

Cooperation and Conflict in the Arctic: A Road Map for Estonia

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Edited by Emmet Tuohy

November 2014

ISSN 2228-0529

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INTRODUCTION

The strategic value of the Arctic region is increasing as sea ice diminishes and previously inaccessible regions become open for exploration and exploitation. The Arctic has the potential to provide various natural riches and economic benefits—such as minerals, hydrocarbons, fisheries, and shorter shipping routes—alongside opportunities to strengthen international cooperation. However, the wealth of the region brings with it a potential threat to international stability. The mix of countries and international organizations with growing interests in the Arctic represent a diverse subset of the international community, stretching from Europe to the Far East. Furthermore, it brings a new dimension of confrontation to historical adversaries. For instance, four of five Arctic Ocean littoral states are members of NATO—and the fifth is Russia.

Russia has identified the Arctic as vital to its security and economic interests, specifically with regards to energy exploration. Prior to the Russian invasion of Ukraine, there appeared to be great potential for Western oil companies to work with their Russian counterparts in the Arctic, as evidenced by Rosneft's partnership with ExxonMobil and Novatek's agreement with Total. Such collaboration now seems problematic given US and EU sanctions against both Russian companies. Even before the Ukraine crisis, however, Russia had already taken aggressive steps in the Arctic, raising security and economic concerns for NATO. These concerns are especially pressing to the United States, Canada, and Norway. Russia's threatening moves include: 1) the attempt to restrict freedom of navigation by claiming ownership of the Arctic's Northern Sea Route (NSR); 2) extended territorial claims in the Arctic; 3) plans for a significant buildup of military forces in the Arctic; and 4) hostile overflights of Norwegian offshore energy facilities, as well as Finnish and Swedish territory – including a simulated nuclear strike against Stockholm.

NATO and the EU must try to balance the goal of deterring Russian military adventurism while pursuing greater economic cooperation with Russia in the Arctic region. Estonia's interests in the Arctic derive primarily from the broader interests it shares with its NATO/EU allies and with its Nordic partners, especially in regards to managing a militarily aggressive Russia. Estonia should therefore seek to participate in political discussions over the Arctic region's military, economic, and scientific future. Given its long-standing scientific research experience in the region and its political interests in cooperation with the Nordic countries, Estonia has a good foundation on which to apply for observer status at the Arctic Council in 2015. Moreover, Estonian companies have potential business opportunities related to the Arctic that should be explored. Estonia may directly benefit from the Finnish "Arctic Corridor" project, possibly in conjunction with a greater role for the European Union.

This study is intended as a guide for Estonian decision-makers entering international deliberations on the Arctic. First, it provides an overview of the strategies adopted by Arctic countries—as well as selected other states—with regard to the region, while also analyzing the main regional organizations and formal cooperation frameworks for cooperation. Second, it reviews the common and competing interests of the

aforementioned actors. Third, it identifies Estonia's Arctic interests and sets out recommendations for how best to pursue them.

1. KEY ARCTIC ACTORS AND THEIR STRATEGIES

During the last ten years, many countries have issued national strategies and state policies on the Arctic region. In the 1990s only two Arctic countries—Canada and Norway—had an Arctic policy. Now, all countries bordering the Arctic, as well as many more distant European and Asian states, either have formal Arctic strategies or sets of policy statements defining their interests in the region.

All relevant actors have a similar set of regional interests encompassing military security, natural resource exploitation, territorial claims, transportation, environmental stewardship, and human welfare. Each of these factors, however, is stressed to a different degree by individual actors. Nevertheless, countries and international organizations have generally sought to focus on their common interests and shape the future of the Arctic region in a way that fosters international cooperation. Russian military aggression against Ukraine, however, raises doubts about the ability to sustain this collaborative spirit in the Arctic and about whether international arbitration/negotiation can effectively manage disputes involving territorial claims and freedom of navigation in the region.

1.1 State Actors

State actors with Arctic interests can be divided into two main groups: Arctic countries¹ and non-Arctic countries, that is, states without territory above the Arctic Circle, but that are nevertheless interested in the region. “Arctic countries” include the United States (Alaska), Canada, Russia, Norway, Denmark (Greenland), Finland, Sweden, and Iceland. Arctic countries can furthermore be divided into littoral Arctic states, which directly border the Arctic Ocean and thus have the right to claim extension of their continental shelves, and non-littoral Arctic states. The United States (through Alaska), Canada, Russia, Norway and Denmark are littoral Arctic states, while Finland, Sweden and Iceland are non-littoral Arctic states.

In this paper, of the Arctic group we focus on the strategies of the United States, Canada, Russia and Norway, the states with the largest role—and biggest potential for conflict—in the region. Meanwhile, within the numerically far larger non-Arctic group, we focus here on three key non-Arctic countries in Europe (Poland, Germany, the UK) as well as three in Asia (China, Japan, South Korea). These states either possess interests in the Arctic region or are especially significant for Estonian strategic calculations. In addition, we also review the Arctic interests of Estonia's Baltic neighbours Latvia and Lithuania.

¹ States with territory north of the Arctic Circle, an imaginary line that circles the globe at 66° 32" N.

1.1.1 Arctic Countries

1.1.1.1 Major Littoral Arctic States

The United States

The United States has two main goals in the Arctic Region: 1) ensuring that no single power dominates the region economically or militarily; and 2) energy exploration and exploitation. In regards to protecting the region from domination, the US places a strong emphasis on preserving freedom of navigation. This approach is in line with a historical emphasis on free movement in American foreign policy.² The US position on freedom of navigation currently clashes with Canadian and Russian claims to the Arctic's North West Passage (NWP) and Northern Sea Route (NSR), respectively. (See section 2.2.2 on maritime sea routes). While the United States will likely find a diplomatic way to manage the dispute with Canada, due to the latter's status as a NATO ally and close geographical, economic, and political partner state, the dispute with Moscow could grow tense if the Ukraine crisis continues.

The United States needs to work hard at identifying and prioritizing emerging capability gaps in their military in regards to the Arctic region. The development of such capabilities is only in its preliminary phase. Currently, the country lacks a persistent maritime surface and air presence in the Arctic.³ The US Coast Guard has only two operational icebreakers, although the procurement process for a new heavy icebreaker is under way.⁴ Nonetheless, the US has yet to reposition other forces to the region.

The second major US interest in the Arctic is energy exploration and exploitation. While the United States is currently the world's largest producer of crude oil and gas liquids, gains in this sector have occurred primarily in the continental US since 2008. Oil production in Alaska, by contrast, is declining precipitously, and may ultimately lead to closure of the Trans-Alaska Pipeline System. Some American politicians and oil companies are therefore calling for "immediate expansion of Arctic exploration to achieve production sufficient to keep the pipeline open."⁵ Regardless of the political stakes, Arctic hydrocarbon resources provide important investment opportunities for US energy companies. Meanwhile, the world's largest oil company, ExxonMobil, has formed a

² For instance, The United States has conducted more than 300 operations worldwide since 1990 in the interest of preserving such freedom by challenging the maritime claims of 53 different countries, ranging from Albania and Ecuador to Yemen (David Alexander, "US Freedom of Navigation Operations in 2013 Targeted China, Iran," *Reuters*, March 6, 2014, <http://in.reuters.com/article/2014/03/06/usa-defense-navy-china-idINDEEA2504220140306>).

³ James Kraska and Betsy Baker, "Emerging Arctic Security Challenges," Center for a New American Security, March 2014, http://www.cnas.org/sites/default/files/publications-pdf/CNAS_EmergingArcticSecurityChallenges_policybrief.pdf, P. 4.

⁴ "USCG: Icebreaker Project," United States Coast Guard Acquisition Directorate, September 19, 2013, <http://www.uscg.mil/acquisition/icebreaker/>.

⁵ "Opportunities and Challenges for Arctic Oil and Gas Development," The Wilson Center, http://www.wilsoncenter.org/sites/default/files/Artic%20Report_F2.pdf, P. 7.

strategic partnership with Russia's Rosneft that includes a strong focus on developing Russia's Arctic hydrocarbon resources.

Security and energy objectives form the core of the United States' 2013 "National Strategy for the Arctic Region."⁶ This guiding document was updated in 2014 with an implementation plan that provided concrete steps for how the US would go about pursuing its goals in the Arctic.⁷ The Strategy establishes three main goals:

1. Advance Security Interests: preserve freedom of navigation, evolve Arctic infrastructure and strategic capabilities on land, sea, & air, and bolster US energy security;
2. Pursue Responsible Stewardship of Arctic Region: enhance environmental protection and conservation of natural resources, manage natural resources in environmentally and culturally sound ways, and chart the region to enhance navigation safety and identify natural resource reserves in ecologically sensitive areas;
3. Strengthen International Cooperation: agree on common goals for the Arctic (e.g. search & rescue, oil spill preparedness and prevention, scientific research and monitoring, protection of fisheries), and work both bilaterally and multilaterally on Arctic issues.

The United States will look to implement these goals through a variety of concrete measures. On the security side, it plans to construct new airports and seaports, improve navigation systems and weather reporting, and invest in communication systems capacity and capability. They will also improve situational awareness by enhancing long-range identification and tracking systems and potentially by deploying unmanned aircraft systems. In terms of responsible stewardship, the US will also seek to improve oil spill prevention and response while devoting additional funds to scientific research to aid understanding of the Arctic. Meanwhile, with regards to international cooperation, the US will strive to partner more with the Arctic Council and pursue accession to the United Nations Convention on the Law of the Sea alongside the preparation of seismic studies and documentation to allow submission of a claim to extend the US continental shelf in 2016.

⁶ "National Strategy for the Arctic Region," Executive Branch of the United States Government, May 10, 2013, http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf. Hereafter abbreviated as USAS.

⁷ "Implementation Plan for the National Strategy for the Arctic Region," Executive Branch of the United States Government, January 2014, http://www.whitehouse.gov/sites/default/files/docs/implementation_plan_for_the_national_strategy_for_the_arctic_region_-_fi....pdf. Hereafter abbreviated as USAS-IP.

Canada

Like the United States, Canada's main Arctic interests relate to defending its sovereignty while preventing the domination of the region by any one country. Canadian Prime Minister Stephen Harper has described the protection and promotion of Canada's sovereignty in the Arctic as a "non-negotiable priority."⁸ Canada's Arctic strategy therefore stresses the need to be "prepared to respond to unforeseen events," and notes that Canada is investing in new patrol ships, expanding the size and capability of the Canadian Rangers,⁹ and establishing a new Canadian Forces Arctic Training Centre.¹⁰

Part of Canada's concern about sovereignty stems from its unresolved territorial disputes in the region, of which it has more than any other Arctic country. The most significant disputes are over the North-West Passage (NWP) and the Lomonosov Ridge with the US and Russia, respectively (see section 2.2). At the same time, in an apparent attempt to avoid augmenting international tension, Canada's Arctic strategy declared in 2009 that Ottawa does not "anticipate any military challenges," and thus does not support NATO participation in the region.¹¹ Today, however, Canada may be moving toward acceptance of NATO's involvement in the Arctic due to Russia's military actions in Ukraine.

Canada adopted its formal strategy, "Canada's Northern Strategy: Our North, Our Heritage, Our Future," in 2009, and complemented it with its "Statement on Canada's Arctic Foreign Policy" in 2010, which expanded the international dimension of the original document. Canada's strategy stands on five pillars:

1. "Exercising Sovereignty": achieving the political objectives discussed above and also increasing control over the NWP in an ostensible move to reduce risk of maritime accidents and pollution;
2. "Promoting Social and Economic Development": increasing investment and improving social services in a sustainable and culturally inclusive way so as to benefit local people.

⁸ "Arctic sovereignty 'non-negotiable': Harper," Canadian Broadcasting Corporation News, August 20, 2010, <http://www.cbc.ca/news/politics/arctic-sovereignty-non-negotiable-harper-1.866786>.

⁹ The Canadian Rangers (often referred to as the Arctic Rangers) are part of the Canadian Forces Reserve. Their mission is to provide patrols and ensure national security in remote areas of Canadian territory ("The Canadian Rangers," The Munk-Gordon Arctic Security Program, <http://gordonfoundation.ca/sites/default/files/images/The%20Canadian%20Rangers.pdf>.)

¹⁰ "Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's Northern Strategy Abroad," Government of Canada, 2010, http://www.international.gc.ca/arctic-arctique/assets/pdfs/canada_arctic_foreign_policy-eng.pdf, P. 6. Hereafter abbreviated as CAAS

¹¹ *Canada's Northern Strategy: Our North, Our Heritage, Our Future*, (Ottawa: Minister of Public Works and Government Services Canada, 2009), <http://www.northernstrategy.gc.ca/cns/cns.pdf>. P. 25. Hereafter abbreviated as CAAS-2.

3. "Protecting the Arctic Environment": improving scientific knowledge and cooperation in environmental protection, protecting national lands and waters, and supporting international efforts to reduce climate change in the Arctic;
4. "Improving and Developing Governance of the Northern Areas": offering Northern populations greater control over their own economic and political lives including indigenous people's participation in the Arctic Council; and
5. "The International Dimension of the Northern Strategy": fostering bilateral and multilateral cooperation, especially with the US and Arctic Council.

Russia

Russia's Arctic Strategy, announced in 2013, comprises a similar mix of security and economic priorities as the US and Canadian strategies.¹² It has three main priorities: 1) security concerns; 2) economic growth, primarily in the energy sector; and 3) commercial usage and control over the Northern Sea shipping route (NSR).

The ranking of these priorities, however, is less clear than in the US or Canadian strategies. For instance, based on statements by high level politicians, security interests appear to be of paramount concern to Moscow. Still, such concerns are only mentioned as the sixth and final element of Russia's formal Arctic strategy. Russian Arctic military capabilities are intended "to counter non-military pressure" as well as "to repel aggression" against the Russian Federation.¹³ This goal is made easier by the Russian Northern Fleet, based on the Kola Peninsula, which is "the largest and the most powerful component of the Russian navy."¹⁴ The Northern Fleet is also adding new vessels to bolster its capabilities, including the Borei-class submarine *Alexander Nevsky* in 2013 and the Yasen-class submarine *Severodvinsk* in 2014.¹⁵ Two more Yasen-class submarines are in production, with a third scheduled to be laid down in the summer of 2014. Three more submarines are contracted for 2015.¹⁶ Russia has also opened a new naval base¹⁷ and the first of ten planned search

¹² "Стратегия развития Арктической зоны Российской Федерации и обеспечения национальной безопасности на период до 2020 года" [The strategy for the development of the Arctic zone of the Russian Federation and the provision of national security for the period up to 2020], Government of the Russia Federation, February 20, 2013, <http://government.ru/news/432>. Hereafter abbreviated as RFAS

¹³ Ibid., 18.

¹⁴ Caitlyn L. Antrim, "The Next Geographical Pivot: The Russian Arctic in the Twenty-first Century," *Naval War College Review* 63 no.3 (Summer 2010): 15-37. P. 5.

¹⁵ "Russian Navy Welcomes Most-advanced Nuclear-powered Attack Sub, RT, June 19, 2014, <http://rt.com/news/166480-yasen-class-submarine-severodvinsk/>.

¹⁶ Ibid.

¹⁷ Atle Staalesen, "In Remotest Russian Arctic, a new Navy Base," *Barents Observer*, September 17, 2013, <http://barentsobserver.com/en/security/2013/09/remotest-russian-arctic-new-navy-base-17-09>.

and rescue centres.¹⁸ More recently, Russia announced that it will re-open five Arctic airfields that were abandoned in the early 1990s.¹⁹ Russia also plans to establish two Arctic brigades specifically for service in the region. President Putin publicly stressed to Defence Minister Shoigu in a late 2013 television broadcast that the latter should “devote special attention to deploying infrastructure and military units in the Arctic.”²⁰

In terms of energy, Russia also hopes to exploit the region’s massive hydrocarbon resources. The Arctic region is estimated to contain at least two-thirds of Russia’s undiscovered oil and gas reserves.²¹ In 2008 then-Russian President Dmitriy Medvedev declared that “[o]ur first and main task is to turn the Arctic into Russia’s resource base of the 21st century.”²² The Russian government underscored its sensitivity to Arctic energy issues when it imprisoned Greenpeace activists after a 2013 protest against the country’s Arctic oil and gas exploitation.

Arctic reserves are a primary focus of the massive state-owned oil company Rosneft as well as of Novatek, Russia’s largest private energy company. However, Russian firms lack the technology required to exploit these offshore energy resources, especially those lying beneath the sea, and are therefore reliant on Western companies to provide the requisite technical knowledge. Consequently, Rosneft formed a strategic investment partnership with US-based ExxonMobil for Arctic maritime fields, while Novatek established a similar partnership with France’s Total to develop liquid natural gas exports from Russia’s far northern Yamal Peninsula. These business partnerships were the economic centerpiece of President Obama’s policy to “reset” relations with Russia during his first term in office.

Obama’s policy of rapprochement with Russia has disintegrated—and with it the above economic deals—due to coordinated US and EU sanctions over Russian actions in Ukraine, limiting technology transfer to Russian energy companies. Sanctions might therefore be transforming what was previously a sector of cooperation in the Arctic into one of competition. Russia’s claim to an extended continental shelf over the Lomonosov Ridge due to the expectation of hydrocarbon discoveries there also provides an additional area of potential conflict with Canada.

A third key Russian interest in the Arctic is commercial usage and control over the Northern Sea Route (NSR). Russia wants to open the NSR for shipping to facilitate exports of its oil and LNG, boost its maritime transportation industry, and perhaps develop energy

¹⁸ Andrey Vokuev, “Russia Opens First Arctic Search and Rescue Center, *Barents Observer*, August 27, 2013, <http://barentsobserver.com/en/arctic/2013/08/russia-opens-first-arctic-search-and-rescue-center-27-08>.

