

**THE DYNAMICS OF GLOBAL FLOWS IN
ARCTIC OCEAN REGION: COOPERATION
AND COMPETITION**

By

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DEDICATION

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LIST OF ABBREVIATION

AC	Arctic Council
A8	Eight Arctic
AMO	Atlantic Multi decadal Oscillation
AMAP	Arctic Monitoring and Assessment Programme
AMSA	Arctic Marine Shipping Assessment
ARHC	Arctic Regional Hydrographic Commission
BRI	Belt and Road Initiative
BEAC	Barents Euro-Arctic Council
CBD	Convention on Biological Diversity
CHM	Common Heritage of Mankind
CLCS	Commission on the Limitations of the Coast Line
EEZ	Exclusive Economic Zone
EU	European Union
ICC	Inuit Circumpolar Council
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
LNG	Liquefied Natural Gas
MPA	Marine Protected Area
NATO	North Atlantic Treaty Organization
NCM	Nordic Council of Ministers
NSR	Northern Sea Route

NSRA	Northern Sea Route Administration
NWP	Northwest Passage
OSCE	Organization for Security and Cooperation
SAR	Search and Rescue
SLOC	Sea Lines of Communication
TOC	Tragedy of the Commons
UNCLOS	United Nations Convention on the Law of the Sea
USSR	Union of Soviet Socialist Republic
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environmental Program
USGS	United States Geological Survey
WWF	World Wildlife Fund

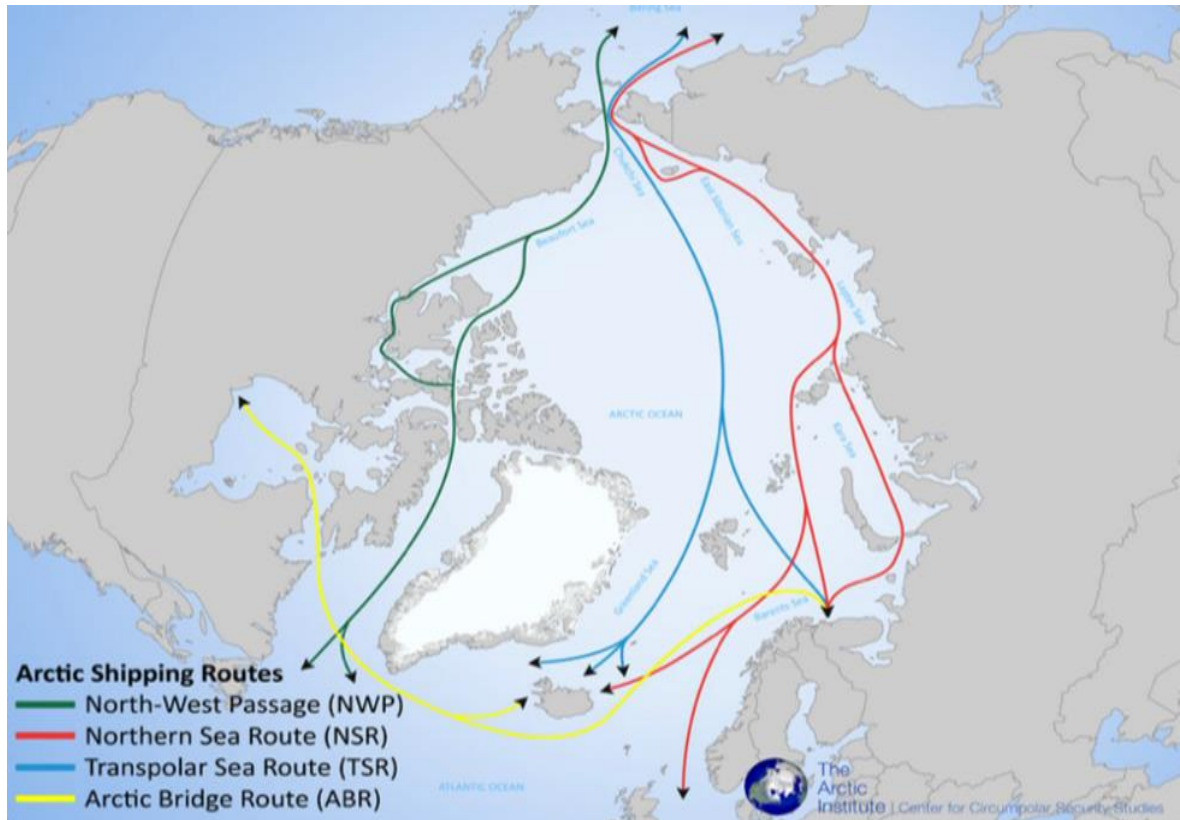
Maps

Map 1. Arctic Region



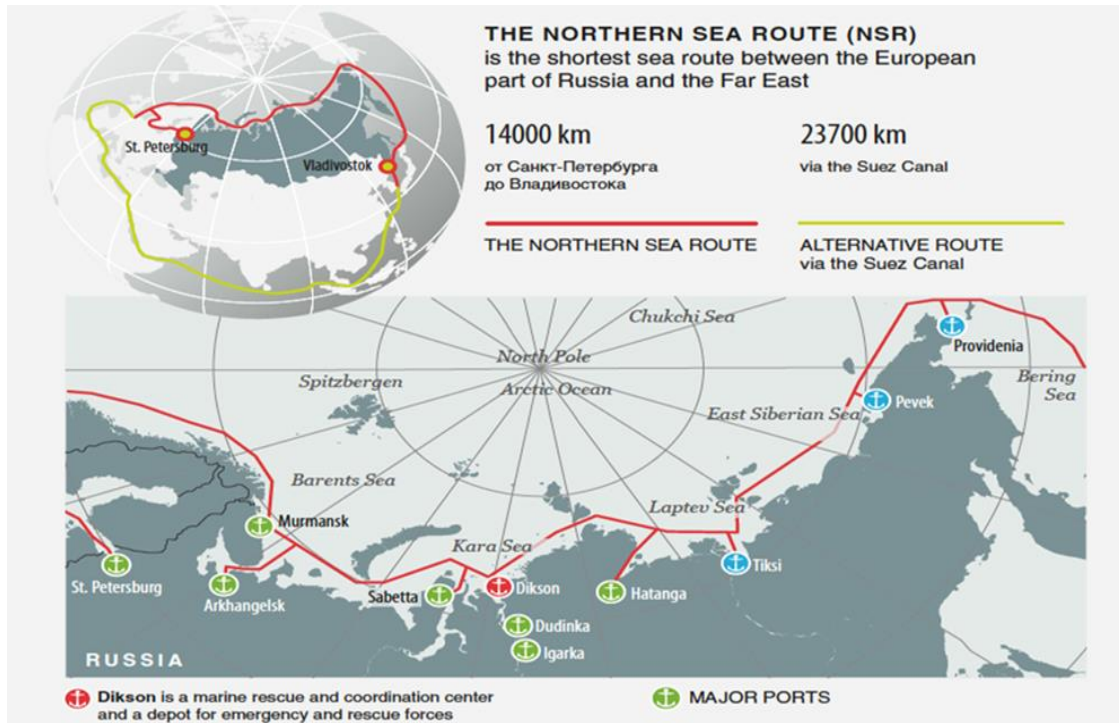
Source. Inpolease.

Map,2. Trans Polar trade routes



Source: (The Arctic Institute, supra note)

Map,3. Northern Sea Route (NSR)



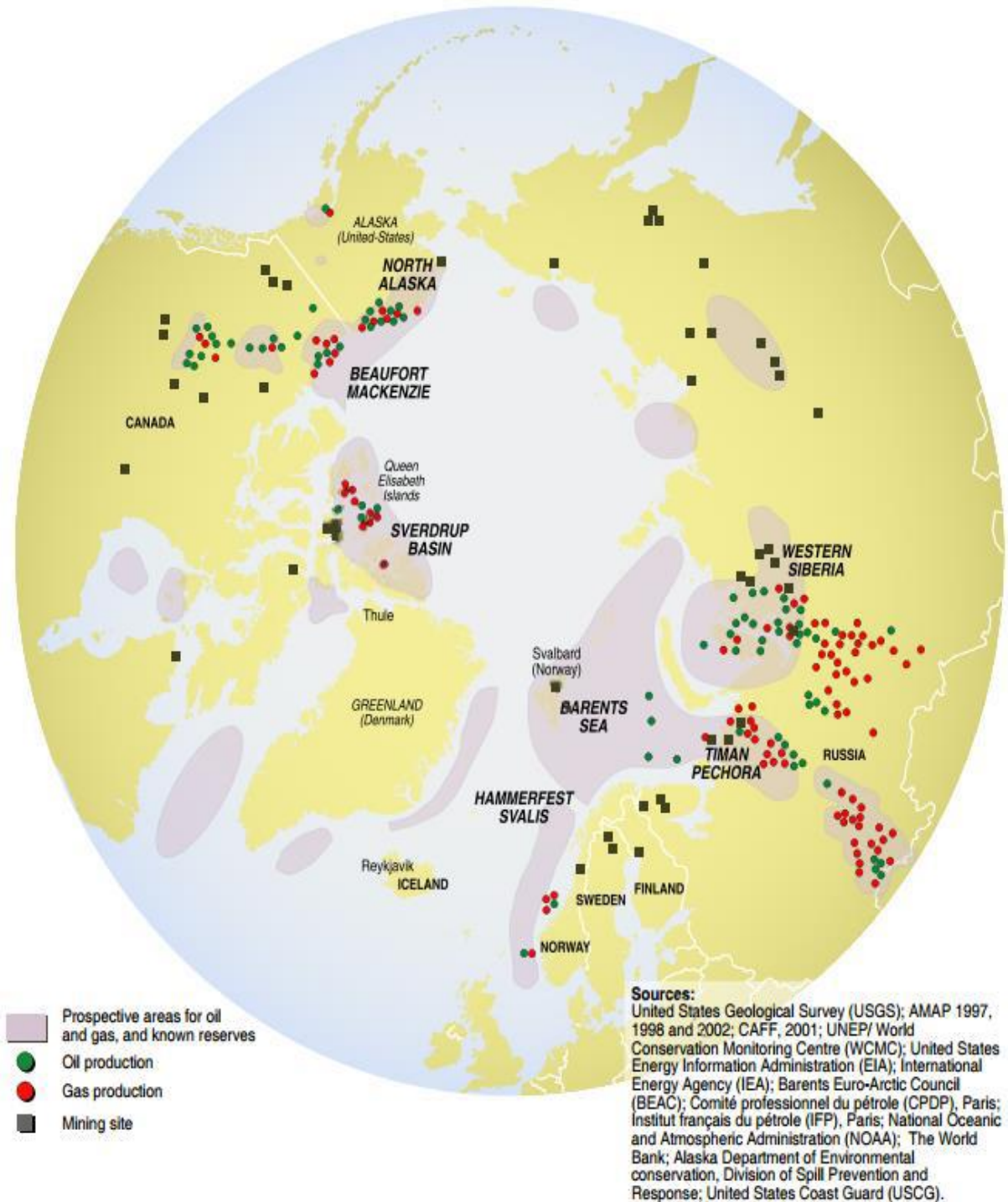
Source: Dikson marine rescue and coordination center.

Map,4. Northwest Passage



Encyclopedia Britannica, Inc.

Map 5. Arctic Natural Reserves



Abstract

The ever escalated Climate change has prompted global interest in the Arctic Ocean region as an arena of with enormous economic potential for hydrocarbons and novel maritime trade routes (Goeconomics). With every passing day the prize of Arctic's goeconomics is realizing, so as the scenario for competition and cooperation. The region is home to some severe unresolved issue, including, legal status of maritime trade route, territorial disputes and issues of Exclusive Economic Zones, hence has been fabricated as new theater for power politics and competition over the emerging goeconomics among regional and extra regional states. The region has been politicized as a new cauldron and "Cold Front" by intellectuals and mainstream media. However, on the contrary the 21st century Arctic geopolitics is with high stability and functional cooperation among different actors. Along with possibilities for competition and confrontation climate change has brought opportunities for collaboration in various spheres. Since the climate change is affecting life of individuals all over the world, particularly those adjacent to Arctic region, collective responses can tackle these emerging issues, subsequently Arctic states have joined hands to deal with these issues. The key reason behind Arctic's peace and stability is the presence of multilateral institutionalism such as Arctic Council. Moreover, all the Arctic and non-Arctic states in their strategies have emphasized the importance international cooperation in the region.

INTRODUCTION

The earth is getting warm due to global warming and environmental degradation; nonetheless Arctic is warming double than the earth. As Arctic is melting bringing drastic environmental shift, it too has impacts in terms of geo-politics and geo-strategy of the region. The melting Arctic is not only important for the extraction of natural resources but also for maritime trade routes. There is diversity of opinion among the experts; some consider that it will provide opportunities for cooperation among the regional actors; others are of the view that it is leading the region towards an increased competition among various actors; whereas few scholars' opinion is that because of divergence of interests, the world might witness another Cold War-like situation in the Arctic Ocean in the years to come. Historically oceans have played a key role in the development of human beings. In ancient times, oceans had been important to the states only for the purpose of trade, navigation, and defense. With technological advancement, oceans have become more important for states because of the vast quantity of natural resources in their seabed as well as subsoil. Located in the high North, Arctic Ocean is the 4th largest ocean among five major oceans. Unlike Pacific, Atlantic and Indian Ocean, Arctic has never been a battle field in the world politics because of its low temperature and inaccessibility. Arctic is last Ocean never to have seen any significant level of combat, existing on the top of the world far from reach of humankind. Today it offers a tempting chance to become a zone of cooperation and harmony. Nonetheless, the risky scale with Arctic is that the enormous amount of resources in it, which represents a prize that will draw enlarged attention from many quarters, creating insecurities, tensions, and danger.¹

Arctic Ocean has been crucial for super powers during the Cold War era. Due to their enmity and competition, the United States of America and Soviet Union used the Arctic region for their submarines for purpose of second strike against each other as it was difficult to detect them under the frozen Arctic. During that time period, the region was heavily militarized and it remained an area of greater strategic competition between the two super powers. In the Cold War era, the USSR was among the first states adopting a policy to melt the Arctic, so as to use it for commercial activity, the first Icebreaker (Arktika) was built in

¹ Admiral James Stavridis, *Sea Power: The History and Geopolitics of the World's Ocean* (New York: Penguin Press, 2017), 237.

1971.² The *Artika* reached the North Pole in the year 1977 and it was decommissioned in 2008. After disintegration of USSR, the importance of Arctic faded away and the confrontation was replaced by a more cooperative agenda. An intergovernmental platform the “Arctic Council” was established in order to promote cooperation, coordination and environmental protection among regional states.³

In 20th century, states were more concerned with obstacles to transpolar flights between North America and the Far East, which were removed with end of the Cold War. The transpolar flights not only reduced the fuel cost but also shortened flight time between the two continents and had an enormous impact on air traveling. On the other hand, twenty first century started with apparent shift in trends and states have become more concerned on the issue of transpolar trade routes via sea. Today almost 80% of world trade is conducted through sea most of which is between the highly developed states of Europe and developing economies of East Asia. Currently states are using the two sea routes: The Suez Canal and Panama Canal which are not only lengthy but also less secure and narrow. With increase in the volume of sea trade and traffic, it has become rather significant for states to establish new and alternative maritime trade routes.

Since mid-2000s, Arctic region is getting attention of international community and the region is being identified as the zone of conflict and competition. The earth is getting warmer due to global warming and environmental degradation. Since 1880s, earth has warmed by some 0.9 degree Celsius while Arctic’s temperature has raised twice the earth temperature in the same time period. In a recent analysis (from October 2015 to September 2016), Arctic was 3.5°c warmer than the 1990s. With the global warming, the Arctic ice cap is decreasing due to which the region is getting importance and resultantly, the states are entering into a new competition to control the melting Arctic. The region is transforming from a frozen and largely inaccessible region, yet seasonally navigable; to increasingly navigable and more accessible Arctic for the states.

The Arctic Ocean region is resource rich, and it has approximately some 30 percent of natural gas, 15 percent of oil, and some 25% of hydrocarbon.⁴ As the ice of Arctic is melting, states are looking forward to take advantage of the region both in terms of natural

² Stavridis, *Sea Power*, 239.

³ *ibid*, 239.

⁴ *ibid*, 241.

resources and also from the maritime trade routes that would connect the continent of Europe with Asia-Pacific. The melting Arctic will not only provide the states opportunities to utilize the natural resources of the area but most importantly, the thawing Arctic will help those states to get control and command of the emergent trade routes. The shipping routes which were once inconceivable particularly directly across the North Pole might be established in the coming years. It is for sure that the melting Arctic cannot be prevented nor reversed because decline in the sea ice is increasing year by year so as the opening up of trade routes; but to what extent and till when these routes will be operational is a question for all and sundry. The probable trade routes and increased global flows passing through these newly established routes will potentially be laced up with further serious fears like geo-political uncertainties, legal, geo-economic and environmental complexities.

The term “Global Flows” refer to uninterrupted movement of trade, services, finance, energy, and people across the globe. The movement of these global flows is extremely important for the regional and extra regional actors, as any disturbance in the global flows will have serious repercussions for the international political economy. Global flows play an important role in shaping the regional and world orders. The global flows are based on the hub and spoke mobility dynamic. Specifically, movement of goods, people, and facilities segregates zones depend on their capacity to act as centers and dispatch nodes for the important international activities, including international trade, financial and resource flows. Thus, consistency and intensity of flows is of immense importance for area’s economic viability and also of national political power. Correlating this status quo to the previous more regional international order, acquiring secure access to global flows postures altered various internal and external policy challenges to states.⁵

The high north has been frozen area where movement of global flows was once impossible except the three months in the summer where the ice cap of the Arctic thaws and thus provides the states with an opportunity to access the area, yet with the help of ice-breakers. Due to the environmental factors, Arctic is melting swiftly since the start of 21st century and it is considered that in the next decade or two, the ocean will provide states alternative

⁵ Mika Aaltola, Juha Kapyla, Harri Mikkola and Timo Behr, *Towards the Geopolitics of Flow: Implications for Finland* (The Finnish Institute of International Affairs, 2014), 29.

trade routes to connect the Pacific and Atlantic Oceans throughout the year. In such scenario the Arctic will provide three alternative trade routes including North West passage, North East passage (Northern Sea route), and a more direct routes transpolar trade route (TTR) through middle of the Arctic Ocean Region. These routes will provide imputes to the global flows across the world.⁶

The alternative routes, when established and started getting functional will bring in several challenges to the regional and global orders. There are number of states that will try to gain control of these routes and thence the global flows. Apart from the USA and Russia, other smaller regional states are more dominant actors in the Arctic; these states are the coastal states in the region and are in pursuit of gaining more leverage in the melting Arctic. On the other hand, several extra regional actors particularly China has its presence in the Arctic region and trying to gain maximum turf of influence. The interplay of regional and extra regional actors has started causing diverse challenges as well as opportunities involving cooperation among the actors and in some areas intense competition in the North Pole. This divergence and convergence of interests likely to be causing another Cold War situation within the Arctic Ocean Region; but the core of this interplay will be revolving around geo-economics and geo-politics and their changing patterns in the international system.

Problem Statement

This research is aimed at analyzing the emerging geo-economics of Arctic Ocean Region and studying its impacts on the geo-politics of the region. The changing Arctic is creating a competitive environment among stakeholders to secure hydrocarbons and to command-and-control routes of global flows in the polar region. Diverging as well as converging interests of the regional stakeholders and the involvement of extra-regional actors are creating a scenario of conundrum, where possibilities exist for cooperation and competition. However, the presence and competitive interests of great powers may trigger a vicious competition among regional and extra regional actors in the region.

From the commencement of 21st century climate change and global warming has become a matter of concern for the whole world; however, it has proved the ground for further

⁶ Mika et al., *Towards the Geopolitics of Flows*, 241.

opportunities for some regions in domains of economics and politics. The Arctic Ocean Region is melting rapidly since the latter half of 20th century and thus providing international community with an opportunity for extracting natural resources and alternative maritime trade routes. These transpolar trade routes are not only enhancing trade activities in the region but warming Arctic also provides states the opportunity to extract the natural resources from the high north region.⁷

Research Objectives

- To elaborate factors responsible for the transformation of the Arctic from a frozen region to an economic hub;
- To elucidate the impacts of geo-economic of Arctic Ocean on the regional geopolitics;
- To analyze the competitive, clashing, divergent interests of regional and extra-regional actors in Arctic region;
- To highlight and analyze the possibilities of cooperation among regional and extra-regional actors in Arctic region;

Research Question

1. Why is the Arctic Ocean transforming from a frozen lake to an economic hub?
2. How is geo-economics of the Arctic Ocean Region shaping the regional geopolitics?
3. How would the evolving interests of the regional and extra-regional states lead towards intense competition in the Arctic?
4. How can the emerging geo-economics help in posturing Cooperation among regional and extra-regional actors?

Core Argument

Arctic Ocean is melting rapidly due to climate change, hence paving the way for opening up of maritime trade routes for global flows and extraction of natural resources of the region. The emerging geoeconomics of Arctic Ocean Region is reshaping the regional geopolitics and giving birth to newer opportunities for cooperation as well as competition.

⁷ Stavridis, *Sea Power*, 237-239.

Literature Review

Admiral James Stavridis in his seminal work *Sea power, The History and Geopolitics of the World's Ocean* has emphasized on the significance of oceans by quoting historical evidences and states that historically oceans have played a key role in the development of mankind which increased multifold with the technological advancements as the states are now aspiring to get hold of the resources present within maritime domain. Stavridis accentuates about the extreme scale of resources of the Arctic Ocean Region which characterizes a prize that will draw increasing attention from many quarters, creating tension and danger.⁸

While emphasizing on the significance of Arctic Ocean, P K Gautama's article "The Arctic as a Global Common" expounds that Arctic Ocean Region should be treated as a global common and a common inheritance of mankind. At present, the Arctic states are dominating the region along with Arctic Council. These states are pursuing their national interests, their focus is quite limited to exploitation of natural resources, claiming extend Exclusive Economic Zones and the emerging trade routes. Protection of ecology and environment is low on their priority agendas. Their current policies and activities are fueling the process of degradation of f ecology. He has emphasized, the role of developing countries that instead of siting aside and leaving the developed state to deal issues of the Arctic's future, developing states need to play a vibrant role similar to that they are playing in the negotiations over space.⁹

Hooman Peimani's Energy Security and Geopolitics in the Arctic identifies the probable opportunities and challenges evolving in the polar region as a result of global warming and climate change. Arctic Ocean appears to be on the flight from a frozen state to a seasonally ice-free and open condition in the coming decades. Although thick multiyear sea ice is expected to be along the Canadian Arctic Archipelagos and with the northern coast of Greenland, as well as the winter Arctic Sea ice through Arctic basin, still they might not restrict a shorter and productive Arctic summer season, in which trade routes are benign and manageable. The viability and reliability of these routes remain in question due to the

⁸ Stavridis, *Sea power*, 237.

⁹ P K Gautam, *The Arctic as a Global Common*, (IDSA Issue Brief, September 02, 2011), 3.

presence of large icebergs. For Peimani wherever these ice icebergs exist in the “shoulder season”, it can become a hurdle as hurricanes and wind shifts can take them into those trade route, where it can create problem for ships. Apart from these challenges the persistence of multiyear sea ice conditions in some areas is another important factor which must be taken into consideration, while examining the possibilities and challenges of Arctic’s energy worth.¹⁰

Oran Young’s work “Arctic Politics in an Era of Global Change” defines the significance of the Arctic Ocean Region in the 21st century from economic and political standpoint. In the new millennium Arctic has occupied a center stage in the intelligent of diplomats centered in national capitals and business directors located in commercial centers around the globe. Since the effects of climate change and forces of globalization, the region has come to be a focus of attention in the international arena in terms of commercial shipping and growth of energy reserves not only for policy makers in the regional states but also for far-flung regions like Japan, China, Republic of Korea, Germany and Brazil etc.¹¹

In the article “The Role of China in Emerging Arctic Security Discourse”, Marc Lanteigne has highlighted the role of China in the Arctic Ocean. In the years to come scientific activities, particularly related to the issue of climate change and global warming in Arctic region, will definitely be an essential part of China’s Arctic policy. Moreover, as the Arctic continues to develop strategic anxieties would inevitably be covering a greater part of Beijing's Arctic philosophy. This will be relatively because of growing Chinese need of energy and raw material. China also wants a more efficient and shorter route for transporting Chinese products to international markets. China wishes not be excluded either by other great powers or Arctic littoral states, once commercial activities develop in the region rapidly and especially if energy prices recover.

Though most of economic and political disputes in Arctic have been addressed, and frequently settled through diplomacy, still there is space for greater strategic and political

¹⁰ Hooman Peimani, *Energy Security and Geopolitics in the Arctic: Challenges and Opportunities in the 21st Century* (World Scientific Publishing, 2013), 1-20.

