heininen L (2018) Arctic Geopolitics from classical to critical approach – Importance of immaterial factors. *Geography, Environment, Sustainability 11:1*, p. 171–186.

Heininen L (2016) Future security of the global Arctic: State policy, economic security and climate. Palgrave Macmillan.

Horejsova T & Paris CM (2013) Tourism and the challenge of Arctic governance. *International Journal of Tourism Policy*, 5(1/2), p. 113–127. https://doi.org/10.1504/IJTP.2013.054050

Huijbens EH & Alessio D (2015) Arctic "concessions" and icebreaker diplomacy? Chinese tourism development in Iceland. *Current Issues in Tourism*, 18(5), p. 433–449. http://doi.org/10.1080/13683500.2013.837867

Huntington HP, Zagorsky A, Kaltenborn BP, Shin HC, Dawson J, Lukin M, Dahl PE, Guo P & Thomas DN (2021) *Societal implications of a changing Arctic Ocean*. Ambio. https://doi.org/10.1007/s13280-021-01601-2



Karppinen S & Penttinen K (2013) Forest – The Green Gold of Finland. Metsäkeskus.

Knecht S & Keil K (2013) Arctic geopolitics revisited: spatialising governance in the circumpolar North. *The Polar Journal 3(1)*, p. 178–203.

DOI:10.1080/2154896X.2013.783276

Koivurova T, Kauppila L, Kopra S, Lanteigne M, Shi M, Smieszek M & Stepien A (in cooperation with Käpylä J, Mikkola H, Nielsson EÞ & Nojonen M) (2019) China in the Arctic and the opportunities and challenges for Chinese-Finnish Arctic co-operation. *Publication series of the Government's analysis, assessment and research activities 8/2019*. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/161371/8-2019-China Arctic andFinland.pdf?sequence=1&isAllowed=y. (Accessed 19.1.2022)

Kopra S & Nojonen M (2020) The Elusive Norm of Climate Responsibility: The Belt and Road Initiative and Covid-19, *The Arctic Yearbook 2020*, p. 1–14.

Kunnas J, Keskitalo EC, Pettersson M & Stjernström O (2019) The institutionalization of forestry as a primary land use in Sweden. In: Keskitalo EC (Ed.), *The Politics of Arctic Resources: Change and Continuity in the 'Old North' of Northern Europe*, p. 62–77. London: Routledge.

Kvalvik I (2021) Snøkrabben – en forvaltningsutfordring. Økonomisk fiskeriforskning, 31:1-2021, p. 13-28. https://okonomiskfiskeriforskning.no/snokrabben-en-forvaltningsutfordring/

Laine J (2017) Finnish-Russian border mobility and tourism: Localism overruled by geopolitics. In Hall D (Ed.) *Tourism and geopolitics: Issues and concepts from Central and Eastern Europe*, p. 178–190). CABI. https://doi.org/10.1079/9781780647616.0178

Larsen JN & Fondahl G (2015) *Arctic Human Development -report: Regional processes and global linkages.* http://norden.diva-portal.org/smash/get/diva2:788965/FULLTEXT03.pdf. (Accessed 22.12. 2021)

Lund KA, Loftsdóttir K, Leonard M (2016) More than a stopover: Analysing the postcolonial image of Iceland as a gateway destination. *Tourist Studies 17:2*, 144–163, https://doiorg.ezproxy.ulapland.fi/10.1177%2F1468797616659951

Mining Association of Canada (2021) *TSM Guiding Principles*. https://mining.ca/towards-sustainable-mining/ (Accessed 18.1.2022)

Muilu H (2021) Suomen mielestä EU:n sääntely menee metsäasioissa liian pitkälle, mutta EU oli toista mieltä – kiistellyt ilmastokriteerit tulevat voimaan. *Yle Uutiset*. https://yle.fi/uutiset/3-12222279 (Accessed 23.12.2021).

