Geopolitics of the Arctic: Challenges and Prospects

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Memoria del Máster en Estudios Internacionales

Curso 2015-2016

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1. Abstract

This Master's thesis concentrates on the geopolitics of the Arctic. The principal objectives are to identify the different international actors and their interests in the Arctic, thus revealing the possible issues that shall need to be addressed in the future. In the first parts of the paper, a theoretical framework for briefly explaining the concept of geopolitics is established, the Arctic is defined geographically (and politically) and the main international legal instruments pertaining to the region are explained, in order to set a framework for the scope of the rest of the thesis as well as the international action in the region. Following these sections, the agendas of different international actors are studied, so as to establish their official positions. The final section examines the three major factors concerning the Arctic's future: natural resources, maritime routes and environmental protection.

Resumen

El presente Trabajo Fin de Máster versa sobre la geopolítica del Ártico. Los objetivos principales de este trabajo son identificar los diferentes actores internacionales y sus intereses en el Ártico, señalando así las posibles cuestiones que deberán ser abordados en el futuro. En la primera parte del trabajo se establece un marco teórico para explicar brevemente de qué se trata la geopolítica, el Ártico es definido tanto geográfica como políticamente y los principales instrumentos legales vigentes en la región son examinados, para fijar tanto el alcance del resto del trabajo como el de la acción internacional en el Ártico. A continuación, las agendas de los diferentes actores internacionales son estudiados para establecer sus posturas oficiales. La sección final del trabajo examina los tres principales factores en relación al futuro del Ártico: los recursos naturales, las rutas marítimas y la protección ambiental.

2. Table of Contents

3. List of Frequent Acronyms

AC – Arctic Council

AMSA – Arctic Marine Shipping Assessment

BEAC – Barents Euro-Arctic Council

CBD – Convention on Biological Diversity

EEZ – Exclusive Economic Zone

ICC – Inuit Circumpolar Council

IMO – International Maritime Organization

LNG – Liquefied Natural Gas

MPA – Marine Protected Area

NCM – Nordic Council of Ministers

NGO – Non-Governmental Organization

NSR – Northern Sea Route

NWP – Northwest Passage

RAIPON – Russian Association of Indigenous Peoples of the North, Siberia and Far East

SC – Sami Council

UNCLOS – United Nations Convention on the Law of the Sea

UNFCCC – United Nations Framework Convention on Climate Change

UNEP – United Nations Environmental Program

WWF – World Wildlife Fund

4. Methodology

The Methodology for the realization of this work has been entirely bibliographic, using primary and secondary sources. These sources have been varied, in order to gain enough information: books, articles, websites and official institutional publications have all been used in the course of making this paper. The majority of the referenced works have been retrieved online, mainly in English, but also in Finnish, Spanish and French.

Almost all the referenced documents are relatively recent, due to the orientation towards the present and future of this paper. Nevertheless, the necessary historical aspects and documents have been taken into account.

5. Introduction

Lately the Arctic has gained a lot of attention and importance globally. This is mostly due to the changing conditions caused by climate change, and the potential and possibilities that are opening up with it.

Historically the Arctic has had a secondary status, instead of being valued for itself. For example, during the Cold War it was used for its strategic location, since it provided a short route for missiles and submarines. Another factor to this historical underestimation was the orientation of the circumpolar countries' policies. None of them was truly oriented towards the Arctic region, as they are today. For example, Sweden concentrated mainly on the Baltic area, Finland needed to remain rather neutral on everything due to the neighboring Soviet Union, whereas the Soviets concentrated on maintaining their empire and relations with the Warsaw Pact countries, Canada defined its economic and security policies mainly through the relation with the US, and the US in turn worried chiefly about the East-West tensions in international politics.[1]

At the beginning of the 21st century, there are currently two lines of discourse in relation to the Arctic: the mainstream discourse that considers the Arctic to be a stable and peaceful area with no armed conflicts on sight, and the minority view that regards the Arctic as a potential race for natural resources and a possible escalation towards an armed conflict.[2] It is possible that the fact that the Arctic Five were all trying to define their continental shelves by the deadline of 2009 created this impression of an Arctic race.[3] Nevertheless, there are three good reasons for not to talk about a race for the Arctic: first, there is only one overlapping terrestrial sovereignty claim: Hans Island. Second, the Arctic states have agreed that all marine disputes will be settled by according to international law of the sea. And lastly, all currently accessible natural resources are found within state jurisdictions.[4]

Climate change and the melting sea ice are creating a wide range of opportunities in the region, and none of the countries want to miss out on it. For example, it seems that it is no longer a matter of *if*, but *when* the maritime routes shall open up for commercial

[1] *Vid.* Mychajlyszyn, N. (2008, Oct 24). *The Arctic: Geopolitical Issues.*

[2] *Vid.* Heininen, L. (2011). Post-Cold War Arctic Geopolitics: Where Are the Peoples and the Environment? *Arctic Perspectives Cahier* (2), 89-103, p. 91

[3] *Vid.* Dodds, K. (2010, Oct). A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean. *Global Policy, 1*(3), 303-311, p. 303

[4] *Vid.* Kuersten, A. (2015, Aug 20). The Arctic Race that Wasn't. *Foreign Affairs*.

use and the access to and exploitation of natural resources become viable.[5] Apart from these two major sectors, the Arctic has a lot of potential for hydropower and geothermal energy development, and great conditions for installing data storage centers or underwater telecommunications cables.[6]

Due to the combination of a great variety of factors, the Arctic has gained a lot of global attention and interest. Not only have the Arctic Countries published official Arctic Strategies, but other actors such as international organizations, non-governmental organizations and non-Arctic states have also expressed their interest towards the region and what it may be able to offer in the future. In order to address these matters, a geopolitical approach towards studying the Arctic seems to be the most appropriate one, with the objective of identifying the principal Arctic actors and their strategies, through which the main challenges and prospects for the Arctic region can be discerned.

[5] *Vid.* Borgerson, S. G. (2008). Arctic Meltdown. *Foreign Affairs*(March/April).

[6] *Vid.* Borgerson, S. G. (2013). The Coming Arctic Boom. *Foreign Affairs*(July/August)

6. Theoretical Framework for Geopolitics

6.1. The Concept of Geopolitics

There is no single right definition for geopolitics. There are many different understandings of what it entails, but in general terms, geopolitics is the study of how physical and human geography influence politics and international relations. Geographical conditions (human-made or natural, including for example natural resources and geological formations) form the scenario in which a state must operate, thus guiding and in large measure controlling, but not determining, the decisions made by humans.[7] Geopolitics doesn't pretend to predict future events, analyze foreign policies or state behaviors,[8] but rather to see what role geography plays in the world's (current) power structure. Almost always the physical geography can either be considered a benefit or a hindrance for the economic and political development of the states.[9]

The term was first coined by the Swedish Rudolf Kjellén, who defined it as "the science of states as life forms, based on demographic, economic, political, social and geographical factors".[10] According to Friedrich Ratzel, who also considered states as growing organisms, the states derived their national power and capacity to survive in the international arena from the territory they controlled.[11] Even in its first definition, the term included more than just physical conditions of a state, creating a concept that has been fluctuating throughout its existence. Yet there was a time it wasn't used in a positive sense because it had been too deeply linked with the Nazi Germany's concepts of *Geopolitik* and *lebensraum* (*living space*), especially promoted by the geographer Karl Haushofer, and used to justify the Nazis' expansionist ideas.[12] After the second world war, the term began progressively to make a comeback.

[7] *Vid.* Scholvin, S. (2016, April). *Geopolitics: An Overview of Concepts and Empirical Examples from International Relations.*, p. 13

[8] *Vid. Ibid.*, p. 13;24

[9] *Vid.* Briney, A. (n.d.). *Overview of Political Geography*.

[10] Scholvin, S. (2016, April). *Geopolitics: An Overview…*, *op. cit.*, p. 8

[11] *Vid. Ibid.*, p. 8

[12] *Vid. Ibid.*, p. 8

Alfred Mahan published *The Influence of Sea Power Upon History, 1660–1783* in 1890, where he displayed the "effect of sea power upon the course of history and the prosperity of nations".[13] According to Mahan, the control of the sea through maritime commerce and naval supremacy implied a predominant influence in the world, ergo making sea power essential to the prosperity of nations.[14] Mahan enumerated six different factors that affect a nation's sea power: geographical position, physical conformation, extent of territory, number of population, national character, and character and policy of governments.[15]

Another relevant geopolitical theory was formulated at the beginning of the 20th century by Harold Mackinder: the so-called *Heartland theory* (or *Geographical Pivot of History*). According to this theory, whoever ruled the Heartland (interior and northern part of Euro-Asia),[16] would dominate the world. Mackinder based his idea on the geographical conditions of the region: it is protected by "ice-clad Polar Sea, forested and rugged Lenaland, and Central Asiatic mountain and arid tableland",[17] leaving only the western front unprotected, yet easy to defend.[18]

These two basically opposing theories concerning ruling the world show how the physical geographical factors cannot be the only factors considered when defining states' prosperity and development. Mahan's theory could have still been rather valid, if the international community hadn't created a more or less functional legal framework for the world's maritime areas, and in general hadn't become immensely more cooperative than before. In turn, the failure of Mackinder's theory resides in his belief of the Heartland area's richness in natural resources and the railroad transportation's success over the maritime one. However, technological advances and time proved both of Mackinder's assumptions to have been inadequate.[19]

As evidenced by the different theories and interpretations, geopolitics is a dynamic discipline that feeds off of the global political and strategic developments.

13 Mahan, A. T. (1890). *The Influence of Sea Power upon History, 1660-1783.* Preface.

14 *Vid.* Giok, K. K. (2015). Sea Power as a Strategic Domain. *Pointer, 41*(3). p. 2

15 *Vid.* Mahan, A. T. (1890). *The Influence of …, op. cit.*, Chapter I.

16 *Vid.* Mackinder, H. J. (1942). *Democratic Ideals and Reality.* London: Constable Publishers. p. 197

17 *Ibid.*, p. 203

18 *Vid. Ibid.*, p. 199

19 *Vid.* Scholvin, S. (2016, April). *Geopolitics: An Overview…, op. cit.*, p. 15

Today's geopolitics still stresses the importance of anthropogeographical conditions and intervening variables, which can be seen reflected for example in the Merriam-Webster Dictionary's definition of geopolitics as "a study of the influence of such factors as geography, economics, and demography on the politics and especially the foreign policy of a state".[20] Colin Gray, an expert on Strategic Studies, has even suggested that all politics is actually geopolitics, since all politics always works within a particular geographical context.[21]

6.2. Difference between Geopolitics and Political Geography

As stated in the previous chapter, geopolitics studies the influence of geographical conditions (again, human-made or natural) in international relations. In contrast, political geography studies the spatial production of a political order, *i.e.* how do political decisions and ideals influence the physical geographical space. Political geography analyzes past events, it is to say, political decisions already in force, instead of concentrating what might happen in the future. This makes it a static discipline, in contrast to the dynamic geopolitics.[22]

For Y. Lacoste, a famous French geographer, geography was "a form of strategic and political knowledge, central to military strategy and the exercise of political power".[23] Lacoste considered geography to be political-strategic knowledge, indispensable for a state to control and organize its population and territory, as well as for warfare.[24] He argues that mapping was first invented for military uses, with certain political and scientific dominion over the represented territory and as an instrument of power over the people of the area.[25] Lacoste's ideas further underline the fact that political geography was used to interpret the existing power relations over the territory and studying the implications of political strategies regarding it.

[20] Merriam-Webster Dictionary.

[21] *Vid.* Mayer, M. (n.d.). *What is geopolitics?*

[22] *Vid.* Jain, M. (2014, Sep 2). *Geopolitics: Fundamentals of Geography.*

[23] Hepple, L. W. (2000). Géopolitiques de Gauche. Yves Lacoste, Hérodote and French radical. In K. Dodds, & D. Atkinson, *Geopolitical traditions. A century of geopolitical thought* (pp. 268-301). New York: Routledge. p. 268

[24] *Vid.* Lacoste, Y. (1976). *Geografía: un Arma para la Guerra.* p. 6

[25] *Vid. Ibid.*, 7

Currently some of the main areas of investigation of political geography are "the mapping and study of elections and their results, the relationship between the government at the federal, state and local level and its people, the marking of political boundaries, and the relationships between nations involved in international supranational political groupings".[26]

[26] Briney, A. (n.d.). *Overview of Political Geography*.

7. What is the Arctic?

7.1. Geographic delimitation

The Arctic has many different definitions, as can be evidenced by figure 1, usually applied according to the interests for which they shall be used. Perhaps the most widely accepted one for the geographic delimitation of the Arctic region is the Arctic Circle.[27] By this definition, applied also in the Arctic Council (AC), "the Arctic includes all areas north of the Arctic Circle and the associated eight Arctic states, *i.e.* Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, the United States and Sweden".[28]

Figure 1. Geographical delimitations of the Arctic region[29]

[27] *Vid.* Prime Minister's Office. (2013, Sep 6). Suomen Arktinen Strategia 2013. Finland. p. 8

[28] Sweden's Ministry for Foreign Affairs. (2011, Oct). Sweden's Strategy for the Arctic Region. Sweden. p. 11

[29] Encyclopedia Britannica Kids. (2010). *Arctic Regions*.

As for other definitions, they can include the areas north of the 10ºC isotherm for July[30] (also visible in figure 1.) or the limitation by the Arctic Ocean extending up to 80º latitude.[31] Some Arctic States define the region differently so as to promote their interests: for example, according to the Russian Arctic strategy, the region includes the Arctic Ocean and its littoral states.[32] Another example would be Iceland's definition: due to its interests of establishing itself as an Arctic coastal state, it prefers to use a broader definition by stating that the Arctic region extends not only to the North Pole area but also to the Northern Atlantic Ocean.[33]

On the other hand, Norway seems to prefer to use the term *High North* instead of *the Arctic* in its strategy. Nevertheless, the strategy remarks that "the High North is not precisely defined" and that it includes "the Arctic and the wider circumpolar area, and internationally the terms "High North" and "the Arctic" are frequently used interchangeably". It also states that "in political terms, it includes the administrative entities in Norway, Sweden, Finland and Russia that are part of the Barents Cooperation".[34]

Regardless of these specifications by some of the Arctic States, the fact that all of them are members of the Arctic Council goes to show that they all accept the conventional definition of the Arctic Circle.