¹¹ Oran Young, “Arctic Politics in an Era of Global Change,” *The Brown Journal of World Affairs* 19, no. 01 (2012): pp. 165-178, 173-75.

disagreements between Russia and USA, carrying the potential of spill over into the Arctic affairs. Which could be a nightmare situation for China. Despite the fact that security glitches do not emerge in the region in near future, China will remain cautious of any endeavor of exclusion on behalf of the regional states on the issues, which Beijing consider as international, with inclusion of governance, trade routes and natural reserves.¹²

Dmitri Brenin and Pavel K. Baev's research work "The Arctic: A View from Moscow" focuses on the significance of the Arctic for energy note down that Arctic as evolving as the new arena for the extraction of oil and gas in world. According to the US geological Survey report Arctic Ocean seabed contain an expected 20% of the world's hydrocarbon resources, while as per the Russian Ministry of Natural Resources, the territory claimed by Russia in the Arctic region could be home to as much as twice the size of oil reserves of kingdom of Saudi Arabia. Once inaccessible and impossible to access, the melting Arctic Sea ice makes it possible and unlocks new and alternative maritime trade route for global trade. As the international community continues pushing for economic development and political leverage, Arctic Ocean has ultimately come to the forefront on international agendas, particularly for Russia. As an undeveloped and resource-rich area Arctic region can easily become a source of conflict and competition.¹³

From the above discussion it is analyzed that most of the previously work done by different scholars have been focusing on environment and ecological issues. The work done on the emerging geo-economics and its impacts on regional geopolitics is very rare. The existing literature on Arctic Ocean do not addresses the emerging trends of cooperation and competition in the Arctic region.

Theoretical Framework

It was in the late 1980s when critical geopolitics developed, as the cold war was set to end and the worldwide bipolar order was beginning to crumble around us. Critical geopolitical theorists rejected the classical ideas about the political geography of the Westphalian state

¹² Marc Lanteigne, "The Role of China in Emerging Arctic Security Discourses," *Sicherheit Und Frieden (S+F) / Security and Peace* 33, no. 3 (2015): pp. 150-155, <https://www.jstor.org/stable/26389207> , 152-154.

¹³ Dmitri Trenin and Pavel K. Baev, *The Arctic A View From Moscow* (Carnegie Endowment for International Peace, 2010), 1-11.

order as characterized by borders, infrastructure work, and government power.¹⁴ Critical geopoliticians dispute traditional perspectives on "power over geography" but instead focus on "geographies of strength." It's a discursive strategy by which statecraft experts "specify" international politics in order to describe it as a world marked by particular types of places, peoples, and drama. According to this view of the subject, geopolitics is much more intricate and wide-ranging than conventional understandings of the term suggest. Because geography has so many varied meanings, geography is not the study of geography's influence on international relations.¹⁵

As such, all states have territorial boundaries, and all foreign policy planning and execution is influenced by territory and geography.¹⁶ In contrast to popular belief, geography is an ancient and social form of information about the planet. Reading a book on "geography" was the historical equivalent of looking at a raw physical landscape or "nature." Geography is not nature, despite what many people believe. Geography, on the other hand, is a form of 'earth writing' that is necessarily social and political. Geopolitics, on the other hand, is a study of the geographic meanings and states politics in a given area.¹⁷ Geopolitics is divided into four different categories by school of critical geopolitics for the purpose of conducting pragmatic research: structural, formal, practical and popular geopolitics.

Formal Geopolitics:

The formal geopolitics basically refers to what is commonly referred to as "geopolitical philosophy" or "the geopolitical heritage". Intuitives, institutes, and the forces that form geopolitical thought in specific places and settings are all implicated in this challenge. In international politics strategic scholars and public intellectuals also practice spatializing spaces, they established themselves up as specialists on the sum of the world politics. The strategic thinkers are usually employed in different strategic institutes, while public intellectuals see and survey civil society centers.¹⁸ There are many different historical

¹⁴ Gearóid O. Tuathail, *Critical Geopolitics* (Routledge, 1996), 60.

¹⁵ Gearóid O. Tuathail, "Understanding Critical Geopolitics: Geopolitics and Risk Society," *Journal of Strategic Studies* 22, no. 2-3 (1999): pp. 107-124, <https://doi.org/https://doi.org/10.1080/01402399908437756>, 109.

¹⁶ *Ibid.* p.109.

¹⁷ *Ibid.* p.109.

¹⁸ Ó Tuathail, *Understanding critical geopolitics*,46.

roots, prominent people, and key arguments associated with 'the geopolitical tradition'.¹⁹ In the minds of most policymakers, the 20th geopolitics and culture of considering about statesmanship that commences with Alfred Mahan, Rudolf Kjellen, and Halford Mackinder, as they spatialized geographic space in different way.²⁰

Geopolitical activity and practitioners are omitted in favor of 'geopolitical ideas' in this 'great man' characterization of the practice (though the latter two were both). Geopolitical thinking tends to be more of a Eurocentric and neglects other perspectives, Russian and Japanese. However, it tends to elide key problems about the definition of geopolitics and the link between geopoliticians as statecraft thinkers and the power structures that characterize their state, its national politics and culture capital in particular. In spite of the fact that critical geopolitics challenges notions of "the geopolitical tradition", it involves with the thinkers, institutes, and texts of this practice and its antiquities. Geographical characters are contextualized and the textual tactics they employ are dissected in critical geopolitics. Conventional geopolitical usages of classic geopolitical personalities often overlook the environment in which they lived, ignore the trickles down in their works, and ironically use their theories to seal off any openness to spatial difference, to put it another way, critical geopolitics attempts to reconstruct the territory and geopolitical of 'geography' Instead of celebrating the so-called "timeless insights" of certain geopolitical gurus, critical geopolitics aims to restore the geography and geopolitics behind "geopolitical philosophy."

Practical Geopolitics:

For Gearóid Ó Tuathail, practical geopolitics refers to the way specialists of statecraft including, politicians, statespersons, and military commanders spatialize any space. They (intellectuals of statecraft) are the one who deals with everyday behavior of foreign policy in the international politics.²¹ Official geopolitical reasoning should be distinguished from the more pragmatic kind that foreign policy decision-makers use in their daily work. To make sense of the world, policy choice use optimized and efficient geopolitical reason, implicitly using inherited forms of historical knowledge to frame specific questions and explicitly deploying culture spatial ideologies to understand certain phenomena. Common

¹⁹ Ibid. p.112-113.

²⁰ Ibid. p. 110.

²¹ Ibid. P. 46.

sense geopolitical reasoning can be found in everyday conversations.²² As part of the conditioning of individuals into certain 'national' identities and geographic/historical human consciousness, it is taught in higher education institutions. In popular political culture, it is widely propagated since it is ordinary and 'common sense' geopolitics. As a result, some foreign policy concepts and actions are based on ethnocentric, stereotyped, and formulaic knowledge of the world. While basic logic geopolitics can be useful, it is not always the best geopolitics.

Foreign policy's daily practice of geopolitics is referred to as "practical geopolitics". Myriad damage was done to regional and European security as a result of the US foreign policymakers' use of the geographical concept of "the Balkans" during the Bosnian Civil War. It is instructive to study the influence of "Balkanization" on American foreign policy inconsistencies towards the separation. The Balkans section of the ABC News website opens with the following statement: 'Balkan Powderkeg' has a variety of explanations for its volatility. Historians attribute the region's instability to a variety of factors, including disagreements over resources, historic animosities, and the interference of Great Powers. Geopolitics, on the other hand, can provide valuable information. Although many ethnic groups speak similar languages and have similar origins in the Balkans region located south of the Danube, it is made up of sparse fertile valleys that are divided by high mountains.

Structural Geopolitics:

Structural geopolitics is basically the study of lead to the accumulation and leanings that influence how states conduct foreign policy. The dynamics consist of globalization, informationalization, and the proliferation of risks released by our technological-scientific civilization's accomplishments around the globe, as already mentioned. There were already major shifts taking place in international politics prior to the end of the Cold War in terms of the spatiality as well as temporality of world politics. One way to describe globalization is as a collection of cultural and economic impulses which bring together and link together the world's greatest economies, dissolving the ability of any one state to fully control and accomplish its own financial destiny. Today most of the effects of globalization can be seen in financial markets, where the "creative destruction" released by free transnational

²² Ó Tuathail, Understanding critical geopolitics, 114-15

finance has led to significant explosiveness and insecurity in the international economy. Western political theory has been concerned with the political impacts of geography particularly temperature, terrain, fertile land and proximity to the sea since the ancient Greek era, when thinkers such as Aristotle wrote extensively on the subject. To comprehend that how innovative industrial capabilities of communication, transportation, and destruction, such as railroads, steamships, airplanes, radio, and explosive would interact with the largest-scale geographic landscapes of Earth, geopoliticians sought to understand how they would form the character and place of practical security components in the emerging international system. A new era in international politics was expected to be marked by the closing of borders, larger territorial units, and fierce interstate conflict.

Popular Geopolitics

Geography developed and contested in popular culture is called popular geopolitics. "National identity and geopolitical visions," as Dijkink describes them, are socially constructed and maintained.²³ A critical geopolitics can assist deconstruct traditional geopolitical ideas and notions in common and political culture, which is relevant to policymaking. 'Ethnocentrism' pushes strategic thinking to accept the power of ethnocentrism because of its awareness to regional variation and evaluation of it. As a result, critical geopolitics is aware of how time-space compressed technologies, such as global media networks, have transformed the strategic significance of places in the era of global information. When pictures of genocide and chaos are constantly projected from the region through television networks and media sources by West, even seemingly insignificant geopolitical place like Bosnia can converted to representatively strategic after some time.²⁴

Critical geopolitics look through a constructivist point of view at geopolitical imaginations and geopolitical identities, i.e., the hypothetical spatial location of individuals, territories, states and the adjustments following this positioning, as well as at the very buildings and social consequences. Right from the outset, the idea of the dialogue was the center of

²³ Gearóid Ó Tuathail, "(Dis)Placing Geopolitics: Writing on the Maps of Global Politics," *Environment and Planning D: Society and Space* 12 (1994): 525–46.

²⁴ Joanne Sharp, "Publishing American Identity: Popular Geopolitics, Myth, and the Reader's Digest," *Political Geography* 12 (1993): 491–503.

critical geopolitics. The ideological mechanism of building geographical, political, and cultural borders to distinguish the domestic space from the intimidating others is regarded as geopolitics. These historically rooted effects in strategic creativity would be attempted by vital geopolitics. The study of geopolitical discourses is indivisibly related to critical geopolitics which studies geographical factors and factors which influence the world and international politics. Sensitive geopolitics primarily focuses on documents, speeches, and papers widely known as “texts” investigate their plot and vocabulary characteristics and interpret rhetoric.²⁵ Critical geopolitics studies and describes behavior by which state intellectuals send international politics geographical and spatial characteristics, representing the "worlds" characterized by those forms of places ("placements") connected to a certain identity (dialectical connection of space and space).

Critical Geopolitics of 21st century Arctic Ocean

The 21st century Arctic geopolitics can be best explained through the lens of critical geopolitics. As the ice of the Arctic is thawing, the region is opening up to various commercial activities along with important new trade routes. First and foremost, strand of the critical geopolitics in paly in the 21st century Arctic Ocean is structural geopolitics. As global warming and climate change is increasing, the geography of Arctic region is altering from a frozen and unaccusable region to an important geoeconomic landscape. This structural change has significantly influenced states policies and standpoint regarding Arctic Ocean. Similarly, all the states and non-state actors have represented and spatialized the melting Arctic region from their own standpoint. Some states are politicizing the region from economic (resource hub) and environmental point of view, while others in their policies and in practice have labeled the melting Arctic region threatening to their identity and national security. On the other hand, extra regional actors are spatializing the Arctic space as a global common, where all the states have equal rights and duties.

In international politics role of policy makers is of immense importance (Practical Geopolitics), and Arctic is not an exception. In Arctic’s geopolitics all the actors regional as well as extra-regional actors are in pursuit of spatializing the region as per their understanding and national interests, for example, China has categorized itself as “Near

²⁵ Haim Yacobi, “Towards Urban Geopolitics,” *Geopolitics* 14, no. 3 (2009): pp. 576-581, <https://www.tandfonline.com/doi/full/10.1080/14650040802694091?scroll=top&needAccess=true>.

Arctic state” and is more interested in the geoeconomics of the region. Russia on the other hand is portraying the region in such way so as to attract foreign investment and to established its firm control on the NSR. USA is more focused on the security aspects in its Arctic strategy and the statesman in Washington have called Russia an aggressor and growing Chinese presence as a security threat to their national security. While Canada prefer to use the term “High North” rather Arctic. Moreover, Canadian policy makers have excessively used the word “Canadian Northwest Passage” instead of NWP, so that to convince the world that the passage is its internal water ways and therefore any voyage through NWP is subjected to its permission.

Formal geopolitics is also playing an imperative role in influencing the geopolitics of Arctic by influencing states policies. Intellectuals and academia have also spatialized and represent melting Arctic from different angles. While some are constructing the melting region as “Cold Front” and its geopolitics as competitive still others are spatializing Arctic as resource hub and a more cooperative region. Popular media (Popular Geopolitics) is also playing an important role in the 21st century Arctic geopolitics, such as constructing myths like resource war, land grab, Arctic boom, which ultimately influence the politics of Arctic region. Similarly, misconception about Arctic geopolitics has been portrayed by popular media, such as new Cold War etc. Furthermore, Russia has been portrayed as an aggressive player in the Arctic region, similarly Chinese policies have been fabricated as threat to the national security of the US by the western media. Critical geopolitics point that geographical factor are not the solitary factors which influence national, international and regional politics, several other factors also influence international politics, and we must take those into consideration. In Arctic geopolitics climate and changing geography of Arctic are not the only factors that influences states policies and behavior but several other immortal factors like presence of indigenous people and civil society also play an important role in the shaping 21st century Arctic geopolitics.

Research Methodology

In this study descriptive-analytical methods of research have been applied. The study employs qualitative methods of research. The study has used three variables; dependent, independent and intervening variable. For the undertaken study, Arctic Ocean itself is

independent variable while the geo-economic of the region is dependent variable; similarly, the geo-politics of the region is also dependent variable as geo-economics of the region shape the geo-politics of the region. Extra regional actors are the intervening variables in this research.

A comprehensive literature review has been done in the study for which the collection of data was through primary sources including interviews and states officials Arctic strategy documents and secondary sources including published reports by national and international research journal, think tanks, research papers, researcher articles, news, news articles, journals, books, reviews, internet, web sources and social media contents.

Significance of the Study

The Arctic Ocean Region is getting attention of the international community as it is emerging as a center for geo-economics that would shape and affect the geo-politics of high north. This study is investigating the emergence of geo-economics in that specific area and its impacts on regional geo-politics. In the undertaken research, the presence of extra-regional actors has been focused with their effect on the geo-economics and politics of the Arctic along with in-depth analysis on the possibilities of all the possible scenarios emerging from the melting Arctic Ocean.

The research is beneficial for the future researchers by providing them the essential knowledge about the changing patterns of the Arctic Ocean region and its worth in terms of geo-economics and how the emerging geo-economics of the region is affecting the geo-political scenario of the high north. Moreover, the research is valuable for academia, researchers, students and practitioners to gain the insight about the region along with the changing patterns of geo-politics coupled with geo-economics.

In 20th century, states were more concerned with obstacles to the transpolar flights concerning the North America and the Far East which were removed with end of the Cold War. The transpolar flights not only reduced the fuel cost but also shortened flight time between the two continents and had an enormous impact on air traveling. In twenty first century, states are more concerned on issue of transpolar trade routes via sea. Today almost 80% of world trade is made by the seas most of which is between highly developed states

of Europe and developing economies of the East Asia. Currently states are using the Suez Canal and Panama Canal which have their own implications. With increase in volume of sea trade and maritime traffic, it has become more important for states to develop new maritime trade routes.

As the ice of Arctic is thawing, states are looking forward to take advantage of changing regional conditions both in terms of natural resources and also for transpolar trade routes that would be connecting Europe with Asia-Pacific. The melted Arctic will open new vistas of development, competition, and conflict among the actors having stakes involved in the region. The shipping routes which were once unthinkable across the Northern Pole would become reality further providing impetus to the global flows.

Delimitation

The undertaken study analyzes the emerging geo-economics of Arctic Ocean Region and its impacts on the regional geo-politics; nevertheless, the study doesn't address dynamics of environmental issues and legal complexities of the Arctic Ocean Region in detail.

Organizational Structure

Introduction of the study is comprising of proposal including the research methodology, theoretical framework, and is explaining main subject matter which also give an oversight of the whole research work.

Chapter One "Historical Background of Arctic Ocean Region" explains the historical background of the Arctic Ocean. Moreover, the chapter discuss the significance of the region during the Cold War era and in the 21st century.

Chapter Two "Emerging Geo-economics in the Arctic Ocean Region" explains the emerging geo-economics of Arctic region and its pros and cons. It also covers the impacts of transforming Arctic on regional geopolitics. Moreover, the chapter explains the emerging trade route, their current status of these routes as well as their impacts of global flows. This chapter also covers the issues within these routes and the possible challenges of legality and the possible environmental hindrance to the transpolar trade routes and other natural reserves of the region.

Chapter Three "Regional Actors in the Arctic Ocean Region" this chapter of the study

explains the national strategies and states priorities of all the eight Arctic states in the region. Moreover, it explains how the opening of Arctic Ocean and other factors, including economy, identity, etc. has influenced states policies in the 21st century Arctic.

Chapter Four “Extra Regional Actors in the Arctic Ocean Region” this part of the study discusses the interests and national strategies of extra regional actors in the Arctic Ocean.

Chapter Five “Arctic Ocean Region: A Zone of Cooperation or Competition” discusses the possible outcomes of the Globalized Arctic region.

Conclusion of the study gives an overview of the entire study

CHAPTER ONE

HISTORICAL PERSPECTIVE OF ARCTIC OCEAN REGION

In the 21st century international politics, global flows are of immense importance for free and uninterrupted movement of information, goods and people across national boundaries. During last few decades, world has been swiftly shrinking because of faster forces of globalization. The swift technological development has empowered growth of transnational interaction, notwithstanding irregularly this development has caused sever changes not only in terms of accelerating the climate change, but changes has also been occurred in the contemporary geo-politics of the Arctic region. Therefore, in new millennium it is conceivable to say that state-centric and old-fashioned territorial geopolitics is revamping towards, and challenging with growing geopolitics of global flows. Such changes in geo-politics highlights the mounting significance of efficient and transcontinental linkages of global flows, which not only enter to the sovereign territorial spaces of states but it also depends on extra-territorial and self-determining spaces, to be precise the “global commons”.²⁶ So, it can be safely said and argued that these world affairs cannot stand in zone of isolation. State actors are compelled to interact and take into account not only their domestic affairs, but also have a serious look at regional and international level changes especially in terms of rising and increasing trans-national geo-economics and geo-political activities and their inevitable impacts.

This chapter is organized into three parts, constituting: 1. Global flow, 2. Exploration of Arctic from Historical Perspective, 3. Post-Cold War Arctic, explained in the following sections.

1.1 Global Flows

This section explains global flows and its role and significance in the 21st century geopolitics, with a special focus on global flows in the maritime domain. Moreover, the section also covers interdependence and global flows.

The term 'global flows' means transnational trade activities, exchange of services, international financial moves, energy supply chains, intra-continental heads, and rise in level of immigrants in this globalized world. Free and uninterrupted movement of these

²⁶ Mika et al., *Towards the Geopolitics of Flows*, 2-3.

global flows is extremely important for both regional and extra-regional actors to survive, and any sort of disruption in the global flows will have serious repercussions for international political economy. Moreover, global flows are important to regional and world orders as they are based on and shaped by these flows. Global flows take place in a hub and spoke motion dynamic. That is to say that movement of goods, people, and other services segregates quarters depends on their capability to performance as hubs and relay on a junction for outlining global activities, including resource, international trade and financial flows in any region. Maintaining the consistency and intensity of global flows is a crucial gauge not only for any area's economic growth but for nationwide political strength.²⁷ Any kind of distraction in the dynamics of global flows in any region would lead towards chaos in international trade on global scale. Therefore, command and control of those areas, where these flows take place is of greater importance for any states.

In 21st century, emerging and strengthening forces of global flows are of great importance as it shapes and defines geopolitics. That is why there is dire need to shift away from traditional geopolitics of sovereign states to a more vibrant geopolitical interdependencies. Today all sovereign states are dependent on free and uninterrupted movement of global flows across the globe. When discussing global flows maritime domain cannot be ignored at all, as most of the international trade in the 21st century is accomplished through important maritime corridors. These maritime corridors are essential for smooth and steady flow of global trade, energy, resources and for security of numerous coastal countries. Today patterns of liquefied global flows are challenging the older geopolitical models of security and power in the international system. These new signifiers of power and security are strengthening day by day due to the increasing dependency and connectedness of states and societies on inclusive movement in the system. This revolution brings circumstances for-instance, security of supply chain, security of flow and resilience into center stage. In the age of global flows geo-economic certainties are increasingly interlink with older ideas of security. In such scenario the traditional security challenges have not disappeared instead have attained new connotations in a more converted perspective.²⁸ Global flows not only affect states' economies and societies, but this transformation also challenges state's

²⁷ Mika et al., *Towards the Geopolitics of Flows*, 29

²⁸ Sami Moisio, and Anssi Paasi "From Geopolitical to Geoeconomics? The Changing Political Rationalities of State Space". *Geopolitics*, 18 (2): 267-283. (2013)

identity and status. Where regions and sub-regions like Arctic are interconnected to the global flows, both political geography and territory are considerably changed and has become redefine as portions of developing inclusive hub-and-spoke configuration instead of their old-fashioned national and regional perspective.

With the end of Cold War, the occurrence of inter-state war has declined worldwide. This decay is frequently credited to the extent of independent political systems (Democracy) and to the mounting interdependence among actors in the international system. Particularly, people in Europe believe that the ever-increasing integration has played a key role in avoiding inter-state war. Moreover, the structure of European Union's common institutions is said to be a central pillar for outflowing the pace from old-fashioned map of geopolitics and zero-sum games in the 21st century.²⁹ The interdependency has emphasized and highlighted emergence of new geo-economic and high-tech dynamics as an additional reality, which has redefined a tougher geopolitical reality. However, traditional geopolitical competitions among states are still important and co-exists with patterns and trends of geoeconomics and global flows.³⁰

The current shift concerning the geopolitics of flows already impacted the threat magnitudes in various states, specifically USA, these includes concepts, development of competency and future tasks of defense and security sector. Here the inclusive interdependency appears to suggest the prominence of acquiring key international and regional flow hubs, containing economic, information, commercial and military (military power projection) movements around the world.³¹ Subsequently, the most recent strategic documents coming from USA and NATO member states have highlighted the importance of global flows and global commons, opposing to stabilizing conflictual societies, global common and global flows have been turned as essential element for survival and for working of existing world order.³² Therefore, it has become important for states to maintain a secure, steady and consistent access to those important points, where global flows take

²⁹ Edward Luttwak, Edward "From geopolitics to geo-economics: logic of conflict, grammar of commerce", *The National Interest*, 20: 17–24. (1990)

³⁰ Deborah Cowen and Neil Smith, "After Geopolitics? From the Geopolitical Social to Geo-Economics," *Antipode* 41, no. 1 (January 2009): pp. 22-48, <https://doi.org/10.1111/j.1467-8330.2008.00654.x>.

³¹ United States, *National Security Strategy*, The White House, 2010.

http://www.whitehouse.gov/sites/default/files/rss_viewer/national_security_strategy. Pdf

³² White House, "*National Security Strategy*," 2010.

place, for example, it is a matter of survival for all the East Asian and South Asian states to have access to both strait of Hurmuz and Suez Canal as both of these are important for securing energy and trade activities.

In comparison to the traditional international order, acquiring of secure access to global flows in 21st century, pose several internal and external policy challenges for countries. The overall tendency is that the old policy solutions used by states, including national self-reliance are unproductive, when dealing with global motilities and flows. For sure, in the age of geopolitics of flows territorial states will remain an important actor but their role and meaning will definitely change.³³ In such scenario, states will likely to remain an important player, when it comes providing security but still focus is expected to emphasize (in)security of flows rather than complete national territory.

1.2 Global Commons

The term “Global Commons” are domains or areas which are resource enriched and are lying in the freestanding area, to which the political reach of a particular state is refrained are termed as global commons. The most notable of them are the High Seas, Outer Space, Atmosphere, and Antarctica. Mostly these areas are steered by the absolute norm of common heritage of mankind, and the open access doctrine. Although, many of the governments and individuals have tried to establish their rights for gaining exclusive access to the global commons but the global commons have always endured exception as international law defines global common.