Müller DK (2015) Issues in Arctic Tourism. In: Evengård B, Nymand Larsen J & Paasche Ø (Ed.) *The New Arctic*. Springer, Cham. https://doi.org/10.1007/978-3-319-17602-4_11

National Congress of the Communist Party of China on October (2017) *Constitution of the Communist Party of China*.





http://www.xinhuanet.com/english/download/Constitution of the Communist Party of China.pdf (Accessed 17th of Jan, 2022)

Neacşu MC, Negut S & Vlasceanu G (2018) The Impact of Geopolitical Risks on Tourism. *Amfiteatru Economic*, 20(12), p. 870–884. https://doi.org/10.24818/EA/2018/S12/870

New York Times (2021, November 20) *A Power Struggle Over Cobalt Rattles the Clean Energy Revolution*) https://www.nytimes.com/2021/11/20/world/china-congo-cobalt.html (Accessed 18.1.2022)

Norwegian Ministry of Justice and Public Security (2016) *Meld. St. 32 (2015–2016) Report to the Storting (white paper): Svalbard.*

Nowell LS, Norris JM, White DE & Moules NJ (2017) Thematic analysis: striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods* (16), p. 1–13. https://doi.org/10.1177/1609406917733847

Nurmi P (2017) Green mining – a holistic concept for sustainable and acceptable mineral production. *Annals of Geophysics* 2017(60). https://doi.org/10.4401/ag-7420

Paasi A (2010) Regions are social constructs, but 'who' or 'what' constructs them? Agency in question. *Environment and Planning A vol.* 42, p. 2296–2301.

Pedersen T (2006) The Svalbard Continental Shelf Controversy: Legal Disputes and Political Rivalries. *Ocean Development & International Law*, *37*, p. 1–20. https://www.tandfonline.com/doi/abs/10.1080/00908320600800960

Powell RC & Dodds K (2014) Polar geopolitics. In: Powell RC, Dodds K (Ed.) *Polar geopolitics? Knowledges, resources and legal regimes*. Edward Elgar: Cheltenham, UK.

Ragnarsdóttir KV (2008) Rare metals getting rarer. Nature geoscience, Vol 1, p. 720–721.

Regeringskansliet, Government Office of Sweden (2018) *Sweden's National Forest Program* https://www.government.se/information-material/2019/01/fact-sheet-swedens-national-forest-programme/ (Accessed 16.11.2021)

Regeringskansliet, Government Offices of Sweden (2013) *Meddelande om ny EU-skogsstrategi*. Faktapromemoria 2020/21:FPM145. Landsbygdsdepartementet. https://data.riksdagen.se/fil/912392B0-C5DB-435B-AE8F-E5D89971E1C5 (Accessed 18.1.2022)

RMHB (2020) RMHB *Yidaiyilu youxu tuijin guojishehui zhuli kangyi*. http://www.rmhb.com.cn/zt/ydyl/202004/t20200407_800200039.html (Accessed 15.12.2021)

Rokkan S & Urwin D (1983) *Economy, territory, identity: Politics of West European peripheries.* Sage. London.

Shangwubu, Ministry of Commerce of PRC (2020) Shangwubu, guojiakaifa yinghang lianhe yifa guanyü yingdui xinguangfeiyan zhiqing fahui kaifaxing jinrong zuoyong zhichi gao



zhiliang gongjian "yidaiyilu" de gongzuo tongzhi. http://www.gov.cn/zhengce/zhengceku/2020-04/08/content_5500262.htm (Accessed 15.12.2021)

Smol M, Marcinek P, Duda J & Szołdrowska D (2020) Importance of Sustainable Mineral Resource Management in Implementing the Circular Economy (CE) Model and the European Green Deal Strategy. *Resources*. 2020; 9(5):55. https://doi.org/10.3390/resources9050055

Store Norske Leksikon (2020) *Svalbardtraktaten*. https://snl.no/Svalbardtraktaten (Accessed 19.1.2021)

Sörlin S (2019) State and resources in the north. From territorial assertation to the "smorgasbord state". In Keskitalo EC (Ed.) *The Politics of the Arctic Resources. Change and Continuity in the "Old North" of Northern Europe.* Routledge.

Svedrup HU, Ragnarsdottir KV & Koca D (2017) An assessment of metal supply sustainability as an input to policy: security of supply extraction rate, stocks-in-use, recycling, and risk of scarcity. *Journal of Cleaner Production* 140, p. 359–372.