7.2. Legal Framework

The general consensus states that the Arctic is a stable and peaceful region. Even though there is no overarching treaty on the Arctic,[35] such as *the Antarctic Treaty* (1959) for the other pole region, there are several documents that form a legal framework for the area. Without a doubt, the most important one is the *United Nations Convention on the Law of the Sea* (UNCLOS). Some other important regulating documents related to the Arctic are the *Ilulissat Declaration* (2008), the

[30] *Vid.* Foucher, M. (2014). *L'Arctique: la nouvelle frontière.* Paris: CNRS Éditions. p. 10

[31] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo en la Geopolítica del Ártico. *Revista General de Marina*, 681-690. p. 682

[32] *Vid.* Heininen, L. (2012). State of the Arctic Strategies and Policies – A Summary. *Arctic Yearbook*. p. 20

[33] *Vid.* Althingi. (2011, Mar 28). *A Parliamentary Resolution on Iceland's Arctic Policy.* p. 1

[34] Norwegian Ministry of Foreign Affairs. (2009, Apr 7). *New Building Blocks in the North*. Norway. p. 7

[35] *Vid.* Borgerson, S. G. (2008). Arctic…, *op.cit.*

International Maritime Organization's (IMO) *Polar Code* (2014) and the Arctic Council's various Declarations (although the Arctic Council is a high-level forum of cooperation instead of a formal international organization and thus doesn't usually generate legally binding obligations to its member states, it is considered to be the highest form of cooperation in the region and due to this also a regulating institution).

The issue of the Arctic governance is caused by the different interests and goals of the different states. The Arctic countries wish to continue exercising their *rule* of the area exclusively, whereas other states see the Arctic more as a *common heritage of mankind*, same as the Antarctic.[36] A part of the discussion concentrates on the legal instruments regulating the Arctic, and whether to create new ones (*e.g.* an *International Treaty on the Arctic*, similar to *the Antarctic Treaty*[37]) or empower the old ones (such as transforming the Arctic Council into a formal international organization).

The United Nations Convention on the Law of the Sea was signed in 1982 in Montego Bay, Jamaica and it became effective in 1994. It regulates the states' rights and responsibilities regarding the marine areas of the world. The Convention has 17 *parts*, each divided into *sections* and *subsections*. For the purposes of this work, the most important parts include: straits used for international navigation (part III); exclusive economic zone (part V); continental shelf (part VI); protection and preservation of the marine environment (part XII); and settlement of disputes (part XV).[38]

The Convention establishes the limits for the states' marine jurisdiction for the territorial waters, the Exclusive Economic Zone (EEZ) as well as for the continental shelf limits. However, sometimes establishing these limitations can be problematic, as can be seen in figure 2, due mostly to geographical factors or the different interpretations of the regulations set forth in UNCLOS.

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[36] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic Melt. *International Affairs, 85*(6), p. 1223

[37] The Antarctic Treaty establishes the Antarctic continent as a scientific preserve, with freedom of scientific investigation and cooperation, banning all future territorial sovereignty claims as well as military activity on the continent. (*Vid.* United Nations. (1959). *The Antarctic Treaty*.)

[38] *Vid.* United Nations. (1982). *United Nations Convention on the Law of the Sea*. p. 8-20

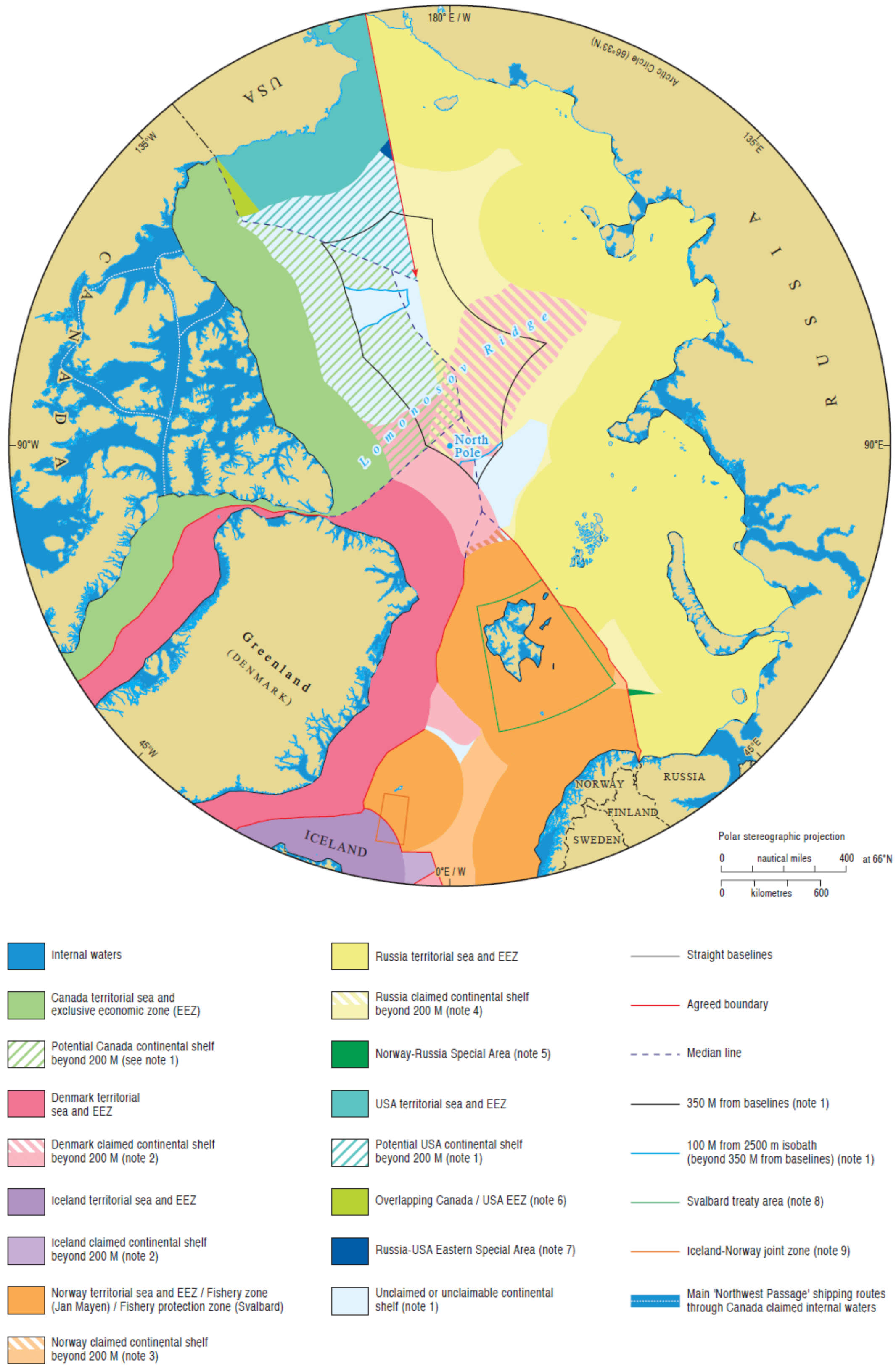

Figure 2. Maritime jurisdiction and boundaries in the Arctic region[39]

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[39] IBRU: The Centre for Borders Research at Durham University. (2015, Aug 4). *Maritime jurisdiction and boundaries in the Arctic region.*

In article 76, UNCLOS defines the continental shelf of a coastal state as "the natural prolongation of its land territory"[40] until the limit of 200 nautical miles. The coastal states have the possibility to claim more continental shelf (with a maximum distance from the baseline up to 350 nautical miles), in accordance to article 76, through the Commission on the Limits of the Continental Shelf (CLCS) in a ten-year time period since the entry into force for the state in question. There has however been some criticism towards this particular article: the language used is allegedly too ambiguous; interstate cooperation can be complicated since the submissions under the article aren't available for other states to challenge; and the deadlines for submitting their claims are different for each state.[41]

In articles 55 and 57, respectively, UNCLOS defines the EEZ as "an area beyond and adjacent to the territorial sea"[42] that "shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured".[43] The EEZ have caused some overlapping claims mostly due to their demarcation of the states' continental shelves[44] when the distance between two states' coastal lines hasn't been wide enough to establish a 200 nautical mile EEZ for each.

The Ilulissat Declaration was issued in 2008 as a result of a meeting by the Arctic Five (Canada, Denmark, Norway, Russia, USA). The Declaration underlines the impacts the melting ice cap and climate change related alterations in the Arctic may produce in the vulnerable ecosystems, livelihoods of local inhabitants and indigenous communities and also the potential exploitation of the natural resources. The document also reasserts the Arctic Five's commitment to respecting the law of the sea (it does not specifically mention UNCLOS, since the US is not a party, thus referring to customary international law, which is applicable to all states),[45] considers it to provide a solid foundation for the governance of the Arctic Ocean, and thus see no reason to develop a new overarching treaty for the region.

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[40] *Ibid.*, p. 53

[41] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1225-1226).

[42] United Nations. (1982). *United Nations Convention…, op. cit.*, p. 43

[43] *Ibid.*, p. 44

[44] *Vid.* Heininen, L. (2011). Post-Cold War Arctic…, *op. cit.*, p. 91

[45] *Vid.* Dodds, K. (2010, Oct). A Polar Mediterranean?..., *op. cit.*, p. 308

The Ilulissat Declaration seems to convey a message to other states wishing to take part in the Arctic region:[46] the Arctic Five reassert their predominant role in the region's governance by stating at the beginning of the document that "by virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five coastal states are in a unique position to address these possibilities and challenges".[47] Later on, the Arctic Five's inherent right to be on the forefront of the Arctic politics is remarked anew: "the Arctic Ocean is a unique ecosystem, which the five coastal states have a stewardship role in protecting".[48] This point of view raises a question on how much other Arctic states or non-Arctic states shall be able to influence the region's future.[49] This question remains yet to be answered, but can be oriented to some extent by observing the positions the five Arctic states will assume in the future.

When it comes to international cooperation, *the Ilulissat Declaration* considers it to be a key factor in the Arctic. The littoral states commit themselves to take the necessary steps, both nationally and in cooperation, in order to protect the environment, reduce vessel-based pollution and add safety to shipping (also through IMO). Additionally, contributing to the Arctic Council's work and cooperating in scientific research and exchange of information are heeded.

Proof of the current legal regime's effectiveness can actually be found directly in the overlapping sovereignty claims. In 2009, there were several active disputes: Lomonosov and Mendeleev Ridges amid Canada, Russia and Denmark; Bering Strait and Chukchi Sea between Russia and USA; Beaufort Sea between USA and Canada; Hans Island between Canada and Denmark (the only dispute over dry land); Barents Sea between Norway and Russia;[50] and Lincoln Sea between Canada and Denmark.[51] To these days, only three disputes still linger: Lincoln Sea, Beaufort Sea and Hans Island. The rest of them have all been resolved in an amicable and cooperative manner, according to international law.

[46] *Vid.* Yeager, B. B. (2008). *The Ilulissat Declaration: background and implications for arctic governance.*
[47] The Ilulissat Declaration. (2008, May 28). p. 1
[48] *Ibid.*, p. 2
[49] *Vid.* Yeager, B. B. (2008). *The Ilulissat Declaration: background…, op.cit.*
[50] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1228-1229
[51] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p. 683-684).

8. International Actors in the Arctic

8.1. Arctic Countries: National Strategies and State Policies

All of the eight Arctic States published an official National Strategy or State Policy between 2007 and 2011 and some of these states, *e.g.* Norway or Finland, have already considered it appropriate to update their strategies. Each of these documents states the priorities and objectives of the state in question, and some lists are quite a bit more extensive than others. In general, all the documents respond to the changing environmental conditions that the Arctic region has been and is going through, in addition to the geopolitical shift in the region, *i.e.* the growing global interest towards the Arctic, regarding especially the promising shipping and energy related prospects.

In order to understand what the priority areas for each state are, a short summary and some analytical comments on the strategies are necessary. The strategies will be presented and dealt with in alphabetical order. At the end of the section short comparative conclusions shall be drawn regarding the similarities and disparities of the documents.

8.1.1. Canada

The Canadian Government issued their Northern Strategy *Our North, Our Heritage, Our Future* in 2009, which was followed by the *Statement on Canada's Arctic Foreign Policy* in 2010. Both documents emphasize the North being a fundamental factor to Canada's national identity, thus justifying the Canadian interests in the region. Basically the two documents underline four main priority areas, in the same order: exercising Arctic sovereignty, promoting social and economic development, protecting the environmental heritage of the Arctic and improving and devolving northern governance.[52]

Regarding exercising the sovereignty, it is said that Canada will keep on managing the few existing boundary issues (considered to pose no threat to the country's sovereignty) and "may seek to resolve them in the future, in accordance with international law".[53]

[52] *Vid.* Government of Canada. (2009). *Canada's Northern Strategy: Our North, Our Heritage, Our Future.;* also *Vid.* Government of Canada. (2010). *Statement on Canada's Arctic Foreign Policy.*

[53] Government of Canada. (2010). *Statement on Canada's…, op. cit.*, p. 13

The priority area concerning social and economic development emphasizes the sustainable use of the Arctic potential and that the beneficiaries will be the Northerners. The main goal is to "build self-sufficient, vibrant and healthy Northern communities".[54]

The chapter on environmental protection seeks first and foremost to safeguard the fragile and unique northern ecosystems and environment, adversely affected by climate change, for future generations. Also the importance of science and scientific research on Arctic matters is highlighted, as well as being a global leader in Arctic sciences.

As for the priority of *improving and devolving northern governance*, it concentrates on engaging the Northerners in the decision making processes and in general giving them a greater say in the issues that affect them.

8.1.2. The Kingdom of Denmark

Kingdom of Denmark Strategy for the Arctic 2011-2020 was launched in 2011 and adopted by the Governments of Denmark, the Faroe Islands and Greenland, where "the aim is to strengthen the Kingdom's status as global player in the Arctic".[55] The strategy states that all three parts of the Kingdom will work for "a peaceful, secure and safe Arctic, with self-sustaining growth and development, with respect for the Arctic's fragile climate, environment and nature, in close cooperation with our international partners".[56] These priorities have their corresponding titles in the strategy's sections. Even though the strategy doesn't have a specific section on empowering the peoples of the North, the introduction clearly manifests that the "strategy for the Arctic region is first and foremost a strategy for a development that benefits the inhabitants of the Arctic".[57]

Regarding a peaceful, secure and safe Arctic, the maritime safety, surveillance and exercising of sovereignty are all emphasized, as well as UNCLOS as a part of the basis for a peaceful cooperation in the Arctic. It is

[54] *Ibid.*, p. 14

[55] Ministry of Foreign Affairs of Denmark. (2011, Aug). *Kingdom of Denmark Strategy for the Arctic 2011-2020*. p. 11

[56] *Ibid.*, p. 11

[57] *Ibid.*, p. 10

explicitly stated that “the Arctic is not a legal vacuum”[58], as the UNCLOS provides a legal framework for the region, for example in navigational rights or resource management.