Traditionally, the transit to these essential global commons have remain complex but states have never been scarce to justify the attempts of attaining explicit control of these areas. However, the modern-day advancement in technology has made access to these resource domains easier eventually leading to an increase in activities in these resource rich areas but in many ways there is lack of proper legislation for regulating their usage. Antarctica, one of the coldest regions covered with snow is facing the issue of environmental degradation due to the humanelly induced factor of pollution, which is eventually leading to global warming. Moreover, the free access of high seas permits the littorals to dump waste and over fishing which are further exacerbating the hazard to marine life and is contaminating water. The depiction of this trend will most likely worsen the already disturb

³³ Mika et al., *Towards the Geopolitics of Flows*,29

state of affairs if the current trend prevails. The current trend of environmental degradation will also have distressful effect on sustainable development and poverty alleviation if not timely curtailed.

In essence the global commons are of vital interest to global governance as it mainly focuses in the resource diversity and commonality. The division of global commons rarely are prone to making controversy but the issues like how to identify a global common and which are the rules to be applied over it draws real concern.³⁴ However, the two common approaches shapes the regulatory behavior of discourse –“the tragedy of the commons” (TOC) which basically aims at inferring the global commons are overly intimidated in the dearth of regulation whereas the common fears vestiges unaddressed and ‘common heritage of mankind’ (CHM), which imitates idea that some resources go to all manhood including forthcoming generations, for which every individual without any refinement or favors have to stand by recognized rights and responsibilities.

Both of the concepts tend to point towards sharing and preservation of resources but are different from one another in some way. TOC asserts that if a source in common area it is not to be withheld while the CHM asserts that no community should be refrained from using it. Above all, TOC is mostly concerned with having private enclosure and is aimed at fostering the public regulation while the CHM beefed the supports the regulation to distribute costs and benefits but is severely against the enclosure of commons.³⁵

1.3 Interdependence and Global Flows

The global interconnectedness and inflows occur at the exclusively common zone which are beyond the independent control and dominion of a specific entity. These customary “global commons” comprise inter-national airspace, space, high seas, and the novel human-made cyberspace. These global commons are of vital interest to the endeavors of global world order, in fact they are very pressing that whole of the world security and commerce is linked with these. In a sense, global commons establish arteries that empower delicate states of global connectivity and circulations of the US-led liberal world order.³⁶

In the current era of modernization, security and control of these global commons are very

³⁴ Surabhi Ranganathan, “Global Commons”, *European Journal of International Law*, 27, No 3, (August 2016), Pp693–717, <https://doi.org/10.1093/ejil/chw037>

³⁵ Ibid. p. 694.

³⁶ Mika et al., *Towards the Geopolitics of Flows*,4.

pertinent to the interest of world powers i.e., USA, to integrate the world interconnected and interdependent. The US in this respect has not only defined the global commons but has made sure that a secure access to commons a core interest of their national security, as the global security is ever more dependent on free and uninterrupted flows of goods and services transported through sea and air. Seeking the geostrategic importance and economically imperative for US, it has started to seek the protection of these commons and will continue to lead the world, together by firming international norms of liable behavior and by upholding pertinent and interoperable military competences.³⁷ Similarly, all the other states have also emphasized the importance of these commons in their national strategies.

1.4 Global Maritime Common

The evolution of 21st century has given a lot of weightage to the maritime domain, where most of the global flows take place. As most of the maritime flows of trade and energy in specific travel along a partial number of extremely choked and easy to upset maritime trade routes: these routes includes, eastern corridor which is extending from South and East China Seas via Malacca Straits and connect with the Indian Ocean, connecting with other traffic bound for Europe; second is southern corridor, which connect Mediterranean sea with Gulf of Suez, Red Sea and Gulf of Aden, where it connect with Arabian Gulf and East Asia; and a western corridor, molding a varied arc over Atlantic to connect Europe with Americas. In the new millennium, a new maritime route is developing in Arctic Ocean Region called as northern corridor, this runs beside Russian Arctic coast and via the Bering Straits into Pacific Ocean which could take on alike geo-strategic importance for a number of international players both in the West and in developing East. Furthermore, a more shortened route is developing along the Canadian archipelagos in the Arctic Ocean to connect western and eastern coasts of Americas.

A new transformation in maritime domain is being seen along with the advancement. Historically the maritime domain has always been dominated by US despite being challenged by USSR and other powers. However, within the new world structure a transformation in the form of China's emergence is being seen and the consensus is evolving that it has got the ability to topple US and have got the tendency to make the

³⁷ Aaltola, Critical Maritime Infrastructures, P-4.

maritime settings complex by reinvigorating the previous non dominant powers. However, there are numerous factors that are adding on to the already complex situation of maritime domain. Top of the line is “rise of the rest” which has consequently diffused the maritime power. Since last decade there are number of powers which have not been so influential power like China has started to resurge and are aiming for transforming the regions by instigating economic projects and by relying on soft power. Most importantly numerous non- traditional powers have also enlarged “anti-access and area-denial (A2/AD) capabilities” which has raised a mark over the future of maritime domain. The expansion of territories has also jeopardized the nations along the international waters. This “re-territorialisation” of seas may become challenging viz-à-viz global movements and their liberty, steadiness and assuredness. Thirdly, maritime environment is gaining importance from commercial perspective, particularly due to impulse of feat maritime assets, including deep-sea energy reserves, fisheries, and minerals.

This section of the study first defines the Arctic Ocean Region and then explain the historical exploration of the region in different time period.

1.5 The Arctic Ocean Region (AOR)

The word Arctic denotes an oceanic geography along the North Pole and Arctic Circle partially roofed in sea ice and enclosed by frozen lands. The word derived from a Greek word “arktikos” which characterize the country of great bears, particularly denotes rally Ursa Major which early Greeks could perceive in North.³⁸ The notions have got multiple meaning until it is named as North Pole. Arctic basically comprise of two distinctive zones, Arctic Ocean and Arctic region (see map1). Arctic Ocean is the area which is fenced by five independent states, while the Arctic region encompasses all of the states which are somehow connected to Arctic Circle. However, there hasn’t been an agreed definition over the description of Arctic region, while the population ranges from 4 to 10 million depending on geographic extent considered.³⁹ The Arctic presently crowds some four million population of aboriginals - descendants of those first Eskimos - which are dispersed in minor groups inside boundaries of Arctic adjacent states.⁴⁰

³⁸ Hugo Ahlenius, Kathrine Johnsen, and Christian Nellemann, eds., “Vital Arctic Graphics - People and Global Heritage on Our Last Wildshores” (UNEP, 2005), 6-16.

³⁹ Ibid. p. 6-16.

⁴⁰ Alexandre Piffero Sophr et al., “The Militarization of the Arctic: Political, Economic and Climate

1.5.1 Geographic Delimitation of Arctic Ocean

The Arctic is tended to be known as northernmost expanse on Earth, covering about eight percent (1.5) of global trajectory. The trajectory is enclosed by Arctic Circle (parallel of latitude 66°33'N) with the inclusion of frozen Arctic Ocean and adjacent lands and seas in the area. These adjacent domains are parts of Eight Arctic (A8) contiguous countries: Finland, Iceland, Norway (via Svalbard archipelago), Canada, Denmark (via Greenland), Sweden, The Russian Federation, and the United States of America (USA) via Alaska.⁴¹ Climate in this region is categorized as glacial, with cold and long winters, where temperature can drop up to -50°C.

Arctic Ocean didn't hold a specific delimitation as it is surrounded by different states which have deduced their own areas according to their national interest. However, the most recognized definition of Arctic Ocean is Arctic Circle which is delimited by Arctic region. By this definition, smeared also in Arctic Council (AC), "Arctic includes all areas north of Arctic Circle and associated Eight Arctic (A8) states, i.e., Canada, Denmark/Greenland, Finland, Iceland, Norway, Russia, the United States and Sweden".⁴²

Furthermore, Norway is the only country in Arctic which uses the word High North over Arctic in its strategies. Yet, the policy notes that "the High North is not precisely defined" and that it embraces Arctic Ocean and the broader circumpolar region, but worldwide the terms "High North" and "the Arctic" are commonly used interchangeably for the region. Moreover, it states that "in political terms, it includes administrative entities in Norway, Sweden, Finland and Russia that are part of Barents Cooperation".⁴³ Despite of all these particularizes made by some of Arctic states, the fact that they embrace the definition of definition of Arctic Ocean Region by Arctic Circle.

The following section explains the exploration of Arctic Ocean throughout history.

1.6 Arctic Ocean from Historical Perspective

Almost all of the oceans have witnessed the bloodshed in wars, in fact it is impossible to

Challenges," *UFRGS Model United Nation Journals* 1 (2013): pp. 11-70, <https://www.ufrgs.br/ufrgsmun/2013/wp-content/uploads/2013/10/The-Militarization-of-the-Arctic-Political-Economic-and-Climate-Changes.pdf>, 11-12.

⁴¹ Alexandre Piffero Sophr et al., "The Militarization of the Arctic: Political, Economic and Climate Challenges," 2013, 11-12.

⁴² Sweden, *Sweden's Strategy for the Arctic Region*, Sweden's Ministry for Foreign Affairs, October 2011, 11

⁴³ Norway, *New Building Blocks in the North*, Norwegian Ministry of Foreign Affairs, October 2011, 7

figure out that how many people had lost their lives and livelihoods and how many of them have survived the wars, but there is an exception that is Arctic Ocean. Arctic being the latecomer to the international politics has least witnessed wars as it was in the north which is mostly cold and the temperature goes down to an unbearable height thus making it inaccessible for most of the states and for most of the times it has remain away from trade and population inclusion and political vitalities. The world map made by Niccolò Zeno's in 1558 drafts a south western coast of Greenland but not the northern pole. Afar this point, Atlantic Ocean is merely designated *mare et terra incognita*.

This state of affairs lasted longer than it did in most other parts of world, well into interwar period of twentieth century, vast areas of Arctic were still geographically unexplored.⁴⁴ The area north of continental land masses of Arctic region was largely a home for adventurers and visionaries for several centuries, who merely succeeded in attaining attention from those in power.

1.6.1 Primordial Explorations

In the whole course of history, Arctic region remains the most explored region by nations. One of the most notable and very first marine explorers to come along the Arctic was Greek Pytheas who had come in 330 BC. He was in fact an astrophysicist who had established a technique of calculating latitude by estimating the shadow of a vertical pillar. On the basis of this research, he started to steer towards the Icelandic and Norwegian region, hence became the first person to term Midnight Sun phenomenon and polar ice.⁴⁵ Then it was explored in Viking age by Scandinavian warriors and traders between the 8th and 11th centuries.⁴⁶ Along the course of this time Arctic region remained the colony of Viking. The most obvious reason of the expansion was the exploration of new routes, altogether with likelihood of great extension of Viking population as compared to the size of Scandinavian Peninsula.

1.6.2 Modern Explorations

The 12th century in Europe has witnessed immense and rigorous change with urban improvement and trade resurrection. Mainly this period is characterized by population and

⁴⁴ Stavridis, *Sea Power*, 37.

⁴⁵ Alexandre Piffero Sophr et al., "The Militarization of the Arctic: Political, Economic and Climate Challenges," 2013,12.

⁴⁶ Jesse L. Byock, *Viking Age Iceland* (Penguin Books, 2001).

trade beef up which had entirely changed the dynamics of Europe from a war-torn region to a progressively developed continent. In this scenario of development and progressing trade, maritime commercial trade route got currency and have become vital to the interest of great powers.⁴⁷ However, European got attracted by the naturally bestowed reserve to India and thus have started to colonize the Indian subcontinent for preserving the hydrocarbons and for connecting them to Atlantic and Pacific Oceans. In the subsequent centuries many expeditions were made for the exploration of routes and natural reserves. The first ever and the most notable trip was of John Cabot above the mainland of North America, this trip was sponsored by English ruler Henry VII.⁴⁸ Cabot got the permission of finding the route to China but got fail and unfortunately landed on island of Newfoundland, in present day Canada. Likewise, in 1576 Martin from England got the permission of finding route to the orient by Russian northern coast, he did it for three times but did not get success in discovering new routes.⁴⁹

In the opening of seventeenth century, the natural reserves of Arctic started to get exploited by major power due to the lack of legal regimes and legislation.⁵⁰ The exploitation has further led to the fierce battles between the powers for getting exclusive control. The skirmishes usually involve the hunting right of whales and over the sealing and levying of taxes over hunters and traders. The state actors from rimland who got to go conquering the north was majorly inspired by explorers and scientists.⁵¹

1.6.3 European Arctic

When states from different regions started to engage with north it started to impact different areas of north. Since 17th century, Svalbard archipelago was first part of north which was recently discovered and got effected by European powers who contravened brutally over space and resources. The English Muscovy Company fixed it all in gesticulation when it hurled first major hunting voyage to Svalbard early in that century which was then followed

⁴⁷ Alexandre Piffero Sophr et al., "The Militarization of the Arctic: Political, Economic and Climate Challenges," 2013, 12.

⁴⁸ Richard Sale and Eugene Potapov, *The Scramble for the Arctic: Ownership, Exploitation and Conflict in the Far North*, (Frances Lincoln Limited, London 2009), 80.

⁴⁹ Ibid. p. 80.

⁵⁰ Ibid. p. 80.

⁵¹ Rolf Tamnes and Kristine Offerdal, *Geopolitics and Security in the Arctic; Regional dynamics in a global world*, (Routledge Global Security Studies, 2014), 14.

by France and Netherlands.⁵²

The swift and quick development of whale, Seal and walrus in waters along the archipelago had instigated many battles among the powers and residents. However, with the death of Danish king Christian IV in 1648 Svalbard learnt the status of *teera nullius* which lasted till 1920s and was recognized as Svalbard Treaty which has vitalized the full Norwegian control of archipelago. The Russian presence was limited, and Russia made no attempt to get involved in early confrontations over Svalbard.⁵³

1.6.4 North American Arctic

North American Arctic was deeply monopolized by the English interest; they even had given monopoly of trade to Hudson's Bay Company which also tends to be the Defacto govt. till the govt. laid right over the state's territory. However, in the beginning of 1867, Canada gradually started to footer power and have acquired full control over its foreign policy in 1931.⁵⁴ The Canadian over the north Arctic remained fundamentally nonexistent in the nineteenth century and varying for considerable of the twentieth, though it bred sturdier over time. The Russian colonization of Alaska in 18th century had prompted Spanish shots for asserting right over the areas. However, in 1819 Spanish government had formally transferred the claims of areas to America, and the confrontation between the Russia and the United States and between Russia and England were made complicit by a chain of treaties in 1820s.⁵⁵ The "Alaska purchase" in 1867 is significant for many reasons, the determination of US Secretary of State William H. Seward to thorough what the American public measured a highly unpopular purchase is one more example of the role of quixotic individuals in Arctic politics. The lack of purchase capacity from US and the swift relinquishment of territory from Russia demonstrates the trifling role of the Arctic in the policy of the two countries.⁵⁶

1.6.5 Explorations of Arctic Ocean in 20th Century

The 19th and 20th century were the phases of economic transformation in the region, the industrial revolution took place entirely changed the scenario of politics. The

⁵² Ibid. p. 15-16.

⁵³ Tamnes and Kristine, *Geopolitics and Security in the Arctic*, 15

⁵⁴ Ken S. Coates, P. Whitney Lackenbauer, William Robert Morrison and Greg Palearctic Front. *Defending Canada in the Far North*, (Thomas Allen Publishers, September 2010), 7-11

⁵⁵ Ibid. p. 7-11.

⁵⁶ Tamnes and Kristine, *Geopolitics and Security in the Arctic*, 15-16.

confrontations from the getting control of energy rich countries shifted towards securing the factors of production for instigating the growth of products. The development of technology has further added to the swift adoption of trade and increase of production. The most noteworthy contribution for exploring the Arctic was the work of an English geographer Halford John Mackinder, he is characterizing for giving one of the important theory “heartland theory” in which he asserted that “geographical pivot of history” is situated along the north center of the Eurasian continent, backing the Russian territory and encompassing up to the coasts of Arctic Ocean. According to Mackinder “this region contained large quantities of natural resources and the country that controlled it would be able to, in the first place, develop a powerful terrestrial hegemony and, also, canalize means to build a maritime power.”⁵⁷ Furthermore, this region is going to write the history with unique capabilities, since then the Arctic quarrel grew a new strategic nature and countries progressively devoted in it.

1.6.6 The First World War

The Arctic space was used for the first time in large during the First World War. It was used for military-strategic purposes when the Germans brought the war against the Allies maritime supply lines. It was in the first WW when Western allies dispatched large convoys carrying supplies to Russia through the North Atlantic and the Barents Sea in the ports of Arkhangelsk precisely. The port of Murmansk which at that was ice free required by German control over the Baltic region and Turkish control on the entering point of Black Sea. The convoys carried a number of cargos which included some 700,000 tons of coal and about 500,000 tons of general cargo. Mostly, weapons and other deliveries were conveyed in 1915 and in 1917, which were some 2.5 million tons from France, USA and Britain.⁵⁸

Nevertheless, a military confrontation in Arctic waters was limited compared to the scale of operations in the major theatres further south. There were no conflicts over Arctic territory. In the first year of the war, the harsh natural conditions were a bigger threat to Allies' shipping than the enemy's activity. Despite the fact that some German mines laying in the approaches to the White Sea in the summer of 1915 and German submarines were

⁵⁷ Tamnes and Kristine, *Geopolitics and Security in the Arctic*, 15-16.

⁵⁸ Paul G. Halpern, *A Naval History of World War I*, (UCL Press, London 1994), 135

working off the coast between North Cape and Murmansk in 1916 but only 3 percent of the cargo was lost.⁵⁹ The 1917 October Revolution put an abrupt end to these transports. It was followed by a half-hearted Allied intervention in northern Russia that was initially to prevent stocks of Western-supplied weapons, equipment, and raw materials from falling into German hands.⁶⁰

The Soviet regime which assumed power in 1917 thought of British Empire as one of its most conflicting enemies and visualized no prospect of renewed strategic cooperation between them. The Arctic was low on the agenda of Soviet priorities due to a heavy emphasis on ground and air forces as the backbone of its defense in military-strategic terms. In the following years of the Revolution, there was virtually no Russian naval presence in Barents and White seas, along with limited land and air force. The early success of the Soviet industrialization program created a material foundation for the rebirth of the navy. From the mid-1930s, Stalin introduced ever more ambitious plans for the development of Soviet naval power, and by the late 1930s, envisaged the construction of a blue water navy that turned the Soviet Union into one of the world's major naval powers. Little of these grand plans had been realized after war broke out in Europe in 1939. However, due to the Soviet Union increased military presence in the north, in 1933, Northern Flotilla was set up with bases in Kola inlet, and four years later it was renamed and upgraded to Northern Fleet. At the outbreak of war in 1939, Northern Fleet was still limited in size, and its main operational task was to support the operations of the army and protect internal Soviet Sea lanes of transportation along the Siberian coast, which was called the Northern Sea Route by the Russians.⁶¹

In the early 1930s, the key element in bringing supplies to and from the Russian European Arctic was building (by concentration camp inmates) of White Sea Canal linking area with Soviet Karelia and ultimately with Baltic Sea. The canal was initially meant for vessels between the Baltic and White Sea, but these plans were soon discarded in favor of a less ambitious project, ultimately reducing the canal's military and strategic significance. This shows that the Soviet government focused on the development of the areas with rich natural

⁵⁹ Paul, *A Naval History of World War I*, 135

⁶⁰ Donald W. Mitchell, *A History of Russian and Soviet Sea Power*, (A. Deutsch, London 1974), 55.

⁶¹ Rohwer, Jürgen and Mikhail S. Monakov *Stalin's Ocean-Going Fleet. Soviet Naval Strategy and Shipbuilding Programmes 1935–1953*, (Frank Cass: London 2001).

resources rather than on its military-strategic potential whether defensive or offensive.

1.6.7 The Second World War

Throughout World War II, Arctic region emerged a key strategic space since it established a route for Allies' supplies. For instance, allied powers such as USSR actively received numerous reserve convoys from the US program called "Lend-Lease". The Arctic route was the nonstop and shortest way for that. Furthermore, the Soviets had maintained numerous settlements in the region particularly in Kara and Barents Sea in the Arctic backdrops. Therefore, the region became a hot drop of assaults and invasions from Germany, becoming a theater of important battles.⁶²

Elements of this pattern prevailed even after the outbreak of war in Europe. At the very start of the Soviet–Finnish Winter War of 1939–40, Soviet forces took control over the then Finnish port of Petsamo (Pechenga) and the narrow corridor which was the only access for Finland to the Barents Sea. However, the peace agreement in March 1940 postulated the return of Petsamo port and corridor to Finland. One more telling sign of limited importance was that the Soviets were with the United States involved in Arctic waters in terms of military strategy.⁶³

Under the Lend-Lease program, the Northern sea route (NSR) was one of five routes used to deliver Allied supplies. The number of goods transported through Pacific and Persian Gulf routes exceeded transports through the Arctic. In the later phase of the war, Arctic convoys were also used to engage and destroy German forces.⁶⁴ The land fighting that took place in the Arctic after the German attack of June 1941 was largely a function of the use of Arctic waters for transports to the Soviet Union. The German offensive from Norwegian county of Finnmark into the Soviet Union had as its main objective of the capture of Murmansk, while German advanced further south to cut the Murmansk railway, a crucial link in transport of weapons and supplies between Kola Peninsula and central Russia.⁶⁵

In North America, this war convinced policymakers that security of continent had to be

⁶² Alexandre Piffero Sophr et al., "The Militarization of the Arctic: Political, Economic and Climate Challenges," 2013, 14

⁶³ Tamnes and Kristine, *Geopolitics and Security in the Arctic*, 20

⁶⁴ Hubert P. Van Tuyll, *Feeding the Bear: American Aid to the Soviet Union, 1941–1945*, (New York: Greenwood Press 1989), 164.

⁶⁵ Tamnes and Kristine, *Geopolitics and Security in the Arctic*, 20

treated as a single problem which prompted establishment. Additionally, it laid as a foundation of extensive US and Canadian military assistance to Europe in war and peace. In August 1940, when the German takeover of Great Britain was a genuine likelihood, the Ogdensburg Agreement was signed between the US and Canada which formed a Permanent Joint Board on Defense. It was provided for shared defense of North America. In Asia, the Japanese military was on the offense, and the United States was concerned about the security of Alaska because of its proximity to Japan and the territories it had occupied. Washington, therefore, took the initiative to build military infrastructure in Alaska and Canada. In addition to defensive efforts, bases in the north became important elements of air bridges across northeastern North America to Britain.⁶⁶

The war had inefaceable side-effects in the north as the Allied created bases in Iceland and Greenland. Early on in the war, the British and Soviets also discussed establishing a naval foothold on Svalbard. While Royal Navy and British concluded that remote archipelago was inappropriate as a forward base for naval operations but Soviets returned this issue in autumn of 1944, by demanding the group of the archipelago to be administered as "condominium", by Soviet and Norway, while, Bear Island which was between the main island and mainland Norway should be transferred to Soviet authority.⁶⁷ This Soviet initiative was inspired by wartime transport of goods via sea between the Soviet Union and the West. Naval and air bases on Svalbard improved Soviet strategic control over the Barents Sea and sea lanes to and from ports of northern Russia. While the Soviet Union was backed down in face of stiffening Norwegian resistance in the early postwar period, the episode underlined evolving importance to Soviets of controlling Arctic space even in times of peace.

1.6.8 Cold War Arctic Region (1945-1991)

During Cold War the Arctic region got currency and has witnessed geopolitical and strategic significance, as it became the epicenter of world politics. The only confrontation between the soviet and Nazis were over the Norwegian Sea and Barents Sea because they were navigable waters while the areas above Arctic Circle were unexplored and was flawed in respect to military point of view.⁶⁸ The main contributing factor in the resurgence of the

⁶⁶ Ken S. et al, Arctic Front: Defending Canada in the Far North, 2008,55-63.

⁶⁷ Tamnes and Kristine, Geopolitics and Security in the Arctic, 21.

⁶⁸ Alexandre Piffero Sophr et al., "The Militarization of the Arctic: Political, Economic and Climate

Arctic was the shortest distance between the two newly recognized major powers USSR and US, this short distance was quickly capitalized by the war strategist when the route of Alaska-Siberia was put in action for curtailing USSR, made use of airspace within Arctic Circle. The usage of Aalsaka-Siberia route has signified the importance of the Arctic region for connecting the Eurasian landmass with American continent, nonetheless, after being used for anti-axis cooperation the region has extolled the competition between the powers for creating dominion.