Treaty Between the Kingdom of Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation (2010) English translation available at https://www.regjeringen.no/globalassets/upload/ud/vedlegg/folkerett/avtale_engelsk.pdf (Accessed 19.1.2022)

Urry J (2002) The Tourist Gaze (2nd edition). Sage.

USGS Mineral Resources Program (2014) *The Rare-Earth Elements – Vital to Modern Technologies and Lifestyles*. https://pubs.usgs.gov/fs/2014/3078/pdf/fs2014-3078.pdf (Accessed 18.1.2022)

Viken A & Müller DK (2017) *Tourism and Indigeneity in the Arctic*. Bristol, UK, Channel View Publications.

Wegge N & Keil K (2018) Between classical and critical geopolitics in a changing Arctic. *Polar geography 41*, p. 87-106.

Wheeler A (2020) *China's Digital Silk Road (DSR): the new frontier in the Digital Arms Race? Silk Road Briefing.* https://www.silkroadbriefing.com/news/2020/02/19/chinas-digital-silk-road-dsr-new-frontier-digital-arms-race/ (Accessed 19.12.2021)

Ylönen J (2019) Chinese Regulatory Framework on the Outward Direct Investment Projects' Approval Procedures in the People's Republic of China, Master Thesis, University of Lapland.

Zelenskaya E (2018) Geopolitics and tourism in the Arctic: The case of the national park "Russian Arctic". *Journal of Policy Research in Tourism, Leisure and Events*, 10(1), p. 33–47. https://doi.org/10.1080/19407963.2017.1324861



ANNEX I: List of Interviewed Organizations

Aquaculture

Aquaculture Company in Norway – 1

Aquaculture Company in Norway – 2

Aquaculture company owner in Iceland

Fiskaaling, Aquaculture Research Station in the Faroe Islands

ISFA, the Icelandic Aquaculture Association

Minister of Fisheries and Aquaculture in Iceland

Ministry of Environment, Industry and Trade in the Faroe Islands

Senter for hav og Arktis, Centre for the Ocean and the Arctic, Norway

Troms and Finnmark County Administration, Norway

Forestry

Barents Forest Sector Network (BEAC working group)

Finnish Forest Industries

Maa- ja metsätaloustuottajain Keskusliitto, The Central Union of Agricultural Producers and Forest Owners, Finland

Metsähallitus (State owned forests, Finland)

Metsäkeskus, Finnish Forest Centre

World Forest Forum

Mining

DG Mining, European Commission

ICMM, International Council of Mining and Metals

Industry expert in the committee evaluating the Norwegian Mineral Act

IRMA, The Initiative for Responsible Mining Assurance

Kaivosvastuu, Finnish Network for Sustainable Mining

LO, Norwegian National Labour Union

Ministry of Economic Affairs and Employment, Finland

NGU, Geological Survey of Norway

Norsk Bergindustri, The Association of Norwegian Mineral Industry

Regional geologist, Norway

RMF, Responsible Mining Foundation

WWF Minerals and Metals





Tourism

Business Iceland/Visit Iceland

Greenlandic tourism sector, municipal level representative

Icelandic Tourist Board

Icelandic Travel Industry Association

Joint Working Group on Tourism (BEAC working group)

Ministry for the Environment and Natural Resources, Iceland

Ministry of Environment, Industry and Trade, Faroe Islands

Ministry of Industries and Innovation, Iceland

Tourism companies and authorities in Svalbard (3 interviews)

VFI, Visit Faroe Islands

Indigenous

Sáminuorra, Sami youth organization

Suoma Sámi Nuorat, Finnish Sámi Youth Organization

Svenska samernas riksförbund, Swedish Sámi Organization

General

Barents Press

BEAC, Barents Euro-Arctic Council

East and North Finland EU office/Northern Sparsely Populated areas

Economic Cooperation (BEAC working group)

EEAS, European External Action Service

Finnish Arctic Association

Ministry for Foreign Affairs, Finland

NATO, North Atlantic Treaty Organization

Nordic Council of Ministers

North Norway EU Office

North Sweden EU Office

POP - Bank Sector, Finland

Regional State Administration Agency in Finland (2 interviews)

SITRA, The Finnish Innovation Fund

WWF Arctic Programme

Total: 60 interviews. In some organizations more than one informant was interviewed.