¹⁹ Atle Staalesen, “From Arctic Sky, a Look at Shelf,” *Barents Observer*, July 3, 2014, <http://barentsobserver.com/en/security/2014/07/arctic-sky-look-shelf-03-07>.

²⁰ “Putin Orders Arctic Military Build-up in 2014,” RT, December 10, 2013, <http://rt.com/news/arctic-russia-military-putin-000/>.

²¹ [http://www.ey.com/Publication/vwLUAssets/Arctic_oil_and_gas/\\$File/Arctic_oil_and_gas.pdf](http://www.ey.com/Publication/vwLUAssets/Arctic_oil_and_gas/$File/Arctic_oil_and_gas.pdf)

²² “Russia sees Arctic as Key to Security,” *The Moscow News*, September 19, 2008, <http://themoscownews.com/news/20080919/55347595.html>.

intensive industries in Russia's far north for export to the Far East. Although a consensus exists among Arctic countries that the NSR will remain open to all countries, Russia claims the right to regulate the NSR. This claim has been rejected by many other countries (for more, see 2.2.2 Maritime Sea Routes). Russia is in fact currently regulating the route, demanding that all ships wishing to use the NSR seek Russian Government permission and, if needed, exclusively use Russia's expensive nuclear icebreaker service. These Russian claims could sow the seeds of future conflict with the United States, given the latter's strong emphasis on freedom of navigation.

Russia's 2013 Arctic strategy soft-pedals its *realpolitik* interests in military security, oil and gas, and control of the NSR, instead focusing on several other priorities that could form the basis for international cooperation. In full, these goals are:

1. Improving socio-economic development of the entire Russian Federation as well as its northern reaches by providing more state support for development of hydrocarbon, mineral, and water resources, and improving the quality of life for Russia's Arctic residents (especially through medical care and education).
2. Developing science and technology to study climate change, discover new hydrocarbon fields, and support Russia's continental shelf claims.
3. Establishing modern information and telecommunications infrastructure to improve services by laying underwater fiber-optic cables along the NSR, and creating communication centres to convey navigational and meteorological information.
4. Modernizing and developing infrastructure to prepare for an increasing level of shipping in the NSR. Thus, Russia is planning to create rescue centres and new seaports, update icebreakers, rescue and auxiliary vessels, and establish both air and rail networks in the northern areas.
5. Increasing environmental security by expanding environmentally protected areas, remediating existing environmental damage, and implementing measures to avoid future negative environmental impact.
6. Strengthening international cooperation in the Arctic on natural resources management, tourism, environmental protection, and search & rescue operations.
7. Ensuring military security and protection of Russian state borders, which in turn requires higher levels of troop readiness and logistical support.

Norway

Russian interests loom large over Norway's Arctic strategy, especially in regards to the High North region and its hydrocarbon resources. These resources are of primary concern to Norway since they form the most important element of the country's economy. Still,

Norway has not let these tensions override the benefits of cooperation, and has embarked on a policy of “constructive engagement” that yielded a bilateral agreement in September 2010 that established a clear demarcation of the maritime boundary in the hydrocarbon-rich Barents Sea. On the other hand, however, Norway also actively seeks to deter Russian aggressiveness in the High North, especially military overflights of Norwegian oil platforms. Norway scrambled fighter jets a total of 41 times in 2012 alone, identifying 71 Russian aircraft—this compares to only some 3-5 such identifications between 1999 and 2000.²³

As a result of these security fears, Norway is one of the largest supporters of increased NATO involvement in the region. In recent years Norway moved its National Joint Headquarters and Coast Guard Headquarters to northern locations,²⁴ strengthened its naval fleet (including submarines), and increased joint military exercises with NATO Allies and Partners—including the largest NATO exercise in the Arctic, Cold Response, in March 2014.²⁵

The latest paper dealing with Norwegian strategy on the Arctic issues, “The High North: Visions and Strategies” was published in 2011. It emphasized fifteen strategic priorities:

1. Ensure a leadership position in terms of knowledge about the High North.
2. Ensure sovereignty and authority in the High North by increasing coast guard patrols, military training, and cooperation (especially with Russia), and purchasing new equipment (e.g. ships and helicopters).
3. Serve as a steward to the environment and natural resources by setting high environmental and safety standards for commercial activities.
4. Improve monitoring, emergency response and maritime safety systems in northern sea areas while increasing regional cooperation in safety shipping, search and rescue.
5. Develop closer ties with Russia on diplomatic, military, educational and business levels
6. Strengthen and develop ties with other Arctic and non-Arctic countries that share Norway’s interests in the region.

²³ Trude Pettersen, “More Russian Military Aircraft Outside Norway,” *Barents Observer*, January 3, 2013, <http://barentsobserver.com/en/security/2013/01/more-russian-military-aircraft-outside-norway-03-01>.

²⁴ “The High North: Visions and Strategies,” Norwegian Ministry of Foreign Affairs, November 2011, http://www.regjeringen.no/upload/UD/Vedlegg/Nordomr%C3%A5dene/UD_nordomrodene_EN_web.pdf. P. 27. Hereafter abbreviated as NWAS.

²⁵ *Ibid.*, 28.

7. Strengthen cooperation in regional organisations and forums—especially the Arctic Council—where Norway sees the need for more policy integration and other strengthening measures, including increased membership.
8. Promote implementation of the United Nations Convention on the Law of the Sea (UNCLOS) and develop further standards and legislation in relevant areas such as binding rules for shipping in polar waters.
9. Develop sustainable fisheries and aquaculture industry.
10. Facilitate the exploitation of oil and gas resources in line with environmental assessments and other standards.
11. Facilitate safe maritime transport and maritime business activities.
12. Promote onshore business development by using innovative solutions and cooperating with neighbour countries.
13. Establish infrastructure between Norway and its neighbouring countries in the Barents region, with a view to support business development.
14. Safeguard the culture and livelihood of indigenous people.
15. Develop cultural and person-to-person cooperation in the region.

1.1.1.2 Minor Littoral Arctic States

Denmark

Denmark is an Arctic state through its possession of Greenland, which together with the Faroe Islands and the mainland form the Kingdom of Denmark. The large measure of autonomy that Greenland has within the Kingdom, however, is itself a contentious matter. Denmark must resolve the issue of whether Greenland might press a claim for full sovereignty before it can clearly buttress its claims in the Arctic. Due to the region's considerable natural resources in hydrocarbons, minerals (specifically rare earth minerals) and fisheries, Denmark is unlikely to allow Greenland easily to gain full independence.

Although Denmark has few security concerns in the Arctic, it has focused on enhancing its military presence in line with other states, establishing in 2012 a joint military Arctic Command that unites the defence structures of Greenland and the Faroe Islands.²⁶ The

²⁶ "Inauguration of Arctic Command," The Danish Monarchy, October 30, 2012, <http://kongehuset.dk/english/Menu/news/inauguration-of-arctic-command>.

Danish Defence Agreement for 2013-2017²⁷ also stresses the need for new capabilities due to increased geopolitical pressure on the Arctic region. The Kingdom of Denmark Strategy for the Arctic 2011–2020,²⁸ adopted in 2011, emphasizes Denmark’s interests in peaceful, secure and safe Arctic, self-sustaining growth and development with respect for the Arctic’s vulnerable climate, environment, & nature, and close cooperation with international partners.

Outside of mineral resources, Denmark wants to increase the use of renewable energy sources, use resources sustainably, and maintain a leading role in the international scientific community. Tourism is another major economic interest, although transportation and shipping are of lesser concern. In terms of non-economic goals, Denmark focuses on scientific research—particularly on climate change—and on protecting the rights of indigenous peoples. Denmark emphasizes international cooperation with Arctic countries, new partners, and intergovernmental organizations such as NATO and the EU.

1.1.1.2 Non-Littoral States

Finland

Although it does not border the Arctic Ocean, Finland adopted its first Arctic-specific strategy in 2010 due to its large land area above the Arctic Circle.²⁹ This initial strategy concentrated primarily on external relations and less on the country’s own unilateral economic interests. An updated strategy, “Finland’s Strategy for the Arctic Region,” was introduced in 2013 and more extensively defines Finnish interests.³⁰ Finland is primarily concerned with economic/business interests, environmental concerns, and the interests of local residents. More than any other country, Finland stresses a role for the EU in the Arctic.

Economically, Finland aims to intensify its already existing business ties in the region and take advantages of new emerging business opportunities in many key areas, including: energy, maritime & shipping industry, renewable natural resources, mining industry, clean technology, tourism, traffic, & transport systems, data storage, and digital services. In terms of the environment, Finland wants to study climate change and its consequences

²⁷ “Danish Defence Agreement 2013-2017,” Danish Ministry of Defence, November 30, 2012, <http://www.fmn.dk/eng/allabout/Documents/TheDanishDefenceAgreement2013-2017english-version.pdf>.

²⁸ “Denmark, Greenland and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020,” Kingdom of Denmark, 2011, http://ec.europa.eu/enterprise/policies/raw-materials/files/docs/mss-denmark_en.pdf. Hereafter abbreviated as DKAS.

²⁹ “Finland’s Strategy for the Arctic Region,” Prime Minister’s Office of Finland, August, 2010, http://arcticportal.org/images/stories/pdf/J0810_Finlands.pdf. Hereafter abbreviated as FIAS.

³⁰ “Finland’s Strategy for the Arctic Region 2013,” Prime Minister’s Office of Finland, August 23, 2013, <http://vnk.fi/julkaisukansio/2013/j-14-arktinen-15-arktiska-16-arctic-17-saame/PDF/en.pdf>. Hereafter abbreviated as FIAS-2.

for the region, assess the risks that are associated with human action, and find ways to prevent pollution. Finland is somewhat unique in that it emphasizes improving the well-being of its citizens who live in the Arctic through better working conditions and worker mobility as well as increased investment in the region's health services. In addition, special attention is given to the rights of indigenous peoples to participate in Arctic decision-making processes as well as an emphasis on cultural and linguistic preservation.

In terms of security concerns, the country wants to promote stability and security through international cooperation. The Finnish government sees conflict in the Arctic as "improbable," although notes that it is still important to pay "close attention" to security developments and enhance Nordic defence cooperation in the region. There is also great Finnish interest in multilateral cooperation, via both large and small international organizations. Bilateral relations, however, get minimal attention—with the exception of Russo-Finnish ties. Finland also stresses the importance of the EU in the region, advocating that Brussels become a permanent observer at the Arctic Council.

Sweden

In its formal Arctic policy adopted in 2011,³¹ Sweden has identified three regional priorities: protecting the climate and environment, protecting local populations, and fostering economic development.

With regards to the environment, Sweden advocates for more environmental protection, biodiversity maintenance, and climate research. In order to achieve these objectives, Sweden will work to reduce emissions of greenhouse gases, contribute more to international dialogues on the environment, and advocate for conservation and the sustainable maintenance of biodiversity.

Economically, Sweden foresees business opportunities in a variety of sectors including mining, petroleum, and forestry; land transport and infrastructure; ice-breaking and sea transport; and tourism. However, in its view increased economic activity in the Arctic should only be conducted in a socially, economically, and environmentally sustainable manner.

Finally, Sweden advocates an increased focus on the living conditions of populations in the Arctic, especially indigenous persons, in terms of public health, climate change, hazardous substances that affect the population, the impact of a globalized economy on indigenous culture and economic activity, the survival of the Sámi language, and research on Sámi society. Fostering a culture of international cooperation and adherence to international law is important for achieving all of these goals.

³¹ "Sweden's Strategy for the Arctic Region," Swedish Ministry for Foreign Affairs, 2011, <http://www.government.se/content/1/c6/16/78/59/3baa039d.pdf>. Hereafter abbreviated as SWAS.

Iceland

Although it does not have a detailed Arctic strategy, Iceland has approved a parliamentary set of Arctic policy guidelines, the 2011 “Parliamentary Resolution on Iceland's Arctic Policy.”³² Iceland’s primary goal is to be accepted and respected as a littoral state in the Arctic, while also limiting international cooperation to the Arctic Council, not to a more restrictive organization.

In terms of gaining littoral status, Iceland wants to expand the current definition of the Arctic Ocean to include the North Atlantic Ocean, so it has equal status and leverage as the true littoral states. It also wants to enhance cooperation with the Faroe Islands and Greenland with the aim of “promoting interests and political positions of the three countries.”³³ It also wants to prevent environmental disasters and mitigate the impact of climate change in order to improve the well-being of Arctic inhabitants, while also supporting the rights of indigenous peoples and their involvement in decision-making processes. Iceland also wants to maintain regional peace and stability and “work against any kind of militarisation of the Arctic.”³⁴ Finally, it wants to enhance trade relations between countries in the region, and also increase discussions and cooperation regarding Arctic issues on the domestic level.

1.1.2 Non-Arctic Countries

1.1.2.1 Key European Actors

Poland

Poland is the only country from the former Soviet bloc (other than Russia) that has been involved in regional Arctic institutions such as the Arctic Council and Barents Euro-Arctic Council from their inception. It furthermore operates its own research station in the Arctic in Svalbard. Scientific interest has historically been—and still is—the main objective for the Polish government in the Arctic, although it has broadened its policy goals in the latter half of the past decade in response to growing interest in the region.

Poland does not have an official Arctic policy, but has set forth its interests in the region in many political speeches (e.g. in the Arctic Council Ministers’ meetings) and conferences. The most recent broad statement of Arctic policy was revealed by Under Secretary of State Maciej Szpunar in 2011. According to his presentation, Polish activities in the Arctic should be based on recognition of existing international legal frameworks, such as the UNCLOS and the principle of freedom of scientific research, active engagement in the

³² “A Parliamentary Resolution on Iceland’s Arctic Strategy,” Althingi (Icelandic Parliament), March 28, 2011, <http://www.mfa.is/media/nordurlandaskrifstofa/A-Parliamentary-Resolution-on-ICE-Arctic-Policy-approved-by-Althingi.pdf>. Hereafter abbreviated as ICAS.

³³ Ibid.

³⁴ Ibid.

development of the European Arctic policy, cooperation with regional institutions, and development of public diplomacy.³⁵

The United Kingdom

The Arctic Policy of the United Kingdom, adopted in 2013,³⁶ stresses three primary dimensions: commercial/economic activities, environmental concerns, and the “human dimension.” Economically, the UK focuses on: 1) energy: to increase its gas import from Norway and business participation in resource extraction; 2) bio-prospecting: to ensure fair and transparent access to genetic resources and share the benefits from their use; 3) commercial expertise: to promote expertise in industries that are relevant to the region such as insurance and risk management, hydrocarbons and mineral extraction; 4) shipping; 5) tourism; and 6) fishing. All of these interests are linked through an emphasis on sustainability.

Environmentally, the UK wants to limit rises in the global average temperature, primarily through reductions of both domestic and global greenhouse gas emissions. It also advocates conservation and sustainable management of biodiversity in the Arctic through measures such as the creation of maritime protection areas in international waters. There is a further emphasis on minimizing the environmental impact of economic activity through responsible development, which entails strict industry-specific standards for resource exploitation.

In regards to the “human dimension,” the most important goal is a peaceful, stable and well-governed region. The UK wants to 1) promote good governance in the Arctic through existing organisations (i.e. the Arctic Council) and legal mechanisms (i.e. the UNCLOS and the IMO); 2) support the engagement of non-Arctic countries in Arctic matters; and 3) help NATO to assume a “central” role in security issues. The UK also promises to respect the interests of indigenous people and support their role in the decision-making process.

Germany

In 2013 Germany adopted its Arctic Policy Guidelines, in which it seeks to balance economic, environmental, and scientific interests.³⁷ Economically, Germany is interested in the region’s energy resources and raw materials to ensure a sustainable supply of resources, as well as increased business opportunities. The country sees potential for both

³⁵ Quoted in Piotr Graczyk, “Poland and the Arctic: Between Science and Diplomacy,” *Arctic Yearbook 2012*, http://www.arcticyearbook.com/images/Articles_2012/Graczyk.pdf, pp. 140-156.

³⁶ “Adapting To Change: UK policy towards the Arctic,” Foreign and Commonwealth Office of the United Kingdom, 2013, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/251216/Adapting_To_Change_UK_policy_towards_the_Arctic.pdf. Hereafter abbreviated as UKAS.

³⁷ “Germany’s Arctic Policy Guidelines,” Federal Foreign Office, September 2013, http://www.bmel.de/SharedDocs/Downloads/EN/International/Leitlinien-Arktispolitik.pdf?__blob=publicationFile. Hereafter abbreviated as GERAP.

its maritime technologies and tourism industry in the region. Like many other countries, Germany also calls for the protection of biodiversity and other environmental goals in the Arctic. Finally, Germany considers the security situation in the region to be unpredictable. Its aim is to keep the region peaceful, and works to “settle disagreements through consensual solutions based on existing legislation”³⁸ while promoting cooperation and coordination.

Other more specific goals include ensuring freedom of navigation on new potential sea routes in compliance with high safety and environmental standards. Therefore, Germany supports the IMO polar code and works with its partners to achieve better maritime surveillance, infrastructure expansion, and search & rescue capabilities. Scientifically, Germany calls for the freedom of Arctic research to be protected. The country also wants to improve research conditions and enhance the joint use of research findings. Germany stresses multilateral cooperation on Arctic issues, especially through Arctic Council, although also aims to strengthen its observer status in this organization. NATO’s wide-ranging partnership formats are furthermore seen as providing suitable fora for addressing Arctic security policy issues. Germany supports growing the role of the EU in the region. Germany is also committed to international and regional conventions (i.e. UNCLOS and the Svalbard Treaty). Finally, Germany advocates protecting the rights of indigenous people to self-determination.