The section on self-sustaining growth and development concentrates on the sustainable exploitation of different resources, such as minerals, oil activities, living resources or renewable energy potential. Also scientific research on Arctic matters is highlighted.

When it comes to the environmental protection, knowledge building and management based on the best scientific knowledge available is underlined. Better understanding of the consequences of climate change and protecting the environment and biodiversity are also high on the list of priorities.

The last section deals with international cooperation and advocates for it on three different levels, corresponding to a different scenario of challenges: global, regional and bilateral. Concerning global level, the United Nations Framework Convention on Climate Change (UNFCCC), United Nations Environmental Program (UNEP) and the Convention on Biological Diversity (CBD) are promoted as a response for the issues generated by climate change and the IMO in regard to maritime safety and international shipping matters.

On regional level the Arctic Council is considered to be the primary organ for Arctic cooperation and concrete actions, concerning issues such as sustainable development and the indigenous peoples’ living conditions. Other regional entities are also mentioned: the Arctic Five format is cited regarding the continental shelf issue, the European Union (EU) in terms of its interest towards transportation and natural resources, and the Nordic Council of Ministers (NCM), North Atlantic Treaty Organization (NATO), the Nordic Atlantic Cooperation (NORA) and West Nordic Cooperation are referred to concerning their respective sectorial interests.

The third level consists of bilateral cooperation, of even more concrete and specific actions, where the other Arctic countries are considered as primary partners, dealing with same matters as the global level, but also with more emphasis on research, education, health and defense. In addition, some Asian countries (China, Japan and South Korea) are highlighted regarding their interests

[58] *Ibid.*, p. 13

on climate change research, transportation opportunities and natural resource exploitation.

8.1.3. Finland

Finland's Arctic Strategy was issued in 2010, and an updated strategy was issued in 2013. In general, both strategies cover the same issues, but the 2013 strategy seems to put even more emphasis on economic development.

The 2010 strategy has six main sections: fragile Arctic nature; economic activities and know-how; transport and infrastructure; indigenous peoples; international cooperation; and the EU in the Arctic.[59] None of these sections seem to be given more importance than the others, thus reflecting a rather holistic approach on the Arctic, but based on the text itself L. Heininen[60] considers the main focus to be on economic interests, specifically marine transport, infrastructure and know-how.

In turn, the 2013 updated strategy has five main categories: Finland's Arctic population; education and research; Arctic economic activities; environment and stability; and international cooperation. The strategy is said to be set on four pillars: Arctic Country; Arctic Expertise; Sustainable Development and Environmental Boundary Conditions; and International Cooperation.[61] The section dealing with economic activities can be perceived as the main focal point (since it is clearly more extensive than the others), as it was in the 2010 strategy. This is due to the fact that the business opportunities the Arctic region can offer in the future are deemed to be extremely important for Finland's economy, both the public and private sectors.

Finland strives to be a national as well as an international advocate for the sustainable development and a promoter of stability. The Finnish expertise and know-how is also greatly emphasized in areas such as Arctic shipbuilding, offshore technology, winter navigation, oil spill control and clean technology. In order to protect the balance of the Arctic's nature and create an ecologically sustainable economy and social development, the strategy considers combining

[59] *Vid.* Prime Minister's Office. (2010, Jun 7). Suomen Arktinen Strategia. Finland.

[60] *Vid.* Heininen, L. (2011). *Arctic Strategies and Policies: Inventory and Comparative Study.* p. 26

[61] *Vid.* Prime Minister's Office. (2013, Sep 6). Suomen Arktinen…, *op. cit.*, p. 7

the modern industrial utilization of natural resources and the traditional livelihoods to be very important.

Regarding international cooperation, Finland considers the Arctic Council to be the primary forum of Arctic cooperation and will keep contributing to its labor. Finland supports its transformation into a formal international organization through a legally binding treaty, and dismisses the Arctic Five meetings by stating that it is very important for Finland that the Arctic Council preserve its central position.

8.1.4. Iceland

The report concerning Iceland's status in the Arctic, *Ísland á norðurslóðum (Iceland in the High North*), was published in 2009 by the country's Ministry of Foreign Affairs and two years later, in 2011, *A Parliamentary Resolution on Iceland's Arctic Policy* was approved by Althingi, the Icelandic Parliament.

The report is divided into the following six sections: multilateral cooperation, security and defense, natural resources and environmental protection, transportation, culture and people, and research and monitoring. In addition to these areas, the resolution lists some other principles for the Icelandic Arctic policy (twelve in total), such as promoting and strengthening the Arctic Council as the primary forum of the region, securing Iceland's position as a coastal state of the Arctic region, protecting indigenous peoples' rights and resolving differences through UNCLOS. These same priorities can also be seen reflected in the report made by the Minister of Foreign Affairs in 2010,[62] as well as Iceland's firm opposition towards the Arctic Five meetings.

Iceland promotes itself as the only country that is entirely located in the Arctic[63] and stresses the importance of multilateral cooperation especially within the Arctic Eight (the member states of the AC) and Iceland's neighboring countries Greenland and the Faroe Islands. The co-operational aspect is highlighted also in the context of transportation of oil and gas through Icelandic waters and the response measures in case of accidents or environmental

[62] *Vid.* Skarphédinsson, Ö. (2010, May 14). *Iceland's interests and a responsible foreign policy.*

[63] Even though Iceland reiterates to be the only country located entirely in the Arctic (which would make its coastline Arctic), it hasn't been invited to the Arctic Five meetings (exclusively for the five coastal states), and many times it isn't listed at all as an Arctic *coastal* state in the media or academic works.

emergencies. The fight against climate change and the protection of the Arctic's fragile environment and ecosystems are underlined also when it comes to resource development and exploitation, which should be conducted in a sustainable manner.

8.1.5. Norway

The Norwegian Government's High North Strategy was issued in 2007 by the Norwegian Ministry of Foreign Affairs and the follow-up strategy *New Building Blocks in the North* was issued in 2009. The 2007 strategy states its overall goal to be creating "sustainable growth and development in the High North".[64] The overall goal doesn't change in the newer strategy, as it is said to be "to enhance knowledge in and about the north, increase our activity and presence in the area and lay the foundations for sustainable economic and social development in the years to come".[65]

The 2007 strategy lists five main objectives: continue building good relations with Russia; continue combating illegal fishing and managing the fish resources; benefit from the Barents Sea energy resources in a sustainable manner; consider environmental and climate aspects in every action; and improve living conditions of northern inhabitants and safeguard indigenous peoples' rights.

The strategies share the same seven main political priority areas, which are: exercising authority in the High North in a credible, consistent and predictable way; being at the forefront of international efforts to develop knowledge in and about the High North; being the best steward of the environment and natural resources in the High North; providing a suitable framework for further development of petroleum activities in the Barents Sea, seeking to boost and foster local and regional business development; safeguarding the livelihoods, traditions and cultures of indigenous peoples in the High North; further developing people-to-people cooperation in the High North; and strengthening cooperation with Russia.

[64] Norwegian Ministry of Foreign Affairs. (2007, Feb 21). *The Norwegian Government's Strategy for the High North*. Norway. p. 7

[65] Norwegian Ministry of Foreign Affairs. (2009, Apr 7). *New Building Blocks…, op. cit.,* p. 3

Norway's focus on both the strategies is rather local, since the main areas seem to be the Barents Sea and bilateral cooperation with Russia instead of the entire Arctic region. Indeed, the strategies have a quite strong focus on the well-functioning co-operative relationship with Russia and the importance of maintaining and improving this particular relationship. Other international or regional cooperation is not emphasized nearly as much.

8.1.6. The Russian Federation

In 2009 the Russian Federation published its strategy for the Arctic region called *The Fundamentals of State Policy of the Russian Federation in the Arctic in the Period up to 2020 and Beyond*. The document is divided into four main chapters (plus a final chapter on the realization timeline): National interests; Basic objectives and strategic priorities; Measures of realization of the policy; and Mechanisms of realization of the policy.[66]

As Russia's national interests, four are listed: using the Russian Arctic as a strategic resource base in order to solve social and economic development problems; maintaining peace and cooperation in the Arctic; preserving the unique ecological systems of the Arctic; and using the Northern Sea Route for national transport.[67]

The basic objectives of the policy include various spheres of action. Regarding social and economic development, for example, an expansion of the resource base is needed. In peace maintenance, having an operative regime with fighting potential is considered important. Also protecting the environment, sustaining international cooperation, promoting scientific research and forming an information area of the Russian Arctic are listed.[68]

As for the strategic priorities, they include for example: improving the quality of life of the indigenous peoples; modernizing and developing the Arctic transportation infrastructure; strengthening regional cooperation; and delimiting the maritime spaces in the Arctic Ocean. The chapters on the measures and

[66] *Vid.* Rossiyskaya Gazeta. (2009, Mar 30). *Russian Federation Policy for the Arctic to 2020.*
[67] *Ibid.*
[68] *Ibid.*

mechanisms, as their titles indicate, pretend to provide solutions to the observed problems in each sphere.

The last chapter deals with the time periods envisioned for the realization of the policy. The first stage (2008-2011) concentrates on the expansion of international cooperation (also in natural resource development), assuring a greater financial commitment from the government and working to delimit the Russian external Arctic border. The second stage (2011-2015) prioritizes the structural reorganization of Russia’s Arctic economy, the international legal recognition of its external Arctic border and infrastructural development for the maintenance of the Northern Sea Route. During the final stage (2016-2020) the Russian Arctic should be transformed into the planned strategic resource base.

As so many interests (four), objectives (six) and priorities (ten) are included in the strategy, it is hard to say which are considered the most important ones and thus many different interpretations have come forth. For example, Viktor Basargin found three basic ideas of the document to be: creating a harmonized and common national Arctic policy; maintaining and strengthening Russian sovereignty and interests in the Arctic; and transforming the Russian society into a society of information and economy through the utilization of northern human capital potential.[69] Another interpretation of the Arctic’s importance for Russia would be Nikita Lomagin’s three-point list: actively extracting natural resources; developing transport, telecommunications and border infrastructure; and turning the Arctic region into a strategic resource base.[70] A third example of these various interpretations would be made by L. Heininen,[71] by selecting a twofold approach: stabilizing the northernmost borders and thus guaranteeing a legal right for resource exploration; and bridging the socio-economic disparities gap that exists between the Arctic regions and the rest of the country, with special attention to indigenous peoples and sustainable development. The state policy itself only states that its realization is ultimately meant to “allow Russia to maintain the role of a leading Arctic power”.[72]

[69] *Vid.* Heininen, L. (2011). *Arctic Strategies and…*, *op. cit.*, p. 48

[70] *Vid. Ibid.*, p. 48

[71] *Vid. Ibid.*, p. 48

[72] *Vid.* Rossiyskaya Gazeta. (2009, Mar 30). *Russian Federation Policy…*, *op. cit.*

8.1.7. Sweden

Sweden's strategy for the Arctic region was issued in 2011 and it has a very focused approach with only four main areas of interest: international cooperation; climate and the environment; economic development; and the human dimension.[73] The document begins with factual explanations regarding the Arctic region and a small summary of all the other countries' Arctic strategies (Sweden was the last of the Arctic Eight to launch its Arctic strategy) and then passes on to explaining all the reasons why Sweden is tied to the Arctic. The two remaining chapters reflect Sweden's objectives in Arctic cooperation and its priorities.

The multilateral Arctic cooperation *per se* is underlined as Sweden's main objective and the strategy refers to many different bodies of cooperation, such as the Arctic Council (as the main form of cooperation on Arctic matters), the EU, the NCM, the Barents Euro-Arctic Council (BEAC), the United Nations (with special mentions to UNCLOS, UNFCCC, CBD, UNEP), World Health Organization (WHO) and the Saami Parliamentary Council.[74] In addition, there is an entry on the Arctic Five group and a statement saying that it is important for Finland, Sweden and Iceland to be able to participate in the decision-making processes, which can be achieved through the Arctic Council.[75]

As for the priorities discussed in the strategy, the first main category is climate and the environment, which includes subcategories on climate, biodiversity, environmental protection and climate and environmental research. The second main category is economic development and it encompasses the areas of free trade in the Arctic, interests in the Barents region specifically as well as in the rest of the Arctic (such as mining, petroleum, forestry, land and maritime transport, infrastructure and energy) and educational and research needs.[76] In this context sustainable development and Swedish know-how are promoted.[77] The third and last of the main categories is the human dimension. This section focuses on how the geographical conditions of the Arctic affect people's health, how climate change affects the population in general as well as the indigenous cultures

[73] Sweden's Ministry for Foreign Affairs. (2011, Oct). Sweden's Strategy…, *op. cit.*
[74] *Vid. Ibid.*, p. 18-22
[75] *Vid. Ibid.*, p. 22
[76] *Vid. Ibid.*, p. 32-40
[77] *Vid.* Heininen, L. (2011). *Arctic Strategies and…*, *op. cit.*, p. 51-52

and industries and also on the survival of the Saami languages and research programs on Saami society.

8.1.8. The United States of America

The US Government published the *National Security Presidential Directive/NSPD-66* regarding "Arctic Region Policy"[78] in January 2009 and then in May 2013 it issued its *National Strategy for the Arctic Region*.[79] In comparison to the other Arctic Strategies, the American documents are much shorter, 14 and 13 pages, respectively.

The 2009 directive states six different goals of the policy: national and homeland security; environmental protection and conservation; sustainable economic development and resource management; strengthening of the Arctic Eight cooperation; involving the indigenous communities in the decision-making processes; and promoting scientific monitoring and research of environmental issues.

After stating the policy goals, the directive goes into more detail concerning these goals and some other issues. However, the indigenous communities don't get a specific section nor any more attention in the rest of the document. For example, preventing terrorism and freedom of the seas (in the context of the Northwest Passage) are underlined as a national and homeland security interest. Regarding governance, an *Arctic Treaty* is deemed "not appropriate or necessary",[80] but the ratification of UNCLOS is promoted, since it is thought of as "the most effective way to achieve international recognition and legal certainty"[81] for the extended continental shelf and pending boundary issues (in the Beaufort Sea, with Canada). In the sphere of international cooperation, the Arctic Council is praised for positive results in sustainable development and at the same time the US remarks its preference for it to continue as a high-level forum instead of becoming a formal international organization.