During the course of Cold War another factor added to the significance of the region was the culmination of soviet navy in the region. Though it was anteceded with the civilian fleet which was conceived in 1932 for beefing the security and for giving auxiliary support to 14th army for maintaining the security pattern of SLOCs.⁶⁹ With the making of ICBMs, and vitalization of Nuclear powered have escalated the already tense hostilities between the US and USSR. Most conspicuously, defensive radar systems were built and fitted across region by both Americans and their partners and by Soviets.⁷⁰

US and Canada built an anti-bomber aircraft radar between 1954 and 1957 and was termed as the DEW. Ballistic Missile Early Warning System was conceived in 1959 which had again perfected DEW by featuring the two anti-missile radars in US, UK and Greenland. The same kind of missile was also built by the USSR which was known as Sistema Preduprezhdeniya o Raketnom Napadnii (SPRK) and had featured anti-ballistic missile radars and was expanded over to Soviet Union.⁷¹ For neutralizing the tactics both of the powers had built underwater detecting posts as well.

Other than the military build ups, the other factors of military were also being bourgeoned during the period of cold war, for thwarting the espionage done by both the submarine used to sail beyond and under the icy water. USSR had approximately conducted 265 nuclear tests for shaking the US from basis and to balance the threat. Overall, in cold War era, small space was left in Arctic Region for stuffs other than policy, bending of military muscle and nuclear deterrence strategy.⁷² The prominence of region from lens of geo-

Challenges,” 2013, 15.

⁶⁹ Kristian. Åtland, “The Militarization of the Barents Region”, 2008, 2-3.

⁷⁰ Ibid. p. 3.

⁷¹ Ibid. p. 3.

⁷² IAEA “Nuclear Explosions in The Ussr: The North Test Site Reference Material,” 2004, Vienna, Austria, 75-76.

economics was never in mind of two superpowers at the time of Cold War.

The first key move for a cooperative structure to deal the Arctic region came in the year 1987, when in October Soviet leader Mikhail Gorbachev conveyed the famous speech “Murmansk Initiative”. The basic objectives of the speech were to ease aggressive landscape of international politics in the Arctic region, and fostering support in the field of scientific development and environmental issues, etc.⁷³ In subsequent years, the USSR called the viewers from Nordic states to watch its military exercises, a request which was responded with knockback from all the Nordic states.

1.6.9 Post-Cold War Arctic

With the disintegration of USSR, the strategic and military worth of Arctic worn away and the region transformed into a more of a climate agenda and center for research cooperation and economic endeavors. However, US had abandoned the Keflavik base in 2006 seeking that it will not be use in future. Additionally, the cooperation between and among states was institutionalized by Arctic council, conference of Parliamentarians of Arctic Ocean region, Northern Forum, and other regional and non-state associations, including indigenous peoples’ organizations. Regional partnership mechanisms were recognized, particularly EU Northern Dimension and Barents Euro-Arctic Region. However, with these cooperation and partnerships many of the problem get too resolved while some of them left unbridle which was previously conceived as less acute and dysfunctional. Some of the maritime frontier clashes have been decided during last twosome of decades and some are still on the agenda.

The geopolitics of Arctic have been transformed utterly from the strategic and military hostilities to the sheer exploitation of resources and lookout for alternative maritime routes. With the decline of strategic and military significance the Arctic has again got the value for being hub of climate change phenomenon. Both of the Polar Regions exhibits opposite images as one is goof for inhibition and is surrounded by states while other is not. Temperature is rising at a very rapid pace if it persists there are chances of reduction of ice which will in turn open new SOLCs in north of mainland Canada and north of Siberia. With this the logistic cost would be halved and distance would substantially be deduced.

⁷³ Heather Exner-Pirot, “How Gorbachev Shaped Future Arctic Policy 25 Years Ago,” Anchorage Daily Times, October 1, 2012, <https://www.adn.com/arctic/article/how-gorbachev-shaped-future-arctic-policy-25-years-ago/2012/10/01/>.

These prospects will add more into the potential of Arctic and would attract actors by lurking with its natural resources, the states with a curiosity in Arctic are both rivals and cohorts in their northbound strategies.

1.7 Present Day Arctic Ocean

The modern day Arctic is being adversely affected by the climate change, as the average temperature is increasing twice as compared to the overall phenomenon of global warming. Due to great impact of anthropogenic factors the climate is being deeply affected and so as the Arctic. The region is transforming at a very rapid pace that it is changing the geopolitical landscape of the region. Altogether with the Arctic eight, China is also looking for cementing its hand over Arctic for securing natural reserves and access to the novel maritime trade routes. Arctic is of great concern to all because of its propensity of regulating the overall behavior of earth climate. There is overall consensus that one can even expect that there will be no ice in summers at the end of 21st century. However, the ice-free trajectory has given rise to plethora of opportunities of to which every emerging and major power have eye for securing the need. If this would be true, the trade transit would be reduced by 50%, which will instigate the trade and infrastructure development in Arctic.

Retreatment of ice cover is somehow prompting different reaction from fossil fuels industries of Arctic nations. However, the most important thing across the Arctic is Russian intention of expanding exploration of resources with the Chinese investment as relations with west worsen. Canada and Norway are most oil dependent nations with complying with sustainable development while other nations of Arctic are doing exploration without being obstructed by climate action. However, Canada has institutionalized the drilling in the Arctic and have imposed uniform sanctions with the help of US.

Conclusion

In new millennium climate change and global warming is one of the most persistent subjects and is at the top of national and international security agendas. Almost every state is seeking a solution for catastrophic effects of climate change on human being and production factors. As compare to other parts of the globe Arctic Ocean has been the most affected Victim of climate change, as the Arctic Sea ice has reduced by some 40% since 1979. In its statement regarding the impacts of climate change in Arctic Ocean the US

Navy's Arctic Environmental Assessment report of August 2011 "The geography of the Earth is changing", explicitly state, "We are confronted by a new ocean for the first time in 500 years".⁷⁴

Arctic Ocean is currently observing a rapid change because of various factors, including climate change, tender of permafrost, cumulative air and water temperatures which are resulting in the loss of Arctic Sea ice. This fastening pace of climate change and warming of Arctic will give forthcoming opportunities and challenges. The leading among those is going to be new natural reserves of oil and gas in region. Whereas, the second big thing will be the emerging trade routes that is said to shift the patterns of energy flows on sea lanes of communications (SLOCs) with rare security implications for the region.

⁷⁴US Navy "Arctic Environmental Assessment," *NEPA project*, August 16, 2011, <https://www.nepa.navy.mil/icex/Announcements/Article/2017336/navy-completes-arctic-environmental-assessment/>.

CHAPTER TWO

THE EMERGING GEO-ECONOMICS OF ARCTIC OCEAN REGION

Global climate change is becoming a major cause of melting of ice cover which is spread all over Arctic Ocean. Two major consequential effects, emergence of new accessible natural resource reserves & formation of new trade routes, are expected as a result of this activity. The possible hydrocarbon prize of the Arctic contains a large amount of latent financial advantage for native communities and the Arctic states. Numerous field surveys have revealed that the Arctic region possess never-ending natural gas resources, oil, hydroelectric power, minerals and petroleum. Further, the untapped wealth under the ocean is becoming more and more exploitable with advancement in technology, even though their exploration still seems complicated and expensive due to various environmental perils. The Arctic energy resources have great potential, but scientific constraints could be the real barrier in near future. Moreover, the melting Arctic is attractive for actors as the thawing sea ice is leading to the opening of maritime trade routes once unconceivable. The Northern Sea Route, which could be one of the shortest trade routes between Europe and East Asia and Northwest Passage between Europe and Americas. In short both these trade routes have the potential to reshape logistic networks of international trade.

2.1 The Transformation of Arctic Ocean Region

The High North is warming almost at double rate than the earth. Rising temperature of circumpolar region is primarily due to greenhouse emissions which show an instrumental relation between climate change in Arctic and the anthropogenic coercing.⁷⁵ The rapid pace of ice declining in Arctic is converting the region from frozen inactive zone to an active economic hub. Littoral states of Arctic Ocean, which are known as Arctic five, including Russia, Canada, United States, Norway, Denmark, and non-littoral Finland, Iceland and Sweden are main stakeholders of the region while China is also struggling hard to legitimize its position in the region and secure status of legal player in the region. Apart from its political importance for key players, Arctic Ocean is of great importance for whole

⁷⁵ Sophia Mathews, “The Geopolitical Implications of Arctic Sea Ice Melt” (The Norwegian Climate Foundati2.1on, 2019), pp. 1-47, 4.

world. Arctic Ocean has the key to regulate global climate system and own the ability to cool whole planet. It means that change in climate of Arctic Ocean can precipitate global effects.

The Arctic region plays an essential role in the global climate structure with ability of heat reorganization through ocean currents between the equator and the North Pole along with high temperature and nutrients reallocation between surface water and deep abyssal plains. Effects of ongoing climate change in Arctic region are considerably stronger and faster as compared to all other parts of the globe. Due to this nature of Arctic Ocean, the Arctic is known as “canary in the mine”, an initial cautionary guard of climate change in the world.⁷⁶ Currently Arctic Sea ice is the process of decreasing and watering due to rapid rise in the concentration of anthropogenic greenhouse gases in atmosphere, making a longer sea ice-free Arctic season. Scientific research and models based on available research portrays that in future sea level in the Arctic region might drop marginally in some areas of Arctic, similarly some 70 cm surge can occur on the eastern coast of the US. These changes in Arctic will open access to resources and sea routes, which will eventually lead to new economic opportunities for the development of the high north. Consequently, these new economic opportunities will affect global trade patterns and trends. If these economic developments are left open and uncoordinated, they have the potential to cause a wild “cold rush” driven by national interest of states rather than collective efforts to make best of available opportunities for well-being and shared interest of international society.

2.2 Climate Change in Arctic Ocean Region

With dawn of 20th century, Arctic Ocean and its surrounding areas have witnessed some dramatic climate changes. In between 1910-1940, Arctic Ocean was heated up to an enormous level. This period was followed by a cooling of Arctic from 1940-1970.⁷⁷ The leading reason behind enormous heating of Arctic during early decades of 20th century was Atlantic Multi decadal Oscillation (AMO). Besides, several other factors like seasonal variation of ice coverage, ocean circulation pattern, surface air temperature, cloud cover, sea vapor and heat oscillation are also contributing in this regard. Here it is also worthy to mention that month of September usually mark the completion of standard summer melting

⁷⁶ Emmanuelle Quill rou et al., “The Arctic: Opportunities, Concerns and Challenges” (ocean-climate.org, 2017), pp. 51-61, 51-52.

⁷⁷ Matthews, The Geopolitical Implications of Arctic Sea Ice Melt, 2,3.

season, which means the lowest sea ice coverage not only in the Arctic but also any other region across the globe on yearly scale. Contrary, month of March is the coolest time with maximum ice coverage over Arctic Ocean. The process of heating up of Arctic region continue upwards since then.

Arctic's climate is flexible like other maritime climates, including those in Iceland, Scandinavia and in northern parts of Russia. Arctic climate is marked by a dynamic windy and drizzling winter. Consequently, Continental Arctic climates are dryer in nature with extreme winters and extreme summers. This is important to consider because it explains the impediments and restrictions inherited which visualize Arctic region as stable identical. Volatility and weather patterns of Arctic Ocean pose considerable impediment of projections for navigability and future climate change of Arctic waters.

A flawless difference must be made between internal climate inconsistency and anthropogenic climate change. Limited degree of variation is essential to the general functioning of Arctic climate.⁷⁸ Current research super cedes the normal bounds of internal variability. Likewise, a close relation had been identified between climate change and emission of greenhouse gases. Finally, it is also proved from research that current wave of Arctic warming is fundamentally different from the warming which was observed back in 20th century.⁷⁹

From anthropogenic environmental dynamism perspective, the most note-worthy response for academicians is to study the albedo consequence. Albedo is basically calculating reflective volume of any astrophysical body or any other particular surface. It was observed that Arctic Ocean was warmed significantly, almost thrice of rest of the globe, since 1980s. This considerable warming can be attributed to the reduced level of surface albedo effect. When sun ray's hits white surface like surface of snow or ice, much of its portion reproduced back into space without warming its surroundings than when light hits a dark surface. It is natural that dark surfaces absorb more heat. With the reduction of albedo effect in Arctic, positive changes are being witnessed there in form of loss of more and more snow cover. Consequently, more dark areas are left exposed to direct rays of sunlight which eventually leads to intensification in the sequence of heating; a phenomenon called

⁷⁹ Matthews, "The Geopolitical Implications of Arctic Sea Ice Melt", 9

as Arctic amplification. The melting Arctic ice gives way to open water. The albedo effect is self-reproduced naturally. As the ice melts, albedo decline, more heat is captivated which ultimately catalyze ice melting.⁸⁰

The vanishing sea-ice in a heating world, similarly adds to increasing average surface heats. The sea-ice is projected to reproduce about some 80% of daylight back into space, which means it does not warm the surface. But when the sea-ice has melted, the darker ocean surface is exposed, which captivates some 90% of the sunlight hitting it. This results in warming of the region.

2.3 Expansion of Arctic Ocean Region

Arctic sea-ice has an imperative role in regulating the overall temperature of planet, therefore any kind of problem with this natural regulator is alarming. The most pertinent effect of climate change in Arctic Ocean can be observed from the reduced level of ice there in Arctic Ocean. Satellite images depict rapid decline in ice there in Arctic Ocean in general and in month of September in particular.⁸¹ Last thirty-year research has proved that Arctic Ocean is the region with high level of global warming. Surface temperature of Arctic Ocean had been increased almost twice as compared to temperature of other regions and this is identified as “Arctic Amplification”. Arctic amplification appears more prominent in autumn and winter. When the air temperature drops lower than ocean temperature during coldest months of the year, heat accumulation is initiated in the uppermost layer of earth ocean and during summer, it starts going towards bottom layers of earth atmosphere.⁸² In simple words, it can be stated that Arctic water lose the heat in winter which is gained throughout summer.

A little consensus is there when it comes to importance of various factors which effect Arctic amplification but still considerable portion of Arctic amplification is yet to be explained. Scientific knowledge about Arctic Ocean is only limited to 100 years of study regarding temperature variation and high rate of variability of climatic conditions. Contemporary research about Arctic Ocean unveils that albedo effect is the leading cause

⁸⁰ Mark Kinver, “Ice loss causing Arctic to reflect less heat,” *BBC News*, November 11, 2019, <https://www.bbc.com/news/science-environment-50381328>

⁸¹ Valentin P. Meleshko et al., “Arctic Amplification: Does It Impact the Polar Jet Stream?,” *Tellus A: Dynamic Meteorology and Oceanography*, 68, no. 1 (April 2016): p. 32330, <https://doi.org/10.3402/tellusa.v68.32330> .

⁸² *Ibid.* p. 2.

of Arctic amplification.⁸³ Sea ice plays a major role in give-and-take of heat between atmosphere and free water. Melting of ice gives way to open water and heat is collected in higher layer of Ocean. This stored heat in upper layers of Ocean which transferred to lower layers in winter season. It means that upper layer of Ocean is in competition with sea ice; sea ice diminishes the flow of heat on the atmosphere from open water. Contrary, additional heat in Ocean's upper layer delays the collection of ice and shrinks its thickness. Consequently, thinner ice melts more rapidly in subsequent summer, which ultimately leading to a more ice-free Arctic in the month of September and further heat collected in Ocean's upper level.

The relation between the albedo effect and Arctic amplification reveals the impacts of human activity on Arctic climate. Generation of greenhouse gases is primarily the result of human activities which cause albedo effect and this albedo effect cause Arctic amplification.

2.4 Arctic Sea Ice: From Early 20th Century

With dawn of 20th century, Arctic Ocean received considerable attention due to decreasing sea ice level. Reduction of ice layer clearly signifies that climate change is there.⁸⁴ Due to growing consequence of climate change in Arctic Ocean, observations from satellite began in 1979, for more comprehensive knowledge regarding the impacts of climate change on the region. The observations showed that there was a major decrease in Arctic ice cover. This was a matter of surprise for researcher at first but after research they become enlightened with causes of this reduction in ice layers i.e., is a combined effects of greenhouse gases and anthropogenic factors. Although models regarding Arctic Ocean vary in exact dates of measuring ice levels but these differences are negligible, as it's a consistent fact that level of ice is decreasing with rapid pace.

Majority of models shows that in between 1915-1940, Arctic faced significant warming due to AMO (Atlantic Multi-Decadal Oscillation) which resulted in the loss of about 240,000-580,000 Km. Sq. Sea ice. Technological limitations generate disagreements among existing models due to which existing literature shows different data regarding quantity of sea ice level. As stated by Intergovernmental Panel on Climate Change (IPCC),

⁸³ Matthews, *The Geopolitical Implications of Arctic Sea Ice Melt*, 9.

⁸⁴ C. L. Parkinson and D. J. Cavalieri, "Antarctic Sea Ice Variability and Trends, 1979–2010," *The Cryosphere* 6, no. 4 (2012): pp. 871-880, <https://doi.org/10.5194/tc-6-871-2012>, 871.

Arctic region temperature increased by some 5 degrees Celsius consistently throughout the course of 20th century.⁸⁵ Moreover, water flows between the Atlantic and Arctic Ocean gets warmed and consequently global permafrost decreased significantly. In later half of the 20th century a steep decline in sea ice was noticed which increased rapidly in the new millennium due to increased level of greenhouse emissions and anthropogenic factors. Research statistics shows that multiplex factors like surface air temperature, ocean circulation pattern and cloud cover are responsible for reducing level of sea ice as about 90% of sea ice has diminished since 1970s.

2.4.1 Arctic Sea Ice in New Millennium

With dawn of 21st century, Arctic surface air temperature was escalated rapidly, with a noticeable sea ice decline in Kara, Barents, Chukchi and East Siberian Seas. This is fairly natural with increase in greenhouse gases. Surface air temperature of Arctic was highest during 2014-2018, since start of 20th century.⁸⁶ In the Arctic region the twelve lowest sea ice levels, as per satellite record, occurred in the previous 12 years. From 2011 to 2018 lowest sea ice extents were recorded in the Arctic region. The year 2012 witnessed the lowest value of total September Sea ice coverage by some 4.2 million km. sq. this value is about 3.3 million less than the 1979-2005 usual value.⁸⁷ From 1979 to 2017, September ice was decreased by 10.6% per decade amounting to a surprising 40% total decrease. In the same era ice cover in march was decreased to some 10%.⁸⁸

2.4.2 Multi-Year Arctic Sea Ice

From the commencement of 20th century Arctic Sea ice age circulation has experienced considerable changes. Due to the ever-accelerating impacts of ice melting and the process of Arctic amplification, multi-year sea ice of Arctic region that has lasted for a minimum of one summer melt season has started to decrease more swiftly than novel ice. In 1970s, Arctic multi-year ice was accounted for almost two third of the entire Arctic basin surface area. In the year 1985, multi-year ice reduced to half of total Arctic ice coverage. From the

⁸⁵ Matthews, *The Geopolitical Implications of Arctic Sea Ice Melt*, 13

⁸⁶ Arctic Council. "Arctic Monitoring and Assessment Programme: Climate Change Update 2019" <https://www.amap.no/documents/download/3295/inline>

⁸⁷ Elena V. Shalina, Ola M. Johannessen, and Stein Sandven, "Changes in Arctic Sea Ice Cover in the Twentieth and Twenty-First Centuries," *Springer Polar Sciences*, 2019, pp. 93-166, https://doi.org/10.1007/978-3-030-21301-5_4, 99-100.

⁸⁸ *Ibid.* p. 99.

time when, the average multi-year ice cover in the region has shrunk approximately 17% in each decade, in other words some 846,000 km² in a solitary winter season.⁸⁹ Similarly by 2015, the percentage of first-year comparative to multi-year ice in the region was basically overturned from the 1970 pattern: multi-year ice was less than one third of the total surface zone.⁹⁰

2.4.3 Projections of the Future of Ice-Free Arctic

In the 21st the ^{most} frequent question regarding Arctic is that, when will the Arctic summer occur? Most of current forecast models are frequently involved on the probability of an ice-free Arctic region. Due to variance in Arctic temperature, the variability of projections varies and it is hard to project that when will Arctic summer occur. Some researchers predict that an ice-free summer will occur near 2030 while some predict it somewhere between 2066 and 2080.⁹¹ Prior to consequential ice collapse of 2007, it was predicted that ice summer will occur somewhere at end of 21st century. The collapse of 2007, somewhat served as a wakeup call, that is why today several widespread climate models are assessing the tragic sea ice reductions in the forthcoming decades (2020s and 2030s,) and an ice-free condition by 2050.⁹² Here the point for focus is the assessments of an ice-free summer resemble to predictions of atmospheric greenhouse gas concentrations models, which forecast that greater absorptions result in earlier ice-free situation, while models predicting lower concentrations estimate far along ice-free situations, this highlight the ultimate connection between Arctic sea ice and anthropogenic forces.

2.4.4 Arctic Seas

In contemporary era, Barents Sea is almost ice-free during Months from July-October. It is expected that ice free Arctic span will regularly expand from June till December and eventually it may become ice free by 2046. The Kara Sea ice was almost melts up to 80% by 2000. Research statistics shows that Kara Sea will be ice free in period from July till October each year by 2047 and gradually it will multiply from July till December by

⁸⁹ Matthews, *The Geopolitical Implications of Arctic Sea Ice Melt*, P-13

⁹⁰ *Ibid.*, p. 13.

⁹¹ G. P. Peters et al., "Future Emissions from Shipping and Petroleum Activities in the Arctic," *Atmospheric Chemistry and Physics* 11, no. 11 (June 2011): pp. 5305-5320, <https://doi.org/10.5194/acp-11-5305-2011>, 5311

⁹² Malte Humpert, "The Future of the Northern Sea Route – A 'Golden Waterway' or a Niche Trade Route". *The Arctic Institute Centre for Circumpolar Security Studies*, 2011, 6-7.

2074.⁹³ Available Statistics show that the transformation between winter maximum and summer minimum is increasing with every passing tide. In the year 2016 the ice cover in the Beaufort and Siberian seas was four times larger as compared to 1980s. Similar trend was observed in Laptev and Chukchi seas. The year from 2010 to 2016 marked time when first time over 80% of total area of Laptev Sea became ice free. This was the largest ever fractions observed ever throughout history. Till the end of 21st century, about 80% of overall cumulative sea area in the Kara, Barents, Chukchi and East Siberian seas are expected to be free of ice.⁹⁴

Multiple number of environmental issues like climate contamination, overfishing and habitat destruction also affect Arctic climate. It is not only climate change which is responsible for all these changes. Still, it is important to note that all other issues, related to climate, are somehow related to greenhouse emissions and Arctic ice melting is one of the major consequences in this regard. Arctic council research depicts those anthropogenic gases were responsible for 70% global glacier melting between 1991 and 2017.⁹⁵ If current pace of greenhouse gases emissions remains continued, it will increase global temperature by 4-7 degree Celsius in next century.⁹⁶

The most pertinent and alarming effect of anthropogenic forcing is the rapid decline in Arctic ice. Last four decades brought an exceptional change to Arctic climate and all research models regarding Arctic future were proved wrong. These considerable changes are usually related to increasing greenhouse emissions. Undoubtedly it is hard to find any exact date but majority of statistics shows that Arctic waters will become seasonally ice free by mid-21st century if greenhouse emissions remain continued through this pace. The most consequential effects will be witnessed in areas of Barents, East Siberian, Chukchi and Kara seas which are expected to be ice free by end of 21st century. Impacts of the melting Arctic on the Indigenous people, wildlife, Indigenous and on global climate systems apart, the melting Arctic Ocean is important as it is opening up access to the previously obstructed shipping routes and natural resources in the Arctic region. The

⁹³ Matthews, *The Geopolitical Implications of Arctic Sea Ice Melt*, P-15.

⁹⁴ *Ibid.* p. 16.

⁹⁵ Arctic Council, "Arctic Monitoring and Assessment Programme 2019".

⁹⁶ Intergovernmental Panel on Climate Change. "Climate Change Impacts 2007: Impacts, Adaptation and Vulnerability". 2007. https://www.ipcc.ch/site/assets/uploads/2018/03/ar4_wg2_full_report.pdf

Northwest Passage and Northern Sea Route have recently gained devotion in international trade and security debates. Thus, the opening Arctic has risen on the forefront agenda in international politics.