1.1.2.2 Key Asian Actors

China, Japan, and South Korea

Over the past five years, China, Japan, and South Korea have all started to pay more attention to the Arctic, which in turn led them to pursue ways to become more involved in the region. These aspirations culminated with all three becoming permanent observers on the Arctic Council in May 2013. While these Asian superpowers have not yet published official Arctic strategies, it is possible roughly to determine their interests in the region based on their activities, potential needs, and geographic location. Three potential areas of interest include economic gain, scientific research, and governance.

China, Japan, and South Korea have been cautious in publicly acknowledging their economic interests in the Arctic, leaving such comments to academics, scholars and retired officials.³⁹ Nevertheless, there are many reasons to believe that all countries have strong economic interests due to shortages in domestic energy resources and their export oriented economies.

³⁸ Ibid.

³⁹ Linda Jakobson and Seong-Hyon Lee, “The North East Asian States’ Interests in the Arctic and Possible Cooperation with the Kingdom of Denmark,” Stockholm International Peace Research Institute, April 2013, <http://www.sipri.org/research/security/arctic/arcticpublications/NEAsia-Arctic.pdf>, P. 24.

In regards to energy, all three countries are by necessity major importers due to large domestic demand. Japan and South Korea are the world's largest and second largest liquefied natural gas importers, respectively. ⁴⁰As for oil, China is the second largest consumer and second-largest net importer (with Japan in third place).⁴¹ South Korea imports about 97% of its energy resources.⁴² Given the continued unrest in the Middle East, still the largest source of these imports, the East Asian countries are likely to jump at any opportunity to diversify their energy supplies.

China, Japan, and South Korea have increased exploration and economic partnerships to ensure new access to these resources. Some Chinese companies are already actively participating in oil and gas extraction in Icelandic waters⁴³ as well as other mining projects.⁴⁴ South Korean companies have not actively started drilling, but "hope to extract Arctic natural resources in cooperative arrangements with one or more Arctic states."⁴⁵ As the world's largest shipbuilder, South Korea also has huge business opportunities to increase production and sales of icebreakers and oil/LNG tankers.⁴⁶

The export-oriented economies⁴⁷ of all three countries will spark interest in shorter routes that could cut time and shipping costs, thereby driving an increase in the overall volume of trade. Even though Japanese and South Korean involvement in Arctic shipping routes is largely speculative,⁴⁸ China has already been prominent in its use of the NSR. According to China's Director General of Polar Research, it is likely that usage of this route will increase significantly by 2020, constituting 5-15% of China's total international trade.⁴⁹ Japan might in time become a shipping hub for the NSR due to its strategic location on the entrance to the route in the Bering Strait.⁵⁰

⁴⁰ <http://www.capp.ca/getdoc.aspx?DocId=237161&DT=NTV>

⁴¹ <http://www.eia.gov/countries/index.cfm?topL=con>

⁴² <http://www.eia.gov/countries/country-data.cfm?fips=ks>

⁴³ Du Juan, "CNOOC Licensed to Seek Arctic Oil," *China Daily*, March 4, 2014, http://europe.chinadaily.com.cn/2014-03/04/content_17319412.htm.

⁴⁴ Adam Lajeunesse and P. Whitney Lackenbauer, "Chinese mining interest and the Arctic," Université Laval, http://www4.fsa.ulaval.ca/files/content/sites/fsa/files/sections/La_recherche/chaieres_recherche/Stephen-A.-JARISLOWSKY/ActesHEI/papers/Chinese%20mining%20interests%20and%20the%20artic%20%28A.%20Lajeunesse,%20P.%20Whitney%20Lackenbauer%29.pdf

⁴⁵ Japanese companies see too risky and economically not profitable yet to invest into facilities, which are needed for operating in the oil and gas explorations in the Arctic. (Aki Tonami and Stewart Watters, "Japan's Arctic Policy: The Sum of Many Parts," *Arctic Yearbook 2012*. http://www.arcticyearbook.com/images/Articles_2012/Tonami_and_Watters.pdf, P. 99).

⁴⁶ Jakobson and Lee, 32.

⁴⁷ South-Korea's export consist of 56.5% and China's 27.33% of GDP. ("Exports as Share of GDP By Country," Quandl Economics Data, 2014, <http://www.quandl.com/economics/exports-as-share-of-gdp-by-country>).

⁴⁸ Tonami and Watters, 97.; Jakobson and Lee, 28, 32.

⁴⁹ Sanna Kopra, "China's Arctic Interests," *Arctic Yearbook 2013*, http://www.arcticyearbook.com/images/Articles_2013/KOPRA_AY13_FINAL.pdf, P. 113.

⁵⁰ Jakobson and Lee, 24.

Having chosen to underplay their economic goals in the region, China, Japan, and South Korea have explained their growing interest and presence in the Arctic mainly by citing the need for research access on climate and environmental issues.⁵¹ The goal of such research is not only to care for the Arctic, but also because of the broader concern that climate change will affect their security and economic/social development.⁵² All three countries have research stations in Svalbard and polar icebreakers for conducting research. The number of Arctic research projects has increased over the past few years, although they are still outnumbered by those in the Antarctic.⁵³

China, Japan, and South Korea might try and seek a more active role in regional governance. A former director of the Chinese ministry of foreign affairs' Department of Treaty and Law said in 2011 that non-Arctic countries "need to actively participate in the decision-making processes and governance regimes within the Arctic region."⁵⁴ Interviews conducted by the Stockholm International Peace Research Institute shows that some Japanese officials and experts would like to see "a new governance regime because the Arctic Council does not adequately address the issues and concerns of non-Arctic countries."⁵⁵ Meanwhile, South Korean public officials have been more reserved, expressing only a hope that Arctic countries "take a more open attitude towards non-Arctic states."⁵⁶

⁵¹ Olga Alexeeva and Frédéric Lasserre, "China and the Arctic," *Arctic Yearbook 2012*, http://www.arcticyearbook.com/images/Articles_2012/Alexeeva_and_Lassere.pdf, pp. 83-4.; Tonami & Watters, 97; Jakobson and Lee, 31, 98.

⁵² Kopra, 112.; Tonami and Watters, 98.

⁵³ Iselin Stensdal, "Asian Arctic Research 2005-2012: Harder, Better, Faster, Stronger," Fridtjof Nansen Institute, May 2013, <http://www.fni.no/doc&pdf/FNI-R0313.pdf>.

⁵⁴ Jakobson and Lee, 14.

⁵⁵ *Ibid.*, 26.

⁵⁶ *Ibid.*, 33.

1.2. Regional Organisations and Cooperation Frameworks

Cooperation on Arctic issues occurs on various levels: bilateral, regional, intergovernmental, and multinational, encompassing issues ranging from energy development to environmental and maritime regulation.

1.2.1 Arctic Council (AC)

The Arctic Council (AC), established in 1996 by ministers of the eight Arctic states, is by far the most important and visible international organization concerned with the region. It is a high-level forum that also allows for the inclusion of indigenous peoples and various intergovernmental and non-governmental organisations as permanent participants. With its origin in an earlier agreement, the Arctic Environmental Protection Strategy, the Arctic Council focuses mainly on issues of environmental regulation, sustainable development and scientific research, though it also addresses maritime security⁵⁷ and emergency preparedness.⁵⁸ Even as it remains the main forum for discussions about the Arctic, however, the council excludes hard security issues such as border and continental shelf disputes. While the AC previously relied exclusively on non-binding recommendations, in recent years it has sought to form binding agreements.

Non-Arctic states can become permanent observers on the council, and receive a seat, albeit one with only limited benefits. Currently there are twelve states with observer status on the Arctic Council. Seven are from Europe: the UK, France, Germany, Netherlands, Poland, Spain, and Italy, with five from Asia: China, India, Japan, South Korea, and Singapore. The European Union has also applied for observer status as an intergovernmental organisation, although its official admission has been postponed until various political and regulatory issues are resolved.

⁵⁷ For example the 2009 AMSA report and 2011 SAR Agreement

⁵⁸ for example oil spill response exercises and 2013 Marine Oil Pollution Agreement

1.2.2 Other Organisations and Cooperation Frameworks

The Nordic Council of Ministers (NCM)

The Nordic Council of Ministers (NCM), founded in 1971, involves representatives from five Nordic states and three self-governing territories: the Åland Islands (Finland), Faroe Islands (Denmark) and Greenland (Denmark). Its goal is to formulate a unified Nordic position on a wide variety of issues, including the environment, natural resources, business and industry, and culture and education. The NCM has observer status at the Arctic Council and employs an Arctic Expert Committee that consists of one representative from each member state. There also exists a NCM Arctic cooperation program, which plans to allocate 6.5 million DKK (€0.9 million) for joint projects and 3 million DKK (€0.4 million) for political initiatives annually from 2012-14.⁵⁹ The Arctic cooperation program allows the NCM to coordinate a unified Nordic stance toward various Arctic issues, and to collaborate on these topics with other Arctic countries as well as the EU. The NCM is referenced in the Danish,⁶⁰ Swedish,⁶¹ and Finnish⁶² Arctic strategies.

Barents Euro-Arctic Council (BEAC)

The Barents Euro-Arctic Council is another intergovernmental forum, founded in 1993 to promote cooperation and sustainable development in the Barents Sea region among the five Nordic states, Russia, and the European Commission. Besides its member states, the BEAC also includes nine observer states (Canada, the US, France, Germany, Italy, Japan, the Netherlands, Poland, and the UK), all of which are either members or observers at the Arctic Council. The Working Group of Indigenous Peoples, consisting of Sámi, Nenets and Vepsian representatives, is not only a working body but also has an advisory role within the BEAC. During the Barents Summit in Kirkenes in June 2013, a “Declaration on the 20th Anniversary of the Barents Euro-Arctic Cooperation” was signed, stating that the BEAC will continue to “support efforts to achieve synergies and to strengthen coherence in common areas of activity with other regional councils in the north,” namely, the Arctic

⁵⁹ Nordic Council of Ministers. *Norden i Arktis: Kortlægning af Nordens aktiviteter i Arktis i perioden 1996–2013* [Scandinavia in the Arctic: Mapping of Nordic activities in the Arctic during the period of 1996-2013], *Nordic Working Papers 2013* 916, June 13, 2013, <http://www.norden.org/en/publications/publikationer/na2013-916>, P. 7.

⁶⁰ DKAS, 35, 36, 40, 53.

⁶¹ SWAS, 5, 8, 18, 20, 32, 45, 50.

⁶² FIAS-2, 15, 19, 46, 50, 60.

Council, the CBSS, and the NCM as well as the EU's Northern Dimension.⁶³ The BEAC is cited in the Arctic strategies of Norway,⁶⁴ Sweden⁶⁵ and Finland.⁶⁶

The Enhanced Partnership in Northern Europe (e-PINE)

The Enhanced Partnership in Northern Europe, launched by the US government in 2003, also serves as a platform for “northern” topics. It encompasses the US, the five Nordic (Denmark, Norway, Sweden, Finland, and Iceland) and the three Baltic countries (Estonia, Latvia, and Lithuania). Its three broad areas of focus are: cooperative security, healthy societies, and vibrant economies. Arctic issues are not officially on the e-PINE agenda and it is not mentioned in Arctic strategy documents. However, Arctic issues have been raised occasionally in this format, which is suited for integrating security and defence aspects into Arctic discussions in the future.

⁶³ “Declaration on the 20th Anniversary of the Barents Euro-Arctic Cooperation,” Barents Euro-Arctic Council, June 4, 2013, http://www.barentsinfo.fi/beac/docs/Barents_Summit_Declaration_2013.pdf, P. 6.

⁶⁴ NWAS, 13, 18, 19, 33, 37-39.

⁶⁵ SWAS, 5, 20, 27, 49.

⁶⁶ FIAS-2, 15, 19, 22, 41, 45-47, 60.

1.3 Potential Arctic Actors

Potential actors are countries and organisations that are currently not directly involved with Arctic issues, but have the potential to play a greatly increased role in the region. This section will first focus on potential state actors—the three Baltic countries—before then turning to the EU and NATO as potential non-state actors.

1.3.1 State Actors: the Baltic States

Here we analyse perceptions, potential interests, and understandings of the Arctic among Latvian and Lithuanian decision-makers and academics with the goal of presenting an overview of how Arctic issues might affect the Baltic states. Our findings are based on interviews with public officials and researchers from the main policy-making bodies (specifically the ministries of foreign affairs and defence) and research institutions of both countries. For a list of interviewed persons see Appendix 1. Estonian interests in the Arctic are explored in a separate section.

Latvia

While Latvia does not have formally defined interests in the Arctic, policymakers and observers remain concerned regarding the potential for regional instability. Its main interest in the Arctic, therefore, is that the region stays peaceful and stable, preferably through increased roles for the EU and NATO. From a security perspective, the Latvian government does not believe that the current situation in the Arctic is grave, but some concerns do exist regarding Russian actions in the region: if the Arctic security environment worsens, there then could be potential spillover effects on the Baltic Sea region.

Domestic Latvian actors generally possess a low level of awareness either of Latvian interests in the Arctic or of the country's capacity to contribute to the region. There is no overarching economic or business plan for Latvian investment in the Arctic, although interviewees suggested that “green” technology might be a potential investment opportunity.

Latvia participation in the region has been indirect, mainly through international organizations that contain major Arctic actors but do not directly deal with Arctic issues.⁶⁷ Nordic-Baltic cooperation in the Baltic Sea region, unsurprisingly, remains the top priority of multilateral cooperation. If the emphasis of such cooperation shifts to include the Arctic, then interviewees believed that the Baltic states should have a common position. There have been discussions over whether or not Latvia should apply for permanent observer status in the Arctic Council, although this goal was deemed too ambitious due

⁶⁷ The Nordic Council, the Northern Dimension, the Council of Baltic Sea States and the Nordic-Baltic Eight

to: Latvia's focus on other regions, lack of administrative capacity, and the costs of obtaining such a status relative to the little added value it would bring. While this position might change if Estonia or Lithuania took steps towards observer status, as of now, however, future Latvian participation in the Arctic will most likely be channeled through the European Union.

Lithuania

Arctic issues have not been especially salient for Lithuania either, generating few political programmes and public discussions. Lithuanian officials and researchers are not deeply aware of the potential interests that scientists and businesses might have in the region. Interviewees did concede that businesses might have some economic interests in the region on a small scale, however, such as companies looking to invest in green energy or smart grid technology for export. Lithuania's main goals in regard to the Arctic are to support sustainable growth and development, collaborate in the field of environmental issues, and maintain stability in the region.

The EU is seen as the main outlet by which Lithuania can contribute to discussions of Arctic affairs. Although Nordic-Baltic cooperation is one of the top foreign policy priorities for Lithuania, Arctic issues have not been specifically discussed in existing bilateral relations with Nordic countries or in multilateral cooperation frameworks. This lack of dialogue reinforces the perception that the EU is the most appropriate actor through which Lithuania can work.

Interviewees considered it neither possible nor reasonable for Lithuania to play an individual role in the Arctic or apply for permanent observer status on the Arctic Council. The country is already busy enough with regional Baltic issues leaving it little capacity to deal with Arctic issues. Some interviewees also expressed their doubts as to whether Lithuania would be welcomed by the Nordic countries, and if joining the AC would have any added value. Two interviewees argued that Lithuania would pay direct attention to the region only if some tremendous event were to occur there.

In the field of security, the officials and researchers we interviewed all considered it important to be aware of military activities in the region, especially those of Russia, since a deteriorating Arctic security situation could also have an impact on the Baltic Sea region. While some interviewees thought that it was important to increase regional and bilateral cooperation with the Arctic countries alongside increased NATO's involvement in region, others did not see any security threat in the Arctic and therefore concluded that any role for NATO would be irrelevant.

1.3.2 Non-State Actors

1.3.2.1 The European Union

With three EU states as permanent members of the Arctic Council, and a further seven holding observer status,⁶⁸ it is only natural that the EU has turned its eye to the North. Thus far, the EU has contributed to the region's development mainly through its Northern Dimension and through the aforementioned BEAC, but it has also showed a strong interest in itself becoming a permanent observer on the Arctic Council. Canada and Russia, however, have traditionally opposed this view. The EU's application for observer status was last postponed in 2013 due to unsolved disputes with Canada over sales of seal products.⁶⁹ The EU does not have its own concrete Arctic policy, although it has issued a series of statements on the topic such as a June 2012 joint Commission/High Representative communication on "developing a European Union policy towards the Arctic region."⁷⁰

This document articulates three main principles: knowledge, responsibility, and engagement. "Knowledge" signifies that the EU wants to improve its understanding of the Arctic by investing in Arctic research, developing Arctic monitoring and surveillance capabilities (including the use of satellites), supporting information and observation networks, and accumulating know-how and technical expertise. For "responsibility" the EU recognises that the Arctic offers both regional challenges as well as opportunities. While the EU is interested in the region's resources, it also stresses the importance of developing these resources responsibly by promoting safe, sustainable use and resource management. In terms of "engagement," the EU's main goal is to become a permanent observer on the Arctic Council. Until it achieves this goal, it will continue to intensify bilateral cooperation with all its Arctic partners while pursuing further involvement through other international frameworks on Arctic issues.

1.3.2.2 The North Atlantic Treaty Organisation

Regarding Arctic security issues, the North Atlantic Treaty Organisation (NATO) has emerged as a natural regional partner. First, a number of NATO members are involved in the region; indeed, five of the eight Arctic Council member states belong to the Alliance, while two of the remaining members (Finland and Sweden) are participants in NATO's

⁶⁸ Denmark, Finland, and Sweden are full members of the AC, with France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom holding observer status.