[78] The White House. (2009, Jan 9). *National Security Presidential Directive/NSPD-66*. Office of the Press Secretary.

[79] The White House. (2010, May). *National Strategy for the Arctic Region*.

[80] The White House. (2009, Jan 9). *National Security*…, op. cit., p. 5

[81] *Ibid.*, 6

As for the 2013 Arctic Strategy, it begins by establishing three lines of effort: advancing the US interests in the Arctic; pursuing responsible stewardship of the region; and strengthening international cooperation. Also four *guiding principles* for the US action in the Arctic are established: safeguarding peace and stability; decision-making based on the best available information; pursuit of innovative arrangements; and consultation and coordination with Alaska Natives.

The first line of effort, advancing the US interests, includes such goals as developing Arctic infrastructure and strategic capabilities, preserving the freedom of the seas and providing for future energy security. The second line of effort, regarding responsible stewardship, underlines for example environmental protection and conservation, cultural values, balancing of economic development, and increasing understanding of the Arctic region through scientific research. The last line of effort deals with strengthening international cooperation through four objectives: pursuit of shared Arctic state prosperity, environmental protection and security; working through the Arctic Council to advance US interests; ratification of UNCLOS; and cooperation with other interested parties.[82]

8.1.9. Some Comparative Remarks

Many of the strategies can be seen as a response to the changing Arctic environment and the growing geopolitical interest towards the region. This is the case for the strategies of Canada, Finland, Iceland, Sweden and the US. On the other hand, the Russian strategy is oriented much more towards domestic politics, whereas the Norwegian strategy is very local and reflects basically only the country's cooperative relationship with Russia in the Barents Sea region. The Danish strategy concentrates mainly on the self-governing status of Greenland and puts special emphasis on the Arctic Five cooperation.[83]

Finland, Sweden and Iceland openly affirm to oppose the exclusive Arctic Five meetings, whereas the Danish strategy actually promotes it as "an essential complementary regional forum for the coastal states of the Arctic Ocean".[84]

[82] *Vid.* The White House. (2010, May). *National Strategy…, op. cit.,* p. 9-10

[83] *Vid.* Heininen, L. (2011). *Arctic Strategies and…*, *op. cit.*, p. 66; also *Vid.* Heininen, L. (2012). State of the Arctic…, *op.cit.*, p. 3

[84] Ministry of Foreign Affairs of Denmark. (2011, Aug). *Kingdom of Denmark Strategy…*, *op. cit.*, p. 49

All of the Arctic states refer to themselves in their strategy in some way as Arctic actors or countries, as if to thus reassert their rightful interest towards the region. Canada defines itself as a *Northern country*; Denmark as a *global player in the Arctic*; Finland simply as an *Arctic country*; Iceland as *the only country located entirely within the Arctic region*; Norway as *a steward of the natural and cultural heritage in the High North*; Russia as *a leading Arctic power*; Sweden as an *Arctic country* (simple and same as Finland); and the US as an *Arctic nation*.

8.2. Other actors

8.2.1. Arctic Council

The Arctic Council was founded in 1996 by Finnish initiative. It is an international forum of cooperation, considered the highest form of cooperation in the Arctic. Since it is not a formal international organization, generally it doesn't create legally binding obligations for its members and therefore it would be better categorized as an instrument of soft law.

The Arctic Council has eight members: Canada, Denmark, Finland, Iceland, Norway, Russia, USA and Sweden (the Arctic Countries or the Arctic Eight) and six permanent participants: Aleut International Association (AIA), Arctic Athabaskan Council (AAC), Gwich'in Council International (GCI), Inuit Circumpolar Council (ICC), Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON), and Saami Council (SC). In addition, the AC has approved twelve non-Arctic countries, nine intergovernmental and inter-parliamentary organizations and eleven non-governmental organizations as observers.[85]

The Council has established various working groups and launched many important publications. The working groups are: Arctic Contaminants Action Program (ACAP), Arctic Monitoring and Assessment Program (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Emergency Prevention, Preparedness and Response (EPPR), Protection of the Arctic Marine Environment (PAME) and Sustainable Development Working Group (SDWG).[86]

[85] *Vid.* The Arctic Council website: *About Us* > *Observers*. <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers>

[86] *Vid. Ibid.*

As for the publications, two legally binding agreements have been set forth: *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic* (signed in 2011) and *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic* (signed in 2013). Other documents include for example: *Arctic Climate Impact Assessment* (ACIA, 2005), *Arctic Marine Shipping Assessment* (AMSA, 2009), *Arctic Biodiversity Assessment* (ABA, 2013) or *Arctic Offshore Oil and Gas Guidelines* (2009).[87]

The Arctic Council's mandate is to "improve the well-being of Arctic residents, protect the Arctic environment, and promote sustainable development throughout the region including maintaining the cultural heritage and livelihoods of Arctic indigenous peoples".[88] It does not address security issues, because upon its foundation the US intentionally prohibited this.[89]

There has also been some criticism towards the Council's status. Some deem it inefficient because it isn't a formal international organization and it lacks a broader scope of issues, *i.e.* it focuses mostly on environmental matters, not for example on security. However, the opposing opinions consider leaving the security aspect out of the equation to be an advantage, since these issues are highly divisive and could impair other kind of collaboration as a side-effect.[90] In any case, the AC needs to establish a regional order that supports the fragile balance between human progress and preservation of nature, as well as succeed in maintaining it.[91]

8.2.2. European Union

An Integrated European Union policy for the Arctic (2016) has three main areas of action: climate change and safeguarding the Arctic environment; promoting sustainable development in the region; and supporting international cooperation on Arctic issues.[92] Previous to the most recent format, the EU's

[87] *Vid.* Arctic Council. (2015, Apr). *Arctic Marine Strategic Plan.* p. 7

[88] Arctic Council website: *The Arctic Council: a forum for peace and cooperation*. < http://arctic-council.org/index.php/en/our-work2/8-news-and-events/415-20th-anniversary-statement>

[89] *Vid.* Borgerson, S. G. (2008). Arctic…, *op.cit.*

[90] *Vid.* Mychajlyszyn, N. (2008, Oct 24). *The Arctic: Geopolitical…, op. cit.*

[91] *Vid.* Liow, J. C. (2014, Jun 21). Arctic Summer. *Foreign Affairs*.

[92] *Vid.* European Commission. (2016, Apr 27). *An integrated European Union policy for the Arctic*., p. 4

publications referred to three main areas of action as *knowledge*, *responsibility* and *engagement*,[93] but essentially they designated the same ideas.

Furthermore, these same three concepts are still used today as key areas for future development of EU's Arctic Policy, as follows: "supporting research and channeling *knowledge* to address environmental and climate change in the Arctic; acting *responsibly* to help ensure that economic development in the Arctic is based on sustainable use of resources and environmental expertise; and stepping up constructive *engagement* and dialogue with Arctic states, indigenous peoples and other partners".[94]

The policy gives clear priority to environmental protection and sustainable development, instead of promoting the development of the possible Arctic maritime routes or exploitation of the region's natural resources. Also the importance of cooperation is highlighted, since the issues facing the Arctic require a joint response, regionally and globally.[95] Research, science and innovation are promoted as being key players in all areas of action.[96]

The European Union recognizes the Arctic Council as the primary body for circumpolar regional cooperation,[97] and it has been trying to achieve the observer status in the AC for a while now, so far unsuccessfully. It is also an advocate for an overarching international treaty on Arctic matters.[98]

Apart from the *Integrated policy for the Arctic Region*, the EU participates in the *Northern Dimension Policy* (initiated in 1999 and renewed in 2006) alongside the Russian Federation, Norway and Iceland. As other participants are listed the BEAC, the Council of the Baltic Sea States (CBSS), the NCM and the Arctic Council.[99] The policy's aim is "supporting stability, well-being and

[93] European Commission. (2012, Jun 26). *Developing a European Union Policy towards the Arctic Region: progress since 2008 and next steps*. p. 6-12

[94] European Union External Action. (2016, Jun 15). *EU Arctic Policy*.

[95] *Vid.* European Commission. (2016, Apr 27). *An integrated European…, op. cit.*, p. 13

[96] *Vid. Ibid.*, 4

[97] *Vid.* Council of the European Union. (2014, May 12). *Council conclusions on developing a European Union Policy towards the Arctic Region*. p. 2

[98] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p. 688; also *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1231

[99] *Vid.* The Northern Dimension website: *About ND*. < http://www.northerndimension.info/northern-dimension>

sustainable development in the region by means of practical cooperation".[100] This policy works through four different partnerships that cover the areas of environment, public health and social well-being, transport and logistics, and culture.[101]

8.2.3. Environmental Organizations: Greenpeace and World Wildlife Fund

Greenpeace is "an independent global campaigning organization that acts to change attitudes and behavior, to protect and conserve the environment and to promote peace",[102] according to its own definition. Protection of all forms of biodiversity and prevention of oceans' pollution are included in its core values[103], which are also applicable in the Arctic.

Greenpeace has been working for the benefit of the Arctic through their program Save the Arctic since 2012 and it encourages people to take part in prohibiting oil and gas industry in the Arctic waters altogether. The basic idea behind this claim is the fact that in the case of an oil spill, the ecological impact would be devastating for the fragile Arctic environment and ecosystems, since there are currently no truly efficient methods for recovering the spilled oil.[104]

In addition, Greenpeace is a true advocate for the creation of an *Arctic Sanctuary*. It is a proposal for creating a 2.8 million km^2 marine protected area (MPA) in the high seas of the Arctic Ocean (with the total size of 14 million km^2), which in turn shall contribute to the CBD's agreement of establishing networks of MPA.[105] The Sanctuary would lie entirely beyond the 200 nautical mile limit of the EEZ of the coastal states,[106] thus not affecting the state jurisdiction (this is illustrated later on in figure 8). However, since activities such as fishing, military activity and exploration or extraction of hydrocarbons or other minerals from the

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[100] *Ibid.*

[101] *Vid. Ibid.*

[102] Greenpeace. (2014, Jun). *Arctic Sanctuary*., p. 16

[103] *Vid.* Greenpeace website: *About Us > Our Core Values*. <http://www.greenpeace.org/international/en/about/our-core-values/>

[104] *Vid.* Greenpeace website: *The dangers of Arctic Oil*. <http://www.greenpeace.org/international/en/campaigns/climate-change/arctic-impacts/The-dangers-of-Arctic-oil/>

[105] *Vid.* Greenpeace. (2014, Jun). *Arctic Sanctuary., op. cit.*, p. 4-5

[106] *Vid. Ibid.*, p. 4

seabed would be banned completely,[107] it could interfere with the continental shelf delimitation claims (extending possibly up to 350 nautical miles). This non-governmental organization (NGO) also states that the establishment of this Sanctuary is not solely the responsibility of the Arctic Five, but since the area in question lies beyond national jurisdictions, it is a matter of the entire international community.[108]

As a circumpolar environmental NGO with an observer status in the AC, the World Wildlife Fund (WWF) has had a Global Arctic Program (GAP) for the region's benefit since 1992.[109] Its main goals are preserving the Arctic's rich biodiversity, ensuring the sustainable use of renewable natural resources and reducing pollution and wasteful consumption in general.[110]

WWF advocates, quite obviously, for the general environmental protection of the Arctic above all. Nevertheless, it recognizes that the Arctic can't become just a natural reserve, since its inhabitants need economic opportunities to make a good living. For this reason, the development that WWF promotes should happen at a pace and on a scale that can be sustained by the Arctic ecosystems.[111] As its vision, WWF states an "effective international stewardship to shield the Arctic from the worst effects of rapid change, by promoting healthy living systems to the benefit of local peoples and all humanity".[112]

Furthermore, WWF cooperates on three different levels: with governments (bilaterally and through the AC), private businesses and people. It has also created some specifically oriented projects towards oil and gas industry and shipping. The organization seems to consider shipping to be more acceptable and less hazardous than oil and gas industry, although it demands for more security and technological advances on both sectors.[113]

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[107] *Vid. Ibid.*, p. 5

[108] *Vid. Ibid.*, p. 10

[109] *Vid.* WWF website: *Our Solutions*. <http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we _do/>

[110] *Vid. Ibid.*

[111] *Vid.* WWF. (n.d.). *WWF Global Arctic Program Factsheet.* p. 4

[112] WWF website: *Our Solutions*. *op. cit.*

[113] *Vid.* WWF website: *Arctic Oil and Gas*. < http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we_do/oil_gas/>; also *Shipping in the Arctic*. < http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we_do/shipping/>

8.2.4. Indigenous Peoples' Organizations

There are three major indigenous peoples' forums of cooperation: the Inuit in North America, Greenland and Chukotka (Russia) have formed the multinational non-governmental organization Inuit Circumpolar Council (ICC, 1977), the Saami people in Fennoscandia have created their multinational NGO called the Saami Council (SC, 1956) and the Russian indigenous groups have founded the national umbrella organization called the Russian Association of Indigenous Peoples of the North, Siberia and Far East (RAIPON, 1990).

All three supported the Arctic Council's creation in 1996 and became permanent participants with the rights of active participation and full consultation, a unique status for indigenous communities in global terms.[114] (As mentioned before, there are also three other indigenous groups as permanent participants in the AC: Aleut International Association, Arctic Athabaskan Council, Gwich'in Council International). However, there isn't yet an explicitly and formally established *Arctic Agenda* by any of these organizations.[115]

Nowadays many of the indigenous peoples live as minorities in their nation-states, and thus define themselves as *nations within or across nations*, generating a global trend to treat them as international actors[116] (even though the three forums aren't formal international organizations). Additionally, most of the indigenous communities are also divided by national borders, as can be illustrated by figure 3. Nevertheless, they define themselves as *nations* and the Arctic as their homeland, with little regard to the national borders.[117]

[114] *Vid.* Heininen, L. (2011). Post-Cold War Arctic…, *op. cit.*, p. 100

[115] *Vid. Ibid.*, p. 102

[116] *Vid. Ibid.*, p. 99

[117] *Vid. Ibid.*, p. 102

Figure 3. Arctic Indigenous Peoples' organizations[118]

The ICC has four principal goals, as follows: "strengthen unity among Inuit of the circumpolar region; promote Inuit rights and interests on an international level; develop and encourage long-term policies that safeguard the Arctic environment; and seek full and active partnership in the political, economic, and social development of circumpolar regions".[119]

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118 News Deeply. *Arctic Deeply: Indigenous peoples and cultures.*

119 ICC website: *About ICC*. <http://www.inuitcircumpolar.com/>

The Saami Council states its primary interest to be promoting the rights and interests of Saami people in the four countries they live in. Other main tasks would include obtaining recognition for the Saami people as a nation and maintaining the cultural, political, economic and social rights they possess.[120]

RAIPON as well establishes four main areas of action: protection of indigenous peoples' human rights, defense of their legal interests, assistance in solving environmental, social, economic, cultural and educational issues, and promotion of their right to self-governance.[121]

Regardless of the special status the indigenous people have acquired in the AC, Denmark and Norway are the only Arctic Countries to have ratified the International Labor Organization's (ILO) Convention number 169 on Indigenous and Tribal Peoples (1989).[122] This and the fact that the indigenous peoples' organizations don't have official game plans for the Arctic geopolitics reasserts the indigenous communities' current secondary role in decision-making processes.