2.5 Emerging Geo-Economics of Arctic Ocean Region

The Arctic region is in the process of a swiftly warming up, as a result, the region is losing its ice cover, which will lead to its opening up to the international community, with two probable economic consequences: first is the natural resource and secondly the opening of two important maritime trade routes. As a result of this development Arctic region is not only getting globalized and commercialized, but also gradually significant with respect to geopolitics and geoeconomic. There is a mounting interest in Arctic affairs not only among the member states of the Arctic Council but also from the outside actors including Asian powers. Arctic has in recent years become a new geo political arena. Arctic as well as non-Arctic states do what they can to position themselves for what is coming. This interest in the region from the side of the Arctic States as well as the outside actors is reasonable that they are interested in the natural resources located in this region and more than that they are interested in the opportunities to utilize the maritime trade routes in the region.⁹⁷

2.5.1 Maritime Trade Routes

As a result of technological advancements during the Cold War, new prospects for surface exploration appeared in the Arctic region. Transportation over the Arctic Ocean might open up new sea routes that can provide greater accessibility to present and emerging markets around the globe. Because of the ice-covered waterways this possibility remained unmet for practically all of the 20th Century. However, two maritime routes became passable at the close of the 20th century. The Northern Sea Route (NSR) and indeed the Northwest Passage (NWP) are two hypothetical maritime trade routes that could open up in the high north. A far more direct route via the center of North Pole (see map 2) may also one day become practicable. Caused by lack of light, harsh temperature and risk in case of a crash and need for assistance, piloting is now only practicable during summertime, and routes will not be able to play a larger role.

Great Belt & Little Belt are three channels that connect the North Sea to the Baltic Sea. Trade between Russia and Europe relies heavily on these ports of entry. The shipping sector

⁹⁷ Kristian Åtland, Zoom Link interview.

meets the global trade needs for raw materials, processed products, completed commodities, petroleum, autos, grains, and spices, among other things, through its services. Petroleum and oil products make up the majority of shipments (almost 10 percent). There is a large amount of export/import of products that makes this route extremely congested between China and the United States. On the map, we can even make out the continents' contours because of the density of maritime routes. Some routes are clearly more popular than others.

2.5.1.1 The Northern Sea Route (NSR)

The Northern Sea Route (NSR) is one of the emerging trade routes between the Pacific and Atlantic Ocean, going through Arctic Ocean region. There are five Arctic Seas beside the Russian coasts of Siberia and Far East that make up the Northern Sea Route (NSR): The Barents Sea, Kara Sea, Laptev Sea, East Siberian Sea and the Chukchi Sea (see map 3). When describing the passage, the NSR alludes to many different routes, which can range in length from two to three thousand nautical miles in length.⁹⁸ In 1991, the NSR was first made available to foreigners. It has been available for traffic for about four months a year since 2007,⁹⁹ 46 ships in 2012; 296 ships in 2013 traveled by this route. NSR is about 7000km shorter than that of the route across Suez Canal, an obvious narrow passage in the itinerary that's located in a historically uncertain zone.¹⁰⁰

Between 15th and 19th centuries, the maritime Silk routes played a significant role in mercenary operations around the world. As maritime trade grew and the east and west began to interact, maritime trade routes grew at a rapid pace. Trade in silk benefited most from the Industrial Revolution. As more and more traders from the west moved to the east in quest of better possibilities, a number of silk routes were established. The Silk Road, on the other hand, is considered to have existed before the maritime trade routes for silk. It was primarily a silk commerce route between China and South Asia, West Asia, Europe, and North Africa. This route begins in Guangzhou and ends in South China. Marine trade

⁹⁸ Ola M. Johannessen, Vitaly Yu. Alexandrov, Ivan Ye. Frolov, Stein Sandven, Lasse H. Pettersson, Leonid P. Bobylev, Kjell Kloster, Vladimir G. Smirnov, Yevgeny U. Mironov and Nikolay G, *Remote Sensing of Sea Ice in the Northern Sea Route: Studies and Applications* (Berlin: Springer, 2007), 1.

⁹⁹ Klaus Dodds, "A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean," *Global Policy* 1, no. 3 (2010): pp. 303-311, <https://doi.org/10.1111/j.1758-5899.2010.00038.x>, 304.

¹⁰⁰ Veera Paulina Suvanto, "Geopolitics of the Arctic: Challenges and Prospects," *CORE* (2015), https://core.ac.uk/display/95614526?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1. 42.

routes were established at that time to boost trade, as it was the most convenient method. The Western Han and Eastern Han dynasties were responsible for the most of the route's construction, though it began earlier. Despite the fact that this route was originally intended for general trade, it was later renamed "Marine".

First constructed in 15th century China, Silk Road dates back to that time. China to Srilanka is a 4500-mile road that crosses China. Non-Russian bulk carriers and LNG tankers were the first non-Russian vessels to make commercial transit in 2009 and 2012, respectively. In 2013, the number of NSR voyages increased by 65 percent, although cargo increased by only 7.5% as compared to 2012.¹⁰¹ Over sixty percent of these excursions were between two Russian ports, and just a small percentage were worldwide voyages.¹⁰² While annual trips are increasing, they are doing so slowly and consistently. Forty-nine vessels made 426 journeys via the NSR between January and April of 2019. Tankers accounted for 36% of the total voyages in 2019, followed by LNG carriers (28%), containers (15%), container ships (20%), and icebreakers (20%). Russia's President Vladimir Putin has committed to expand this number to 80 million tons by 2024 from the current 20.2 million tons.¹⁰³

2.5.1.1.1 Legal Status of NSR

Sea ice reduction has brought more attention to sovereignty concerns, and the NSR's legal standing has long been debated. Russia considers the NSR a "traditions country's transport connection of the Russian Federation" and maintains an authorized regime for the movement of vessels via the passage because it runs through Russian territorial waters in some areas. As a matter of fact, Russia has been responsible for the whole development of the NSR up to this point. Russian claims to authority are bolstered, according to many experts, by these historical development efforts and limited but unmatched expertise and knowledge of the area.

In practice, Russian power has been questioned. A total of over one hundred infractions of Russian Northern Sea Route Navigation Rules were documented by the Russian Northern

¹⁰¹ Ekaterina Klimenko, "Russia's Evolving Arctic Strategy: Drivers, Challenges and New Opportunities", Stockholm International Peace Research Institute, 2014, www.sipri.org/sites/default/files/files/PP/SIPRIPP42.pdf, 9

¹⁰² Ibid. p. 9.

¹⁰³ Russian International Affairs Council. "Russia's Arctic Dilemma: The Status of the NSR as a National Transport Artery Vs Foreign Investment". 2019. <https://russiancouncil.ru/en/news/russia-s-arctic-dilemma-the-status-of-nsr-as-a-national-transport-artery-vs-foreigninvestment/>

Sea Route Administration during 2017's first ten months (NSRA). That's approximately twenty percent of all the ships that passed through the NSR in that particular year. Varying interpretations of the 1982 United Nations Convention on the Law of the Sea pose the greatest obstacle to Russia's claim (UNCLOS). Washington accuses the Kremlin of reading its terms too broadly in order to impose discriminatory measures and impede passage. The United States regularly refers to the clause of "innocent passage".¹⁰⁴ The "Ice-covered areas" are granted certain rights under UNCLOS, as are the interpretation and execution of international humanitarian law as the Arctic physical landscape evolves. According to the United States, all Arctic Straits are foreign territory and no sovereign nation can limit the passage of world vessels, which is likely the most radical attitude among Arctic nations. As a counterpoint, Russian officials insist the NSR and the Arctic legal framework as a whole are consequent not only from the customary law, but also the result of domestic legislation of Arctic nations. The Russia looks to be trapped in a dilemma concerning either defending its sovereignty or securing the economic prizes of the routes by liberalizing the former Soviet Union. For international shipping interests, the Russian government has made it clear that it intends to develop and upgrade the NSR. Russia's President Vladimir Putin was reported at the 2011 Global Arctic Forum saying: "We are planning to turn it into a key commercial route of global importance. I'd like to emphasize that we see its future as an international transport artery capable of competing with traditional sea routes in cost of services, safety and quality".¹⁰⁵ Despite Russian claims all the EU member states and some Asian states have explicitly denied these claims and still opt the opinion that NSR is an international trade route under the umbrella of international law, where all states can traverse under its national flag.

2.5.1.1.2 Bilateral Trade Between Northeast Europe and Northwest Asia

As of today, 80% of all worldwide trade travels through the Suez Canal, which permits ships traveling between the global East and global West to bypass the long diversion around the Cape of Good Hope. Amid predictions that Arctic seas will be completely ice-free mid-century, rerouting trade through Arctic waterways has gained popularity in both business and political circles. The NSR is believed to be able to divert two-thirds of the

¹⁰⁴ Malte Humpert, "Dozens of Vessels Violate Safety Rules on Northern Sea Route". High North News, Oct 19 2017. <https://www.highnorthnews.com/en/dozensvessels-violate-safety-rules-northern-sea-route>

¹⁰⁵ Klimenko, "Russia's Evolving Arctic Strategy". 9

commerce currently travelling via the Suez Canal to Northwestern Europe. Asia to Europe via the Suez Canal is approximately 21,000km. Using the NSR, this might be lowered to some 12,000km, saving ten to fifteen days of travel time.¹⁰⁶

Having an NSR that is ice free and functioning is expected to improve global trade, according to analysts. Sino-European trade is expected to grow by 10% in Northeast Asia.¹⁰⁷ Redirecting commerce through the NSR instead of the Suez Canal would shorten distances between key European maritime ports in UK, Belgium, Netherlands, and Germany by 37 percent. That means the distance from South East Asian State South Korea and China to Europe would be reduced by 31% and 23% correspondingly to the same ports.¹⁰⁸ This could result in a reduction in the transit duration in some cases. Example: The Suez Canal connects Tokyo and Rotterdam. It's a 20,000-kilometer journey. Both of these ports could be closer together if NSR becomes completely operational. A fully operational NSR might reduce this distance between any of these two ports to less than 9000km.¹⁰⁹

Reduced shipping distances, on the other hand, may not always translate into lower costs. Economic growth in Western Europe and East Asia is projected to benefit from a functional NSR, resulting in an increase in bilateral commerce between the two regions. An open NSR generates a total cost savings that is difficult to forecast, as a variety of external circumstances may impact the degree to which each nation increases trade flows. In light of modern economic theory, it is reasonable to predict that many nations will benefit from the financial flexibility afforded by shorter transportation distances, especially since Asia has replaced North America as Europe's top market for export products. German trade with Northeast Asia is expected to expand by 11 percent under fully operational conditions, with comparable increases predicted for Austria, Belgium, Denmark, Finland, France, Germany and the United Kingdom.¹¹⁰

¹⁰⁶ "Melting Arctic ice opens new route from Europe to east Asia", The Guardian, September 28,2018. <https://www.theguardian.com/world/2018/sep/28/melting-arctic-ice-opens-new-route-from-europe-to-east-asia>

¹⁰⁷ Eddy Bekkers, Joseph F. Francois, and Hugo Rojas-Romagosa, "Melting Ice Caps and the Economic Impact of Opening the Northern Sea Route," *The Economic Journal* 128, no. 610 (2017): pp. 1095-1127, <https://doi.org/10.1111/eoj.12460>

¹⁰⁸ Ibid. p. 1095-1127.

¹⁰⁹ Humpert, "The Future of the Northern Sea Route" 9-10.

¹¹⁰ Eddy, Joseph and Hugo, "Melting Ice Caps", 1095-1127

Based on computer simulations, complete NSR operability will lead to an increase in the amount of trade diverted from other regions to western Europe as well as Japan and South Korea. There will be a decline in intra-European trade, particularly between Northwestern Europe, the southern and eastern regions of the continent.¹¹¹ However, this trade deviation must be linked to a growth in trade with Asia. Many European and Asian countries are likely to grow their trade with Asia by only a few percentage points. Opening the NSR wouldn't affect the global trade landscape for these nations because it would not substitute for the decay in intra-European commerce.

Russia would benefit immensely from it if the NSR were to be completed, since it would necessitate the creation of critical shipping infrastructure that would revitalize northern Russia, notably Siberia. It would also be necessary to improve the transit infrastructure to and from the middle of the country and continent, which might entail controlling the great Russian rivers such as the Lena and the Yenisei. While most of Siberia remains virtually unconnected, this could lead to more rapid urbanization and industrialization in Siberia as a result of opening of NSR.

2.5.1.1.3 Limitations of NSR

For Northeast Asia and Northwest Europe particularly forecasts of greater trade flows seem enticing. Nevertheless, it's crucial to acknowledge the limitations and flaws of these forecasts. Many challenges must be solved before the NSR can be considered a financially viable endeavor. Most sea-ice reduction predictions do not take into account the Arctic's diverse ecology. First, a decline in sea ice does not ensure clear sea lanes in all cases. Taking 2007 as an example, its ice amount was some 24% lesser than the earlier record low, and 37% lower than the 1979-2007 average.¹¹² Despite the fact that this tremendous melting of sea ice might be viewed as a blessing in disguise, although the NSR was open, it was still cordoned off.¹¹³ Icebergs and drifting ice, which are difficult to identify, are more likely to be encountered when the ice melts.¹¹⁴ Although it is shortening their trips,

¹¹¹ Ibid. p. 1099.

¹¹² Ola M Johannessen, "Decreasing Arctic Sea Ice Mirrors Increasing CO₂ ON Decadal Time Scale," *Atmospheric and Oceanic Science Letters* 1, no. 1 (2008): pp. 51-56, <https://doi.org/10.1080/16742834.2008.11446766>, 51-52.

¹¹³ N. Melia, K. Haines, and E. Hawkins, "Sea Ice Decline and 21st Century Trans-Arctic Shipping Routes," *Geophysical Research Letters* 43, no. 18 (2016): pp. 9720-9728, <https://doi.org/10.1002/2016gl069315>, 9724-26.

¹¹⁴ Frédéric Lasserre and Sébastien Pelletier, "Polar Super SEAWAYS? Maritime Transport in the Arctic:

they may have to slow down, negating the time save. Moreover, the route is also faced with issue like fog, high cold, low vision, and violent wind that pose a sever threat to the feasibility and safety of vessels using NSR, in addition to the technical restrictions.

Enoutre reduction in shipping distance does not equate to a reduction in costs. Although commercial vessels can now travel through the NSR, they must be escorted by icebreakers and only in very exceptional weather conditions. On average, the NSR will only be traversable without icebreakers for merely ninety to one hundred days per year by the year 2080, as per the Arctic Council report.¹¹⁵ In order to make the NSR lucrative for shipping firms, icebreakers are required. The window of opportunity is only available till the end of the century. Aside from inspection logistics, icebreakers incur an additional cost for those seeking to safely travel through the NSR current Russian law stipulates.¹¹⁶

A Russian icebreaker monopoly keeps maritime corporations at their mercy. Currently, the Russian tariff system levies based only on the volume of cargo being transported across the country. There have been some price cuts, but the cost per ton is still between \$20 and \$30, which is a lot more expensive than the \$5 per ton charged for transit via Suez Canal.¹¹⁷

However, until significant adjustments are made to the tariff system, the fees per kg of cargo aren't comparable with the traditional Suez Canal route. To navigate the NSR, many investments are needed, including such as icebreakers and transportation cost. Real expenses of crossing Arctic waters are often underestimated. So, for example, if the weather is bad, shipping businesses will have to pay higher insurance costs.

In addition to the risks and uncertainty involved with Arctic weather, shipping and freight businesses frequently mention this as a reason for caution. Four months in advance, vessels must seek permission with the Russian Administration of the NSR, whereas the Suez Canal requires only 48 hours' notice.¹¹⁸ There are further logistical and financial challenges when it comes to clearing customs and paying taxes for navigating Russian waters. If the financial hurdles weren't enough, there's no standard GPS system in NSR right now, either.

An Analysis Of Shipowners' Intentions," *Journal of Transport Geography* 19, no. 6 (2011): pp. 1465-1473, <https://doi.org/10.1016/j.jtrangeo.2011.08.006>.

¹¹⁵ Sami Bensassi et al., "Melting Ice, Growing Trade?" *Elementa: Science of the Anthropocene* 4 (January 2016), <https://doi.org/10.12952/journal.elementa.000107>

¹¹⁶ Humpert, "The Future of the Northern Sea Route", 12.

¹¹⁷ Klimenko, "Russia's Evolving Arctic Strategy", 10-11.

¹¹⁸ Humpert, "The Future of the Northern Sea Route", 10-12

In order to cross these Arctic waters, ships must use an alternative navigation system called GLONASS, which is incompatible with some older vessels. In addition, the infrastructure along the coastal lands and Arctic waters is extremely inadequate, which raises serious safety and environmental issues. Its loading and unloading docks are limited, its search and rescue capabilities are insufficient, and it has a limited number of ports for refueling.¹¹⁹

Weather-related concerns are exacerbated by this lack of infrastructure, as the NSR is now under-equipped to handle spills and other mishaps as well as unanticipated weather and mechanical problems. Cargo and persons traveling on the NSR are unlikely to obtain the assistance they need in a timely manner under the current conditions. The NSR, some analysts say, can only compete with the Suez Canal if the price of petroleum is cheap, the NSR is open for at least three months a year, and Russian transit rates are dropped by 85% of their 2010 levels.¹²⁰ Because of the NSR's ability to cut the time it takes to travel from Asia to Europe it will help business exchange between Europe and Asia, including China and Japan the most. As a result of unpredictable weather and the inadequate infrastructure along the route, the route cannot be regarded a massive upgrade for world commerce (at least not yet). To put it another way, the NSR's navigability isn't just a function of decreasing sea ice cover. Many logistical, economic and structural obstacles must be overcome, under even perfect shipping situations.

2.5.1.2 The Northwest Passage (NWP)

North Atlantic Ocean shipping can travel up to the Davis Strait locate between Greenland and Canada, passes through the Canadian Arctic Archipelago to enter the Beaufort Sea, and finally covering Bering Strait to connects to the North Pacific Ocean. On the shipping route there are several interconnected channels and bays, however because of harsh and blizzard weather conditions, not all of them are navigable (see map 4).

By means of the Arctic Ocean and the Canadian Archipelago, the Northwest Passage (NWP) connects the Northern Atlantic to the Pacific Ocean. While most vessels in the NWP go via its southernmost reaches where circumstances are more favorable, governmental vessels and associated icebreakers occupy the northern parts of the waterway. Between 1990 and 2015, the NWP's traffic approximately tripled. Ships

¹¹⁹ Bekkers, Francois, and Rojas-Romagosa, "Melting Ice Caps and the Economic", 2017.

¹²⁰ Sami Bensassi et al, "Melting ice, growing trade?" 2017.

carrying cargo and government vessels, such as icebreakers, account for the majority of traffic, but personal yachts and personal watercraft are the speediest.¹²¹ Major data shortage is a clear hindrance to the NWP's productive potential. Rarely have credible studies established an agreement on the future direction of traffic in North America's North Suburban Corridor (NSC).

A long-standing difference of opinion between Canada and United States surrounds the Northwest Passage's legal status. Because of this, Canada considers all of the water in the Northwest Passage to be part of its territorial waters. According to a 1986 declaration of benchmarks nearby the Canadian Arctic Archipelago, the waterway does not qualify as an international strait for navigation. Attributed to the reason that coastal governments have complete jurisdiction over their interior waterways, Canada's claim appears to be justifiable in controlling or preventing the passage of vessels.

2.5.1.2.1 Legal Status of NWP

As a result of the NWP's sovereignty challenges, Canada's sovereignty has historically been the most vulnerable. Canada considers the Northwest Passage to be a part of its territorial waters, and in 2009, the Canadian House of Commons voted to rename it as the Canadian Northwest Passage.¹²² However, the United States has continuously opposed Canadian claims, not by claiming the Arctic Archipelago, but by asserting that the Corridor is part of an "international strait with freedom of movement".¹²³ Apart from the US, other states have also opposed Canada's claim over the NWP, including China and EU member states, who want international seas to include the NWP, where all the states preserves the right of innocent passage under UNCLOS of 1982.

An icebreaker of the United States Coast Guard crossed the Greenland-Alaska route without first obtaining permission from the Canadian government in the year 1985.¹²⁴ In response to this in agreement was drafted in 1988 on Cooperation in Arctic Ocean which states "pledges that all navigation by U.S. icebreakers within waters claimed by Canada to

¹²¹ Malte Humpert, "Shipping Traffic in the Canadian Arctic Nearly Triples". High North News, 2015. <https://www.highnorthnews.com/en/shipping-traffic-canadian-arctic-nearly-triples>

¹²² Matthews, "The Geopolitical Implications of Arctic Sea Ice Melt", 25.

¹²³ Andreas Østhagen, Gregory Levi Sharp, and Paal Sigurd Hilde, "At Opposite Poles: Canada's AND Norway's Approaches to Security in the Arctic," *The Polar Journal* 8, no. 1 (February 2018): pp. 163-181, <https://doi.org/10.1080/2154896x.2018.1468625>.

¹²⁴ Ibid. p. 167.

be internal will be undertaken with the consent of the Government of Canada.”¹²⁵ The then Prime Minister of Canada Brian Mulroney in his words signified, “a practical solution that is consistent with the requirements of Canadian sovereignty in the Arctic.”¹²⁶ It was in the early 21st century, when NATO strengthened its footprint in the Arctic region, that Ottawa's relative power was undercut, and that the agreement with the United States was at risk.¹²⁷ As a result of these challenges to Canada's Arctic sovereignty, there is an observation that Canada is battling to maintain its sovereignty and is hence vulnerable to security concerns. The administration has made some unexpected decisions as a result of fears about sovereignty. If we look back at a few examples from the 1950s, the federal government relocated Inuit communities from Québec to the High Arctic Archipelago in order to demonstrate its control over the area.¹²⁸ There have been a number of border issues between Canada and US, but they have been little when it comes to their overall relationship. Interoperability with the United States is extremely important to Canada, and both countries value their mutual trade relationship, therefore the dispute over Arctic passage has had little impact either on Canada-U.S. co-operation or the Arctic Council's stability. On the other hand, EU member states and China have also rejected the claim of Canada, as they all count NWP as an international waterway once it become navigable and viable all kind of maritime vessels would travel through this strait.

2.5.1.2.2 Significance of Northwest Passage for United States and East Asia Bilateral Trade

Although NWP has been considered as an important alternative trade route conversely, the NWP would only save a small number of miles on the way to the Panama Canal. As a result of the NWP opening, trade between the United States and Northeast Asia would rise the most, especially with China. There is a considerable rise in US exports to China in a scenario where only the NSR is used compared to a scenario where both Arctic shipping routes are fully operational. A total of 13% boost in US-China bilateral trade flows would be achieved with the NWP compared to an insignificant gain of less than one per cent with

¹²⁵“Agreement Between the Government of Canada and the Government of the United States of America on Arctic Cooperation.” (1988). <https://www.treaty-accord.gc.ca/text-texte.aspx?id=101701>

¹²⁶ Andreas, Gregory, and Paal, “At Opposite Poles”, 2018, 169

¹²⁷ Ibid. p. 169.

¹²⁸ Griffiths, Franklyn. “Arctic Security: The Indirect Approach.” In *Arctic Security in an Age of Climate Change*, ed. James Kraska, 3–19. New York: Cambridge University Press, 2011.

the NSR alone.¹²⁹ Using the NWP would lessen trade diversion caused by the NSR's opening, which would have a positive impact on the European continent. Europe has little to gain and little to lose from the NWP's opening, as the trade diversion was already extremely small.¹³⁰ Since the NWP is located in a difficult environment, it is less important for the future of Arctic shipping than the NSR. It's widely believed, despite the lack of data, that the NWP will never be able to compete with the NSR or existing international trade routes.

If compared to the existing global maritime trade routes of Panama and Suez Canals, the emerging Arctic sea routes may possibly result in significant logistics savings between Asian, American, and European market. When using the conventional maritime route of Suez Canal, the expedition time between Shanghai and Rotterdam may be reduced from normal of 30 days to 14 days, and the distance by around 5,000 kilo meters. Experts think that establishing Arctic maritime routes is more enticing because there is political unrest in many geographical places near conventional global maritime flows (e.g. Strait Of Hormuz and Horn Of Africa).¹³¹

Because of the receding Arctic ice, new trade routes along the NSR and the NWP are becoming more feasible. North Sea Route commercial operation would expand mutual trade between northwest Europe and northeast Asia, with economic interdependence negatively affecting smaller European countries. There are fewer benefits from the NWP's equivalent in North America because increasing accessibility in the NWP will mostly benefit tourist and pleasure craft, not international trade. A cooperative effort of both Arctic routes would be most beneficial to China, which has the most to gain from it. Most of the time, the mainstream media and intellectuals from different part of the world exaggerates the potential for productive international shipment, while not understating the hurdles that stand in the way of such potential. There are several reasons why the Arctic will not be so important even if it became technically possible to navigate through the Arctic waters, because these trade routes are not that big lengthwise through which large ships and

¹²⁹ Joseph F. Francois, Hugo Rojas Romagosa, and Amanda M. Countryman, "Melting Ice Caps: Implications for Asian Trade with North America and Europe," *International Journal of Trade and Global Markets* 9, no. 4 (2016): p. 325, <https://doi.org/10.1504/ijtgm.2016.10002005.3> ,4.

¹³⁰ Ibid. p. 12-13.