⁶⁹ Jonas Karlsbakk, "Arctic Council's International Breakthrough," *Barents Observer*, May 15, 2013, <http://barentsobserver.com/en/arctic/2013/05/arctic-councils-international-breakthrough-15-05>.

⁷⁰ "Joint Communication to the European Parliament and the Council - Developing a European Union Policy towards the Arctic Region: progress since 2008 and next steps," High Representative of the European Union for Foreign Affairs and Security Policy, European Commission, June 26, 2012, http://eeas.europa.eu/arctic_region/docs/join_2012_19.pdf. Hereinafter abbreviated as EUAS.

Partnership for Peace (PfP) program and could join NATO in the future.⁷¹ Second, since NATO is a collective defence and security organisation whose area of responsibility extends into the region, it is the organisation's duty to be informed about—and involved in—the Arctic.

As of now NATO's involvement in the Arctic region is quite restrained. It currently monitors military activity, conducts air policing over Iceland, and coordinates joint training exercises such as Cold Response. In 2009, then-Secretary General Jaap de Hoop Scheffer laid out a number of other areas in which NATO could contribute, including: 1) search and rescue; 2) disaster response through the Euro-Atlantic Disaster Response Coordination Centre; 3) energy security by advancing regional cooperation, supporting consequence management and protection of critical infrastructure; and 5) a NATO-Russia Council⁷² that could be used for expanding cooperation with Russia in the region.⁷³

Despite Scheffer's pronouncement that "the High North is going to require even more of the Alliance's attention in the coming years,"⁷⁴ his successor Anders Fogh Rasmussen appeared to have reversed course. Rasmussen noted in 2013 that "[a]t this present time, NATO has no intention of raising its presence and activities in the High North."⁷⁵ NATO has abstained from increased involvement for two main reasons: the problem of Russia, and internal opposition from Canada. Russia is the only member of the Arctic Council that

⁷¹ In the light of Russia's action in Ukraine, a public debate over joining NATO has been revitalised in both Finland and Sweden. (Sarah Steffen, "NATO next for Sweden and Finland?," *DW*, March 26, 2014, <http://www.dw.de/nato-next-for-sweden-and-finland/a-17519846>). For instance, Sweden's deputy Prime Minister Jan Björklund said in March 2014, that he wants Sweden to "set the wheels in motion" to join NATO (Gerard O'Dwyer, "Russian Threat Re-Energizes Sweden's Push To Join NATO, Boost Spending," *Defense News*, March 16, 2014, <http://www.defensenews.com/article/20140316/DEFREG01/303160008/Russian-Threat-Re-Energizes-Sweden-s-Push-Join-NATO-Boost-Spending>). Then Finnish Prime Minister Jyrki Katainen said in May 2014, that "[his] personal opinion is that Finland should belong to NATO. It would strengthen Finland's position." In addition, this year a group of five former Finnish defence ministers signed an article supporting NATO membership. (James Kirchick, "Putin's Nordic Shadow," *Foreign Policy*, May 8, 2014, http://www.foreignpolicy.com/articles/2014/05/08/putin_nordic_shadow_nato_finland_sweden). However, public opinion in Finland and Sweden has been opposed to joining NATO for a long time and remains this way.

⁷² The NATO-Russia Council (NRC) is a mechanism for consultation, consensus building, cooperation, joint decision and joint action between NATO and Russia. However, since April 2014 the council has suspended its work because of Russia's "illegal military intervention in Ukraine and its violation of Ukraine's sovereignty and territorial integrity". The only exception is a communication channel on the ambassadorial level, which has left both sides open to exchanging views on the Ukrainian crisis. (NATO. (2014, April 28). *NATO-Russia Council*. http://www.nato.int/cps/en/natolive/topics_50091.htm)

⁷³ NATO. (2009, February 2). *Speech by NATO Secretary General Jaap de Hoop Scheffer on security prospects in the High North, given in Reykjavik, Iceland on January 29, 2009*. <http://www.nato.int/docu/speech/2009/s090129a.html>

⁷⁴ "Speech by NATO Secretary General Jaap de Hoop Scheffer on Security Prospects in the High North," North Atlantic Treaty Organization, January 29, 2009, <http://www.nato.int/docu/speech/2009/s090129a.html>

⁷⁵ Gerard O'Dwyer, "NATO Rejects Direct Arctic Presence," *Defense News*, May 29, 2013, <http://www.defensenews.com/article/20130529/DEFREG/305290022/NATO-Rejects-Direct-Arctic-Presence>

is also not a member of NATO, and thus opposes the organization's involvement in the region—with the exception of the NATO-Russia Council framework.⁷⁶ NATO members, with the exception of Norway, have underplayed NATO involvement in the Arctic to avoid irritating Russia.⁷⁷ Meanwhile, Canada ostensibly does not support NATO involvement in the Arctic since it does not “anticipate any military challenges,” although this may be a smokescreen for its own geopolitical interests in the region.⁷⁸ Since decisions within NATO are taken by consensus, there can be no policy change without Canadian consent.

A changing security environment might require NATO to take on more responsibilities in the Arctic. Russia's actions in Ukraine, for instance, might heighten general perceptions of the threat to the Alliance posed by Russia, as well as deepening a sense of distrust among member states that could drive a re-evaluation of current cooperation between Russia and NATO' members in the Arctic. Furthermore, Swedish and Finnish concerns about Russia's actions in Ukraine might cause them to seek NATO membership, giving NATO seven out of eight permanent seats on the AC.

⁷⁶ Russian foreign ministry Sergey Lavrov's words illustrate Russia's stance: “...any problems should be solved on the basis of the UN Convention on the Law of the Sea and the decisions of the Arctic Council. There are no reasons for drawing NATO into Arctic affairs.” (“Opening Remarks and Answers by Russian Foreign Minister Sergey Lavrov at Press Conference Following Talks with Icelandic Foreign Minister Ossur Skarphedinsson,” The Ministry of Foreign Affairs of the Russian Federation, November 29, 2011, http://www.mid.ru/brp_4.nsf/0/910EA870582BC0F344257959001DACE9).

⁷⁷ NATO is barely mentioned in the various country-level Arctic strategies; to the extent that it comes up, it is cited in vague and powerless language.

⁷⁸ CAAS, 25.

2. CONFLICT AND COOPERATION IN THE ARCTIC

In this section, we analyse the different strategies adopted by various Arctic actors, noting the ways in which they are shaped and driven by a series of common and conflicting interests. Conflicting interests greatly outnumber common interests in the region, as countries compete with one another for economic and geopolitical advantage. Still, there is room for cooperation, especially regarding common interests such as environmental protection and maritime safety.

2.1 Conflicting Interests

2.1.1 Economic Interests

The main driving force behind increased international attention towards the Arctic is the potential economic benefit that the region has to offer. Extensive hydrocarbon deposits—the region has up to 30 percent⁷⁹ of the world's undiscovered gas reserves—are the most attractive feature of economic development in the Arctic. Moreover, the Arctic is also rich in minerals, including rare earth elements, as well as in fisheries, an often-overlooked resource. Furthermore, the opening of Arctic sea-lanes provides a shorter connection between European and Asian markets and, combined with the pristine natural beauty of the Arctic, creates an alluring tourist destination. Nonetheless, despite the common general economic interest in the Arctic, countries all have competing individual interests. Effective cooperation is thus far from assured, and competing economic interests may very well lead to conflict.

2.1.1.1 Hydrocarbons and Energy

According to the US Geological Survey, the Arctic holds 13 per cent of the world's undiscovered oil resources (90 billion barrels of oil) and 30 per cent of the world's undiscovered gas resources (1,669 trillion cubic feet of natural gas and 44 billion barrels of natural gas liquids; see Appendix 2). An estimated 84 per cent of these resources are located in offshore areas.⁸⁰

Although oil and gas extraction is mentioned in all formal Arctic strategies, it is of clear primary importance for three states: Norway, the United States and Russia. These states regard hydrocarbon deposits in the Arctic as a vital element of their national energy security. The income gained through oil and gas development constitutes an extremely

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[http://www.ey.com/Publication/vwLUAssets/Arctic_oil_and_gas/\\$File/Arctic_oil_and_gas.pdf](http://www.ey.com/Publication/vwLUAssets/Arctic_oil_and_gas/$File/Arctic_oil_and_gas.pdf)

⁸⁰ US Geological Survey. "Circum- Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle," Department of the Interior, 2008, <http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf>

large percentage of Norwegian exports: 30.7% and 27.4% respectively.⁸¹ The Russian economy is similarly dependent in large part on its oil and gas, counting for nearly 70% of total exports and federal budget revenues.⁸² High demand and declining production have led Russia to search for new oil and gas fields, with most of these located in the Arctic.⁸³ For the US, the development of Arctic resources can “reduce reliance on imported oil and strengthen [the] nation’s energy security.”⁸⁴ Similarly, Norway calls the High North a “new energy province,”⁸⁵ and Russia officially regards the Arctic as its “strategic resource base.”⁸⁶ Despite such optimistic outlooks, however, many recent exploration projects have either been postponed or abandoned entirely.⁸⁷

Energy development is also extremely important for Denmark. Greenland and its surrounding waters are still believed to be rich in large hydrocarbon deposits, despite limited commercial success following four decades of surveys and experimental drilling.⁸⁸ Greenland and the Danish central government have a negotiated agreement in place to divide the revenue: Denmark will receive back the 3.2 billion DKK (€430 million) it annually allocates in subsidies to Greenland, and any income over that will go solely to Greenland.⁸⁹ This arrangement allows for inclusion of Danish companies in the development process, and in the long run might conceivably lead to Greenland’s independence, however unlikely it is in the short-to medium-term.⁹⁰

⁸¹ “External Trade in Goods, 2013, final Figures,” Statistics Norway, May 20, 2014, <http://www.ssb.no/en/utenriksokonomi/statistikker/muh/aar-endelige>.

⁸² <http://www.eia.gov/todayinenergy/detail.cfm?id=17231>

⁸³ Henry Meyer and Agnes Lovasz, “Russia Faces Economy Trap as Oil Decline Looms, EBRD Says,” *Bloomberg News*, December 14, 2012, <http://www.bloomberg.com/news/2012-12-13/russia-at-risk-from-dwindling-oil-reserves-european-bank-says.html>.

⁸⁴ USAS, 7.

⁸⁵ NWAS, 14-5.

⁸⁶ RFAS, 8.

⁸⁷ Suzanne Goldenberg, “Shell Barred from Returning to Drill for Oil in Arctic Without Overhaul,” *The Guardian (UK)*, March 15, 2013, <http://www.theguardian.com/business/2013/mar/15/shell-barred-drill-oil-arctic>; Trude Pettersen, “Statoil Postpones World’s Northernmost Drilling,” *Barents Observer*, April 15, 2013, <http://barentsobserver.com/en/energy/2013/04/statoil-postpones-worlds-northernmost-drilling-15-04>.

⁸⁸ “Black Gold in Greenland,” Offshore Center Denmark, <http://www.offshoreenergy.dk/offshoreenergy/news-media/on-off-magazines/article/black-gold-in-greenland.aspx>; Emily Gosden, “Cairn Prepares to Resume Oil Search off Greenland,” *The Telegraph (UK)*, August 20, 2013, <http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/10255743/Cairn-prepares-to-resume-oil-search-off-Greenland.html>.

⁸⁹ Christian Wienberg, “Denmark, Greenland Divide Arctic Island’s Future Oil Income,” *Bloomberg News*, June 13, 2008, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aSLH_49iTTJE.

⁹⁰ UNRIC. (n.d.). “Greenland: Oil Fortune to Fund Independence,” United Nations Regional Information Centre for Western Europe, <http://www.unric.org/en/indigenous-people/27308-greenland-oil-fortune-to-fund-independence>; Marianne Stigset, “Greenland Bets on Oil, Metals, Cows as Ticket to Independence,” *Bloomberg News*, May 12, 2011, <http://www.bloomberg.com/news/2011-05-11/greenland-bets-on-oil-metals-cows-as-ticket-to-independence.html>.

Canada has not yet started to exploit its Arctic offshore hydrocarbon deposits, preferring instead to continue collecting data regarding its potential resources. Thus far most of the oil and gas extraction in the Canadian Arctic has taken place in and around Mackenzie Delta, although companies are now interested in “expand[ing] their focus further offshore into deep water in areas which have not been previously explored.”⁹¹

The rest of the Arctic countries—Finland,⁹² Iceland,⁹³ and Sweden⁹⁴—do not have direct access to Arctic hydrocarbon deposits, but are still interested in joint development projects with other Arctic states. Various non-Arctic actors—the EU,⁹⁵ Germany⁹⁶ and the UK⁹⁷—have also demonstrated interest in becoming a destination for Arctic oil and gas.⁹⁸ There is reason to believe that the same market logic applies to China, Japan, and South Korea, since they are highly dependent on imported energy resources. Chinese and South Korean businesses have expressed direct interest in participating in the region’s oil and gas development projects.

2.1.1.2 Mining

In addition to hydrocarbons, the Arctic is also rich in minerals, metals and rare earth elements. While the hype over hydrocarbons has received widespread attention in recent years, these other natural resources have not. While onshore development of Arctic minerals is already well advanced, there has been much less interest in offshore mining. Nevertheless, the increasing importance of resources such as rare earth minerals, coupled with the diminishing Arctic ice cap, means Arctic mineral resources are more economically viable and technologically accessible than ever.

According to a 2011 study, Sweden, Finland, Canada and the US (through Alaska) have had the largest Arctic mining value index during the period from 1992-2007.⁹⁹ Russia leads

⁹¹ “Oil and Gas in Canada's North - Active Exploration and New Development,” Government of Canada: Aboriginal Affairs and Northern Development, February 1, 2012, <http://www.aadnc-aandc.gc.ca/eng/1100100037301/1100100037302>.

⁹² FIAS, 18.

⁹³ ICAS, 8.

⁹⁴ SWAS, 32.

⁹⁵ EUAS, 9, 16.

⁹⁶ GERAS, 6.

⁹⁷ UKAS, 24.

⁹⁸ The EU receives 49% its oil and 47% of its gas from two Arctic countries - Norway and Russia.

⁹⁹ Sharman Haley, Nick Szymoniak, Matthew Klick, Andrew Crow and Tobias Schwoerer, “Social Indicators For Arctic Mining,” *ISER Working Paper 2011*, Institute of Social and Economic Research, University of Alaska, May 12, 2011, <http://www.iser.uaa.alaska.edu/Publications/mining-indicators.pdf>. P. 33.

all countries in terms of Arctic mining industries, however, producing roughly 10% of the world's nickel, 11% of cobalt, 15% of platinum, and 40% of palladium in the region.¹⁰⁰

Denmark clearly stresses exploiting critical minerals, including rare earth elements, in its Arctic strategy.¹⁰¹ These minerals are of extreme importance for the production of high-tech appliances.¹⁰² China currently has a virtual monopoly on the extraction of rare earth minerals, providing 95% of the global supply.¹⁰³ Attempts to exploit rare earth minerals in Greenland, therefore, might bring Denmark into conflict with China as the latter seeks to protect its monopoly. In addition to Denmark, the EU has showed significant interest in Greenland's rare earths.¹⁰⁴ China also has mining interests in the Arctic beyond the rare earth minerals, with many Chinese companies flocking to the Arctic in Greenland and Canada.¹⁰⁵

Technological exchange and joint development projects characterise current trends in mining industry. Finland calls itself a "pioneer in sustainable mining,"¹⁰⁶ whereas the UK's Arctic strategy also refers to sustainable techniques.¹⁰⁷ Both Russia¹⁰⁸ and Norway¹⁰⁹ perceive their Arctic mineral deposits as important resource bases, whereas Iceland mentions mining only in the context of shared projects with its neighbours.¹¹⁰ Canada's strategy draws surprisingly little attention to mining. It references its diamond mining industry in passing,¹¹¹ an industry that has grown greatly in significance in the Northwest

¹⁰⁰ Lars Lindholt, "Arctic natural resources in a global perspective," In S. Glomsrød & I. Aslaksen (Eds.), *The Economy of the North* (Statistical analyses 84, 2006), Statistics Norway, http://www.ssb.no/a/english/publikasjoner/pdf/sa84_en/kap3.pdf, pp. 27-39.

¹⁰¹ DKAS, 27-8.

¹⁰² Rare earths are indispensable for the production of things like batteries, smartphones, laptops, electric cars and wind turbines. It is believed that shortage of these minerals might slow the development of the renewable energy industries. (John Vidal, "Rare Minerals Dearth Threatens Global Renewables Industry," *The Guardian (UK)*, January 27, 2012, <http://www.theguardian.com/environment/2012/jan/27/rare-minerals-global-renewables-industry>).

¹⁰³ Duncan Jefferies, "The Search for Transparency in a Global Gold Rush for Rare Earths," *The Guardian (UK)*, February 3, 2014, <http://www.theguardian.com/sustainable-business/global-mining-rare-earth-elements-transparency>.

¹⁰⁴ Christian Spillmann, "EU Fights to Catch Chinese in Greenland Rare-earths Gold Rush," *IndustryWeek*, August 6, 2012, <http://www.industryweek.com/global-economy/eu-fights-catch-chinese-greenland-rare-earths-gold-rush>.

¹⁰⁵ Lajeunesse.

¹⁰⁶

¹⁰⁷ UKAS, 22-3.

¹⁰⁸ RFAS, 11.a, 11.b, 31.a.

¹⁰⁹ NWAS, 36-7.

¹¹⁰ ICAS, 8.

¹¹¹ CAAS-2, 15.

Territories during the past decade.¹¹² The EU¹¹³ and German¹¹⁴ strategies both cite the importance of ensuring a continued supply of raw materials such as minerals.