120 *Vid.* SC website: *About the Saami Council*. < http://www.saamicouncil.net/en/about-saami-council/>

121 *Vid.* AC website: *Russian Association of Indigenous Peoples of the North*. <http://www.arctic-council.org/index.php/en/about-us/permanent-participants/raipon>

122 *Vid.* ILO website: *Ratifications of C169 - Indigenous and Tribal Peoples Convention*. < http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO::P11300_INSTRUMENT_ID:312314>

9. Issues in the Arctic Debate

9.1. Natural Resources

One of the main points of interest of the Arctic seems to be the natural resources it harbors in its territory. It is due to the Arctic icecap thaw that the natural resources are becoming more and more accessible, although their exploration and exploitation is still complicated and expensive.[123] The Arctic energy resources have tremendous potential, but technological factors can actually be a barrier in the short term but an enabler in the long term, since with the current technology the exploitation isn't profitable.[124] Evidently, a drop in the oil prices would further lessen the states' interest in the Arctic resources.[125]

There is no clear consensus on the exact amount of undiscovered oil and gas reserves of the Arctic, although generally it is estimated by the United States Geological Survey (USGS) at around 22%, 18% of oil and 30% of natural gas.[126] Currently almost all the known resources can be found within national jurisdiction, as evidenced by figure 4, and thus free from border conflicts. Natural gas hydrates (NGH), widely spread in permafrost[127] regions and on deep sea continental slopes, could become a viable option for exploitation somewhere in the future, but for now it requires more investigation on both extraction and production.[128]

In general terms, the Arctic is a very challenging environment for developing energy projects, due to various reasons:[129] the climate conditions are harsh with ice covered land and sea, high winds and extreme cold, operating seasons can be shorter and special equipment may be required, thus elevating the costs. On the other hand, the lack of infrastructure such as roads, ports or pipelines poses its own challenges, making transport difficult and expensive, given that distances are usually rather long and the weather may affect transport timelines as well. In environmental terms, the

[123] *Vid.* Buchanan, E. (2016, Jan 21). Arctic Thaw. *Foreign Affairs*.

[124] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1217

[125] *Vid.* Buchanan, E. (2016, Jan 21). Arctic Thaw., *op. cit.*

[126] *Vid. Ibid.*

[127] Permafrost is defined as "ground (soil or rock and included ice or organic material) that remains at or below 0°C for at least two consecutive years". It can also occur subsea, as on the continental shelves bordering the Arctic Ocean. (International Permafrost Association website: *What is permafrost?* < http://ipa.arcticportal.org/publications/occasional-publications/what-is-permafrost>)

[128] *Vid.* Beauregard-Tellier, F. (2008, Oct 24). *The Arctic: Hydrocarbon resources.*, p. 4

[129] *Vid. Ibid.*, p. 4-5

ecosystems of the Arctic are delicate and very easily disturbed by oil and gas activities. Lastly, even though thanks to global warming the oceanic icecap is melting, thus facilitating the access to underwater resources, on dry land the permafrost melting, which complicates the realization of the much needed terrestrial infrastructure projects considerably. If the tundra keeps melting it can pose problems for the construction of natural gas pipelines, giving more importance to liquefied natural gas (LNG) and seaborne transportation.[130]

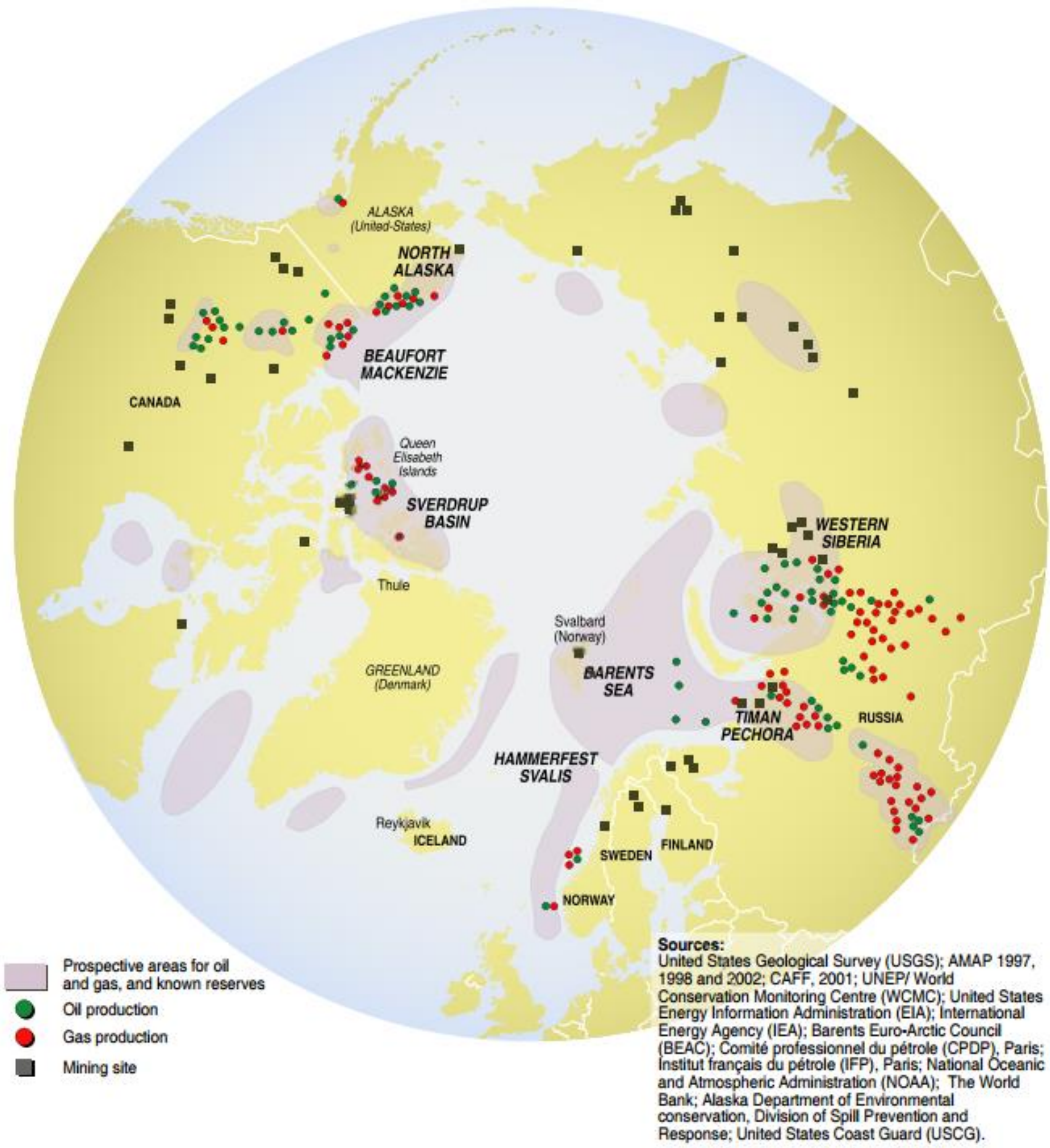

Figure 4. Fossil fuel resources and oil and gas production in the Arctic[131]

[130] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1218

[131] GRID-Arendal. (2006). *Fossil fuel resources and oil and gas production in the Arctic*.

The Arctic is the source of 10% of the world's oil production and 25% of the world's gas production, with Russia as the main producer (80% of oil and 99% of gas production).[132] Russia's main interest seems to reside in the natural resources, but the claim of Lomonosov and Mendeleev ridges as an extension of its continental shelf doesn't favor this line of thought, since neither of the areas present very promising reserves.[133] But, as Russia's national Arctic strategy confirmed, the Arctic's strategic and extremely important role as a resource base is vital to Russian sovereign interests.[134] Nevertheless, as much as Russia emphasizes the importance of the energy sector, currently it lacks the technological skill necessary for Arctic exploration and exploitation.[135]

As for the Asian countries, China and India's interest is mostly due to their rising energy needs in the future, whereas Japan for example depends almost entirely on imported energy,[136] which makes energy security a key issue for the country. Additionally, China has great interest in Greenland for its vast deposits of rare-earth minerals, many of them required in the production of high technology, a market currently monopolized by China[137] (Greenland, on the other hand, wishes to use its mineral resources to further its independence from Denmark, *i.e.* to become economically self-sufficient).[138] As for the Chinese-Russian relations, an energetic agreement was signed in 2014.[139] China is prepared to invest in oil and gas exploration and extraction in Siberia,[140] and could as well try to obtain concessions in exchange for building infrastructure in the region.[141] In any case, China has the funds for solo Arctic extraction but not sufficient technological knowledge, whereas Russia lacks both, thus requiring cooperation with Western partners.[142]

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[132] *Vid.* Beauregard-Tellier, F. (2008, Oct 24). *The Arctic…, op. cit.*, p. 1

[133] *Vid.* Baev, P. (2007, Oct). *Russia's Race for the Arctic and the New Geopolitics of the North Pole.* p. 6

[134] *Vid.* Dodds, K. (2010, Oct). A Polar Mediterranean?..., *op. cit.*, p. 308

[135] *Vid.* Buchanan, E. (2016, Jan 21). Arctic Thaw., *op. cit.*

[136] *Vid.* Liow, J. C. (2014, Jun 21). Arctic Summer., *op. cit.*

[137] *Vid.* Palacián de Inza, B., & Sánchez, I. G. (2013, Jul/Aug). *Geopolítica del deshielo en el Ártico.*

[138] *Vid. Ibid.*

[139] *Vid.* Alexeeva, O., & Lasserre, F. (2014). La Chine en Arctique: genèse et évolution d'une politique. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 111-128). Paris: CNRS Éditions. p. 112

[140] *Vid.* Palacián de Inza, B., & Sánchez, I. G. (2013, Jul/Aug). *Geopolítica del deshielo…, op. cit.*

[141] *Vid.* Gómez de Ágreda, Á. (2014, Mar). Climate Change in the Arctic: Beyond the North Pole. *Spanish Institute of Strategic Studies, 3*. p. 13

[142] *Vid.* Jakobson, L. (2010, Mar). China prepares for an ice-free Arctic. *Sipri Insights on Peace and Security, 2010/2*. p. 8

To some extent the Arctic exploration has already started. For example, there are two major energy projects in the region: the Yamal LNG project and the Shtokman gas condensate field project. The Yamal LNG project, situated on the Yamal Peninsula, is a partnership among Total, Novatek, China National Petroleum Corporation (CNPC) and Silk Road Fund. It was launched in 2013 and is set to start in 2017. As for logistics, an airport and a port were built specifically for this project, with envisioned maritime transport routes in summer towards Asia and in winter towards Europe.[143] In turn, the Shtokman gas condensate field project in the Barents Sea is a partnership among Gazprom, Statoil Hydro and Total. The aim is to make the field "a resource base for deliveries of Russian gas - both pipeline and LNG - to markets of the Atlantic basin".[144] After some initial rescheduling, the pipeline gas production should have started in 2016 and the LNG production in 2017,[145] but in the end the field won't start functioning before 2025.[146]

9.2. Maritime Routes

There are currently two maritime routes opening up for transit in the Arctic: the Northwest Passage (NWP) and the Northern Sea Route (NSR), which can be seen in figure 5. In addition, the possibility of an even more direct route through the central Arctic Ocean and North Pole (also visible in figure 5) may be plausible someday further in the future.[147] At the moment navigation is possible only during the summer months and for now the routes won't be able to play a bigger role due to the lack of light, the harsh climate and the danger in case of an accident and need of rescue.[148]

[143] *Vid.* Total website. (n.d.). *Yamal LNG: The gas that came in from the cold*.

[144] Statoil website. (2008). *Gazprom, Total and StatoilHydro create Shtokman company*.

[145] OGJ Editors. (2010, Aug 2). Shtokman partners delay production start. *Oil and Gas Journal*.

[146] Lossan, A. (2016, Jun 23). Gazprom postpones offshore gas production: Will prices rise in Europe? *Russia beyond the headlines*.

[147] *Vid.* Pancracio, J.-P. (2014). La navigation en Arctique. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 91-109). Paris: CNRS Éditions. p. 91

[148] Moltó, Á. (2011, Mar 10). El Ártico y la política exterior de Canadá. *Estudios de Política Exterior*.

Figure 5. The Arctic sea routes[149]

It is due to climate change and the melting of sea ice in the Arctic that has made these navigational developments possible in the first place. The Arctic sea ice is made of two types of ice: the superficial one-year ice cover that melts entirely every summer and the multi-year ice cover that does not melt in summer.[150] However, even if the conditions in the Arctic are changing, nothing is certain and the region still continues to pose a wide scenario of general *what ifs*. In general, technological advancements constitute one of the key factors for the Arctic shipping, since for now ice-breakers are a necessity and they also cost more to build and burn more fuel. Even though the new shipping routes will shorten the distance between Europe and Asia, they can still be more dangerous due to the changing climate and ice conditions.[151] On another note, given that both NWP and NSR (as well as the Central Arctic Route) would need to use the Bering Strait for navigation in both directions, it could create a major chokepoint in the future, thus complicating the international shipping through the Arctic.[152]

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[149] Ryall, J. (2013, Jun 28). Deutsche Welle.