ANNEX II: Policy Papers

AQUACULTURE

Centre for the Ocean and the Arctic (2019) Sustainable Blue Economy in the Norwegian Arctic. Part 2: Foresight for 2030 and 2050.

Ministry of Environment, Industry and Trade (2020) Report to the Parliament on the aquaculture industry (in Faroese). Tórshavn, Faroe Islands.

Ministry of Industries and Innovation (2017) A strategic report about aquaculture done by a workgroup appointed by the minister of fisheries and agriculture. Part I - suggestions (in Icelandic).

Ministry of Industries and Innovation (2017) A strategic report about aquaculture done by a workgroup appointed by the minister of fisheries and agriculture. Part II - appendixes (in Icelandic).

Norden (2012) Conference on Competitive and Sustainable Aquaculture Dimensions and Tools of Competitive and Sustainable Aquaculture in Northern Europe. Editors Heinimaa S & Rahkonen R. *TemaNord* 2012:518.

Nordic Council of Ministers (2017) *Co-operation Programme* 2017-2020 – *Nordic Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry.*

Nordregio (2020) Strengthening regional resilience through adaptive collaboration – A case study on the fisheries co-management: Northern Bohuslän. *POLICY BRIEF 2020:5*.

Norwegian Ministries (2019) Blue Opportunities – The Norwegian Government's updated ocean strategy.

Norwegian Ministry of Climate and Environment (2021) Norway's integrated ocean management plans – Barents Sea–Lofoten area; the Norwegian Sea; and the North Sea and Skagerrak.

Norwegian Ministry of Trade, Industry and Fisheries & Norwegian Ministry of Petroleum and Energy (2017) *New Growth, Proud History – The Norwegian Government's Ocean Strategy.*

Rosten TW, Poulsen H, Alanära A, Eskelinen U, Bergsson AB & Olafsen T (2013) *Perspectives for sustainable development of Nordic aquaculture. The Paban-Report.* Nordic Council of Ministers.

Scholaert F (2019) Ocean governance and blue growth – Challenges, opportunities and policy responses. European Parliamentary Research Service.

WWF (2018) Getting It Right in a New Ocean: Bringing Sustainable Blue Economy Principles to the Arctic. WWF Arctic Programme.



FORESTRY

Council Directive 2009/147/EC. *Conservation of wild birds*. European Parliament, Council of the European Union.

Council Regulation 2173/2005/EC. Establishment of a FLEGT licensing scheme for imports of timber into the European Community. European Parliament, Council of the European Union.

Council Directive 92/43/EC. *Conservation of natural habitats and of wild fauna and flora*. European Parliament, Council of the European Union.

European Commission (2020) EU Biodiversity Strategy for 2030 – Bringing nature back into our lives. Brussels.

European Commission (2019) Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. The European Green Deal. Brussels.

European Commission (2018) Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Comitteee of the Regions. A sustainable Bioeconomy for Europe: Strengthening the connection between economy, society and the environment. Brussels.

European Commission (2015) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Closing the loop-An EU Action plan for the Circular Economy. Brussels.

European Commission (2015) Commission Staff Working Document: Multi-annual Implementation Plan of the new EU Forest Strategy. Brussels.

European Commission (2014) General Union Environment Action Programme to 2020 – Living well, within the limits of our planet. Brussels.

European Commission (2013a) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions: A new EU Forest Strategy: for forests and the forest-based sector. Brussels.

European Commission (2013b) Commission Staff Working Document: A Blueprint for the EU Forest-Based Industries (woodworking, furniture, pulp & paper manufacturing and converting, printing). Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions. A new EU forest Strategy: for forests and the forest-based sector. Brussels. SWD (2013) 343 final.

European Commission (2010) Green Paper on Forest Protection and Information in the EU: Preparing forest for climate change.

Ministry for the Environment (2019) Revised National forestry accounting plan for Sweden. Government Offices of Sweden.