2.1.1.3 Fisheries

The precise size and composition of Arctic fishery stocks have thus far not been quantified by targeted scientific surveys.¹¹⁵ This lack of data is somewhat surprising given the importance of fish to many Arctic countries. For instance, fishing counts for 85% and 40% of Greenland's and Iceland's total exports, respectively.^{116 117} For Norway, marine products are its second largest export commodity,¹¹⁸ despite constituting 5.4% of total exports.¹¹⁹ The EU is interested in these stocks primarily as a consumer: fully one-third of the fish caught in the Arctic is sold on the EU market.¹²⁰

All Arctic actors pay special attention to fisheries as a subset of larger concerns surrounding biodiversity. Arctic states, for instance, have enacted a moratorium on high-seas fishing in the Arctic.¹²¹ Greater attention has been paid to this issue because Arctic fish stocks are endangered by overfishing. Decreased sea ice levels allow easier access to the Arctic Ocean, which in turn incentivizes more fishing in the region. According to a Canadian study, “[a]n estimated 950,000 tonnes of fish were caught in Russian, Canadian and US Arctic waters between 1950 and 2006, which is 75 times higher than reported by the United Nations agency that records catch levels.”¹²² Some studies indicate that by 2055 fish catches in the Arctic could increase by more than 50%.¹²³

¹¹² Haley et. al., 22.

¹¹³ EUAS, 9.

¹¹⁴ GERAS, 6.

¹¹⁵ LaGanga, M. L. (2014, February 22). With Ice Melting, US Pushes for Limits on Fishing in Arctic Ocean. *Los Angeles Times*. <http://articles.latimes.com/2014/feb/22/nation/la-na-nn-arctic-ocean-fishing-20140222>

¹¹⁶ DKAS, 31.

¹¹⁷ “Iceland,” *Forbes*, 2012, <http://www.forbes.com/places/iceland/>.

¹¹⁸ NWAS, 11.

¹¹⁹ “External trade in goods, 2013, final figures.”

¹²⁰ EUAS, 10.

¹²¹ Maria L. LaGanga, “With Ice Melting, US Pushes for Limits on Fishing in Arctic Ocean,” *Los Angeles Times*, February 22, 2014, <http://articles.latimes.com/2014/feb/22/nation/la-na-nn-arctic-ocean-fishing-20140222>

“Iceland,” *Forbes*.

¹²² “Researchers Warn Arctic Fishing Under-reported,” *Reuters*, February 4, 2011, <http://uk.reuters.com/article/2011/02/04/us-arctic-fish-idUKTRE71366L20110204>

¹²³ William W. L. Cheung, Vicky W. Y. Lam, Jorge L. Sarmiento, Kelly Kearney, Reg Watson, Dirk Zeller, and Daniel Pauly, “Large-scale Redistribution of Maximum Fisheries Catch Potential in the Global Ocean under Climate Change,” *Global Change Biology* 16: 24-35, <http://www.seararoundus.org/researcher/dpaully/PDF/2010/JournalArticles/LargeScaleRedistributionOfMaximumFisheriesCatchPotential.pdf>. P. 28.

There are particular concerns about an increase in Chinese Arctic fishing. China is notorious for overfishing, and under-reporting catches, in its own waters.¹²⁴ Should this behaviour spread to the Arctic, then Chinese fishermen could seriously deplete Arctic fish stocks.¹²⁵ Overfishing in the Arctic is especially dangerous because the food chain in the Arctic is shorter than elsewhere, and damage to one species would result in negative effects to the entire ecosystem.¹²⁶ The economic impact of overfishing, alongside high social costs, would be disproportionately felt by the indigenous groups that heavily depend on fisheries for their livelihood.

2.1.1.4 Shipping

Two new maritime routes – the Northwest Passage (NWP) and the Northern Sea Route (NSR) - are becoming more open for commercial activities due to ongoing climate change. The NWP is a sea route that passes through the Arctic Ocean along the northern coast of North America via the Canadian Arctic archipelago, thereby connecting the Atlantic and Pacific Oceans. The NSR, also called the Northeast Passage, is a sea route from the Atlantic Ocean to the Pacific Ocean that runs along the Russian Arctic coast from Murmansk (on the Barents Sea) to the Bering Strait and Far East. These routes help to save thousands of nautical miles and countless travel days for ships—and thus, money for shipping companies (see *Appendix 3*).¹²⁷ If the routes become fully operational, they will have a profound effect on global shipping.

For the most of the year, the NWP is covered with thick sea ice, impeding usage; indeed, no commercial vessels used the route from 1969 to 2013. The passage remains risky, however, due to non-existent search and rescue capabilities, lack of ports for a ship to seek refuge, and the small, aging Canadian icebreaker fleet.

By comparison, maritime service and ice conditions are both better in the NSR. Russia owns several search-and-rescue stations (and plans to build ten more), 16 deep water

¹²⁴ Gwynn Guilford, "China Is Plundering the Planet's Seas," *The Atlantic*, April 30, 2013, <http://www.theatlantic.com/china/archive/2013/04/china-is-plundering-the-planets-seas/275437/>.

¹²⁵ Ed Struzik, "China's New Arctic Presence Signals Future Development," *Yale Environment 360*, June 4, 2013, http://e360.yale.edu/feature/chinas_new_arctic_presence_signals_future_development/2658/.

¹²⁶ The Pew Charitable Trusts. (n.d.). *Commercial Fishing*. Oceans North. <http://www.oceansnorth.org/commercial-fishing>

¹²⁷ For instance, the NWP would shorten the maritime route between Seattle to Rotterdam by almost 25 per cent (2,000 nautical miles) compared to the current route through the Panama Canal; the NSR would decrease the shipping distance between Rotterdam and Yokohama more than 40 per cent from the current distance (through the Suez Canal), from 11,200 nautical miles down to 6,500. (Scott G. Borgerson, "Arctic Meltdown: The Economic and Security Implications of Global Warming," *Foreign Affairs* 87, no. 2 (May/April 2008): 63-77).

ports, and more than ten icebreakers—with three more ordered in 2014.^{128 129} These easier conditions have led to an increase in traffic in the NSR. From a total of 4 crossings in 2010, the total has risen to 34 in 2011, 46 in 2012, and 71 in 2013.¹³⁰ It is likely that the number of ships using the NSR will continue to increase as sea ice conditions improve even further. According to an analysis by the Intergovernmental Panel on Climate Change, the NSR will be suitable for shipping for up to 125 days per year in 2050, compared to just 50 days this year.¹³¹

Russia considers “the development of Arctic transport infrastructure that guarantees the preservation of the NSR as a uniform national transport backbone of the Russian Federation” to be one of its main priorities. The country's Arctic strategy sets out 16 measures to assist in reaching this goal, including improvements to its maritime regulatory framework, management and security organizations, and traffic control.¹³² Finland, on the other hand, aims “to maintain Finland’s position as a leading expert in the Arctic maritime industry and shipping and keep Finnish companies closely involved in development projects in Arctic sea areas.”¹³³ Sweden also stresses its “world-class expertise in Arctic shipping” as well as ice-breaking capabilities.¹³⁴ By contrast, Denmark’s strategy mentions only the necessity to address new developing routes to Greenland and the Faroe Islands.¹³⁵

The EU,¹³⁶ Germany,¹³⁷ and the UK¹³⁸ are all strongly interested in commercial opportunities that will come with the new sea routes.¹³⁹ Even if official rhetoric differs, the same applies for China, Japan and South Korea. The NSR is even more important for Asian countries because of their energy imports.¹⁴⁰ These imports could in turn provide

¹²⁸ Michael Byers, “Canada’s Arctic Nightmare Just Came True: The Northwest Passage is Commercial,” *The Globe and Mail (UK)*, September 20, 2013, <http://www.theglobeandmail.com/globe-debate/canadas-arctic-nightmare-just-came-true-the-northwest-passage-is-commercial/article14432440/>.

¹²⁹ Charles Digges, “Russia Trumpets Victory in New ‘Super Modern’ Nuclear Icebreaker Project,” *Bellona*, May 9, 2014, <http://bellona.org/news/arctic/russian-nuclear-icebreakers-fleet/2014-05-russia-trumpets-victory-new-super-modern-nuclear-icebreaker-project>.

¹³⁰ http://www.uscg.mil/proceedings/archive/2013/Vol70_No2_Sum2013.pdf

¹³¹ Thomas Nilsen, “125 Days of Navigable Conditions by 2050,” *Barents Observer*, April 1, 2014, <http://barentsobserver.com/en/business/2014/04/125-days-navigable-conditions-2050-01-04>.

¹³² RFAS, 12.a-p.

¹³³ FIAS-2, 53.

¹³⁴ SWAS, 15, 36.

¹³⁵ DKAS, 16-8.

¹³⁶ EUAS, 11.

¹³⁷ GERAS, 8.

¹³⁸ UKAS, 25.

¹³⁹ For instance, shipping is of utmost importance to the EU from trade perspective, because about “90% of freight exchanges of Europe with the rest of the world are seaborne”. (EUMTP, 2009)

¹⁴⁰ China, Japan and South-Korea are highly dependent on energy imports. For instance, they are the world largest LNG importers. (U.S Energy Information Administration, 2014)

commercial opportunities for Norwegian and Russian energy companies. In relation to the Arctic, South Korea stands out from the other Asian countries in regard to the business opportunities that might emerge for its shipping industry.

There are some concerns regarding who holds jurisdiction over the NWP and NSR. If the NWP goes through Canadian internal waters then it will control the passage according to the UNCLOS. Canadian domestic laws would therefore apply to the route, it could set conditions for passage and could restrict free navigation there. However, if the same route is defined as international strait, then foreign ships have a guaranteed right for “transit passage” even without the permission of the country that “owns” the passage.¹⁴¹ The international community, especially the US, EU and China, is against setting a legal precedent in the NWP that could hinder the free flow of global trade and threaten free movement.

Although the NSR runs mainly through the Russian EEZ, it only passes through Russian internal waters at certain points. Under the UNCLOS, a country has sovereign rights on matters concerning environmental regulation¹⁴² and economic resource development in its EEZ, although foreign vessels have freedom to use the EEZ for navigation.¹⁴³ However, the international community (specifically the US, the EU and China) opposes Russia's claim to jurisdiction over the NSR. The Arctic Council's Arctic Marine Shipping Assessment thus notes that the jurisdictional status of internal waters and straits “remains controversial” and “could give rise to future disputes concerning the exercise of national jurisdiction over international navigation through those waters.”¹⁴⁴

2.1.1.5 Tourism

All Arctic states except the US highlight the potential benefits of increased Arctic tourism. The preferred approach is to create jobs and boost local economic growth through eco-tourism. Good infrastructure and situational awareness, as well as a rapid response capability in case of emergency, are a prerequisite for further enlargement of the Arctic tourism industry. Due to historic ties and close cooperation, it is only natural that Finland,¹⁴⁵ Sweden¹⁴⁶ and Norway¹⁴⁷ jointly pay more attention to developing their northern areas as tourist destinations. Tourism is also stressed in Danish strategy,¹⁴⁸ which

¹⁴¹ Michael Byers, *Who Owns the Arctic?: Understanding Sovereignty Disputes in the North*, (Vancouver, Canada: D&M Publisher Inc., 2009), P. 42.; Lars Lothe, “Arctic Shipping Routes and UNCLOS III,” Arctic Knowledge Hub, 2010, <http://www.arctis-search.com/Arctic+Shipping+Routes+and+UNCLOS+III>

¹⁴² UNCLOS Article 234

¹⁴³ UNCLOS 56, 57, 58.

¹⁴⁴ “Arctic Marine Shipping Assessment 2009 Report,” Arctic Council, 2009, http://www.arctic.noaa.gov/detect/documents/AMSA_2009_Report_2nd_print.pdf, P. 51.

¹⁴⁵ FIAS-2, 34, 55-6.

¹⁴⁶ SWAS, 38.

¹⁴⁷ NWAS, 37.

¹⁴⁸ DKAS, 23-4.

cites tourism as Greenland's second largest export sector. Finally, tourism is mentioned in Russian¹⁴⁹ and Icelandic¹⁵⁰ documents, but is barely noted in the Canadian¹⁵¹ strategy text.

The EU,¹⁵² Germany¹⁵³ and the UK¹⁵⁴ highlight tourism in a maritime safety context in their respective strategies, although Germany also notes that its companies "stand to profit"¹⁵⁵ from new tourism destinations. China's Arctic tourism interest became widely known after a Chinese businessman wanted to buy 300 square kilometres of Icelandic wilderness in which to open an eco-tourism center.¹⁵⁶

2.1.2 Geopolitical Interests

2.1.2.1 Extension of Continental Shelves

Under the United Nations Convention on the Law of the Sea (UNCLOS), coastal countries are entitled to economic control over waters that stretch as far as 200 nautical miles from their shores. If a country can prove that its continental shelf extends even further, it may be granted control of a greater expanse. To be granted such an exception, a country has to submit a claim for extension of continental shelf to the UN Commission for the Limits of the Continental Shelf (CLCS) that will decide, based on the scientific evidence provided, whether or not to approve the submission. The right for such boundaries, however, only apply to countries that have ratified the UNCLOS.

The United States therefore represents a special case, since it is the only Arctic state that has not yet ratified UNCLOS. There is growing political support within the US, though, for ratification. The US Arctic Strategy states that "only by joining the Convention can we maximize legal certainty and best secure international recognition of our own sovereign rights with respect to the US extended continental shelf in the Arctic."¹⁵⁷ Until the Senate ratifies the treaty, however, the US cannot officially submit its claim to the CLCS. Despite the fact that the US has not ratified the UNCLOS, it has been involved in mapping and research activities along with other littoral states. Some states (Russia in 2001, Norway in

¹⁴⁹ RFAS, 9.d, 10.o, 17.l.

¹⁵⁰ ICAS, 6, 8, 11.

¹⁵¹ CAAS, 19.

¹⁵² EUAS, 10.

¹⁵³ GERAS, 8.

¹⁵⁴ UKAS, 26.

¹⁵⁵ GERAS, 8.

¹⁵⁶ Andrew Ward, Jamil Anderlini and Leslie Hook, (2011, September 2). "China and the World: A Chilly Reception," *Financial Times*, September 2, 2011, <http://www.ft.com/intl/cms/s/0/a261c6fa-d550-11e0-bd7e-00144feab49a.html>.

¹⁵⁷ USAS, 9.

2006, Canada in 2013) have already submitted their applications, though thus far only Norway has seen its submission approved.¹⁵⁸

2.1.2.2 Lomonosov Ridge

A related geo-political conflict regarding seabed rights is that between Canada and Russia over the Lomonosov Ridge. Both countries have claimed sovereign rights over this ridge, a continental shelf in the Arctic Ocean that extends 1800 km across the North Pole from the New Siberian Islands in Russia over the Arctic Ocean to the Ellesmere Islands of the Canadian Arctic Archipelago. The ridge is believed to contain oil and gas and other mineral resources.¹⁵⁹ Although these hydrocarbons are far away from the coastline at depths of up to 3,650m and are covered by sea ice in winter, improving technology and melting sea ice may soon make their exploitation economically viable.

Russia first claimed the Lomonosov Ridge in 2001 (see Appendix 4). The Commission on the Limits of the Continental Shelf (CLCS) rejected the claim to an incredible 1.2 million square kilometres, because the "geological and geophysical issues" at play "were not properly studied."¹⁶⁰ Since this ruling Russia has conducted scientific operations to collect additional evidence. During one such operation in 2007 Russian planted a titanium flag on the ocean floor at the North Pole, sparking outrage amongst other Arctic countries. The Canadian Foreign Minister at time, Peter MacKay, declared in outrage that "this isn't the 15th century. You can't go around the world and just plant flags and say 'We're claiming this territory.'"¹⁶¹

Through this high symbolic act Russia sent a message to other littoral states regarding its interest not only in the Ridge, but also more generally in regards to the Arctic and its hydrocarbon resources. The Russian President at the time, Dmitri Medvedev, gave voice to these interests in 2008, stating that "our first and main task is to turn the Arctic into Russia's resource base of the 21st century."¹⁶² The US position on the ridge is that it is a "free standing feature in the deep oceanic part of the Arctic Ocean Basin," and therefore not "a component of the continental shelf of either Russia or any other state."¹⁶³

¹⁵⁸ "UN Backs Norway Claim to Arctic Seabed Extension," *Calgary Herald*, April 15, 2009, http://www.arctique.uqam.ca/IMG/pdf/UN_backs_Norway_claim_to_Arctic_seabed_extension.pdf.

¹⁵⁹ "Lomonosov Ridge could Bring Russia 5 bln Tons of Extra Fuel," *Rianovosti*, October 10, 2007, <http://en.ria.ru/russia/20071001/81830517.html>.

¹⁶⁰ Trude Pettersen, "Enough Evidence for Arctic Claim," *Barents Observer*, April 30, 2014, <http://barentsobserver.com/en/arctic/2014/04/enough-evidence-arctic-claim-30-04>.

¹⁶¹ "Russia plants flag under N Pole." *BBC*, August 2, 2007, <http://news.bbc.co.uk/2/hi/europe/6927395.stm>.

¹⁶² "Russia sees Arctic as Key to Security," *The Moscow News*, September 19, 2008, <http://themoscownews.com/news/20080919/55347595.html>.