[150] *Vid.* Pancracio, J.-P. (2014). La navigation en…, *op. cit.*, p. 94

[151] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1222

[152] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p.683

The Northern Sea Route has been open for navigation during approximately 4 months a year[153] since roughly 2007,[154] with little transit in comparison to the world trade, but with an increasing trend: 46 ships in 2012; 296 ships in 2013.[155] It is approximately 7000km shorter than the route through the Suez Canal, a natural chokepoint in the trajectory located in a politically possibly instable region.[156] The NSR will benefit above all the commercial exchange between Europe and Asia, notably China and Japan, given the current maritime shipping trends that can be seen in figure 6. However, it cannot be considered to be a game changer for the international trade (at least not yet) since the weather continues to be unpredictable, causing delays, and the lack of infrastructure along the way being too pronounced.[157]

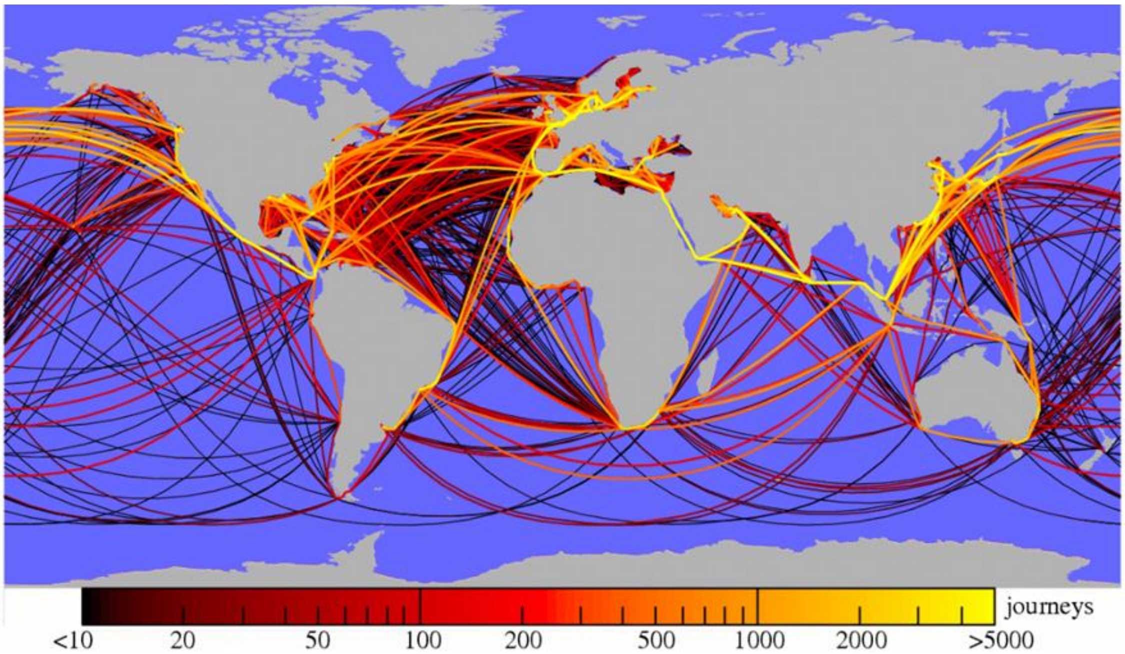

Figure 6. A Year of Global Shipping Routes Mapped by GPS[158]

Nevertheless, should the NSR be developed, Russia would greatly benefit from it in the long run, since it would require for development of necessary shipping infrastructure, thus invigorating the northern parts of Russia, especially Siberia. The installation of new ports and a commercial shipping route would also require better access in terms of transportation infrastructure from and towards the interior of the

[153] *Vid. Ibid.*, 97

[154] *Vid.* Dodds, K. (2010, Oct). A Polar Mediterranean?..., *op. cit.*, p. 304

[155] *Vid.* Pancracio, J.-P. (2014). La navigation en…, *op. cit.*, p. 97

[156] *Vid.* Reinoso, J. (2013, Aug 12). El cambio climático abre una nueva ruta comercial para China. *El País*.

[157] *Vid.* Liow, J. C. (2014, Jun 21). Arctic Summer., *op. cit.*

[158] Ghose, T. (2010, Jan 25). *A Year of Global Shipping Routes Mapped by GPS.* Wired.

country and continent, which could mean harnessing the great Russian rivers such as the Lena or the Yenisei.[159] This in turn could offer more urban and industrial development in the Siberian region, since at the moment the vast majority of Siberia remains practically uncommunicated.[160]

The Northwest Passage is as well approximately 7000km shorter than the route through the Panama Canal (which is currently in expansion), but the sea ice variation continues to be problematic in the Arctic region, as well as the lack of general infrastructure, such as ports for cargo.[161] The NWP has actually two possible navigational routes through the Canadian archipelago, the northern and the southern path.[162] In addition, the Passage is basically made entirely out of narrows and straits, a detail adding to the complex development of the NWP because Canada considers these narrows and straits in its archipelago to be its internal waters, a claim the US opposes since it would limit the freedom of navigation and imply tariffs and controls by the Canadian authorities.[163] Once this difference of opinion has been cleared, the US and Canada should operate conjointly in the management of the NWP, as they have proved with the North American Aerospace Defense Command (NORAD) to be perfectly capable of working together.[164] Furthermore, the US failure to ratify UNCLOS could actually hinder its role in the negotiations in the Arctic region in general, and it doesn't improve its case in this regard either.[165]

Furthermore, both Canada and Russia consider that the navigation alongside their coasts should be subject to authorization. At first glance this would seem to be against the international law on maritime navigation (given the freedom of an innocent passage through another country's EEZ), but UNCLOS also establishes a particular *Arctic clause* in article 234: "Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the

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[159] *Vid.* Gómez de Ágreda, Á. (2014, Mar). Climate Change in the…, *op. cit.*, p. 5

[160] *Vid. Ibid.*, p. 12

[161] *Vid.* Christopher, J., & Fast, E. (2008, Oct 24). *The Arctic: Transportation, infrastructure and communication.* p. 2

[162] *Vid.* Pancracio, J.-P. (2014). La navigation en…, *op. cit.*, p. 99

[163] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p. 687

[164] *Vid.* Borgerson, S. G. (2008). Arctic…, *op.cit.*

[165] *Vid.* Borgerson, S. G. (2013). The Coming…, *op. cit.*

presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence".[166] This article, with a clear purpose to protect the environment, could offer some foundation for Canada's claim for control on its archipelagic waters, but in the end it will not be enough to justify subjecting an international strait to national jurisdiction.[167]

In order to respond to the increasing viability of the Arctic transportation, the Arctic Council issued the *Arctic Marine Shipping Assessment* (AMSA) in 2009 and the IMO published the *Polar Code* in 2014 (expected to enter into force in January 2017)[168]. The AMSA's "central focus is on ships: their uses of the Arctic Ocean, their potential impacts on humans and the Arctic marine environment and their marine infrastructure requirements".[169] The report doesn't consider determining the operational and economic viability of the Arctic routes as its focal point.[170] It does contain recommendations on where future efforts should be appointed to and also calls for mandatory regulations on ship construction standards.[171] The IMO's *Polar Code* is an international treaty that regulates "ship design, construction and equipment; operational and training concerns; search and rescue; and, equally important, the protection of the unique environment and eco-systems of the polar regions".[172] Both of these developments show the existing interest in the maritime routes, but without leaving the environmental protection in a secondary role.

As stated before, the Asian countries as well have a high interest in the Arctic shipping routes, as can be evidenced also by China's actions in Iceland: it wishes to use Iceland as a gateway to the Arctic action, by means of establishing a naval port

[166] United Nations. (1982). United Nations Convention…, *op. cit.*, p. 116

[167] *Vid.* Pancracio, J.-P. (2014). La navigation en…, *op. cit.*, p. 104-105

[168] *Vid.* IMO website: *Shipping in polar waters.* < http://www.imo.org/en/MediaCentre/hottopics/polar/pages/default.aspx>

[169] Arctic Council. (2009). *Arctic Marine Shipping Assessment.* p. 2

[170] *Vid. Ibid.*, p. 2-3

[171] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1227

[172] IMO website: *Shipping in polar waters. op. cit.*

and base there.[173] Furthermore, the Chinese signed a free-trade agreement with Iceland in 2013, its first one with a European country.[174] Given that China's economy relies on foreign trade and almost half of China's gross domestic product (GDP) is believed to depend on shipping, the shorter shipping routes would create a substantial commercial impact on the country's economy.[175] In addition, the use of NSR would induce more development in China's northeastern coastal areas and ports, although on the other hand it would also to some extent reduce importance from the southern port facilities.[176] True to the traditional Chinese policy of not specifying its strategies or objectives in too much detail in an official governmental document (so as to not restrict the scope of future action), the Chinese government explains its interests in very general terms, stating the environmental issues as its main concerns regarding the Arctic region.[177] In any case, China wishes to be taken into account and heard in regional Arctic governance in the future, since it is a major global player in the international dimension.[178]

To sum up the positive aspects of the Arctic shipping routes would include: a shorter waterway and consecutive savings in time and fuel; less pressure for the current chokepoints (such as the Strait of Malacca, or the Suez and Panama Canals, also visible in figure 6) and development in infrastructure of remote and underdeveloped regions. The negative aspects in turn would include: perilous routes due to climate and ice conditions, remoteness for rescue operations in case of an accident, too shallow and narrow waterways at some points for big cargo ships and the potential environmental risks.

9.3. Environmental Protection

The Arctic's nature and ecosystems are very fragile and vulnerable and in dire need of protection, given that the Arctic is a central node for the network of ecological

[173] *Vid.* Borgerson, S. G. (2013). The Coming…, *op. cit.*
[174] *Vid.* Palacián de Inza, B., & Sánchez, I. G. (2013, Jul/Aug). *Geopolítica del deshielo…, op. cit.*
[175] *Vid.* Jakobson, L. (2010, Mar). China prepares for…, *op. cit.*, p. 5
[176] *Vid. Ibid.*, p. 6
[177] *Vid.* Alexeeva, O., & Lasserre, F. (2014). La Chine en Arctique: genèse…, *op.cit.* p. 121-123
[178] *Vid. Ibid.*, p. 126

interactions of the entire planet.[179] It is precisely in the Arctic where climate change's effects are felt the most, and it is also precisely due to these climatic alterations that the Arctic has gained in importance, possibly for the detriment of the environment.

Even though there has always been some oscillation in the amount of ice and other climatic conditions of the planet,[180] the data we have now shows for example that the amount of multi-year ice has diminished[181] and the level of thaw predicted for 2080 was reached in 2012.[182] The loss of sea ice coverage can be seen in figure 7, and given the downward trend, it doesn't seem to be due to natural oscillations. The Arctic is comprised of three major biomes: the polar desert in the areas closest to the North Pole, the tundra as the next segment and the boreal forest (or taiga in Eurasia) in the southern parts of the Arctic region.[183] Due to climate change, the biomes move towards north, obliging first the animals to move along with the receding icecap (vital for their survival) and then the Inuit hunters after them.[184]

[179] *Vid.* Peris Martínez, M. B. (2014, May). Impactos en el Ártico y sus repercusiones. *Ojeando la Agenda, 29*. p. 9

[180] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p. 681

[181] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1216

[182] *Vid.* Peris Martínez, M. B. (2014, May). Impactos en el Ártico…, *op. cit.*, p. 9

[183] *Vid.* Maré, C. (2014). Réchauffement climatique en Arctique: la fin de l'Age de glace. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 147-163). Paris: CNRS Éditions. p. 154-155

[184] *Vid. Ibid.*, p. 159

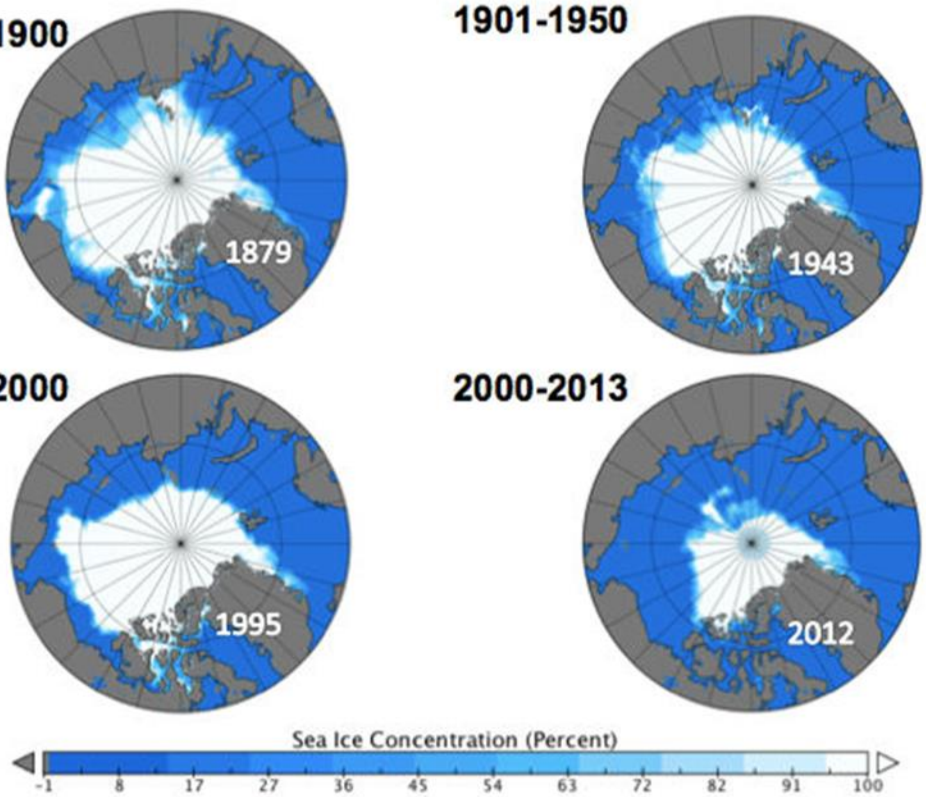

Figure 7. Sea ice cover for the annual minimum in September, the minimum extent during each period[185]

There are three types of ice thaw occurring in the Arctic: the melting of the permafrost (fresh water), the melting of the sea ice that covers the Arctic Ocean (salt water) and the melting that originates from the big Siberian rivers.[186] Traditionally the rise of sea levels is associated with the thaw of the Arctic sea ice and icebergs, but this isn't actually accurate according to Archimedes' principle: the volume of the sea ice is the same whether it's in solid or liquid form. The rise of the sea levels, however, could be urged on by the melting of the glaciers of Alaska, but above all it is due to the dilatation of the water mass as a consequence of its warming.[187]