¹³¹ Mika et al., *Towards the Geopolitics of Flows*, 133.

containers can travel, only restricted size of the ships can pass via the Northern sea route and NWP, along with uncertainty there regarding the weather condition.¹³²

Although shipping in the Arctic isn't necessarily tough, there are a number of obstacles to overcome before the NSR or NWP can compete with regular international trade routes. But even if these trade route get completely operational they cannot compete with existing trade routes, as both of these routes are quite narrow, which means only small ships will be able to travers these waters.

2.5.2 Arctic Natural Reserves

Arctic natural resources are highly debated these days due to the increasing demand for energy across the globe. As a result, almost all Arctic studies make reference to subsurface energy potential. A few of these resources have already been used since they are commercially viable, there are no sovereignty disputes or they have been settled. There are several potential economic benefits for indigenous groups and the Arctic states that they call home from the prospective hydrocarbon bonanza in the Arctic.¹³³ Several studies on the Arctic Ocean region have proven that it is a rich source of hydroelectric power and coal. The United States Geological Survey (USGS) estimates it to be around 22 percent, with 18 percent being oil and 30 percent being natural gas.¹³⁴ Most of the known Arctic resources are currently found within national authority, preventing border disputes (see map 5). Gas hydrates (NGH) are a common occurrence in permafrost zones and on deep sea continental slopes, and they could be used in the future, although more research is needed related to extraction and production methods.

The Arctic's natural resources appear to be one of the region's key attractions. Although Arctic natural resources are becoming more accessible due to the melting of the Arctic ice cap, however their exploration and exploitation are still complicated and expensive. Technology can be a hindrance in the short term, but it can be a boon in the long term, since the existing technology makes it unprofitable to harness these energy resources. Dropping oil prices are clearly to blame. Nobody can agree on just how much undiscovered

¹³² Henrik Gram Pedersen, Zoom link interview.

¹³³Gwladys Fouche, "China, Norway may team up in search for Arctic oil", *Reuters*, 13 November 2013. <https://www.reuters.com/article/us-iceland-oil-china/china-norway-may-team-up-in-search-for-arctic-oil-idUSBRE9AC0MW20131113>

¹³⁴ Elizabeth Buchanan, "Arctic Cooperation and Russian Rapprochement", *Foreign Affairs*, January 21, 2016 <https://www.foreignaffairs.com/articles/russian-federation/2016-01-21/arctic-thaw>

Arctic oil and gas there is.

Apart from the issues of high cost and technological limitations, there are number of other factors making the Arctic a difficult place to construct energy projects, including tough climate conditions with ice-covered land and sea, high winds, intense cold and shorter working seasons. Transport is difficult and expensive because to distances that are often great and weather conditions that might alter travel times due to lack of equipment, such as roads, ports, or pipelines. Environmentally speaking, the Arctic ecosystems are sensitive and particularly susceptible to disruption by oil and gas operations. While the ice sheet on earth is melting due to global warming, it hampers the construction of much-needed terrestrial infrastructure projects since it allows for easier access to aquatic resources.

Tundra melt could complicate the development of natural gas pipelines and increase the importance of LNG and seaborne transit if it continues to melt. With Russia as its primary producer, ten percent of the world's oil and twenty-five percent of the world's gas are produced in the Arctic region (80% of oil and 99% of gas production). Natural resources appear to be Russia's primary concern. However, Russia's pretension to the Lomonsov and Mendeleev ridges as an extension of its continental shelf does not support this line of thinking, as neither of these places contain extremely promising supplies of natural materials.¹³⁵ A resource base, however, plays a strategic and critical role in Russian sovereign interests, as Russia's national Arctic strategy has shown.¹³⁶ While Russia's Arctic global plan emphasized the importance of the energy sector, it lacks the scientific expertise required to explore and harness the Arctic's location specific. Russia also lags behind in the development of Arctic infrastructure for which it hopes other to invest in the region particularly Southeast Asian states like China. While China and Asian states interest stems mostly from their projected future energy needs, Japan, for example relies almost exclusively on fuel imports and hence energy security is a major concern for the country. As a result of the huge reserves of rare-earth materials found in Greenland, which are used in high-tech manufacturing, China has a keen interest in Greenland. Instead, then relying

¹³⁵ Pavel K. Baev, "Russia's Race for the Arctic and the New Geopolitics of the North Pole," Jamestown, February 4, 2019, <https://jamestown.org/report/russias-race-for-the-arctic-and-the-new-geopolitics-of-the-north-pole/>, 6.

¹³⁶ Klaus Dodds, "A Polar Mediterranean? Accessibility, Resources and Sovereignty in the Arctic Ocean," *Global Policy* 1, no. 3 (2010): pp. 303-311, <https://doi.org/10.1111/j.1758-5899.2010.00038.x>

on Denmark for its economic needs, Greenland aims to become commercially self-sufficient by using its mineral resources.¹³⁷

Chinese-Russian relations were bolstered in 2014 with the signing of a comprehensive agreement. In Siberia, China is willing to invest in oil and gas exploration and extraction, and it may even try to gain concessions in exchange for improving infrastructure in the region. Aside from financial resources and technological know-how, China and Russia both lack and so need to work with Western partners to harvest resources from the Arctic.¹³⁸

Conclusion

By the end of the 21st century, the Arctic is predicted to be ice-free for the majority of the year. Studies on the emerging international trade routes have been motivated by an emerging scientific agreement on ice-free Arctic waterways. This might result in a 50% reduction in transit times between major trading ports in Western European and northeast Asian states such as China, South Korea, and Japan if these Arctic rivers are made commercially available. Yet declarations of a rapidly shifting worldwide commerce landscape are unfounded and exaggerated. Shipping in the Arctic is hindered by a dearth of infrastructure as well as Russian monopoly on passage costs, exorbitant insurance premiums, and a significant lack of data.

A growing resource battle over unclaimed Arctic hydrocarbon wealth is also portrayed in the popular media. This implies there is some sort of causal association between decreasing ice and sovereignty concerns. In this case, too, the claims are overstated and unsupported. There are no plans to increase offshore exploration outside established territorial borders or exclusive economic zones, as 90% of Arctic oil and gas is contained inside the Arctic states' jurisdictional limitations. Carbon-based sectors in Arctic nations have distinct reactions to shrinking ice cover. This includes expanding Russian offshore drilling and exploration with the help of eager Chinese investors as relations between Russia and the West worsen. In contrast to other countries like Canada and Norway, which are significantly dependent on oil and gas exports, their fossil fuel businesses continue to operate largely unhindered by calls for climate action. Canadian authorities have put a

¹³⁷ Joseph Chinyong Liow, "Arctic Summer Who Should Benefit from Global Warming?", *Foreign Affairs* June 21, 2014, <https://www.foreignaffairs.com/articles/arctic-antarctic/2014-06-21/arctic-summer>

¹³⁸ Linda Jakobson, "China Prepares for an Ice-Free Arctic," SIPRI, March 2020, <https://www.sipri.org/publications/2010/sipri-insights-peace-and-security/china-prepares-ice-free-arctic>, 8.

federal freeze on Arctic offshore drilling. They were created in collaboration with their American counterparts who are currently trying to remove the policing prohibition. Ice retreating Arctic is getting the attentions of international community, regional as well as extra regional states are adopting exclusive Arctic strategies to gain maximum out of the polar region.

CHAPTER THREE

REGIONAL ACTORS IN THE ARCTIC OCEAN REGION

The unreachable spaces of Arctic Ocean region have always been understood as a domain with natural beauty and myriad reserves. In the past many mariners had risked their lives pursuing the frozen expanses and frigid waters of the Arctic in hunt of novel territory, resources and new trade routes for rulers and countries. In these expeditions very few explorers, like Roald Amundsen from Norway, had succeeded in coming over the exceptional challenges of the high north, while most of the others, including British rear admiral Sir John Franklin, couldn't surpass these uncommon challenges. With rare exception throughout the history much of the Arctic region persisted out of reach, due to the crusted sea ice.

In the new millennium the Arctic region is altering from a frozen region to a global arena with various important geopolitical and geo-economic landscapes. This dramatic change is occurring due to the unprecedented and prompt warming of Arctic region, resulting in an escalated melting of the frozen region. Consequently, this means that a considerable amount of mineral and hydrocarbon resources can easily be extracted from the region. Furthermore, the thawing sea ice also paves the way for states with novel maritime trade routes, which will connect East-Asia with Europe and Americas with Europe, that are not only cost-effective but also time-saving, as compared to the existing trade routes. Having such an enormous economic potential, the opening of the Arctic Ocean Region can also have remarkable consequences in terms of trade policy, energy security, power relations and most essentially concerns regarding the environmental issues on behalf of many nations, both from in and outside the region.

As the region is transforming from a frozen zone into an economic hub, the actors, issues, and stakes regarding the development agenda of the Arctic Ocean region are also increasing and getting more and more problematical. With increase in thawing of ice, the Arctic region may be faced up with various governance and policy challenges in the years to come along with prevailing regional challenges. Along with several existing unsettled quarrels, the opening Arctic is becoming a region where foremost global power dynamics are at display and where different players are trying to gain influence in the Arctic region in general and governance particular.

A frequently heard impression about the Arctic in the popular media, strategic community and in the policy makers is that the presence of enormous natural resource reserves will lead the states to some kind of “gold rush” and “land grab” (Popular Geopolitics) in the region, whenever states from within and from outside will try to extract and control these reserves. Undeniably, the exaggerated stances are noteworthy in forecasting that due to emerging geo-economics and mounting geopolitical importance of the region will lead world to a new Cold War like situation and militarization of Arctic. In the 21st century on one side there is the ever-accelerated climate change and technological advancement on the other the demand for resources is rising across the globe, for expert this situation may unleashed the substantial economic prospective of the Arctic ocean region. The concept of structural geopolitics, increased in thawing of Arctic region sea ice in the contemporary years and the popular geopolitics, exaggerated stances regarding Arctic like “gold rush” and “land grab a new Cold War and militarization of Arctic has provoked regional, mainly states with extensive Arctic coastlines, (Canada, Norway, The Kingdom of Denmark, Russia and United States), to reexamine their national strategies in the Arctic region.

The following section would give a general idea on official policy documents of Eight Arctic (A8), by highlighting their first choice areas, moreover the section will enlist the core objectives of all the actors (in arranged order). Respectively each sub-section discusses how each of the Arctic state view the 21st Arctic Ocean region.

3.1 Arctic States: National Strategies and State Policies

The Arctic Eight States are group of states which are situated in the High North, at the top of the world. The main criteria for Arctic state is the extension of boundaries into the Arctic Circle. In total there are eight Arctic states, including, Canada, Finland, Iceland, Norway, Russia, Sweden, The Kingdom of Denmark (Greenland), and USA (Alaska). Arctic Eight (A8) can be further separated into two categories littoral Arctic states and non-littoral Arctic states. Littoral states are those states which have direct coastline with the Arctic Ocean and consequently these states under the guidance of International law, has right to claim extension of their continental shelves by submitting their claims to the international law. The five littoral countries (A5) in Arctic region are, Canada, Norway, Russia, Kingdom of Denmark and USA (through Alaska), whereas Finland, Sweden and Iceland

come in the category of non-littoral Arctic states.¹³⁹

Arctic states first approached together in Rovaniemi (Finland) for ministerial level meeting on the 14th of June, 1991, to signed the Arctic Environmental Protection Strategy.¹⁴⁰

Subsequently, the Arctic eight have constantly worked for purposeful cooperation on the environmental protection in the Arctic region, apart from the environmental protection the group has worked together for promoting sustainable development of the northern communities and regions.¹⁴¹ In the year 1996, the Arctic Eight (A8) and Arctic Indigenous peoples' organizations, established the Arctic Council (Multilateral forum for cooperation), the primary goals were to protect environment and promotion of sustainable development in the Arctic ocean region. Currently the A8 are the principal actors in Arctic Council; hence, responsible for overall governance of Arctic region.

From the beginning of 21st century Arctic attract the attention of international community due to the rapid decline in the Arctic sea ice, which resulted in opening up the trans-polar trade routes and opportunity for the extraction of natural reserves. This development prompted all the Arctic states to either adopt Arctic strategies or update the previous ones if there. Consequently, all A8 states published their official National Strategy or Policy from 2007 to 2011.

3.1.1 Canada

Since the beginning the Arctic region has been of political significance for the Canadian government. Canada covers some 1.2 million square miles of the total Arctic territory, which makes world's second-largest land area in the High North.¹⁴² Being a dependable NATO member, Canada has at all times viewed itself as an Arctic guardian, both from idealistic ecological sense as well as in substantial geopolitical structure in the Arctic affairs. Canada maintains the lengthiest coast of any state in the world, and some 65% of that runs alongside the Arctic Ocean.¹⁴³ In the last few decades Canada has remained an active member in the Arctic and international northern affairs and cooperation, in particular

¹³⁹ Matthew Bryza et al., "Cooperation and Conflict in the Arctic: A Road Map for Estonia," ed. Emmet Tuohy, n.d., pp. 1-61, https://icds.ee/wp-content/uploads/2013/ICDS_Report_-_Arctic_2014.pdf, 4.

¹⁴⁰ AEPS, *Arctic Environmental Protection Strategy*, Rovaniemi, June 14, 1991. https://www.aspeninstitute.org/content/uploads/files/content/docs/ee/Arctic_WSI_Arctic_Environmental_Protection_Strategy.pdf

¹⁴¹ Ibid. 1991.

¹⁴² Stavridis, *Sea Power*, 249.

¹⁴³ Ibid. p. 249.

in the 1990s, by suggesting and encouraging the formation of the Arctic Council (AC). Moreover, promotion of maintainable development and human security in the circumpolar has been at the forefront in Canadian Arctic agenda. In order to convince international community that Northwest Passage (NWP) belongs to Canada and is Canada's internal waters, Canada enacted the Arctic Waters Pollution Prevention Act (AWPPA) in 1970s to safeguard the marine environment and its Archipelagos in the Arctic.¹⁴⁴ Though it was an exceptional protection act for environment but it couldn't accomplished to influence other states on the possession of NWP.

The DFAIT (Canadian Department of Foreign Affairs and International Trade) published a paper in the year 2000 titled "The Northern Dimension of Canada's Foreign Policy" which later became an integral part of Canada's foreign policy of the High North.¹⁴⁵ The paper is based on the following key principles: "augmenting security and prosperity of people of Canada, specially the indigenous people and northerners and asserting and ensuring the protection of Canada's sovereignty in the High North", moreover "the establishment of the circumpolar region as a vibrant geopolitical body" and "to promote human security of northerners and sustainable development in the Arctic ocean region."¹⁴⁶ The paper reflects shades of critical geopolitics because it involves several factors, not just a single geographical factor. The paper was though an entail policy document but it reflects that the Canadian approach was not only based on the structural geopolitics (physical change in the Arctic region due to climate change) but also from practical geopolitics stand point as the protection of sovereignty has been the focal point of the paper.

Canada remained an active player in the Arctic affairs, since the start of 21st century, with a central focus on the region in general and specifically Arctic Ocean.¹⁴⁷ The first official Arctic strategy of the Government of Canada "Our North, Our Heritage, Our Future]" published in the year 2009, and a year later "the Statement on Canada's Arctic Foreign Policy" in 2010. Both these booklets are justifying the Canadian securities in the Arctic region as it recognized North as a fundamental factor to the national identity of Canada.

¹⁴⁴ Lassi Heininen, "State of the Arctic Strategies and Policies – A Summary", *Arctic Yearbook 2012*, 4.

¹⁴⁵ Canada, *The Northern Dimension of Canada's Foreign Policy*, Department of Foreign Affairs and International Trade (DFAIT), 2000, http://library.arcticportal.org/1255/1/The_Northern_Dimension_Canada.pdf. 2

¹⁴⁶ Ibid. p. 2.

¹⁴⁷ Stavridis, *Sea Power*, 24

Essentially both the documents emphasize four core priority areas, in the identical order: exercising sovereignty in the Arctic, advancement of social and economic development in the region, protecting environmental heritage of Arctic and improving and devolving governance of northerner.¹⁴⁸

As per the 2009 Arctic strategy, the four priority areas are: “exercising Arctic sovereignty; promotion of social and economic development; to protect environmental heritage of North; and refining and reassigning governance of northern” (2009, paragraph 3 of Minister’s message).¹⁴⁹ Similarly the 2010 statement of Canada’s Policy represent the same priorities, moreover it also states that “in pursuit of all priorities enlisted in the 2009 strategy and 2010 policy statement, Canada is stanch when it comes to sovereign rights, jurisdiction and exercising maximal sovereignty in the Arctic region”¹⁵⁰ Canada is largely focus on the sovereign jurisdiction in high north, this particularly is of utmost importance when it comes to legal status of North West Passage, which they are reckoning as internal water, though USA and most of the European states have explicitly denied this claim time and again.

While exercising the sovereignty in the High North, it is stated that “the government of Canada will keep on supervising some of standing boundary disputes that are not direct threat to the sovereignty of Canada, on such issues Canadian stance is very clear, that is resolving them in the future in line with international law”.¹⁵¹ The other priority area regarding socio-economic development which emphasis on the sustainable use of the Arctic reserves, and the primary beneficiaries will be the Northern community, so as to build vibrant, independent and healthy Northern communities.¹⁵² Chapter on the environmental protection pursues to safeguard the fragile and distinctive ecosystems and environment in the north, which are affected badly by ever accelerated climate change, so that to secure this unique environment and ecosystem for forthcoming generations of Canada. The strategy also emphasizes on the prominence of science and scientific research related to Arctic matters. When it comes to the priority of improving and devolving

¹⁴⁸ Canada, *Canada’s Northern Strategy: Our North, Our Heritage, Our Future*, 2009, <http://www.northernstrategy.gc.ca/cns/cns-eng.asp, 1-2>

¹⁴⁹ Ibid. p. 10.

¹⁵⁰ Canada, *Statement on Canada's Arctic Foreign Policy: exercising Canadian sovereignty*, 2010, 4.

¹⁵¹ Ibid. p. 11.

¹⁵² Ibid. p. 13.

northern governance, the strategy basically focusses on engagement of Northerners in the foreign and domestic policy decision making processes, so that to give them a say on the issues and decisions that are affecting them.

Overall the strategies reflect that economic developments, which includes both exploration and consumption of all natural resources in Arctic region is a high priority of the Canadian Government, while transportation seems less in comparison. The Canadian Arctic strategy is primarily based on the four strands of critical geopolitics, as there are multiple factors featuring (Economy, Identity, indigenous people, Environment) in its Arctic strategy.

3.1.2 Finland

Finland is an important player in the Arctic affairs because a large portion of land area of Finland is above the Arctic Circle. Finland is one of A8 countries, that has noteworthy security, economic and political interests in the Arctic region. Accordingly Finland also adopted its first official Arctic-specific strategy in 2010.¹⁵³ This preliminary Arctic strategy was mainly focused on external affairs and less on its own individual commercial interests. In order to define Finland's Arctic interests extensively an updated strategy, "Finland's Strategy for the Arctic Region," was familiarized in 2013. The strategy shows the concerned of Finland in Arctic is economic interests, welfares of local resident and environmental concerns.

Finland's Arctic Strategy recognize Arctic region as peaceful region, but at the same time aware of important structural changes (Structural Geopolitics) that are taking place in Arctic region due to climate change, which are leading the region to a new resource hub and most important the emerging trade routes. As these emerging geo-economics are already altering the geopolitics of the region. Consequently, Arctic region is gaining significance globally. The entail 2010 finish strategy consist of six chapters, first four of them define the political objectives of Finland in four important areas, the final two chapters deals with policy tools and the EU and Arctic region. The first chapter "Fragile Arctic nature" explain the importance of environment and its role in all the activities that are taking place in the region. Likewise, it states that climate change, biodiversity and pollution need substantial attention.¹⁵⁴ The strategy define Climate change as one of the

¹⁵³ Finland, *Finland's Strategy for the Arctic Region*, Prime Minister's Office of Finland, August, 2010, http://arcticportal.org/images/stories/pdf/J0810_Finlands.pdf.

¹⁵⁴ Ibid. p. 13.

most severe challenges to the 21st century Arctic, and with that growing human activity is rising risk of environmental pollution in the region. The strategy is clearly based on structural geopolitics; as the climate change is not only altering the physical geography but is also influencing states policies and shapes the overall geopolitics of the region. It also states that Arctic research, regional climate models and long-standing observing of the environment should be incorporated into policy decision-making procedures, which signifying the worth of the interaction between science and politics in Arctic affairs.

In the second chapter of Finland's objectives "Economic activities and know-how" the strategy mainly emphasizes on the economic front, this is not surprising due to the portrayed economic resource reserves status of Arctic by different media-shaping popular culture (Popular geopolitics). Hence one can say that this section is purely business oriented.¹⁵⁵ The Strategy also reveals Finland's desire of promoting and strengthening its position as an expert on Arctic related issues and knowledge in different fields, including sea transport and shipbuilding technology, winter shipping, mining and metals industry, expertise in forest management, and cold-climate research in the high north. But when it comes promoting expertise of Finnish know-how and environmental technology the strategy looks rather narrow, as there is very little emphasize on the its promotion.

Another focused area is "Transport and Infrastructure" which is equitable, because there is a dire need of development of logistic networks, transport and communication in both the Barents and in Northern Finland¹⁵⁶, as the development of Transport and Infrastructure is the prerequisites for any economic activity in the Arctic region. The next segment of the Strategy, "Indigenous Peoples"¹⁵⁷, is centred on assisting the involvement of indigenous peoples in matters that are affecting them directly and establishment of the status of the indigenous peoples Barents Region.

In 2013 Finland put forward an updated strategy with five main sections: "Finland's Arctic population, education and research, Arctic economic activities, Environment and stability and international cooperation".¹⁵⁸ However strategy is basically set on the four pillars:

¹⁵⁵ Finland, Finland's Strategy for the Arctic Region, 2010, 18.

¹⁵⁶ Ibid. p. 24.

¹⁵⁷ Ibid. p. 30.

¹⁵⁸ Finland, *Finland's Strategy for the Arctic Region 2013*, Prime Minister's Office of Finland, August 23, 2013, <http://vnk.fi/julkaisukansio/2013/j-14-arktinen-15-arktiska-16-arctic-17-saame/PDF/en.pdf>

Arctic Country; Arctic Expertise; Sustainable Development and Environmental Boundary Conditions; and International Cooperation.¹⁵⁹ In the strategy section that deals with commercial activities is quite a bit extensive than the rest, and appears to be the primary focus of the updated strategy. This is largely due to physical changes that has taken place because of climate change that has paved the way for emergence of geoeconomic in the Arctic region, which can prove to be significant for the development of Finnish economy in forthcoming.

Unlike the first strategy the new strategy has greatly emphasized on Finnish expertise and know-how regarding Arctic region, these includes winter navigation, Arctic shipbuilding, oil spill control, offshore technology and clean technology. In the strategy Finland has been endeavors as national and international supporter for both sustainable development and stability. On the aspects of international cooperation in the Arctic region, for Finland Arctic Council is still the sole multilateral forum of Arctic cooperation and it will keep backing its efforts for promoting cooperation among the member states. As per the 2010 strategy Governance and the Economy are the most prioritized area while in the 2013 strategy economy and governance are the highest priorities for Finland.

3.1.3 Iceland

At present there are two main Arctic strategy documents that represents Iceland's stance in the Arctic affairs: first the report entitled "Iceland in the High North" which was published by the Icelandic Ministry of Foreign Affairs in September 2009 the document focuses on the status and position of Iceland's in Arctic affairs. This strategy aims to strengthen Iceland's position in the region. Moreover, in 2011 the Parliament of Iceland (Althingi) approved a more comprehensive policy on Arctic "A Parliamentary Resolution on Iceland's Arctic Policy". The strategy is consisting of twelve principles which explains the position of Iceland in the region.¹⁶⁰

In the recent time Iceland has become an active player in the Arctic Affairs by supporting Arctic cooperation in numerous fields. According to the 2011 report its economic development is based on the sustainable use of the natural reserves of the Arctic Ocean region. The report inclusively represents Iceland as a state located complexly in high

¹⁵⁹ Finland, *Finland's Strategy for the Arctic Region*, 2013, 2.

¹⁶⁰ Iceland, *A Parliamentary Resolution on Iceland's Arctic Policy*, Ministry of Foreign Affairs, Iceland, March 28 2011.

north.¹⁶¹ When it comes to the emerging geoeconomics Iceland has always put emphasis not only on trade routes but also on hydrocarbons of the region.