¹⁶³ "United States of America: Notification regarding the submission made by Russian Federation to the Commission on the Limits of the Continental Shelf," United Nations, March 18, 2002, http://www.un.org/Depts/los/clcs_new/submissions_files/rus01/CLCS_01_2001_LOS__USAtext.pdf

Canada submitted its claim for a continental shelf extension to CLCS in late 2013. The claim reaches up to the North Pole and also includes the Lomonosov Ridge. The politicized nature of such claims is illustrated by the personal demand of the Canadian Prime Minister, Stephen Harper, that the North Pole be included in the claim, even though scientists lacked clear evidence that the continental shelf clearly extended that far.¹⁶⁴ Russian President Vladimir Putin's reaction is also noteworthy. The next day he repeated the importance the Arctic region holds for Russia, and emphasized that Russia needs to increase its military presence in the region.¹⁶⁵ In April 2014 Valery Vernikovsky, one of the many scientists working for Russia on issues surrounding continental shelf extension, reported that a series of studies provided Russia with the needed scientific evidence "to substantiate the country's territorial claims." The claims will be submitted to the CLCS in spring 2015.¹⁶⁶

Denmark will probably also claim rights over the ridge before the end of 2014. Denmark has studied and conducted scientific operations to the Lomonosov Ridge together with Canada for years, expenditures that would be considered wasteful if it did not have intentions to make a claim. As well, Denmark has revealed that its claim to the CLCS will encompass the North Pole and therefore come very close to the Lomonosov Ridge.¹⁶⁷

2.1.2.3 Larger Strategic Concerns:

While the dispute over the Lomonosov Ridge might seem petty in and of itself, it must be viewed within a larger strategic context. The Arctic is of utmost importance for both Canada and Russia, countries whose leaders have tried to make the Arctic a larger part of their respective national identities by constantly stressing historical and current ties to the region. Making the Arctic region an important part of domestic politics furthermore turns it into a matter of honour for the leaders of the countries to protect their countries' sovereignty and national interest writ large. Canada's Prime Minister has said that "Canada has a choice when it comes to defending our sovereignty over the Arctic. We either use it or lose it. And make no mistake, this government intends to use it."¹⁶⁸

¹⁶⁴ "Canada extends Arctic territorial claim all the way to the North Pole — despite not even mapping area yet," *National Post*, December 9, 2013, <http://news.nationalpost.com/2013/12/09/canada-makes-territorial-claim-for-north-pole-despite-not-mapping-area-yet/>

¹⁶⁵ Luke Harding, "Russia to Boost Military Presence in Arctic as Canada Plots North Pole Claim," *The Guardian (UK)*, December 10, 2013, <http://www.theguardian.com/world/2013/dec/10/russia-military-arctic-canada-north-pole>

¹⁶⁶ Pettersen, "Enough Evidence for Arctic Claim."

¹⁶⁷ "Denmark Says Preparing North Pole Claim," *Reuters*, August 22, 2011, <http://af.reuters.com/article/commoditiesNews/idAFL5E7JM1YX20110822?pageNumber=2&virtualBrandChannel=0>

¹⁶⁸ "Prime Minister Stephen Harper announces new Arctic offshore patrol ships: Canada's New Government to move forward with deep water port in the Arctic," Prime Minister of Canada, July 9, 2007, <http://www.pm.gc.ca/eng/news/2007/07/09/prime-minister-stephen-harper-announces-new-arctic-offshore-patrol-ships>

Territorial expansion has also historically been viewed as a way to increase a state's power and influence internationally. Increasing nationalism in Russia might therefore fuel a push of expanded influence through aggressive bargaining in the Arctic. Although Russia, alongside the other Arctic countries, is currently trying to expand its territory by using international law (the UNCLOS) and scientific research, it is also preparing to protect its interests militarily. Russia *explicitly* notes that it would be willing to use military force to protect its interests in the Arctic if it views such use as necessary.¹⁶⁹ Given the volume and tenor of statements regarding conflicting claims to territory in the Arctic, the potential for actual conflict should not be underestimated.

2.1.2.4 Svalbard Treaty

The Svalbard Treaty (previously known as the Spitsbergen Treaty) is an international treaty, first signed in 1920, that regulates the legal status of the Svalbard archipelago in the Arctic Ocean. There are many other signatories of the treaty—including Estonia and Lithuania, though not Latvia—alongside the Arctic states.¹⁷⁰ The treaty recognises Norway's sovereignty over the archipelago, but also provides signatory countries with free access to the islands and equal rights to engage in economic activity (rights fully exercised only by Russia, which inherited the Soviet mining settlement of Barentsburg on Svalbard Island). Recent disputes have arisen, though, over whether the treaty only applies to the archipelago and the territorial waters or also to maritime areas beyond the territorial waters. Given its privileged position, Norway wants the agreement limited only to the islands and surrounding waters. Other countries, seeking to erode Norwegian control of the area, argue that the treaty should be interpreted more expansively.

However, the most controversial issue relating to the Svalbard treaty is the question of fishing rights. Norway established a Fisheries Protection Zone (FPZ) around the islands in 1977.¹⁷¹ It is unclear whether or not the Svalbard treaty applies to the FPS. There are three main positions on this issue. First, for Iceland¹⁷² and Russia (and to a certain extent Spain)¹⁷³ Norway is not legally allowed to establish the FPZ or to exercise legislative and enforcement jurisdiction.¹⁷⁴ Second, some countries such as the UK, the Netherlands, and Denmark believe that while Norway is entitled to establish the FPZ, the Svalbard Treaty

¹⁶⁹ RFAS, 18.b.

¹⁷⁰ The treaty was originally signed by Norway, The United States, Denmark, France, Italy, Japan, the Netherlands, Great Britain, Ireland and Sweden. Since then many countries have joined the treaty. There are currently 42 signatories, including Estonia, which joined the treaty in 1930. Lithuania joined the treaty in 2013, Latvia is not a member of the treaty.

¹⁷¹ The Fisheries Protection Zone is a 200 nautical mile zone of fisheries jurisdiction around the Svalbard archipelago. The coastal State could only exercise sovereign rights and jurisdiction in this maritime zone for certain economic and protective purposes. One of the purposes of the zone is to ensure the protection and sound management of the living resources, since the Svalbard area is one of the most important nursery areas for many fish stocks. (Wolf, 2013, p. 13)

¹⁷² ICAS, 4.

¹⁷³ Wolf, "Svalbard's Maritime Zones," 16.

¹⁷⁴ *Ibid.*, 23.

still applies in the zone—especially its non-discrimination provisions—and therefore all contracting parties to the treaty should have a right to fish in the area.¹⁷⁵ Third, from Norway’s perspective, it is the only country with jurisdiction in the FPZ, derived from the UNCLOS, and thus the Svalbard treaty should be considered irrelevant with regard to the FPZ.

Norway has successfully been able to leverage the UNCLOS to protect its claim to the FPZ.¹⁷⁶ It has restricted shipping by enforcing certain environmental conditions in the zone and forced violators to cease, sometimes by taking crews into custody. The Norwegian coast guard fired warning shots in 1993 to demand compliance from a Spanish fishing vessel.¹⁷⁷ Norway’s control of the FPZ has raised protests. Spain brought up the question in an EU ministerial meeting in 2005¹⁷⁸, while Russia reinvigorated the debate in 2011.¹⁷⁹ The EU Commission’s position has been that “Norway has no right to take sanctions on its own against vessels from other flag states.”¹⁸⁰ Norway is unrepentant, and plans to increase its law-enforcement presence in the zone.¹⁸¹

Interstate disputes over access to marine resources in contested areas of the ocean are not a new phenomenon.¹⁸² Interstate fishery disputes, however, rarely are “militarised” to the point of outright hostilities between naval forces; in most cases they therefore do not carry the potential for war. Nevertheless, future disputes might become more tense due to oil and gas exploitation. The key question in this regard is whether or not the Svalbard Treaty applies to the continental shelf. Thus far, no offshore oil and gas exploitation in the surrounding waters of Svalbard has taken place.¹⁸³ Nevertheless, the potential for conflict exists: as in the case of the FPZ, Norway considers the treaty irrelevant, while Russia, Iceland,¹⁸⁴ and the UK disagree.

¹⁷⁵ Sarah Wolf, “Svalbard’s Maritime Zones, their Status under International Law and Current and Future Disputes Scenarios,” German Institute for International and Security Affairs, January 2013, http://www.swp-berlin.org/fileadmin/contents/products/arbeitspapiere/WP_Wolf_2_2013.pdf, P. 22.

¹⁷⁶ *Ibid.*, 23.

¹⁷⁷ *Ibid.*, 25.

¹⁷⁸ “Spain Launches Formal Protest Against Norway,” *The Norway Post*, November 23, 2005, <http://www.norwaypost.com/index.php/news/latest-news/17187>

¹⁷⁹ Trude Pettersen, T. (2011, October 6). “Russia Wants to Discuss Svalbard Fisheries Protection Zone,” *Barents Observer*, October 6, 2011, <http://barentsobserver.com/en/articles/russia-wants-discuss-svalbard-fisheries-protection-zone>.

¹⁸⁰ “Spain Launches Formal Protest”

¹⁸¹ NWA-2, 38.

¹⁸² Other such conflicts are the British-Icelandic Cod Wars in the North Atlantic in the 1950-70s, a Norwegian-Icelandic dispute over fisheries in the Svalbard Fisheries Protection Zone in 1994, and the Canadian-Spanish/EU “turbot war” in the Grand Banks off Newfoundland in 1995. In the North Pacific, Russia and Japan have had a long-standing dispute over fishing rights in the waters around the disputed Kurile Islands, occasionally leading to the use of military force.

¹⁸³ Wolf, “Svalbard’s Maritime Zones,” 26-7.

¹⁸⁴ ICAS, 6.

2.2 Common Interests

2.2.1 Climate Change

Many recent developments in the Arctic, both positive and negative, can be traced to the effects of global climate change. Though increased access to natural resources such as hydrocarbons is a potential positive effect of global warming, there are also many negative effects. Global warming causes changes in flora and fauna and endangers the lifestyles and environments of indigenous peoples. These problems are borderless, meaning that countries must agree to work together in order both to try and mitigate the current effects of climate change while staving off any potential catastrophe in the near future.

The Arctic region is very sensitive to climate change/global warming. Compared to a 0.8°C increase in the global temperature during the past 100 years, the average temperature increase in the Arctic has more than doubled that margin: a stunning 1.8°C increase.¹⁸⁵ Studies indicate that since 1979 the extent of Arctic summer ice has declined over 30%¹⁸⁶ with ice thickness decreasing by some 40%.¹⁸⁷ Most climate scientists have agreed that human activity has greatly contributed to climate warming.¹⁸⁸ Russia and Germany are the only countries that do not cite reducing domestic greenhouse gas emissions as a way to fight global warming.¹⁸⁹ Nevertheless, all of the documents reviewed emphasize the importance of further study and research about climate change.¹⁹⁰

2.2.2 Flora and Fauna

Climate change has a profound impact on the Arctic's flora and fauna. For instance, climate change is projected to cause vegetation shifts, since rising temperatures favour taller, denser species—leaving existing flora unable to compete with invading species.¹⁹¹ This, in turn, would affect animal populations that depend on native plants for food. Furthermore, climate change has already had a noticeable impact on the habitats of

¹⁸⁵ William L. Chapman, "Global Security, Climate Change, and the Arctic," *Swords And Ploughshares* 17, no. 3 (Fall 2009): 5-9, <http://acdis.illinois.edu/assets/docs/505/GlobalSecurityClimateChangeandtheArctic.pdf>. P. 6.

¹⁸⁶ <http://nsidc.org/arcticseaicenews/>

¹⁸⁷ Chapman, 8.

¹⁸⁸ "A. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change," Intergovernmental Panel on Climate Change, 2007, http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html.

¹⁸⁹ CAAS, 19.; USAS-IP, 26, 28-29.; NWAS-2, 85.; DKAS, 30.; ICAS, 9.; SWAS, 5.; FIAS-2, 13.; EUAS, 4, 6, 13.; UKAS, 17-18.

¹⁹⁰ CAAS, 20.; USAS-IP, 8-19, 22.; RFAS-2, 8.e.; NWAS, 18.; DKAS, 43.; ICAS, 9.; SWAS, 6.; FIAS-2, 13.; EUAS, 2-4, 6.; UKAS, 18.; GERAS, 6, 9.

¹⁹¹ Susan Joy Hassol, "Impacts of a Warming Arctic: Arctic Climate Impact Assessment," **Arctic Monitoring and Assessment Programme**, 2004, <http://www.amap.no/documents/doc/impacts-of-a-warming-arctic-2004/786>. P. 46.

marine animals. Polar bears and seals have lost significant habitat areas, while other animals, such as reindeer, have lost areas used for breeding grounds.¹⁹² Many countries, including non-Arctic actors such as the EU,¹⁹³ Germany¹⁹⁴ and the UK¹⁹⁵ stress the importance of conserving biodiversity in the region. To support the latter goal, Canada,¹⁹⁶ Sweden¹⁹⁷ and Finland¹⁹⁸ have expressed the desire to create new protected areas either on land or at sea.

2.2.3 Indigenous People

Climate change, and resulting shifts in biodiversity, will have a large impact on the indigenous peoples in the Arctic that are still dependent on activities like fishing and hunting/gathering.¹⁹⁹ Climate change is an issue of food security for these groups, since rising temperatures will result in decreased access to their traditional food sources. Recently, there have been some signs of a reduction in food quality including diseased fish and desiccated berries.²⁰⁰ In addition, some fish species that are major contributors to the diets of indigenous people—Arctic char, broad whitefish, and Arctic cisco—are among the species most threatened by climate change.²⁰¹

Another area in which climate change has an impact on indigenous people is in cultural continuity. If indigenous people cannot sustainably continue a traditional lifestyle through fishing and hunting/gathering, instead being driven to agricultural, industrial, or service activities,²⁰² such communities can undergo dramatic cultural shifts. All major Arctic strategies address the problem of indigenous peoples across a variety of topics. These topics include culture and identity preservation,²⁰³ health concerns,²⁰⁴ business activities

¹⁹² Ibid., 10.

¹⁹³ EUAS, 12-3.

¹⁹⁴ GERAS, 1, 7.

¹⁹⁵ UKAS, 19.

¹⁹⁶ CAAS, 18.

¹⁹⁷ SWAS, 5.

¹⁹⁸ FIAS-2, 12.

¹⁹⁹ Hassol, 11.

²⁰⁰ Ibid., 16.

²⁰¹ Ibid., 17.

²⁰² Agricultural conditions are likely to improve, due to longer and warmer growing season and increasing precipitation. (Hassol, 2004, p. 17)

²⁰³ RFAS, 25.; NWAS-2, 42, 43.; ICAS, 9.; FIAS-2, 22.; SWAS, 41.

²⁰⁴ CAAS-2, 14.; USAS-IP, 22.; RFAS, 36.d.; DKAS, 23.; SWAS, 41.; GERAS, 7.; EUAS, 15.

and their impact,²⁰⁵ climate change and its impact on well-being²⁰⁶ and participation in decision-making processes.²⁰⁷

2.2.4 Pollution

Offshore energy development in the Arctic is still extremely dangerous due to the unpredictability of drifting ice and harsh weather conditions, meaning that environmental damage can occur not only because of a crash or sinking involving a vessel or oil rig, but also due to pipeline and oil well leaks. The problem with such spills is that “the crude oil that is spilled onto the ice sea does not biologically decompose, evaporate, dissolve, or precipitate.”²⁰⁸ There furthermore appears to be little preparedness in terms of oil spill prevention technology that could protect the Arctic region from a potential catastrophe.²⁰⁹ In addition to hydrocarbon development, the Arctic environment is challenged by increased maritime activity such as shipping, which introduces constant water, air, and sound pollution as well as the possibility of maritime accidents. In regards to accidents, all Arctic actors except Russia are in favour of adopting the IMO’s Mandatory Polar Code (*see more “2.1.3 Maritime safety and regulations”*).

Arctic countries are however aware of the environmental risks of increased economic activity, with many mentioning prevention, monitoring, and/or the clean-up of pollution as major points in their strategies.²¹⁰ To reduce risks, most countries emphasize the use of environmentally friendly and low-risk economic strategies. Even if states define environmental protection and sustainable development to be of utmost importance in the region, though, economic interests often seem to outweigh them.²¹¹

²⁰⁵ CAAS-2, 14.; NWAS-2, 43.; DKAS, 9.; SWAS, 41.; GERAS, 11.

²⁰⁶ USAS-IP, 22.; RFAS-2, 7.h.; ICAS, 2.; FIAS-2, 20-2.; SWAS, 41.; GERAS, 11.

²⁰⁷ CAAS, 22.; NWAS, 33.; FIAS, 23.; SWAS, 41.; EUAS, 11.; UKAS, 14.

²⁰⁸ Ki-Sun Kim, “Natural Resources Development and Environmental Issues of the Arctic,” *Dokdo Research Journal* 11, 2010. P. 86.

²⁰⁹ John Vidal, “Why an Oil Spill in Arctic Waters would be Devastating,” *The Guardian (UK)*, April 22, 2011, <http://www.theguardian.com/world/2011/apr/22/oil-spill-arctic-analysis>.

²¹⁰ EUAS, 13.; GERAS, 9.; UKAS, 21.

²¹¹ For instance, although Norwegian environmental agencies warn that drilling in certain parts of the Arctic should be avoided, the government still authorized exploration licenses for three UK companies (Damian Carrington, “Centrica, E.ON and RWE Lead Arctic Rush for Oil,” *The Guardian (UK)*, July 4, 2013, <http://www.theguardian.com/environment/2013/jul/04/uk-energy-companies-arctic-oil>). Companies are also getting drilling permits without being thoroughly inspected and demonstrated sufficient operating capacities alongside necessary safety requirements (“Department of the Interior Releases Assessment of Shell’s 2012 Arctic Operations,” US Department of the Interior, March 14, 2013, <http://www.doi.gov/news/pressreleases/department-of-the-interior-releases-assessment-of-shells-2012-arctic-operations.cfm>).