Global warming is responsible for the Arctic thaw, but given the Arctic's icy nature, the problem is even more complicated due to for example the ice albedo feedback loop: snow and ice have high reflectivity, which keeps the planet and the ocean cooler, but when due to global warming the sea ice melts and reveals beneath

[185] Fetterer, F. (2016, Aug 11). Carbon Brief

[186] *Vid.* Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo…, *op. cit.*, p. 681

[187] *Vid.* Maré, C. (2014). Réchauffement climatique en…, *op. cit.*, p. 152

it the darker water masses with little reflectivity, it further warms the ocean and the climate in general.[188] The same effect is caused by the darkening of the tundra due to airborne pollution form southern industrial activities.[189] This creates a snowball effect in the Arctic: as it gets warmer the snow melts faster, and the more the snow melts, the warmer it gets. Thus the Arctic becomes not only a suffering party to climate change but also a contributor to it.[190]

Furthermore, the rising water temperatures are changing sea ice distribution with grave impacts on ice-dependent fauna, which in turn (combined with the loss of permafrost) could impact the native peoples of the region very negatively.[191] These local communities prefer emphasizing the natural environment and developing their communities on its conditions rather than the industrial point of view of simply seeking for the most profit.[192] The primary sources for local pollution are the northern mining and metal industries and military activities, with problems related even to radioactivity.[193] It is known that Russia has dumped nuclear reactors, some still loaded with nuclear fuel, into the Arctic Ocean between the years 1958-1992 and these residues still haven't been completely cleaned up.[194] However, a key factor for the Arctic's management is striking a balance between protecting the environment and still making the region a major driver for economic growth, thus creating a true sustainable development and exploitation scenario.[195]

It is important to establish limits to shipping as well as oil and gas industries' development in the region, in benefit for the environment. WWF is working towards protecting areas of critical habitat, including crucial movement corridors and denning places, in order to prevent and mitigate threats from the industrial development.[196] WWF has already identified three areas that should stay permanently off-limits to oil exploitation: Norway's Lofoten and Vesterålen islands; West Russia's Kamchatka

[188] *Vid.* Pancracio, J.-P. (2014). La navigation en…, *op. cit.*, p. 94
[189] *Vid.* Prime Minister's Office. (2013, Sep 6). Suomen Arktinen…, *op. cit.*, p. 35
[190] *Vid.* Maré, C. (2014). Réchauffement climatique en…, *op. cit.*, p. 151
[191] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1215
[192] *Vid.* Kuersten, A. (2015, Aug 20). The Arctic Race…, *op. cit.*
[193] *Vid.* Prime Minister's Office. (2013, Sep 6). Suomen Arktinen…, *op. cit.*, p. 35
[194] *Vid.* Borgerson, S. G. (2008). Arctic…, *op.cit.*
[195] *Vid.* Borgerson, S. G. (2013). The Coming…, *op. cit.*
[196] *Vid.* WWF. (n.d.). *WWF Global Arctic Program Factsheet.*, p. 4

Shelf; and Alaska's Bristol Bay, the protection of which was announced in December 2014.[197]

Greenpeace in turn, would ban the Arctic exploration and exploitation of hydrocarbons completely, and not without reason, since oil spills are much harder to clean up in cold and icy conditions.[198] Few of Greenpeace's compelling arguments include for example the data from two major oil spill accidents: the Exxon Valdez and Deepwater Horizon. In 1989, the Exxon Valdez oil tanker spilled 11 million gallons (approximately 41 million liters) of oil into Alaska's Prince William Sound and then spent $2 billion trying to clean it up, only recovering 7% of the total amount of the spilled oil. In turn, the Deepwater Horizon offshore drilling rig spilled up to 200 million barrels of oil into the Gulf of Mexico in 2010, cleaning up only 8% of the oil[199] which in this case wasn't even located in the more challenging northern conditions.

In addition to these arguments, Greenpeace is an advocate for the creation of an *Arctic Sanctuary* in the high seas of the Arctic Ocean, seen in figure 8, where there aren't any protected areas. The Sanctuary is deemed necessary because "the Arctic Ocean is one of the planet's few remaining pristine marine regions and it is particularly vulnerable to human impacts".[200] Inside this 2.8 million km^2 area covering the remote high seas of the Arctic Ocean, all extractive or destructive uses would be entirely prohibited.[201]

[197] *Vid.* WWF website: *Arctic Oil and Gas. op. cit.*

[198] *Vid.* Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic…, *op. cit.*, p. 1223

[199] *Vid.* Greenpeace website: *Arctic Oil Drilling*. < http://www.greenpeace.org/usa/arctic/issues/oil-drilling/>

[200] Greenpeace. (2014, Jun). *Arctic Sanctuary*., *op.cit.*, p. 7

[201] *Vid. Ibid.*, p. 5

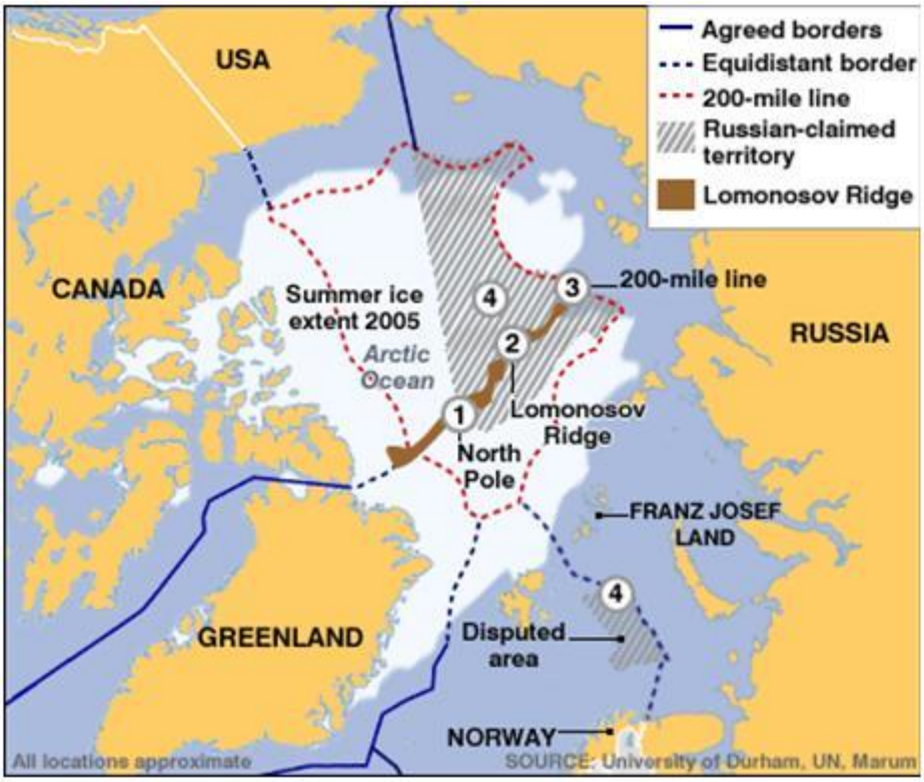

Figure 8. The proposed Arctic Sanctuary in between the EEZ of the coastal states (inside the marked *200-mile line*)[202]

In order to protect the Arctic, there are three major points to make: it is essential to understand and preserve the biodiversity better; sustainable development must be largely promoted; and finally, the effects of climate change should be limited.[203] As for the Paris Agreement (2015), the latest major environmental treaty, it doesn't contain any mention of the Arctic.[204] Nevertheless, it would seem that the environmental aspects have gained so much importance in the recent years that they will be taken into account in all other areas of action in the future.

[202] Sala, E. (2011, May 19). National Geographic.

[203] *Vid.* Maré, C. (2014). Réchauffement climatique en…, *op. cit.*, p. 162

[204] *Vid.* Quinn, E. (2015, Dec 18). *Arctic missing from Paris climate agreement*.

10. Conclusions

In today's globalized and cooperative world, a theory concerning world domination seems to be rather inadequate. Nevertheless, every period tends to have a more or less influential hegemonic power, which at the moment would be the United States of America, even if it can't be considered as an explicit world ruler. Mahan and Mackinder's geopolitical theories were formulated at a different time and thus could not be directly applicable today. However, if we took, for example, the Heartland theory and applied it to a different region, *e.g.* the Arctic, with different parameters that are crucial for a nation's prosperity today (such as demographic and economic strength, a stable and functioning state structure as well as logistics and technology), the core idea of a dominant power could theoretically still be valid.

The Arctic particularly has gained a lot of importance due to the effects of climate change and the possibilities that arise with it. In the end though, it will be the states and their national interests that will finally determine the Arctic's future, *i.e.* the geopolitical importance of the region including its natural resources and environment, because the non-state actors still hold only a secondary status in any given negotiations and decisions, although the Arctic strategies seem to set a trend of further inclusion in the future.

When it comes to Arctic cooperation, the big question still lies with the exclusive Arctic Five group and their course of action. If they persist on their quest of exclusive Arctic decision-making, it will undermine the Arctic Council's influence and importance, as well as drive a wedge between the Arctic Five and the rest of the world (the Arctic countries, non-Arctic states as well as non-state actors). Given that every possible scenario for the future of the Arctic will have global impacts (whether its climate change mitigation and environmental protection, commercial shipping or energy production), a more inclusive cooperation should be heeded instead of limiting it to a small group.

The matter of the Arctic legal regime is also of great importance. The law of the sea lies in its core, and even if at the moment UNCLOS can't be applied to the US, it is bound by the customary international law. In addition, more legal documents have been issued concerning different sectors of interest in the Arctic (*e.g.* the IMO's *Polar Code* concerning shipping), but there is no overarching treaty in the region. The existing treaties and agreements are well on their way of being respected, whereas the creation of an overarching treaty would not only take a lot of time and negotiation, but it would also require a higher commitment from the states at once. An overarching treaty could nonetheless be a viable and functioning option, as is proven by the Antarctic Treaty, if the international community decided to create one. However, the Arctic's situation is different from the Antarctic, not only due to its geological dissimilarity (the Arctic has no land whereas Antarctica is a continent), but also due to its strategic location as closely surrounded by sovereign states and their continental shelves and EEZ. This generates more interest from the states to delimit their corresponding sections and leaves less space for an actual *Arctic* to be considered as common heritage of mankind.

Ultimately, if the Arctic is to evolve into a geopolitical game changer in the future, many different factors will need to coincide. First and foremost, the sea ice thaw is necessary for any commercial activity to be possible in the region, whether it's related to energy or shipping. But this alone won't be enough, since for example in order for the exploration and exploitation of Arctic's natural resources to become profitable, either significant advances in technology or a notable rise in hydrocarbon prices are imperative. On the other hand, if the sea ice keeps thawing and the shipping routes could be developed, the NSR for example would greatly benefit Russia and its northern parts' development, as well as the Euro-Asian trade sector and giants like China. However, the sea ice thaw has also its negative impact on the Arctic ecosystems as well as the entire planet's climate, creating more need for environmental protection, which is becoming an ever more poignant issue in the global international relations due to natural phenomena and disasters that receive more media attention and raise awareness and protective attitudes all over the world.

All in all, a complete win-win situation regarding the Arctic doesn't seem to be a possibility. If climate change effects could be mitigated and protecting the Arctic waters was deemed the most important course of action, shipping through much longer routes would continue polluting the oceans more than would be necessary if the shorter Arctic routes were available. If the energy sector couldn't be developed or Arctic exploration and exploitation were to be banned altogether, particularly Russia but also Canada, Norway and the US, would lose the possibility of benefiting from this entire sector in the future. And then again, if both the Arctic shipping and energy sector were to be developed, it would have a devastating impact on the region's and possibly as well on the planet's ecosystems and climate.

11. Bibliography

11.1. Monographs and general works

Albert Ferrero, J. (2011, Nov). Incidencia del Deshielo en la Geopolítica del Ártico. *Revista General de Marina*, 681-690.

Baev, P. (2007, Oct). *Russia's Race for the Arctic and the New Geopolitics of the North Pole.* Retrieved Jul 4, 2016, from https://jamestown.org/wp-content/uploads/2007/10/Jamestown-BaevRussiaArctic_02.pdf

Beauregard-Tellier, F. (2008, Oct 24). *The Arctic: Hydrocarbon resources.* Retrieved May 30, 2016, from Parliament of Canada: http://www.lop.parl.gc.ca/content/lop/researchpublications/prb0807-e.htm

Christopher, J., & Fast, E. (2008, Oct 24). *The Arctic: Transportation, infrastructure and communication.* Retrieved May 30, 2016, from Parliament of Canada: http://www.lop.parl.gc.ca/content/lop/researchpublications/prb0808-e.htm

Greenpeace. (2014, Jun). *Arctic Sanctuary*. Retrieved Sep 20, 2016, from http://www.greenpeace.org/international/en/publications/Campaign-reports/Oceans-Reports/arctic-sanctuary/

Heininen, L. (2011). *Arctic Strategies and Policies: Inventory and Comparative Study.* Retrieved Aug 7, 2016, from Northern Research Forum: http://www.rha.is/nrf/publications/books-and-publications/arctic-strategies

Hepple, L. W. (2000). Géopolitiques de Gauche. Yves Lacoste, Hérodote and French radical. In K. Dodds, & D. Atkinson, *Geopolitical traditions. A century of geopolitical thought* (pp. 268-301). New York: Routledge.

Lacoste, Y. (1976). *Geografía: un Arma para la Guerra.* Retrieved from http://www.lectulandia.com/book/la-geografia-un-arma-para-la-guerra/

Mackinder, H. J. (1942). *Democratic Ideals and Reality.* London: Constable Publishers.