The main six priorities of Iceland's Report of 2011 are first and foremost is international cooperation in the region, second, ensuring security through transnational cooperation in the region, third is environmental and resources development protection. Similarly, fourth section deals with transportation in the high north, fifth with people and cultures and lastly sixth with promoting international cooperation related to research and monitoring in the regions.¹⁶² The report indicates that Iceland's main priority is promoting international through multilateral forum particularly through Arctic Council and Barents Euro-Arctic Region (BEAR). Iceland also wants to promote cooperation with its neighboring countries, Greenland and the Faroe Islands.

Arctic has become a key priority of Iceland due to the structural changes (Structural Geopolitics) that are taking place in the region, these changes are not only altering the physical geography of the high north but has also influenced the policies of regional states. Consequently, Iceland's approach is very clear regarding the emerging trends in the region due to climate change as it would affect Iceland more than any other states, hence it has emphasized international and Northern cooperation. Iceland has given a resilient message to the Arctic five countries in the region, by declaring that Iceland is the first states placed inside the Arctic region of the Arctic Ocean. The point has been made with more emphases in the Report that Iceland is "the only country" situated exclusively in Arctic region is a solid reaction to the Arctic five (littoral) states of the Arctic Ocean, a proclamation that is differing to the adequacy of their ministerial meetings. The parliament of Iceland clarifies the point with clarity by locking "Iceland's position as a coastal State within the Arctic region" alongside with welfare of Arctic populations and their societies.¹⁶³

Both Report and Parliamentary Resolution of Iceland mainly focused on achieving stability and security through cooperation from international and scientific level. The Report has overlooked the issue of sovereignty and the race for natural resources in the High North, rather the Report emphasize on the demilitization of the region. The documents are more

¹⁶¹ Grimsson, O.R., "Speech at the Opening session of the 6th Open Assembly of the Northern Research Forum (Personal Notes)", Hveragerdi, Iceland.

¹⁶² Iceland, *A Parliamentary Resolution on Iceland's Arctic Policy*, 2011

focused on devolvement of resources, like fishing industry and renewable energy. The policy reflects that geo-economics especially the Trans-Arctic trade routes are at the forefronts in Iceland's Arctic strategy. Additionally, Iceland's vision is of becoming a trans-shipment hub for maritime traffic, because of its geographic location in the region.¹⁶⁴ Overall the documents reflect the ever increasing interests of Iceland in Arctic, and its willingness and enthusiasm for multilateral cooperation in common and specially in terms of research, monitoring and scientific education. Both the Report and the Parliamentary Resolution are the reflection of how climate change (Critical Geopolitics) emerging geo-economics and popular media trend of "Arctic boom", "Gold rush" have influenced state policies in Arctic region.

3.1.4 Norway

In the beginning for 21st century Norway became the first state to release an official Arctic strategy and policy with an expert report "Norway's strategic interests and new policy in the High North"¹⁶⁵ As of now Norway has adopted some five Arctic strategies. The latest strategy is the 2017 document, "Norway's Arctic Strategy: Between Geopolitics and Social Development".¹⁶⁶

In December 2006 Norway launched its first Arctic strategy "The Norwegian Government's High North Strategy", to define Arctic region and the Northern affairs from Norwegian perspective by explicitly setting out a clear instruction for the High North to be the primary focus of Norwegian Government. In march 2009 a latest and updated version of Arctic strategy "New Building Blocks in the North" was launched.¹⁶⁷ To a greater extent the goal has not changed in the newer strategy, as it states "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".¹⁶⁸ The Norwegian High North Strategy is not centered around any single factor, the strategy rather put emphasize on a number of factors range from sovereignty, economic development, issues

¹⁶⁴ Iceland, *A Parliamentary Resolution on Iceland's Arctic Policy*, 2011, 2.

¹⁶⁵ Lassi Heininen, "State of the Arctic Strategies and Policies – A Summary" 2012, 14.

¹⁶⁶ Norway, *Norway's Arctic Strategy – Between Geopolitics and Social Development*, Norwegian Ministry of Foreign Affairs and Norwegian Ministry of Local Government and Modernisation (MFA), 2010.

¹⁶⁷ Norway, *The Norwegian Government's Strategy for the High North*, Norwegian Ministry of Foreign Affairs, 2009

¹⁶⁸ Norway, *The Norwegian Government's Strategy for the High North*, Norwegian Ministry of Foreign Affairs, 2007, 7.

related to environment and climate change, monitoring and knowledge in High North to the most important protection of indigenous peoples and their values. The strategy makes it very clear that the High North is of immense important for government on all grounds. Throughout the strategy the term High North has been used instead of Arctic region. The term was first used and defined in Norway's first strategy in 2006, as a broad concept both politically and geographically.¹⁶⁹ The concept basically includes the Barents Sea and its adjacent regions, including Svalbard, and with a special focus on Russia Federation. For Norway the term High North is without any specific definition rather the perspective of the term is broader than this.¹⁷⁰ In 2014 Norway produced an update strategy for High North "Arctic Policy: Creating Value, Managing Resources, Confronting Climate Change and Fostering Knowledge". The document repeats the same goals of the 2009 strategy with a primary focus on creating value and management of Arctic resources (Geo-economics).¹⁷¹ Moreover, the strategy takes a broader stance as statement of Prime Minister in the 2014 Strategy "the Arctic is Norway's most important foreign policy priority" clearly indicates that Norway's pursuit of the region is an international rather than domestic.¹⁷²

The latest strategy of Norway on Arctic was published 2017. In the strategy Norway prioritized the following areas; "International cooperation, business development, Knowledge development, Infrastructure, Environmental protection and emergency preparedness".¹⁷³ In addition, the new strategy suggests the Norwegian government's build its Arctic strategy is long-term efforts. But the principal goals of Norway, which were set out in previous white paper regarding Arctic has changed: "Peace, stability and predictability, Integrated, ecosystem-based management, International cooperation and the international legal order, A stronger basis for employment, value creation and welfare".¹⁷⁴ Lastly the strategy emphasizes on bilateral cooperation with Russia, which means Norway's strategy noticeably define the importance of regional cooperation and business

¹⁶⁹ Heininen, *State of the Arctic Strategies*, 14-15.

¹⁷⁰ Norway, *The Norwegian Government's Strategy for the High North*, 50.

¹⁷¹ Norway, *Norway's Arctic Policy: Creating Value, Managing Resources, Confronting Climate Change and Fostering Knowledge. Developments in the Arctic Concern Us All*, Norwegian Ministry of Foreign Affairs (MFA), <https://www.regjeringen.no/globalassets/departementene/>, 2014,3.

¹⁷² Ibid. p. 3.

¹⁷³ Ibid. p. 6.

¹⁷⁴ Norway, *Norway's Arctic Strategy – Between Geopolitics and Social Development*, Norwegian Ministry of Foreign Affairs and Norwegian Ministry of Local Government and Modernization (MFA), 2017, 15 <https://www.regjeringen.no/contentassetfad46f0404e14b2a9b551ca7359c1000/arctic-strategy.pdf> ,

development both in security and foreign policy. But at same time the strategy seeks to strengthen state sovereignty of Norway in Arctic region. The strategy also clear Norway's stance on the jurisdiction of Barents and a large part of Norwegian Sea with statements like "large parts of the Norwegian Sea and the Barents Sea are under Norwegian fisheries jurisdiction", or upholding its "presence on the islands of Jan Mayen, Björnöya and Hopen" and power in Svalbard.¹⁷⁵

The strategy focuses on promoting cooperation in the Arctic ocean region, along with economic development and environmental protection. The strategies have used the term High North instead of Arctic Ocean, moreover, there is no unified definition of the region.

3.1.5 Sweden

Sweden produced its solitary Arctic strategy in May 2011. However, in 2019 in a speech Swedish Minister of Foreign affairs stated that, Sweden will soon renew its Arctic Strategy.¹⁷⁶ The Swedish strategy on Arctic primarily focused on four areas of interest including, first international cooperation second climate and the environment, third economic development and final is the human dimension.¹⁷⁷ The main purpose of Sweden's Arctic strategy is "connecting Sweden's with the Arctic, with the existing priorities and future arranged from international perspective".¹⁷⁸

In the strategy international cooperation is one of the main priorities, in this section the strategy emphasized on the role of Arctic council in promoting international cooperation among the member states. Climate and the Environment is second priority and of immense importance as it focuses on protection of environmental and biodiversity as well as climate and environmental research in the region. In the section economic development, the strategy emphases on the emerging geo-economics, including, land and maritime transport, infrastructure development and energy projects, mining and petroleum, which are consider as the foundation of Swedish economy. The strategy also emphasizes free trade in the Barents region and in the overall Arctic. Moreover, the strategy seeks promotion of

¹⁷⁵ Heininen, State of the Arctic Strategies and Policies, P-17.

¹⁷⁶ Margot Wall Strom (2019). Statement of Government Policy in the Parliamentary Debate on Foreign Affairs Government of Sweden. Wednesday 13 February 2019.

<https://www.government.se/49132e/globalassets/>

¹⁷⁷ Sweden, *Sweden's Strategy for the Arctic Region*, Sweden's Ministry for Foreign Affairs, 2011. Retrieved from <http://www.government.se/country-and-regional-strategies/2011/10/swedens-strategy-for-the-arctic-region>

¹⁷⁸ Ibid. p. 211.

sustainable development in the economic, social and environmental spheres. The final priority of Sweden's Arctic strategy is "The human dimension", the core objective of the section is the protection and promotion of indigenous people (of the region). Furthermore, the strategy pursues the participation of young people and particularly women from indigenous people in the mainstream political processes.

Just like all the other Arctic states the base of Sweden's Arctic strategy also mainly centered around the economic development. This is reasonable as the warming Arctic is providing states with enormous economic opportunities. But still the overall strategy is not based on any single factor, apart from economy there are several other factors which have been taken into consideration. The strategy is also as a reflection of and reaction to the multi-functional changes as a result of climate change, which have not only altered the physical geography of Arctic but also states policies.

3.1.6 The Kingdom of Denmark

Denmark is an Arctic nation by virtue of its long possession of Greenland and the Faroe Islands. It has ruled Greenland since 1721, but there is an ongoing political debate about how this ownership will unfold in the twenty-first century. Greenland and the Greenlanders have been increasingly vocal in demanding greater autonomy, and there are voices increasingly raised in favor of independence altogether. Greenland is huge, and there are many military installations dotting the coastlines to which the Danes grant access to NATO and the United States, including the important Thule U.S. air base in the northwest corner of the island. The uncertainty regarding Greenland's future is exacerbated by the discovery of increasing levels of gas and oil beneath its waters, which provides a realistic level of income and encourages the indigenous Greenlanders to consider independence seriously.¹⁷⁹ Finally, the Danes are pushing for a series of very detailed underwater mapping exercises designed to sustain their extensive claims to great swaths of the Arctic seabed, up to and including the North Pole itself.

Kingdom of Denmark's official Arctic Strategy for a period of 2011-2020 "Kingdom of Denmark Strategy for the Arctic 2011-2020", was launched in the year 2011, the strategy was unanimously adopted by the Governments of Denmark, Greenland and Faroe Islands

¹⁷⁹ Stavridis, *Sea Power*, 253.

where “the aim is to strengthen the Kingdom’s status as global player in the Arctic”.¹⁸⁰ As per the strategy Kingdom’s all three parts Denmark, Faroe Islands and Greenland 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”.¹⁸¹ All the above mention priorities have a corresponding headings in the sections of the strategy. The Danish strategy doesn’t have any specific section when it comes to empowering northern peoples, but in the introduction of the strategy it has been openly demonstrated by stating that the “strategy for the Arctic region is first and foremost a strategy for a development that benefits the inhabitants of the Arctic”.¹⁸² Hence this elucidate the importance of northerner in the official strategy of Kingdom.

The strategy emphasis on the following areas, secure and safe Arctic, the maritime safety and security, surveillance, exercising sovereignty and international cooperation in line with UNCLOS. When it comes to the issue of legal framework for Arctic, the strategy overtly states that “the Arctic is not a legal vacuum”, the UNCLOS offers legal framework in every aspect for Arctic region, from the issue of territorial limits to rights of navigation and resource management.¹⁸³ This means that Denmark do not consider a separate Arctic treaty on the legal issues as some states have proposed, instead Copenhagen emphasizes the application of existing legal regimes like UNCLOS in the Arctic Ocean Region.

The division on self-sustaining growth and development, focusses on the justifiable exploitation of all resources including, oil, minerals, living resources and possible renewable energy. The section highlights scientific research activities on Arctic issues. Protection of environment, knowledge building and supervision centered on available scientific knowledge and protection of biodiversity are also emphasized and listed in the high priorities.

The last part of the strategy focuses on international cooperation at three levels, parallel to various challenges at regional, international and bilateral level. On international level the

¹⁸⁰ Denmark, *Kingdom of Denmark Strategy for the Arctic 2011-2020*, Ministry of Foreign Affairs of Denmark, August 2011, <http://um.dk/en/foreign-policy/the-arctic>

¹⁸¹ Ibid. p. 11.

¹⁸² Ibid. p. 11-12.

¹⁸³ Ibid. p. 13.

strategy promotes different frameworks as a response for issues that are produced by climate change. These frameworks include, “United Nations Frameworks Convention on Climate Change (UNFCCC), United Nations Environmental Program (UNEP) and the Convention on Biological Diversity (CBD)”.¹⁸⁴ On regional level the strategy seeks cooperation and concrete actions on the issues of Arctic region through Arctic council and other regional frameworks. While on bilateral level Denmark desire to promote cooperation with other A8 states.

The current climate change has effected and will affect Denmark more than any other states as Greenland has an enormous indigenous population. In the 21st century geopolitics of Arctic region role of Denmark is going to be aggressive and visible. With the ongoing Situation Denmark may necessitate to have a great amount of military engagement in the Arctic, for the security of different new installations in Greenland. The strategy is more focused of on the security and safety as well as cooperation at all levels. Moreover, there is especial focus on the northerner’s as well.

3.1.7 The Russian Federation

For Russia, the Arctic is a subject of national defense, national great power status, legitimacy and prestige and also vital for the Putin administration in a family setting and national economic growth and development. In 2009 the Russian Federation announced its strategy for the Arctic region, “The Fundamentals of State Policy of the Russian Federation in the Arctic in the Period up to 2020 and Beyond”.¹⁸⁵ The text is organized into four sections (plus a concluding chapter on the chronology of realization): Objectives of the nation; fundamental aims and strategic priorities; policy implementation measures; and policy implementation mechanisms. To tackle social and economic development issues, the Russian Arctic can be used as a strategic resource base. The region must also be kept peaceful and cooperative, as well as its unique natural systems must be preserved. The Northern Sea Route can also be used for national transportation.¹⁸⁶

The Russian Arctic Program, unveiled in 2013, has a similar mix of security and economic

¹⁸⁴ Denmark, *Kingdom of Denmark Strategy for the Arctic 2011-2020*, 13,

¹⁸⁵ Russia, *Russian Federation Policy for the Arctic to 2020*, March 30, 2009

<http://www.arctisearch.com/Russian+Federation+Policy+for+the+Arctic+to+2020>

¹⁸⁶ Ibid. p. 2-3.

goals to the Arctic policies of the United States and Canada.¹⁸⁷ There are three key objectives: 1) security risks; 2) expansion in the energy industry; and 3) commercial exploitation and management of the Northern Sea shipping channel (NSR). These objectives are less clearly ranked than they are in the US or Canadian plans. On the basis of statements made by senior leaders, Moscow appears particularly concerned about national security. Yet these issues are only referenced once, near the end of Russia's formal Arctic plan. Military strength in the Russian Arctic are meant to "fight quasi influence" while also "repelling aggression" against the country.¹⁸⁸ Russia's claim to an enlarged coast line over the Lomonosov Ridge in anticipation of hydrocarbon finds there also offers a possible dispute with Canada.

A third major Russian interest in the Arctic is the commercial use of and control of the Northern Sea Route (NSR). Russia desires the opening of the North Sea Route (NSR) to shipping in order to facilitate oil and LNG exports, enhance the country's marine transportation business, and maybe establish energy consuming industries in China's far north for export to the Far East.

In spite of the Arctic countries' agreement that the NSR will stay accessible to all, Russia insists on regulating the NSR. Many other countries have disputed this assertion. According to existing Russian regulations, all ships intending to use the NSR must apply for permission from Russia's government first and, if that isn't possible, must rely solely on Russia's pricey nuclear icebreaker service. These Russian assertions could pave the way for future hostilities with the United States, which places a high priority on maritime freedom in its Arctic strategy.

Russia's 2013 Arctic policy downplays its realpolitik interests in military security, oil and gas, and control of the NSR in favor of a number of other priorities that could serve as the foundation for international cooperation in the region. Specifically, achieving the following objectives:

- Encouraging hydrocarbon, mineral, and water-resource development across Russian Federation, as well as in the country's far northern regions to improve the quality of life for

¹⁸⁷ Russia, *The Russia Arctic Program*, Government of the Russia Federation, February 20, 2013, <http://government.ru/news/432>. [The strategy for the development of the Arctic zone of the Russian Federation and the provision of national security for the period up to 2020]

¹⁸⁸ Russia, *The Russia Arctic Program*, 2013,18.

the country's indigenous Arctic population (especially through medical care and education).

- Develop climate change research, find new hydrocarbon fields, and bolster Russian continental shelf claims with science and technology.
- By installing undersea fiber-optic cables along the NSR and building communication centers to transmit navigational and meteorological data, we may improve service.
- Investing in infrastructure development and modernization to prepare for increased shipping traffic in the NSR. In other words, Russia plans to build new seaports and rescue centers, upgrade icebreakers and other rescue and support vessels, and build aviation and rail networks in the far north.
- Expanding physically protected areas, repairing environmental damage already done, and putting in place measures to prevent future environmental damage would all help to increase ecological sustainability.
- Improving Arctic international cooperation in groundwater management, tourist, nature conservation, and search and rescue operations.
- Providing armed security and defense of Russian national boundaries, which in turn demands increased levels of force preparedness and logistics support.

Russia's stance in this territory seems far from homogeneous. On the one hand, Russia planted its flag in 2007 on the far northernmost Arctic seafloor during a science excursion to strengthen its claims for extended polar sovereignty. On the other hand, Russia struck an arrangement with Norway in 2010 to designate marine boundaries. Russia has boosted its military activity in the Arctic, but also is sticking to contractual contracts that promote maritime protection and reliability.¹⁸⁹

Western opinions of Russia in the Arctic are polar opposites as a result of its inconsistent behavior: Russia has a scary military presence with aggressive expansion plans; but, it is also a constructively involved actor, resolving neighborly issues. Russia's foreign policy has long been divided along these lines, and it's not surprising. Throughout its history, Russia has been able to strike a balance between collaboration and competition with its

¹⁸⁹ Stacy Closson, "Russian Foreign Policy in the Arctic: Balancing Cooperation and Competition," Wilson center, January 1, 2017, <https://www.semanticscholar.org/paper/Russian-Foreign-Policy-in-the-Arctic%3A-Balancing-and-Closson/daa0209b7a8ad34c589c0404a5c9f2c4df2d4498>, 1..

allies and adversaries. For illustrate, during Cold War, the Soviet Union supplied oil and gas to Western Europe and purchased Western commodities while preserving the Warsaw Pact as a strategic buffer against NATO.¹⁹⁰

Russia's essential interest looks to rest in the natural resources of the region, moreover, claim over Mendeleev and Lomonosov ridges is addition of Russia 's continental shelf doesn't help this way, because neither of these areas contain promising resources. Further, Russia's national Arctic strategy has declared, the Arctic's strategic and tremendously significant position as its resource base is very important to Russian national interests. Nevertheless, Russia is emphasizing on the importance of the energy sector in its Arctic national strategy. Currently, it does not have the technological skill vital for the searching and utilization of the Arctic's geo-economics. In order to utilize Arctic's economic potential Russia is particularly interested in maintaining cooperation in the region, which is essential to keep the region peaceful and stable.¹⁹¹ Moreover, Russia is maintaining cordial relations with China in the region, this is largely because of Beijing's economic wealth, which can help Russia in the development of critical infrastructure, necessary for transportation and exploitation natural reserves.

The current Russian State Policy in the Arctic region can said to be a response to the emerging geopolitical state of affairs in the melting Arctic Ocean. Russian policy revolves around economic sphere along with preservation territorial sovereignty in the region. Russia expects a significant increase in the number of ships using its Northern Sea Route, which connects European and Asian markets and offers new opportunities to the nearly 2 million Russian who now reside there. In order for Russia to continue developing and using its Arctic zone, it will need the cooperation of the other Arctic governments. The Arctic zone's future prosperity depends on Russian investment, technology and market access. To maximize Arctic economic growth potential, Russia's objective is to strike a healthy balance between its expansionist aspirations, military posture and cooperation with regional and extra regional states.

3.1.8 United States of America

From historical perspective Arctic has never been on the forefront of United States national

¹⁹⁰ Stacy Closson, "Russian Foreign Policy in the Arctic", 2017, 2.

¹⁹¹ Michael Paul, Zoom Interview,

strategy. Despite the fact that USA has the possession of Alaska, Washington has always placed its eyes on the vast continental land, and then respectively the Atlantic and Pacific oceans have remained of greater importance as these are considered to be the main highways to the globe for intensifying trade and geopolitical tasks. The decline of sea ice in the Arctic Ocean has increased so as human intrusion there thence, increased interest from different quarters of the globe. The Clinton administration in 1994 established the first US Arctic policy; however, they did not make that public. Furthermore, the aims of this policy were related to environment and sustainable use of resources, cooperation with different governments. Moreover, it also focused on scientific research and inclusion of indigenous people in policy making process that has direct effects on them.

Throughout the post-Cold War era Arctic region remained on the sideline in Washington's policy, but things got changed in 2007 when Russia planted its flag in the North Pole. Intellectuals in the US argued that the US was lagging behind Russia in the race for Arctic.¹⁹² Till then US had no articulated Arctic policy, with growing Russian activities statesman in the US realized the need for an inclusive Arctic policy. Prior to the 2009 policy the US government in 2008 made it clear that Arctic countries use different methods to define national territory. In addition, lobbying was going on in the US for an Arctic Agenda. They also emphasized on understanding the Arctic identity of the US. Consequently, the first official US strategy was adopted by Bush administration in the first half of 2009, by the name "Arctic Region Policy," it was issued both as a "National Security Presidential Directive and as a Homeland Security Presidential Directive".¹⁹³ The US "National Security Presidential Directive/NSPD – 66"¹⁹⁴ and later on USA released its additional formal policy documents in 2013.

Besides these two initial documents, the US government also released an "Implementation Plan for the National Strategy for Arctic Region" in 2014 and an executive as well "the Executive Order 13689— Enhancing Coordination of National Efforts in the Arctic" in

¹⁹² Ian G. Brosnan, Thomas M. Leschine, and Edward L. Miles, "Cooperation or Conflict in a Changing Arctic?," *Ocean Development & International Law* 42, no. 1-2 (2011): pp. 173-210, <https://doi.org/10.1080/00908320.2011.543032>.

¹⁹³ Stavridis, *Sea Power*,

¹⁹⁴ The White House, "National Security Presidential Directive and Homeland Security Presidential Directive (NSPD) -66, Homeland Security Presidential Directive (HSPD)-25," 2009, <http://www.fas.org/irp/offdocs/nspd/nspd-66.htm>.

2015. Recently, the two US institutions, US Coast Guard and Department of Defense also released their Arctic strategy.

The objectives of “US National Security Presidential Directive-66” were as follows:

- (I) Protecting the US National Security
- (ii) Establishing mechanism of International governance
- (iii) Increasing size of continental shelf and taking up boundary issues
- (iv) Enhancing cooperation among countries on the scientific front
- (v) Maritime transportation route
- (vi) Economic benefits through Natural resources
- (vii) Protection of Environment through sustainable use of resources

The document for the first time calls the US an Arctic Nation. The US policy focuses on national and homeland security by focusing on challenges emerging in maritime spaces especially “Freedom of the seas”.¹⁹⁵ In addition, it ensures these goals through improved military existence and predicting US sea power through Arctic region. The document also supports US ratification of UNCLOS, but this decision is currently stalled in the US Congress. The reason for this is that the US has yet to ratify UNCLOS; it will want to begin the outward limits of its continental shelf, while also pressuring Russia to ratify the 1990 boundary agreement of US. In procedure, it has accepted on assured communal rules with other Arctic Ocean littoral states through the Potential clients and customers Declaration.¹⁹⁶

The US Arctic Policy prioritizes environment, natural resource management and commercial development in the polar region. Additionally, it leads to enhanced international cooperation and governance, mainly through the AC, as well as seeking administrative assistance among Arctic states. The strategy states that the US will continue to cooperate on issues related to Arctic, through the UN and its subsidiary bodies as well as cooperation through international laws and other agreements like United Nations Framework Convention on Climate Change (UNFCCC).

On the aspect of environmental security, the policy recognizes the climate challenge and its impacts, moreover acknowledges lack of basic data in various fields, but there is no reference of climate change in terms of Policy execution. To carry out the US goal of

¹⁹⁵ White House, NSPD – 66, HSPD -25, 3.