2.2.5 Maritime Safety and Regulations

An increased human presence in the Arctic also raises maritime safety concerns. Nevertheless, such concerns have as of now not yet been fully addressed. As the Finnish Arctic strategy notes, “regulations concerning the safety of shipping, Arctic navigation services, and the readiness to prevent various accidents and to act in accident situations are badly inadequate.”²¹²

There are many reasons to be concerned about maritime safety in the Arctic. Weather conditions are harsh (with low temperatures, fierce storms and drifting icebergs), the quality of navigation charts is surprisingly poor, and there is little existing satellite coverage. All Arctic states except Canada and Iceland mention seabed charting in their strategy documents as a way to improve safety. Furthermore, satellite monitoring systems that track weather, currents, and changes in sea ice cover would also improve navigation in the Arctic.²¹³ This latter component is mentioned in the Danish,²¹⁴ Norwegian,²¹⁵ Swedish,²¹⁶ Finnish²¹⁷ and Russian²¹⁸ Arctic strategies.

Outside of bilateral involvement or unilateral regulations, regional governance also has an important role to play in preventing accidents and increasing maritime safety. UNCLOS establishes a general legal framework for the rights and responsibilities of nations using the world’s oceans, while the International Maritime Organization (IMO) formulates requirements and recommendations to improve maritime safety, prevent pollution, and ensure safe navigation in polar waters. The development of a mandatory International Code of Safety for ships operating in polar waters (the so-called IMO Polar Code)²¹⁹ would become an important breakthrough for improving maritime safety in the Arctic. The document is expected to come into force already in 2015.²²⁰ The critical role of the IMO, and especially the Polar Code, has been emphasized in the strategies of all Arctic states except Russia, and also in the EU,²²¹ Germany²²² and the UK²²³ strategies.

²¹² FIAS, 28.

²¹³ “Why monitor the Arctic Ocean? Services to society from a sustained ocean observing system,” UNESCO Intergovernmental Oceanographic Commission, 2010, <http://unesdoc.unesco.org/images/0018/001898/189843e.pdf>, P. 7.

²¹⁴ DKAS, 17, 37, 45.

²¹⁵ NWAS, 37.

²¹⁶ SWAS, 39.

²¹⁷ FIAS, 12, 29.

²¹⁸ RFAS 11.d, 15.b, 29.e.

²¹⁹ IMO. (n.d.). *Shipping in polar waters*.

<http://www.imo.org/MediaCentre/HotTopics/polar/Pages/default.aspx>

²²⁰ Magdalena Tomasik, “Polar Code seen in place by 2016,” *Arctic Portal*, July 11, 2011, <http://arcticportal.org/news/21-shipping-news/1050-arctic-shipping-code-seen-in-place-by-2016->.

²²¹ EUAS, 9.

²²² GERAS, 8, 14.

²²³ UKAS, 21.

3. ESTONIA AND THE ARCTIC

Estonia is not an Arctic country. Its northernmost point – Vaindloo Island – is located at 59.5° north latitude, six degrees below the Arctic Circle (66,5°N). Not only does it not have an official Arctic strategy, but it has also not been involved directly in political discussions on the region. Nevertheless, Estonia has some connections with the Arctic region. First, it has made significant contributions in Arctic exploration and scientific research. Second, Estonia is one of the signatories of the Svalbard (also known as Spitsbergen) Treaty, which gives it the right to conduct economic activities in the islands—a Norwegian territory located in the Arctic.

One could make an argument for Estonia to become more involved with Arctic issues simply on the basis of geography: Estonia is the northernmost country in the world that does not belong to any Arctic cooperation framework. Yet, while it is certainly possible to make such geographical or historical arguments, Estonia should only seek to play a greater role in the Arctic if the country and its people derive significant benefit from such involvement—whether directly or indirectly.

The interviews we conducted with representatives of Estonia’s government, business, and scientific communities demonstrated that there are different levels of awareness about the Arctic within Estonian society. Estonian scientific interests are well established and known in the region (#28), but by contrast, political and business attention towards Arctic challenges and opportunities has begun to increase only recently and is still at a preliminary stage (#1, #8, #10). Overall, at a national level, there is currently a low level of knowledge among Estonian domestic actors about the country’s capabilities and interests in the Arctic.

3.1 Identification of Estonia’s Potential Interests in the Arctic

In this section, we present some of Estonia’s potential interests in the Arctic. We draw on interviews conducted with Estonian officials, business and scientific community representatives (*see appendix 1*), as well as on our own findings and ideas. Potential interests are divided into two groups: direct and derivative. Direct interests consist of business and scientific interests, while derivative interests are divided into three categories: general interests and principles, cooperation with Arctic countries, and cooperation with organizations.

3.1.1 Direct Interests

3.1.1.1 Business Interests

As an Estonian business representative acknowledged, the Arctic is still a new topic for the commercial sector, which has not yet considered the opportunities it might have in the region (#10). However, this does not mean that Estonian businesses have no relevant interests or capabilities; instead, it illustrates the generally low level of awareness about the region. The business representative considered it important to increase private and public sector cooperation in Arctic issues, arguing however that the state should take the initiative (#10).

The interviewees believed that businesses might have interests in sectors like shipbuilding, clean technology, maritime information systems development, (#10) fishing (#1, #10) and most importantly transportation and logistics (#1, #2, #10). We will take a closer look at some of these, but also at other potential areas of interests and bring some examples of the companies. Before that, it is important to note that what is described here is not an exhaustive list of sectors, but instead only examples of businesses that could have the interest and capability to participate in the region.

- Shipbuilding – the increasing level of shipping via the NSR also enhances the demand for a wide range of services connected to shipbuilding—from design and building to repair and modernization. Thus, it is also an opportunity for the three main Estonian companies in the sector: BLRT, Baltic Workboats, and Revel Shipbuilding. BLRT has the greatest potential, as it can provide all aforementioned services. It is capable of doing small-scale and heavy-duty shipbuilding for ice and non-ice conditions alike, and is planning to start building icebreakers (Tere, 2010). In fact, BLRT’s subsidiaries have already designed, repaired, and modernized vessels capable of serving in the Arctic. Revel Shipbuilding and Baltic Workboats are smaller and more specialised companies. Revel Shipbuilding has the potential to build tankers, while Baltic Workboats constructs fast patrol boats for different government services such as coast and border guard agencies, police, customs, fisheries inspection, and search & rescue.
- Clean technology (cleantech) – due to the rapid changes that are taking place due to global warming and sea ice melting, everything connected with sustainable development and green management is important to the Arctic region. This in turn might provide opportunities for Estonian clean technology companies. There are as many as two to three hundred clean technology related companies in Estonia, which are active in all sub-fields of clean technology (e.g. energy

technology²²⁴, biofuels²²⁵, material technology²²⁶, information and communications technology²²⁷, green construction). Most of the companies are small (but there are also some relatively big companies with 100-350 workers) and strongly export-oriented. Energy technology is the biggest sub-cluster in green technology, as well as that with the highest growth potential. (Valdmaa, 2011)

- Information and communications technology (ICT) – the ICT sector is well developed in Estonia and Estonian companies have the potential to contribute to the region. Some examples of fields and companies that could add substantial value are: navigation hardware and software, radio communication and sea surveillance systems' development (e.g. Cybernetica); geographic information systems (e.g. Regio); and antenna production for satellite communication ground stations (e.g. Vertex).
- Fishing – currently, the number of Estonian companies fishing in the Arctic is small. Fishing in distant waters composed 18% of the total quantity caught in Estonia in 2011 (EFS, 2013, p. 36); 36.5% (5.3 million tons) of this was in the Arctic, specifically in the waters around the Svalbard Islands in the Barents Sea (EFS, 2013, pp. 81-83). Distant shipping is conducted by two shipping companies (Reykatal and MFV Lootus), which together have six vessels in their long distance fleet; four operate in the Arctic (EFS, 2013, p. 41; Eurofish, 2013, pp. 30-32).
- Unmanned aerial vehicle (UAV) – While many countries are still working on legislation to regulate the civilian use of UAVs, the Arctic is exceptional in that drones have already been used there for civilian purposes. For instance, UAVs are employed in monitoring (e.g. roads, vehicles, and oil & gas pipelines), conducting environmental surveys (e.g. watching for oil spills and tracking ice floes/migrating species), and assisting search & rescue missions (Clark, 2013). This widespread civilian use of UAVs, combined with growing overall demand and Estonia's good relations with most Arctic countries, could provide considerable opportunities for Estonian contractors. There are two internationally-oriented Estonian enterprises that produce UAVs for civilian as well as military purposes: ELI and Threed Systems (Lõugas, 2013).

²²⁴ examples of the companies: Clifton, CrystalSol, Elcogen, Skeleton Technologies, Goliath Wind, my!Wind, Roheline Elekter, Konesko, Dvigatel Regital, Energiatehnika, Enteh Engineering, Roheline Mõte

²²⁵ examples of the companies: Graanul Invest, Bemixe, BioGold, Seleton, Renek Kemia

²²⁶ examples of the companies: Nordbiochem, Estiko-Plastar, Balti Kaubad ja Teenused, Plastsys

²²⁷ examples of the companies: Yoga, MolCode, Mirovar, Euriko, Regio

- Svalbard and coal – According to the Svalbard Treaty, all of the contracting parties have non-discriminatory access to economic opportunities as well as the right to equal treatment. Therefore, Estonia theoretically has the right to conduct economic activities in the Svalbard Islands - for instance, to mine coal, as Russia and Norway do. However, it does not seem like a very economically viable option at the moment, especially because of distance. Yet, it might still be worth considering in the future, especially if the Arctic corridor project is completed (see also section 3.1.2.2, Cooperation with the Arctic countries”), which would significantly reduce transportation time between Estonia and the Svalbard Islands.

3.1.1.2 Scientific Interests

The Estonian Arctic scientific community is relatively small (encompassing about forty-five people²²⁸ and eleven institutions²²⁹), but is well organised and successful in its field – i.e. overall Estonian scientific competence is comparable with that of the Nordic countries; in some fields, our scientists are even more experienced (e.g. in ice core studies/paleoclimatology) (#28). Estonian scientists’ interests are presented in the Estonian Polar Research Program 2014-2020 a document that is still awaiting ministerial approval²³⁰. According to this program, there are interests in the following areas: ice core studies/ paleoclimatology, sea ice formation and dynamics, atmosphere and biodiversity, socio-economic research of polar communities, and polar history. (EPRP, 2012, pp. 15-18) Ultimately, scientific knowledge could spur economic development, though this would require interdisciplinary cooperation between the scientific and business communities—something that is either small or nonexistent at the moment (#28).

²²⁸ These are the people who are actively involved in the Arctic research. There might be more people, who could contribute to the Arctic research, but are currently involved in other research areas. (#28)

²²⁹ Four institutions at Tallinn University of Technology (Institute of Geology; Centre for Biology of Integrated Systems; Institute of Chemistry; Marine Systems Institute), three at University of Tartu (Institute of Ecology and Earth Sciences; Institute for Cultural Research and Fine Arts; Estonian Marine Institute), one at Estonian University of Life Sciences (Institute of Agricultural and Environmental Sciences) and Tallinn University (Institute of Ecology). Additionally to the universities, also National Institute of Chemical Physics and Biophysics; and Tartu Observatory. (EPRP, 2012, p. 3)

²³⁰ This document is waiting for an approval on the ministry level; therefore it is currently still an unofficial document.

3.1.2 Derivative Interests

3.1.2.1 General Interests and Principles

- Security and stability – it is in Estonia’s interest that the Arctic remain secure and stable; if the security situation were to deteriorate in the Arctic, it could have a spillover effect on the Baltic Sea region, since Estonia’s security is closely linked with NATO and the Nordic countries. Thus, Estonia should support preventive action aimed at avoiding conflicts through confidence-building measures, cooperation and coordination; and other initiatives that help to settle disagreements through consensual solutions based on the existing UNCLOS legal framework.
- Freedom of navigation – with the shrinking of Arctic sea ice levels, shipping conditions along the NSR have improved, and volume increased, every year. It is in Estonia’s interests that the NSR be free for navigation, fairly regulated and taxed. This would allow Estonian ships and cargo to use a much shorter route to Asia, thereby reducing the time and cost of shipping. The NRS would also have positive impact on Estonian transport and logistics sectors, especially if the Arctic Corridor project becomes a reality.
- Freedom of scientific research – the free area for international research activities has become more and more limited, as the Arctic littoral states can under certain conditions claim sovereign rights with respect to their continental shelf that extend beyond 200 nautical miles. It is in the interest of Estonia as well as the international community that the freedom of scientific research be maintained in these areas, because it provides an opportunity to conduct important scientific research for non-littoral countries as well. This in turn helps to improve the overall knowledge level about the region and to make a more informed decisions regarding the Arctic possible.
- Study of climate change – climate change is a borderless international phenomenon that affects both Estonia and the Arctic. It is important for Estonia (as for the rest of the world) to study climate change in relation to the Arctic for two key reasons. First, the Arctic functions as the Earth’s “early warning system,” as it provides information about the consequences of climate change before it starts having greater influence on other regions. Second, ice melting in the Arctic may accelerate the global warming process, as the greenhouse gases stored in the Arctic permafrost (particularly methane) may be released into the atmosphere if overall climate warming trend continues. This, in turn, would have an impact on everyday life in Estonia.

3.1.2.2 Cooperation with Arctic Countries

Estonia has good or very good relations with most of the Arctic countries-with the obvious exception of Russia. The greatest attention should be paid to cooperation with the Nordic countries, as they are geographically the closest Arctic allies, and tight cooperation on other issues and in other regions (mostly in the Baltic Sea region) already exists. Cooperation with the US, which is Estonia's strategic partner in many areas (especially security), is also of utmost importance. Cooperation on the Arctic should become part of a wider cooperation program with Arctic partner countries. Estonia should prioritize support for initiatives that provide mutual benefit to the country and its partners. Collaboration should be preferred in areas like economics & business, research & education, and defence & security.

Cooperation in economic projects

The Arctic Corridor²³¹ is the most promising economic project for Estonia in the Arctic. Finland wants to build a railway connection from the Norwegian Arctic port of Kirkenes to Rovaniemi in northern Finland, which is connected to Europe by existing and planned railway and road/ferry links. This project is an opportunity for Estonia, because cargo flows from Kirkenes could also travel through Estonia (see Appendix 7). In theory, transit through Estonia could also take place along existing highways, but it would be much faster and economically beneficial to rely on rail transport, which can be enhanced by the Rail Baltic connection from Tallinn to Poland for which the three Baltic countries recently signed a joint-venture agreement; projects under discussion between Finland and Estonia (an underwater tunnel or a rail ferry) would also be enormously beneficial.

Yet without a railway connection, this corridor would still have a major impact on the Estonian transport and logistics sector, opening new opportunities for Estonian businesses that are oriented towards Asian markets. Currently, this project is still at a very preliminary stage, and a lot of work needs to be done (e.g. in finding investors) before it can be implemented. As this initiative would clearly serve Estonia's economic interests, Estonia should cooperate with Finland in this matter. As a Finnish official said: "Estonia could work together with Finland to raise the status of the Arctic Corridor" (indirect quote, #19).

Business cooperation

Until sector-based analysis is carried out on this matter, it is only possible to point out *potential* businesses and sectors in which Estonia *could* cooperate with its Arctic neighbours. We looked at some business sectors and examples of individual enterprises in the section "3.1.1.1 Business interests", which would have the capacity to take part of the Arctic projects. We believe that they are also the ones that *could* cooperate with their Nordic countries' counterparts.

²³¹ see more: Arctic Corridor. Official website: <http://www.arcticcorridor.fi/>

- Shipbuilding - Finland is one of the biggest icebreaker producers for the Arctic, having constructed some 60% of functioning icebreakers in the entire region (#19). While no Estonian shipbuilding company has independent icebreaker building capacity, but they could design them (e.g. BLRT) or produce some important components - for instance, some metal parts (e.g. BLRT) and navigation technologies (e.g. Cybernetica).
- Information and communications technology (ICT) companies could have potential to cooperate with the Arctic countries in current national and international infrastructure development processes. For instance, Denmark's Arctic strategy mentions the need to develop a geographical information system (DKAS, p. 37) – precisely the field in which the Estonian company Regio has long experience. It is also likely that some Estonian ICT companies could share their expertise and help Arctic littoral states regarding their joint “Arctic Spatial Data Infrastructure²³²” project²³³. Common databases and information sharing is not only important for the Arctic countries, but it is also a key objective for the EU (EUAS; p. 7).
- Unmanned aerial vehicles (UAVs) – As noted above, Estonian businesses (e.g. ELI and Thred Systems) could cooperate in production and maintenance of the UAVs and their components. For instance, the US coast guard is already using UAVs, while the future Arctic military procurement plans of Canada (Campion-Smith, 2013), Norway, and Denmark also include a focus on them (O'Dwyer, 2014a). Therefore, they are also the countries to cooperate with in this matter.

Scientific and Educational Cooperation

Science and scientific research in the Arctic is highly valued because it helps to make private and public sector informed decision regarding the fields of energy, transport and environmental protection. Research has an important place in all the Arctic strategies of the Arctic and non-Arctic countries, as well as in the Arctic Council's agenda. Estonian scientists have bilateral and multilateral cooperation with scientists from Arctic countries, as well as from the rest of Europe. The main bilateral partners have been Russia, Poland, and especially Norway. Multilateral cooperation has also taken place within the EU framework. (#28)

Estonia should continue its active participation in the region's scientific projects, and if possible enhance cooperation with Arctic nations to increase its scientific contribution to

²³² see more: ASDI. (2011). the Arctic Spatial Data Infrastructure. Project plan. http://arctic-sdi.org/wp-content/uploads/2011/12/Arctic-SDI-Project-Plan-version-1-0_130411.pdf

²³³ “Spatial Data Infrastructure is often used to denote the relevant base collection of technologies, policies and institutional arrangements that facilitates the availability of and access to spatial data.” (ASDI, 2011, p. 5)

regional studies, thereby becoming an internationally acknowledged partner. Through scientific research and cooperation in the field, Estonia can help achieve one of the main objectives both of the Arctic countries and of the EU in the region – to study and combat climate change. In addition to scientific cooperation, Estonia should also cooperate in the field of education (#20), so as to cultivate a new generation Arctic researchers, experts and officials. In science and education, Estonia should consider pursuing institutional cooperation with Finland's Arctic Centre²³⁴, which is one of the most outstanding institutions of its kind.