Mahan, A. T. (1890). *The Influence of Sea Power upon History, 1660-1783.* Retrieved Sep 30, 2016, from The Project Gutenberg: http://www.gutenberg.org/files/13529/13529-h/13529-h.htm

Mayer, M. (n.d.). *What is geopolitics?* Retrieved Oct 5, 2016, from Geopolitics in the High North: http://www.geopoliticsnorth.org/index.php?option=com_content&view=article&id=45:article2&catid=44&showall=&limitstart=2

Merriam-Webster Dictionary. (n.d.). Retrieved Oct 5, 2016, from http://www.merriam-webster.com/dictionary/geopolitics

Mychajlyszyn, N. (2008, Oct 24). *The Arctic: Geopolitical Issues.* Retrieved May 30, 2016, from Parliament of Canada: http://www.lop.parl.gc.ca/content/lop/researchpublications/prb0806-e.htm

Palacián de Inza, B., & Sánchez, I. G. (2013, Jul/Aug). *Geopolítica del deshielo en el Ártico.* Retrieved Jul 4, 2016, from Estudios de Política Exterior: http://www.politicaexterior.com/articulos/politica-exterior/geopolitica-del-deshielo-en-el-artico/

Quinn, E. (2015, Dec 18). *Arctic missing from Paris climate agreement*. Retrieved Oct 20, 2016, from Radio Canada International: http://www.rcinet.ca/en/2015/12/18/arctic-missing-from-paris-climate-agreement/

Reinoso, J. (2013, Aug 12). El cambio climático abre una nueva ruta comercial para China. *El País*. Retrieved Jul 7, 2016, from http://sociedad.elpais.com/sociedad/2013/08/12/actualidad/1376323504_756460.html

Scholvin, S. (2016, April). *Geopolitics: An Overview of Concepts and Empirical Examples from International Relations.* Retrieved Aug 13, 2016, from The Finnish Institute for International Affairs: http://www.fiia.fi/fi/publication/586/geopolitics/

Skarphédinsson, Ö. (2010, May 14). *Iceland's interests and a responsible foreign policy.* Retrieved Sep 3, 2016, from https://www.mfa.is/publications/

WWF. (n.d.). *WWF Global Arctic Program Factsheet.* Retrieved Oct 10, 2016, from WWF: http://wwf.panda.org/what_we_do/where_we_work/arctic/what_we_do/

Yeager, B. B. (2008). *The Ilulissat Declaration: background and implications for arctic governance.* Retrieved Jun 20, 2016, from http://www.arcticgovernance.org/the-ilulissat-declaration-background-and-implications-for-arctic-governance.4626039-137746.html

11.2. Articles in periodical publications and contributions to collective works

Alexeeva, O., & Lasserre, F. (2014). La Chine en Arctique: genèse et évolution d'une politique. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 111-128). Paris: CNRS Éditions.

Borgerson, S. G. (2008). Arctic Meltdown. *Foreign Affairs*(March/April). Retrieved May 1, 2016, from https://www.foreignaffairs.com/articles/arctic-antarctic/2008-03-02/arctic-meltdown

Borgerson, S. G. (2013). The Coming Arctic Boom. *Foreign Affairs*(July/August). Retrieved May 1, 2016, from https://www.foreignaffairs.com/articles/global-commons/2013-06-11/coming-arctic-boom

Buchanan, E. (2016, Jan 21). Arctic Thaw. *Foreign Affairs*. Retrieved Jun 2, 2016, from https://www.foreignaffairs.com/articles/russian-federation/2016-01-21/arctic-thaw

Dodds, K. (2010, Oct). A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean. *Global Policy, 1*(3), 303-311. Retrieved Jun 15, 2016, from http://onlinelibrary.wiley.com/doi/10.1111/j.1758-5899.2010.00038.x/pdf

Ebinger, C. K., & Zambetakis, E. (2009, Nov). The geopolitics of Arctic Melt. *International Affairs, 85*(6), 1215-1232. Retrieved May 25, 2016, from http://onlinelibrary.wiley.com/doi/10.1111/inta.2009.85.issue-6/issuetoc

Foucher, M. (2014). *L'Arctique: la nouvelle frontière.* Paris: CNRS Éditions.

Giok, K. K. (2015). Sea Power as a Strategic Domain. *Pointer, 41*(3). Retrieved from https://www.mindef.gov.sg/content/dam/imindef_media_library/graphics/pointer/PDF/2015/Vol.41%20No.3/Sea%20Power%20As%20A%20Strategic%20Domain.pdf

Gómez de Ágreda, Á. (2014, Mar). Climate Change in the Arctic: Beyond the North Pole. *Spanish Institute of Strategic Studies, 3*. Retrieved from https://dialnet.unirioja.es/servlet/articulo?codigo=4729395

Heininen, L. (2011). Post-Cold War Arctic Geopolitics: Where Are the Peoples and the Environment? *Arctic Perspectives Cahier*(2), 89-103. Retrieved Jun 6, 2016, from http://arcticperspective.org/news/arctic-perspective-cahier-no-2-now-online

Heininen, L. (2012). State of the Arctic Strategies and Policies – A Summary. *Arctic Yearbook*. Retrieved Aug 14, 2016, from http://www.arcticyearbook.com/2013-10-11-09-09-56

Jakobson, L. (2010, Mar). China prepares for an ice-free Arctic. *Sipri Insights on Peace and Security, 2010/2*. Retrieved from http://books.sipri.org/product_info?c_product_id=402

Kuersten, A. (2015, Aug 20). The Arctic Race that Wasn't. *Foreign Affairs*. Retrieved May 1, 2016, from https://www.foreignaffairs.com/reviews/2015-08-20/arctic-race-wasnt

Liow, J. C. (2014, Jun 21). Arctic Summer. *Foreign Affairs*. Retrieved Jun 2, 2016, from https://www.foreignaffairs.com/articles/arctic-antarctic/2014-06-21/arctic-summer

Jain, M. (2014, Sep 2). *Geopolitics: Fundamentals of Geography.* Retrieved Sep 7, 2016, from Youtube: https://www.youtube.com/watch?v=6e0DIrbhpjo

Maré, C. (2014). Réchauffement climatique en Arctique: la fin de l'Age de glace. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 147-163). Paris: CNRS Éditions.

Moltó, Á. (2011, Mar 10). El Ártico y la política exterior de Canadá. *Estudios de Política Exterior*. Retrieved Jul 7, 2016, from http://www.politicaexterior.com/actualidad/el-artico-y-la-politica-exterior-de-canada/

Pancracio, J.-P. (2014). La navigation en Arctique. In M. Foucher, *L'Arctique: la nouvelle frontière* (pp. 91-109). Paris: CNRS Éditions.

Peris Martínez, M. B. (2014, May). Impactos en el Ártico y sus repercusiones. *Ojeando la Agenda, 29*. Retrieved Oct 5, 2016, from https://dialnet.unirioja.es/servlet/articulo?codigo=4748267

11.3. Documentation

Althingi. (2011, Mar 28). *A Parliamentary Resolution on Iceland's Arctic Policy*. Retrieved Sep 3, 2016, from Ministry for Foreign Affairs: https://www.mfa.is/news-and-publications/nr/6275

Arctic Council. (2009). *Arctic Marine Shipping Assessment.* Retrieved Jun 27, 2016, from http://www.pame.is/index.php/projects/arctic-marine-shipping/amsa

Arctic Council. (2015, Apr). *Arctic Marine Strategic Plan.* Retrieved Oct 2, 2016, from https://oaarchive.arctic-council.org/handle/11374/413

Council of the European Union. (2014, May 12). *Council conclusions on developing a European Union Policy towards the Arctic Region*. Retrieved Sep 3, 2016, from http://ec.europa.eu/maritimeaffairs/policy/sea_basins/arctic_ocean_en

European Commission. (2012, Jun 26). *Developing a European Union Policy towards the Arctic Region: progress since 2008 and next steps*. Retrieved Sep 3, 2016, from http://ec.europa.eu/maritimeaffairs/policy/sea_basins/arctic_ocean_en

European Commission. (2016, Apr 27). *An integrated European Union policy for the Arctic*. Retrieved Sep 3, 2016, from http://ec.europa.eu/maritimeaffairs/policy/sea_basins/arctic_ocean_en

European Union External Action. (2016, Jun 15). *EU Arctic Policy*. Retrieved Oct 13, 2016, from https://eeas.europa.eu/topics/eu-arctic-policy/418/eu-arctic-policy_en

Government of Canada. (2009). *Canada's Northern Strategy: Our North, Our Heritage, Our Future.* Retrieved Jul 26, 2016, from http://www.northernstrategy.gc.ca/cns/cns-eng.asp

Government of Canada. (2010). *Statement on Canada's Arctic Foreign Policy*. Retrieved Jul 26, 2016, from http://www.international.gc.ca/arctic-arctique/arctic_policy-canada-politique_arctique.aspx?lang=eng

Ministry of Foreign Affairs of Denmark. (2011, Aug). *Kingdom of Denmark Strategy for the Arctic 2011-2020.* Retrieved Jul 26, 2016, from http://um.dk/en/foreign-policy/the-arctic

Norwegian Ministry of Foreign Affairs. (2007, Feb 21). *The Norwegian Government's Strategy for the High North*. Norway. Retrieved Sep 16, 2016, from https://www.regjeringen.no/en/find-document/reports-and-plans/id438817/?documenttype=dokumenter/planer&ownerid=833&topic=919

Norwegian Ministry of Foreign Affairs. (2009, Apr 7). *New Building Blocks in the North*. Norway. Retrieved Sep 16, 2016, from https://www.regjeringen.no/en/find-document/reports-and-plans/id438817/?documenttype=dokumenter/planer&ownerid=833&topic=919

Prime Minister's Office. (2010, Jun 7). *Suomen Arktinen Strategia*. Finland. Retrieved Jul 15, 2016, from http://vnk.fi/julkaisut?p_p_id=publicationssearch_WAR_publicationsportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_pos=1&p_p_col_count=2&_publicationssearch_WAR_publicationsportlet_a=search

Prime Minister's Office. (2013, Sep 6). *Suomen Arktinen Strategia 2013*. Finland. Retrieved Jul 15, 2016, from http://vnk.fi/julkaisut?p_p_id=publicationssearch_WAR_publicationsportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-2&p_p_col_pos=1&p_p_col_count=2&_publicationssearch_WAR_publicationsportlet_a=search

Rossiyskaya Gazeta. (2009, Mar 30). *Russian Federation Policy for the Arctic to 2020.* Retrieved Sep 5, 2016, from Arctis Knowledge Hub: http://www.arctis-search.com/Russian+Federation+Policy+for+the+Arctic+to+2020

Sweden's Ministry for Foreign Affairs. (2011, Oct). *Sweden's Strategy for the Arctic Region*. Sweden. Retrieved from http://www.government.se/country-and-regional-strategies/2011/10/swedens-strategy-for-the-arctic-region/

The Ilulissat Declaration. (2008, May 28). Retrieved Jun 16, 2016, from http://www.arcticgovernance.org/the-ilulissat-declaration.4872424.html

The White House. (2009, Jan 9). *National Security Presidential Directive/NSPD-66*. Office of the Press Secretary. Retrieved Sep 4, 2016, from http://www.state.gov/e/oes/ocns/opa/arc/

The White House. (2010, May). *National Strategy for the Arctic Region*. Retrieved Sep 4, 2016, from http://www.state.gov/e/oes/ocns/opa/arc/

United Nations. (1982). *United Nations Convention on the Law of the Sea.* Retrieved Jun 3, 2016, from http://www.un.org/depts/los/index.htm

United Nations. (1959). *The Antarctic Treaty*. Retrieved Nov 2, 2016, from https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280136dbc

11.4. Websites

Arctic Council website. Accessed on Sep 26, 2016, http://www.arctic-council.org/index.php/en/

Briney, A. (n.d.). *Overview of Political Geography*. Accessed on Sep 30, 2016. About Education: http://geography.about.com/od/politicalgeography/a/ Overview-Of-Political-Geography.htm

Greenpeace website. Accessed on Sep 26, 2016. http://www.greenpeace.org/international/en/

ICC website. Accessed on Jul 8, 2016. http://www.inuitcircumpolar.com/

IMO website. Accessed on Oct 5, 2016. http://www.imo.org/EN/Pages/Default.aspx

International Permafrost Association website. Accessed on Nov 20, 2016. http://ipa.arcticportal.org/

Lossan, A. (2016, Jun 23). Gazprom postpones offshore gas production: Will prices rise in Europe? *Russia beyond the headlines*. Accessed on Oct 25, 2016. https://rbth.com/business/2016/06/23/gazprom-postpones-offshore-gas-production-will-prices-rise-in-europe_605715

OGJ Editors. (2010, Aug 2). Shtokman partners delay production start. *Oil and Gas Journal*. Accessed on Oct 25, 2016. http://www.ogj.com/articles/2010/02/shtokman-partners.html

Saami Council. Accessed on Jul 8, 2016. from http://www.saamicouncil.net/en/

Statoil website. (2008). *Gazprom, Total and StatoilHydro create Shtokman company*. Accessed on Oct 25, 2016. http://www.statoil.com/en/NewsAndMedia/News/2008/Pages/ShtokmanDevelopmentAG.aspx

The Northern Dimension website. Accessed on Oct 5, 2016. http://www.northerndimension.info/northern-dimension

Total. (n.d.) *Yamal LNG: The gas that came in from the cold*. Accessed on Oct 25, 2016. http://www.total.com/en/energy-expertise/projects/oil-gas/lng/yamal-lng-cold-environment-gas

11.5. Figures

Figure 1. Encyclopedia Britannica Kids. (2010). *Arctic Regions*. Retrieved Nov 5, 2016, from http://kids.britannica.com/comptons/art-100342/The-average-location-of-the-50-F-July-isotherm-in?

Figure 2. IBRU: The Centre for Borders Research at Durham University. (2015, Aug 4). *Maritime jurisdiction and boundaries in the Arctic region.* Retrieved Nov 5, 2016, from https://www.dur.ac.uk/ibru/resources/arctic/

Figure 3. News Deeply. *Arctic Deeply: Indigenous Peoples and Cultures.* Retrieved Nov 24, 2016 from

https://www.newsdeeply.com/arctic/background/indigenous-peoples-and-cultures

Figure 4. GRID-Arendal. (2006). *Fossil fuel resources and oil and gas production in the Arctic*. Retrieved Nov 5, 2016, from http://www.grida.no/graphicslib/detail/fossil-fuel-resources-and-oil-and-gas-production-in-the-arctic_a9ca

Figure 5. Ryall, J. (2013, Jun 28). Retrieved Nov 5, 2016, from Deutsche Welle: http://www.dw.com/en/climate-change-could-enable-arctic-shipping/a-16914245

Figure 6. Ghose, T. (2010, Jan 25). *A Year of Global Shipping Routes Mapped by GPS.* Retrieved Nov 24, 2016 from Wired: https://www.wired.com/2010/01/global-shipping-map/

Figure 7. Fetterer, F. (2016, Aug 11). Retrieved Nov 5, 2016, from Carbon Brief: https://www.carbonbrief.org/guest-post-piecing-together-arctic-sea-ice-history-1850

Figure 8. Sala, E. (2011, May 19). Retrieved Nov 5, 2016, from National Geographic: http://voices.nationalgeographic.com/2011/05/19/who-owns-the-north-pole/