Ministry of Agriculture and Forestry of Finland (2019) *National Forest Strategy 2025 - updated version*. Government Resolution 21 February 2019. Publications of the Ministry of Agriculture and Forestry 2019:17.

Ministry of Agriculture and Forestry of Finland (2015) *National Forest Strategy of Finland Aims for Growth of 2025 Overall Welfare*.

Norwegian Ministry of Climate and Environment (2019) *National forestry accounting plan for Norway for the first commitment period* 2021-2025.

Regeringskansliet, Government Offices of Sweden (2018) Strategi för Sveriges nationella skogsprogram (in Swedish).

Regulation 995/2010. Laying down the obligations of operators who place timber and timber products on the market. European Parliament, Council of the European Union.

MINING

Geological Survey of Finland (2010) *Finland's Minerals Strategy*. The Ministry of Employment and the Economy and Geological Survey of Finland.

Government of Greenland (2014) Greenland's oil and mineral strategy 2014-2018. FM 2014/133.

Nordland Fylkeskommune, Finnmark Fylkeskommune & Troms fylkeskommune (2019) *Mineralstrategi for Nord-Norge* (in Norwegian).

Norwegian Ministry of Trade and Industry (2013) Strategy for the Mineral Industry.

Swedish Ministry of Enterprise, Energy and Communications (2013) Sweden's Minerals Strategy – For sustainable use of Sweden's mineral resources that creates growth throughout the country. Regeringskansliet.

The Ministry of Mineral Resources (2020) *Greenland's Mineral Strategy* 2020 – 2024.

TOURISM

Innovation Norway (2021) National Tourism Strategy 2030: Big impact, small footprint.

Ministry of Economic Affairs and Employment of Finland (2020) *Achieving more together – Sustainable growth and renewal in Finnish tourism. Finland's tourism strategy 2019-2028 and action plan 2019-2023*. Publications of the Ministry of Economic Affairs and Employment, Regions, Enterprises 2020:18.

Ministry of Industries and Innovation (2015) Road map for tourism in Iceland.

Ministry of Trade, Industry and Fisheries (2017) *Experiencing Norway – a unique adventure Introduction, summary and policy measures.*



Øian H & Kaltenborn B (2020) Turisme på Svalbard og i Arktis. Effekter på naturmiljø, kulturminner og samfunn med hovedvekt på cruiseturisme. NINA Rapport 1745. Norsk institutt for naturforskning.

PKF Accountants & Business Adviser (2013) Long-term strategy for the Icelandic tourism industry. Extract from the Master Mapping Report.

Sverige Utredningen Sveriges besöksnäring (2017) Ett land att besöka. En samlad politik för hållbar turism och växande besöksnäring (in Swedish). Statens Offentliga Utredningar, SOU 2017:95.

Visit Faroe Islands (2019) Join the preservolution! Sustainable tourism development strategy for the Faroe Islands towards 2025.

Visit Greenland (2021) Towards more tourism – A joint effort for growth, innovation and responsible tourism. Visit Greenland's marketing and market development strategy 2021-2024.

NATIONAL STRATEGIES

China: China's Arctic Policy (2018) SCIO.

Finland: Finland's Strategy for the Arctic Policy (2021) PMO.

Finland: Government Policy Regarding the Priorities in the Updated Arctic Strategy (2016)

PMO.

Finland: Finland's Strategy for the Arctic Region 2013 (2013) PMO.

Faroe Islands: Faroe Islands – A nation in the Arctic (2013) PMO – The Foreign Service.

Iceland: A Parliamentary Resolution on Iceland's Arctic Policy (2011) Althingi.

Norway: Norwegian Government's Arctic Policy (2020) Norwegian Ministries.

Norway: Norway's Arctic Strategy (2017) Norwegian Ministries.

Norway: Svalbard (2016) Norwegian Ministry of Foreign Affairs.

Sweden: Sweden's Strategy for the Arctic Region (2020) Regeringskansliet.

Sweden: New Swedish Environmental Policy for the Arctic (2016) Regeringskansliet.

Sweden: Sweden's Strategy for the Arctic Region (2011) Regeringskansliet.