Security and Defence

In light of Russia's actions in Ukraine, the Nordic countries have started to think more seriously about their security situation, expressing concerns that disagreements over Ukraine could also have an impact on the Arctic security environment (O'Dwyer, 2014a). Estonia should help to restore its allies' confidence in relation to the security situation in the Arctic. It can do so by closely cooperating with the Nordic countries in bi-lateral and multilateral formats, exchanging information and participating in Arctic military/search & rescue) exercises; and if possible, enhancing Nordic-Baltic security and defence integration²³⁵. Moreover, Estonia should draw attention to the region's overall militarisation, especially in relation to Russia, and actively promote an American presence in the Arctic.

However, it is important to note that first and foremost Estonia's security is still linked with the Baltic Sea region. Therefore, while increasing its support and actions towards confidence-building in the Arctic, it should also work to ensure that increased attention and resource reallocation to the Arctic does not result in a security vacuum in the Baltic Sea region, as this would leave Russia considerable room for manoeuvre, both politically and militarily.

3.1.2.3 Cooperation with Organisations

The European Union

It is in Estonia's interests to support the EU's increased involvement in the Arctic (#1, #2) –including its application for Arctic Council observer status–because first, Estonia currently has no other access to the Arctic. Even if cooperation with the Nordic countries is very close, there is no bilateral or regional cooperation between Estonia and the Nordic states specifically on Arctic issues (#1). Thus, until Estonia applies for its own permanent

²³⁴ see more: Arctic Centre. (2014). Official webpage: <http://www.arcticcentre.org/InEnglish>

²³⁵ The Ukraine crises and changing security calculations might offer some possibilities for the further Nordic-Baltic security integration. For instance, the Swedish Parliamentary Defence Commission found in May 2014, that "Sweden should continue to seek to promote closer co-operation among Nordic countries, as well as with the Baltic countries, Poland and Germany". (Atlantic Council, 2014)

observer status on the AC, the EU is the only potential window for Estonia to the Arctic. If the EU gains such status, Estonia could be more involved with Arctic issues and develop its interests through the EU. Second, the EU's interests in the region (environmental management, research, sustainable growth and development) do not clash with Estonia's general interests and principles; in fact, they coincide with and supplement them. For instance, both Tallinn and Brussels support scientific research, and due to the EU's financial support for Arctic science, Estonian researchers have participated in many international projects.

In addition to supporting AC observer status for the EU, there are currently at least two EU projects, in which Estonia should consider taking part:

- The EU's Arctic Information Centre²³⁶ - the aim of the project is "to increase awareness and understanding about circumpolar as well as European Arctic affairs and related strategies, policies and activities" (EUAIC, 2011, p. 7). Therefore, it would be an ideal framework for countries like Estonia, which are still researching their Arctic interests, to increase public and private sector awareness about the Arctic. It would also give an opportunity to Estonian interest groups for networking. A preparatory project for the EU's Arctic Information Centre has been launched (Nilsen, 2013), but Estonia is not currently involved in it (SEIA, 2014).
- Horizon 2020 - an EU's Research and Innovation programme with nearly €80 billion of funding available over 7 years (2014 to 2020). One of the project's main goals is to "make it easier for the public and private sectors to work together in delivering innovation". (Horizon, 2014) The programme is not particularly designed for financing the Arctic projects, but it does not prohibit Estonian businesses or researchers from doing so. Indeed, some researchers have already planned to apply for funding via the program, and the government should provide incentives for companies to do the same(#28).

The North Atlantic Treaty Organisation

Although there is no consensus on NATO's involvement in the Arctic, it would still be in Estonia's interests for the organisation to be more involved in the region (#2, #3), because first, even if the security situation in the Arctic is not currently worrisome, then militarisation and unresolved disputes together with conflicts among regional countries in other parts of the world (e.g. Ukraine) means that a rapid deterioration of the situation is possible. And as has been stated several times already, if a conflict emerges in the Arctic, then it could also have an impact on the security situation in the Baltic Sea region. NATO's involvement would help to keep the situation under control and maintain stability in the Arctic; second, it would help Estonia to obtain more information and enhance awareness

²³⁶ see more: EUAIC. (2011). EU Arctic Information Centre. University of Lapland.
<http://www.arcticcentre.eu/loader.aspx?id=bd0dc3c2-9b3f-4ba6-bfeb-f96878cf3b7e>

about Russia's action in the region; third, in addition to these hard security reasons, NATO's presence would also help to improve soft security aspects such as search & rescue capabilities, as well as environmental disaster response, both of which are important for all countries interested in utilising the economic opportunities in the region.

NATO has currently at least two Arctic activities of interest; Estonia should consider participating in the second while continuing to contribute to the first.

- Cold Response– NATO's Arctic military training exercise that takes place in and is led by Norway. Estonia was among the sixteen nations that participated in this exercise in 2014.²³⁷ It is important that Estonia continue to participate in these exercises, as it demonstrates the country's commitment to support its NATO allies while increasing its capability to do so if needed.
- NATO Research and Technology Organisation (RTO) – As the primary NATO organisation for defence science and technology, the RTO has several research areas that could be applied or expanded to include the Arctic. For instance, the RTO researches the topic of how to improve quality of radar signals in harsh temperature conditions, which influence the technology used. According to the scientists' research document, Estonia's expertise in signal processing and antenna technologies could be useful to the RTO. (EPRP, 2012, p. 15)

3.2. Achieving Estonia's Arctic Interests. Conclusions and Recommendations

Observer status at the Arctic Council would offer Estonia a better platform for scientific research in the Arctic, while also helping to consolidate its Nordic identity. Estonia has also other related political objectives with regard to the region that go beyond AC observer status - for example the Finnish "Arctic Corridor", where the European Union could be engaged, as well as potential business opportunities in shipbuilding, different types of technologies etc. Estonia has a further interest in security and defence related aspects in the Arctic region connected to Northern Europe and the Baltic Sea area.

Estonia is not an Arctic country, but it undoubtedly has certain relevant interests in the Arctic region, as described above. While fulfilling its interests in the Arctic, in close cooperation with the Nordic countries, Estonia also consolidates its own Nordic identity. Developing a significantly wider and deeper relationship to the Arctic beyond pure scientific research will probably take years. Hence, Estonia should adopt a long-term Arctic Strategy.

²³⁷ In addition to Estonia, other 15 nations were Norway Belgium, Canada, Denmark, Germany, France, Ireland, Lithuania, the Netherlands, Poland, Spain, Sweden, Switzerland, the United Kingdom, and the US. (NAF, 2014)

The Arctic Council is the main body of cooperation among Arctic countries, organisations representing indigenous peoples, and other nations that have well-defined, pertinent interests in the region. However, it should be noted that most of the hard issues concerning the Arctic region – security and defence, disputes over extensions of continental shelf claims and the potential oil and gas reserves in these areas, freedom of navigation, etc - are treated bilaterally or in the context of the UN, whereas the Arctic Council and its working groups concentrate on two “softer” areas of cooperation: sustainable development and environmental protection.

Estonia intends to apply for observer status at the Arctic at the 2015 Summit Meeting in Nunavut, Canada. However, Estonia must be prepared for a possible Russian veto, given the deterioration of Russian-Western relations, even if Arctic issues have been traditionally—at least within the AC—treated in a non-confrontational manner. Estonia has long-standing traditions and extensive experience in Arctic scientific research that can yet serve as a solid basis for the application. Observer status will support Estonia achieving its scientific goals, as set out in the Estonian Polar Research Program 2014-2020 and the governmental Strategy for Science, Development and Innovation.

The Nordic countries, three of which are Baltic littoral states, are Estonia’s natural and most effective partners in the Arctic context. Estonia should seek to advance its own Arctic agenda by offering political and practical support to the Nordic countries so as to achieve mutual goals. To this end, the Arctic Council could serve as a central specialized political platform to further enhance Estonia’s strategic partnership with its Nordic friends and allies. Nevertheless, Estonia should use other venues to promote its political and economic interests in the Arctic, in this respect, the Arctic Corridor, in connection with Rail Baltic, could develop into a very promising project—forming a continuous rail corridor from the Arctic coast through Helsinki and Tallinn to Central Europe and beyond. Estonia should further study this project, which may increase and diversify the transit of goods/materials while offering competition to the monopoly of Russian transit through Estonian ports. Reaching a compromise (with Canada) over the European Union’s observer status at the Arctic Council will reinforce the EU’s Arctic Dimension and will serve, even if indirectly, promoting such projects.

While there are no confirmed business interests in the Arctic, for now, some Estonian companies may have certain commercial opportunities connected to the Arctic that the Government of Estonia should help promote, at least by raising awareness. One may think of shipbuilding (including icebreakers), information and communication technology, unmanned aerial vehicles, clean technologies etc. There may be, in a more distant perspective, also an increased interest in Arctic fishing, and even mining (Svalbard).

Finally, security in Northern Europe, including the Baltic Sea region, may be negatively affected by Russian militarization and confrontation policies in the Arctic. Neither the Arctic Council nor the European Union are able to address these issues directly. In this respect, the North Atlantic Alliance is the only real stabilising factor. However, there are yet no discussions in NATO about the Arctic, given Canadian resistance. Nevertheless,

Estonia could bring the attention of its NATO allies to the interconnection of the Arctic, Nordic and Baltic security and defence dimensions (the Russian Western Military District, from Murmansk to Kaliningrad, is seen by Moscow potentially as a single large operational theatre).

APPENDICES

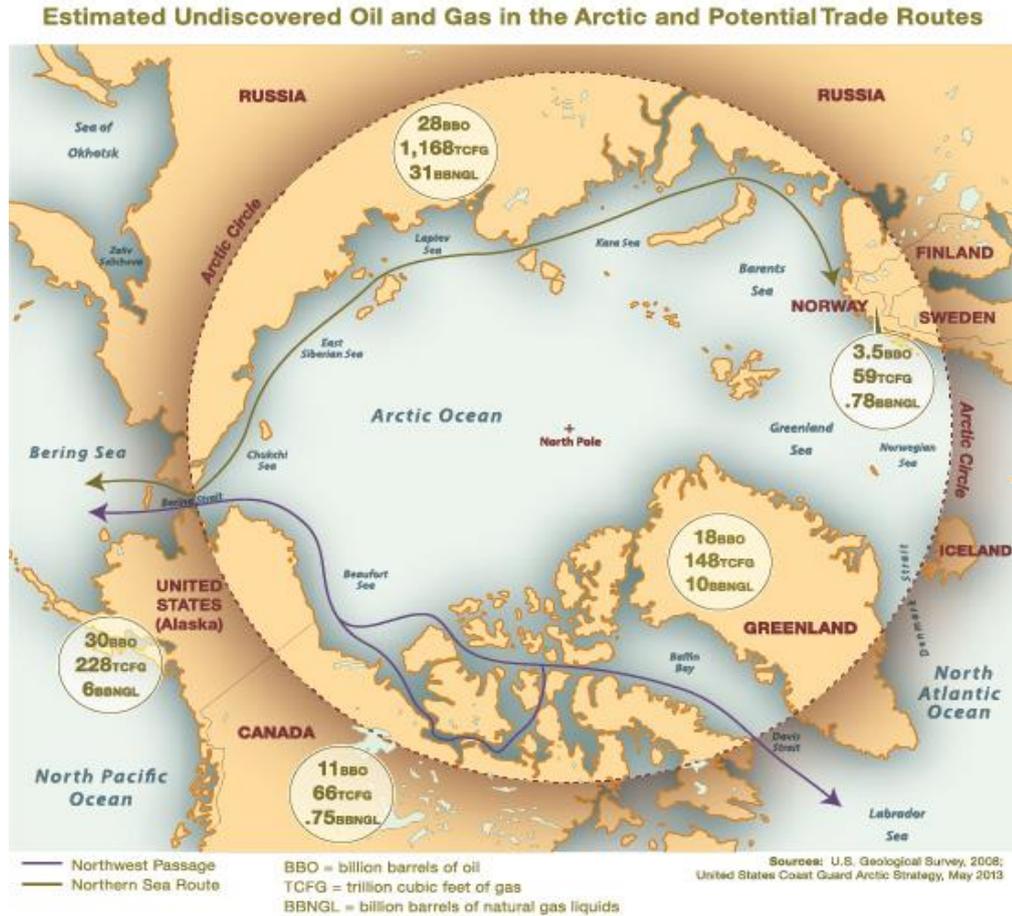
Appendix 1. Interview list

#	Date	Country	Person
1	June 21	Baltic	Official
2	June 26	Baltic	Official
3	June 26	Baltic	Official
4	July 4	Baltic	Official
5	June 27	Nordic	Official
6	June 28	Baltic	Official
7	July 11	Nordic	Official
8	July 11	Baltic	2 Officials
9	July 11	Nordic	Official
10	July 19	Baltic	Business representative/official
11	July 19	Nordic	Official
12	July 19	Observer state	2 Officials
13	July 23	Baltic	2 Officials
14	July 23	Baltic	Researcher/official
15	July 24	Baltic	Official
16	July 25	Baltic	2 researchers
17	July 25	Baltic	3 Officials
18	July 25	Baltic	Official
19	September 2	Nordic	Official
20	September 2	Nordic	2 researchers
21	September 3	Nordic	2 officials
22	September 3	Nordic	Researcher
23	September 16	Regional organisation	Representative
24	September 18	Nordic	2 researchers
25	September 18	Nordic	Researcher
26	September 19	Nordic	Researcher
27	September 19	Nordic	Official
28	June 27	Baltic	Science representative/official

Appendix 2. Estimated Undiscovered Oil and Gas in the Arctic and Potential Trade Routes

Explanation: BBO= billion barrels of oil; TCFG = trillion cubic feet of gas; BBNGL= billion barrels of natural gas liquids

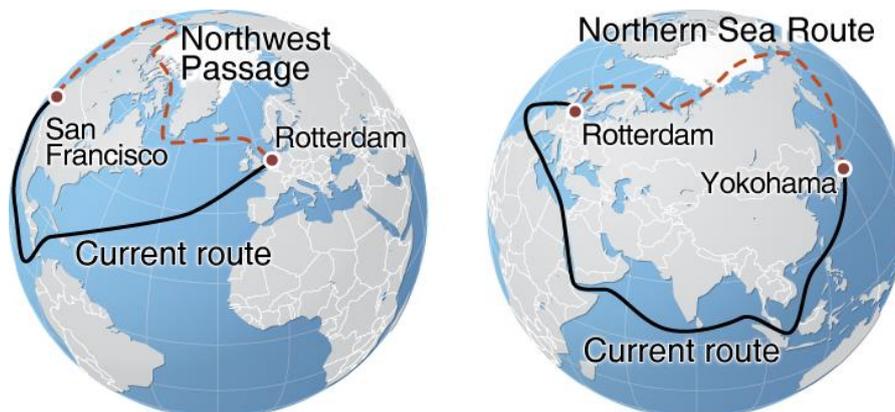
Source: U.S Geological Survey



Appendix 3. The Northwest Passage/ the Northern Sea Route

Explanation: Solid lines denote current maritime routes, dotted lines denote new ones

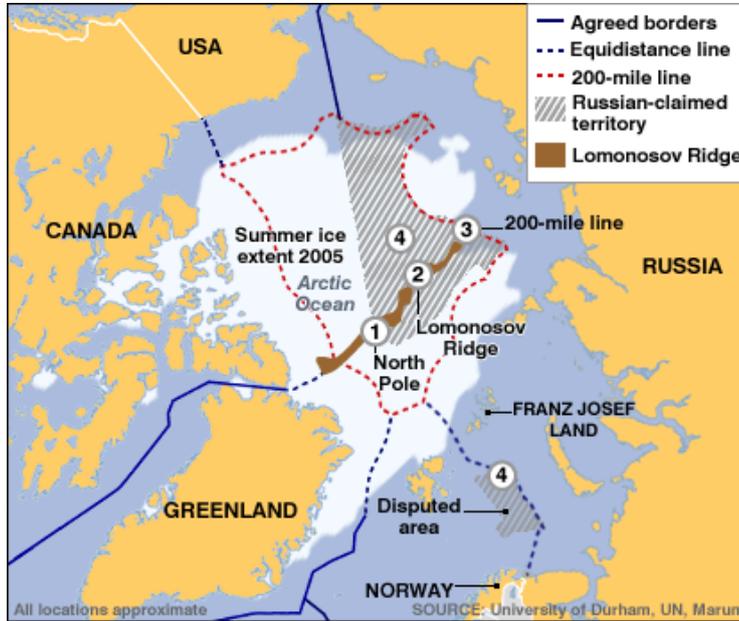
Source: GRID-Arendal



Appendix 4. Lomonosov Ridge and Russian claimed territory

Note: The disputed area “number 4” on the map was resolved in 2011

Source: University of Durham



Appendix 5. Beaufort Sea dispute

Source: Byers, M. (2009). *Who Owns the Arctic?: Understanding Sovereignty Disputes in the North*. D&M Publisher Inc.



Appendix 6. Disputed area: Hans Island

Source: Canadian Geographic Enterprise



Appendix 7. Planned “Arctic Corridor” railway connection

Source: Arctic Corridor website



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