¹⁹⁶ Heininen, State of the Arctic Strategies and Policies, 2012, 23-24.

“continuing to play a leadership role in research throughout the Arctic region,” President Obama issued a Presidential Memorandum in the summer of 2010 “assigning responsibility for Arctic research to the White House National Science and Technology Council.”¹⁹⁷ Even though Bush Administration endorsed and published the US “Arctic Region Policy” as one of its final documents as well as the aforementioned and a few other documents of the Obama Administration, specify that Arctic is going to be a new essential place in US foreign policy.

The US government clearly states its priorities in the introduction of the 2013 Strategy, seeking first, an Arctic region that is reliable and free of discord, second, where nations behave responsibly in a true essence of mutual trust, and third where environmental and economic assets are established in a sustainable manner that also respects the vulnerable environment and Indigenous population's interests and cultures.¹⁹⁸

The Strategy outlines “three lines of effort” that will assist the US in meeting its objectives. This corresponds to “1. Advance US Security Interests; 2. Pursue Responsible Arctic Region Stewardship,” and “3. Strengthen International Cooperation”.¹⁹⁹ As the region changes, “we will be directed by our central interests in the Arctic region, that included offering for the security of the US; guarding the free flow of resources and trade; saving the environment; responding to the needs of Native groups; and enabling scientific research,” according to the Strategy.²⁰⁰ The 2009 directives, on the other hand, make no clear priority statements. Rather than, the section headings of the documents can be used to suggest the policy priorities. They are as follows: “B. Public Safety and Border Security Interests in the Arctic”; “C. Worldwide Governance”; “D. Extra Continental Shelf and Boundary Issues”; “E. Promoting International Scientific Cooperation”; “F. Maritime Transportation in the Arctic Region”; “G. Economic Issues, Including Energy”; and “H. Environmental Protection and Natural Resource Conservation”.²⁰¹

The three lines of effort for the 2013 Strategy, as recognized at the beginning of the debate

¹⁹⁷ “Obama Reassigns Responsibilities for Arctic Research to a White House Council,” National Archives and Records Administration (Press Release, July 22, 2010), <https://obamawhitehouse.archives.gov/the-press-office/presidential-memorandum-arctic-research-and-policy-act>.

¹⁹⁸ US, *National Strategy for the Arctic*, The White House (TWH), 2013, 4 https://obamawhitehouse.archives.gov/sites/default/files/docs/nat_arctic_strategy.pdf

¹⁹⁹ Ibid. p. 2.

²⁰⁰ Ibid. p. 3.

²⁰¹ White House, NSPD – 66, HSPD -25, 3.

on American strategies, including, “security, stewardship, and international cooperation”. Furthermore, the 2013 Strategy states that the US will “seek an Arctic region that is stable and free of conflict, where nations act responsibly in a spirit of mutual cooperation, and where energy and resource resources are developed in a responsible way that also respects the fractious environment and Indigenous peoples' interests and cultures”. This is a comprehensive announcement related to Worldwide Cooperation, Security and Environmental Protection, Economy, and Human Dimension.

On the security front growing Chinese presence is matter of concern for USA, China got observer status in Arctic council in 2012 and released its first Arctic strategy in 2018 calling itself a “Near Arctic state” which the US has rejected outright. There has been an increasing concerns regarding China’s presence in the region specially from the parts of United States of America and to some extent also from its allies and European Union. But all in all it has been the United States who views China suspiciously in the Arctic region. US policy makers are skeptic of growing Chinese presence in the region. On several occasion US has shown its displeasure on China’s activities in the region, for example, In the official meeting of the Arctic States held in 2018 in Finland, US Secretary of State Mike Pompeo in a brief presentation to the international audience explicitly criticized and accused China of doing all kinds of unlawful activity in the Arctic region.²⁰²

In the 21st century Arctic geopolitics US is more concerned on issues of security and growing Russian and Chinese presence in the region. which is quite understandable keeping in view US’s rivalry with China in the Indo-Pacific region. Washington portray China as rival in the region, therefore constructed the view that China is a threat to the peace and stability of Arctic region, though in reality as of now Beijing has played a positive role in promoting cooperation among states. Overall the strategy reflects a typical US view of international politics as security has been it the top of its priority list when it comes to Arctic geopolitics while second priority is sovereignty. Unlike other states, apparently economy is not Washington’s key objective. Currently US is the only state among Arctic and non-Arctic states who look at the region from security perspective.

Conclusion

All the Arctic states in their strategies use the term “Arctic” while Canada has prioritized

²⁰² Timo Koivurova, Zoom Interview

High North instead. In their strategies there is no specific definition for Arctic region. As all the strategies are the result of the rapid climate change, economy dominates in almost all the states strategies as first priority, similarly all the states have emphasized on the promotion of Arctic cooperation through Arctic council. All the Arctic Eight in their strategies represent themselves as an Arctic state, so that to reaffirm the sovereign interests in the region. Though when it comes to defining itself as Arctic states, the definition varies from state to states, for example, Russia as Leading Arctic Power; Canada as Northern country; USA Arctic nation, Finland Arctic country; Iceland, country located entirely within the Arctic region; Sweden, Arctic country and Norway as a steward of the natural and cultural heritage in the High North.

There are several factors that made the Arctic states to update and adopted new Arctic strategies, the most important factor is obviously climate change which is altering the physical geography of Arctic region from a frozen area to international focus, this structural change prompted states to look at region from the geoeconomic lens as appeared in all the strategies. Second factor which is playing a significant role in shaping states policies is the way Arctic has been presented by academia and the mainstream media outlets. Melting Arctic Ocean is being fabricated as “gold rush”, “Arctic Boom” and “New Cold War” such trends are important factors in shaping world view about the region. Moreover, intellectuals, scholars (Formal Geopolitics) has also been important in influencing states policies regarding 21st century Arctic through their writings.

CHAPTER FOUR

EXTRA REGIONAL ACTORS IN THE ARCTIC OCEAN REGION

As Arctic region is getting attention in the international community, due to the rapidly thawing ice cap, which is resulting in the opening up of the region. In such scenario one of the most pertinent trends that is taking place in the recent past, is the growing interests of extra-regional actors in the icy waters of Arctic Ocean. From the start of 21st century non-Arctic states are forfeiting more devotion to the Arctic region, because of its emerging economic worth. Since 2010, numerous non-Arctic States either adopted an official Arctic strategy or updated their pervious Arctic policy documents.

A key question here is; why non-Arctic states must pay attention to the Arctic affairs? While there are numerous reasons why they must pay attention to the 21st century Arctic region. The very first reason behind their growing interest is climate change in the area. Climate change is not only altering the physical geography of Arctic region, but it also effects the life and commercial activities in specific states and across the globe. Extra regional actors especially participant in the Arctic Council are more interested in exploring the region. The emerging geo-economic in the Arctic region is another important factors responsible for attracting the extra regional players. The melting Arctic is attractive for extra-regional actors both for the opening up of alternative trade routes, Northern Sea Route and the Northwest Passage, and natural reserves of the region, including, Oil, gas, fisheries, and other bio resources.

The following section discusses the national strategies of some key non-Arctic states (extra regional) following the rapid climate change. Subsequently, the section enlists priority areas and core national objectives of these states in arranged order.

4.1 China

In the 21st century, China has been identified as a prominent player in Northern geopolitics. China view the impending climate changes in the Arctic with huge effects and worldwide impacts, thus it is not up to the Arctic states simply to determine the laws and guidelines for the continued expansion of and entry to the territory and its riches. Non-Arctic states like China also have a part to play and preserve legal rights of engaging in Arctic research and a number of commercial activities. Chinese officials have referred to themselves as a "near Arctic state," which has been roundly derided by the Arctic states, especially the

United States.

China's interest in Arctic affairs traced back to 1980s, when China established an Arctic research institute/ polar research institute in Shanghai in the year 1989. After the dissolution of the Soviet Union, China acquired a research vessel and an icebreaker from Ukraine in 1993, called Xue long that is now being used actively in the Arctic region.²⁰³

China has noteworthy economic interests in the region, currently China is cooperating closely with Russia on various energy schemes, mainly the yamal LNG project. Chinese petroleum corporations CNPC has some 20 % share in this project, which is controlled by Russian company Novatek. Moreover, a French company is also involved in the project and it has already liquefied natural gas from the yamal peninsula, has been transported on tankers from the port of on the Sabetta yamal Peninsula to Chinese ports.²⁰⁴

China presented its first Arctic Policy White Paper at the end of January 2018.²⁰⁵ It symbolizes the conclusion of a decade of Chinese diplomacy in the area that has become more assertive, proactive, and intelligent, with Beijing increasingly stressing the need of being acknowledged and included as a key participant. The People's Republic of China's State Council Information Office announced China's Arctic Policy in January 2018. China's white paper was released, among other things, "to elaborate on its policy aims, basic tenets, and significant policies and views on its participation in Arctic affairs" and the Arctic. The key objectives of China in the region are to "understand, protect, develop, and engage in Arctic governance, to safeguard the shared interests of all countries and international community in the Arctic, and promote sustainable development in the Arctic"²⁰⁶, "reads the Chinese Arctic Policy's mission statement. Chinese officials have declared that "respect", "cooperation", "win-win result", and "sustainability" are the four guiding concepts for China's Arctic strategy.²⁰⁷

The following are the contents of the policy statement: Preface; I. Arctic Condition and Improvements Made; II. China and the Arctic; Goals and core principles of Chinese Arctic

²⁰³ Kristian Åtland, zoom link interview,

²⁰⁴ Kristian Åtland, zoom link interview.

²⁰⁵ Xinhua, "Full Text: China's Arctic Policy," chinadailyhk, January 26, 2018, <https://www.chinadailyhk.com/articles/188/159/234/1516941033919.html>

²⁰⁶ People's Republic of China (PRC), *China's Arctic Policy*, The State Council, January 26, 2018, http://english.gov.cn/archive/white_paper/2018/01/26/, 2

²⁰⁷ Ibid. p. 3.

policy; IV. China's Arctic Policy and Positions: Exploring and comprehending the arctic in greater depth, tackling climate science, utilizing Northern resource in a lawful and rational manner, actively participates in Arctic government and international collaboration, and fostering security and harmony in the Arctic Ocean region.²⁰⁸

These policy aims are considered as the key priorities of the Chinese Arctic Policy. It's important to "understand," "defend," "develop," and "participate" in the Arctic's administration.²⁰⁹ There's a lot of backing for them in the four basic concepts. As a temporary observer, the People's Republic of China was recognized as a member of Arctic Council in May 2013 at the Kiruna Cabinet in Sweden.²¹⁰

China's Arctic ambitions have been downplayed in official speeches and statements in the past. In 2013, China was admitted as an observer state to the Arctic Council as a result of this. There has been a long tradition among Chinese Arctic intellectuals of viewing the Arctic as a 'common good,' and Chinese President Ji Jinping has openly described China as a "polar major power" since 2014.²¹¹ Beijing's decision to give the Arctic a higher strategic priority is based on three factors. The first is to build up a strong Arctic (polar) research capability, focused on climate change in the Arctic, which has direct repercussions in Asia and China, generating extreme weather patterns that badly affect Chinese agriculture and economy. For China's civil-military satellite navigation system, China's space scientific program, and more precise local weather systems, the establishment of Chinese research stations in the Arctic is crucial. In other words, these programs and systems are dual-purpose, meaning they may be used for both civilian and military purposes.²¹² Chinese military presence and action in the region, which would also be met with significant Russian protests, cannot be ruled out at this time. To be sure, the Chinese military has been increasing its focus on Arctic operations in recent years, which is in line with the 'new strategic frontiers' category outlined further below.

With more trips and increased attempts to develop research networks and stations, China's

²⁰⁸ PRC, *China's Arctic Policy*, 2018, 4

²⁰⁹ Ibid. p. 5.

²¹⁰ Arctic Council Secretariat, "The Arctic Council: A Background," (Arctic Council Secretariat, September 25, 2017), <http://hdl.handle.net/11374/2076>.

²¹¹ Anne-Marie Brady, *China as a Polar Great Power* (Washington, D.C.: Woodrow Wilson Center Press, 2017), 33-34.

²¹² Ibid. p. 107– 110.

Arctic and Antarctic research operations have grown in recent years. On Svalbard, China has had quite a research facility since 2004 (Yellow River Station). In Iceland, Beijing established the Aurora observation, and plans to open a Chinese research center and a mobile receiving station have been suggested.

China, like some of the other non-Arctic governments, is actively involved in scientific warfare in the region, using its research operations to legitimize and reinforce its growing influence in the region, as well as China's relationships with specific States of the region and parties. To enable access to the Arctic's resources, China is working to safeguard and expand its supply. These business strategy frontiers are described as the most difficult locations to function in and to harvest resources from, according to experts. When it comes to developing and mastering new technologies, it is expected that the great power who is first to do so would gain critical strategic benefits that will ensure its dominance in the great power struggle of the twenty-first century. Chinese leaders are keen to ensure that they are first and superior in these new areas of strategic importance to the country. There's a link between this and China's continuing restructuring. All of this ties into the Chinese economy's continuing reorganization, where Government development is at the forefront of the agenda. As a third goal, China wants to advance and increase entrance to the Arctic sea routes, which are a more eye-catching alternate to the longer and more hazardous routes is use now. These routes are roughly 30% shorter for China than the Strait of Malacca and Suez Canal. Though China prioritize Arctic governance and international cooperation in Arctic region in its Arctic strategy but in reality the main objectives are natural reserves, international trade and shipping.²¹³

Apart from strategic significance Arctic is important in Beijing's foreign policy due to its economic worth in terms of oil, gas, other minerals and most pertinent new trade routes. Chinese shipping company COSCO is particularly interested in the emerging trade route and seems to have a more hopeful view, going to announce set to deploy scheduled service through Arctic in 2016, testing the Arctic sea lanes, and constructing large ships that are better suited for this purpose, according to general consensus. As many as 30 COSCO vessels have transited the Arctic in the past four years 14 transit cruises are planned this

²¹³ Barbora Halaskova, zoom interview.

year, nearly twice as many in 2018.²¹⁴ As evidenced by China's Arctic Policy Statement, where Chinese enterprises are pushed to give priority to participation in the building of the 'Polar Silk Road' infrastructure, Chinese companies are increasingly focused on Arctic sea lanes. Therefore, Chinese firms, banks, etc. have a stronger chance of receiving both financial and political assistance because the Arctic maritime route is now part of China's Belt and Road Initiative (BRI) since June 2017. According, Barbora Halaskova, China has been increasing its collaboration with Russia in recent years on NSR infrastructure, in fact China has closest relationship among the Arctic states with Russia. Thanks to the EU sanctions against Russia after the annexation of Crimea in 2014, Russia decided to further strengthen cooperation with China, giving them licenses for exploration and exploitation of oil and gas in the Arctic, in exchange for a large amount of money and also access to know-how and western technologies.²¹⁵

Moreover, Beijing is building ports and railways. "Polar Silk Road" would not only reach Russia, but will also help China to reinforced its "Polar Silk Road" initiatives with Iceland and Finland. Because the Chinese interests and activity in the Arctic depend on it, Beijing must ensure that it has a voice on Arctic governance issues. It is widely believed that in China, the Arctic governance system is still in its infancy and offers non-Arctic major powers such as China the opportunity to influence the region's ongoing development and codification of laws and regulations in the region.²¹⁶ Evidently China is becoming more of a competitor in the Arctic region. China has several attempts to buy some yards of Greenland, and to invest in Iceland, so that to establish its presence in the Arctic region. on the one hand China is eager to get some foothold in the Arctic for its vested economic interests on the other hand Arctic states are eager to attract some foreign investment to the region particularly Denmark.²¹⁷

As for as Chinese leaders, they realize that they are the only major power without Arctic territory and rely on the Arctic states realizing the benefits of China's participation. Because

²¹⁴ Camilla T. N. Sørensen, "Intensifying U.S.-China Security Dilemma Dynamics Play out in the Arctic: Implications for China's Arctic Strategy," Arctic Yearbook, 2019, <https://arcticyearbook.com/arctic-yearbook/2019/2019-scholarly-papers/323-intensifying-u-s-china-security-dilemma-dynamics-play-out-in-the-arctic-implications-for-china-s-arctic-strategy> .

²¹⁵ Barbora Halaskova, zoom interview.

²¹⁶ Zhang Yao, "Ice Silk Road Framework Welcomed by Countries, Sets New Direction for Arctic Cooperation," *Global Times*, April 7, 2019.

²¹⁷ Michael Paul, Zoom Link interview.

of this, China's diplomatic and economic assault in the region is focused heavily upon the establishment of solid, long-term partnerships with all Arctic states and stakeholders, as well as the gradual expansion of China's power in global Arctic organizations and procedures. In order to achieve this, China intends to offer a variety of benefits to the Arctic states and stakeholders. Unexpected developments and prospective efforts to exclude China in the Arctic are more easily managed by China. To ensure that Arctic states and other parties have a solid interest in preserving China's presence there. Some of these measures are aimed at preventing the Arctic big powers, the United States and Russia, from pushing China out of the region. Increasingly, Washington views Arctic politics and stability through the perspective of 'great power struggle,' pointing to Russia and China as the powers challengers that need to be countered and held in check. Moreover, gaining influence in the Arctic region important for not only in terms of emerging geo-economic but also from strategic perspective, due to the ongoing strategic competition with US and its allies in the Indo-Pacific region.

4.2 France

The French Foreign office and International Development authorized and launched “The National Roadmap for the Arctic” in year 2016.²¹⁸ The core objective of "National Roadmap for the Arctic" was to be drawn up, “defining, ranking and organizing France's Arctic objectives”.²¹⁹

French participation in multilateral meetings on the Arctic, the European Union's role in the Arctic region, as well as national interests and mutual values in the Arctic region are all covered in the seven chapters' policy document. French goals are based on four primary areas of work: It identifies the interests of France in the Arctic, enhances France's authority in Arctic issues, and promotes the conservation of the Arctic marine ecology.²²⁰ However, it is explicitly stated in the Roadmap that, “France already has political and economic interests in the Arctic, which are bound to grow” in the years to come.²²¹

Arctic region has always been of great importance for France from environmental and

²¹⁸ France, *The Great Challenge of the Arctic: National Roadmap for the Arctic*, Ministère des Affaires Étrangères et du Développement International (MAEDI), 2016.

https://www.diplomatie.gouv.fr/IMG/pdf/frna_-_eng_-_interne_-_prepa_-_17-06-pm-bd-pdf_cle02695b.pdf

²¹⁹ France, *The Great Challenge of the Arctic*, 2016, 12.

²²⁰ Ibid. p. 12.

²²¹ Ibid. p. 11.

historical standpoint. Since the 1960s, France has had a permanent research base in Svalbard, which is home to several prominent French polar explorers and scientists.²²² Another clue to France's national interest there is the title of the final chapter, "France as an Arctic player".²²³ The Arctic Council granted France continuous observer status in 2000. The Arctic Ocean is defined by France as "an ocean encircled by continent". It is noted in the French Roadmap that "the Arctic is both far away from France and near it". If one looks at Arctic ocean from France's western shoreline, it appears that the Arctic Ocean is a natural outgrowth of the North Atlantic. As a result of its pristine state, the Arctic looked far away until recently. Climate change is now being felt in full force in the Arctic", and also the Arctic "is the diamond in the rough in the mine site for global climate change".²²⁴ In spite of the fact that France does not have any Arctic territory, it is still the only non-Arctic government to have an Arctic minister. This show they view the region. Not just climate change and its ramifications, but also marine security, substantial corporate interests, and most importantly strengthening of the government's position as a representative of the EU's geopolitical interests encourage France to get more diplomatically active in the matter of Arctic region.

As per French National Roadmap for the Arctic, economy is France's top priority when it comes to Arctic policy. Furthermore, the book's economic section, which focuses on new business potential for French corporations like Total's Yamal LNG Projects, lends credence to this interpretation. Note that "sovereignty" and "defence" are specifically mentioned. As a result of the Roadmap, France clearly recognizes the sovereign rights and jurisdiction of the five Arctic coastal states. Defence and security problems are also discussed, which are not on the Arctic Council agenda; NATO is concerned about the security of Arctic states, and France commits to do its part to keep the Arctic stable. Also, France's Arctic policy is an affirmation of the EU's Arctic strategy and the EU's rightful presence in the region. While the function of EU's Arctic policy is not clearly stated, the EU's membership of Barents Euro-Arctic Council is.

²²² Lassi Heininen, Karen Everett, Barbora Padrtova, Anni Reissell, Arctic Policies and Strategies-Analysis, Synthesis, and Trends, International Institute for Applied Systems Analysis Schlossplatz 1, A 2361 Laxenburg, Austria, February 2020 p-195,196.

²²³ France, *The Great Challenge of the Arctic*, 2016, 3

²²⁴ Ibid. p. 5.

Overall The road map focuses on the objectives of France as well as Europe when it comes to Arctic issues. Governmental objectives in the Arctic Ocean have been explicitly stated, yet it is unclear whether they are in equilibrium. But protection of the environment is at the top of the list. Irrefutably, it is impossible to determine whether France's involvement in Arctic matters is legitimate, let alone strengthened. A last point is that the economics and security aspects show a larger focus on business than government priorities, which may represent France's concentration on national interests in the Arctic and Arctic matters better than government priorities would suggest.

4.3 Italy

The Italian Minister of Foreign Affairs and International Cooperation (MFAIC) issued the first Arctic strategy “Towards an Italian Strategy for the Arctic National Guidelines” in 2015.²²⁵ The chapter title analyzed includes “1. Italy in the Arctic: A Centenary History, 2. Italy in the Arctic: The Political Dimension, 3. Environmental and Human Dimension, 4. The Scientific Dimension, and 5. Economic Dimension”, furthermore, the strategy has no clear priorities, four categories can be taken as a priority in these areas: 1. “Political Dimension; 2) Environmental and Human Dimension; 3) Scientific Dimension; and 4) Economic Dimension”.²²⁶ Italy in the Kiruna Ministerial in May 2013, Italy was recognized as the Arctic Council's regular observer.

The Arctic is among other aspects characterized as a "complex" and "vulnerable" environment with a "specific and sensitive environment," with an interest "every Arctic stakeholder".²²⁷ In addition, "many Arctic communities have their natural seclusion and fragility in a very delicate way".²²⁸ Italy is the Arctic Council's most recently appointed observer. This new membership recognizes the long-standing involvement of Italy in research and studies in the territory, and the awareness of the interests of several Italian enterprises in the region's generating revenue.

Overall the central focus of Italy's Arctic strategy is “Science and Education” the Guidelines thoroughly address how the national scientific community, “supported by the

²²⁵ Italy, *Towards an Italian Strategy for the Arctic: National Guidelines*, Ministry of Foreign Affairs and International Cooperation (MAECI). Updated May 2016.

https://www.esteri.it/mae/resource/doc/2016/06/strategy_for_the_arctic_may_2016.pdf

²²⁶ Italy, *Towards an Italian Strategy for the Arctic*, 2016.

²²⁷ Ibid. p. 16.

²²⁸ Ibid. p. 10.

national research agencies and in line with international efforts,” is dedicated to inclusive state goal “to reinforce Italian presence in the Arctic”.²²⁹ Another important aspect is that the Guidelines has greatly emphasized the prominence of both international agreements and international cooperation in the Arctic region. The Guidelines also emphasizes on the Arctic Council and UNCLOS’s role for managing Arctic Ocean. Additionally, to the above discussed priorities the Guidelines also focuses on the environmental matters of the region, comprising protection of biodiversity, reversal of climate change, prevention of air pollution, marine preservation, environmental jeopardies postured by transport, sea tourism, and mining. Of special consideration is the biodiversity of Arctic’s ecosystem.

4.4 Japan

In October 2015, Japan enacted and announced the Government of Japan's Ocean Policy Headquarters and was introduced at the Arctic Circle meeting in Reykjavik, Iceland. Japan’s Arctic strategy revolved around three key paragraphs: (I) “Background and Purpose of Basic Policy; II) Need to Address Arctic Issues, and III) Specific Initiatives”. The chapter “Need to Address Arctic Issues” contains the core ideas, if not priority, of the following major sub-chapters: (I) Worldwide ecological matters, (ii) Arctic indigenous inhabitants, (iii) scientific and technological, (iv) judicial system enforcement and promotion of international law v) Arctic Sea Route, Growth of Natural Resources and National Defense.²³⁰

Japan has already expressed interest in the Arctic, especially in the Northern Sea Route (e.g. the INSROP International Northern Sea Route Project), experimental knowledge (the first Non-Arctic State to join the IASC), and Russian Far East, as described in its policy. In the Fundamental Ocean Policy Plan, approved by the Japanese Cabinet in 2013, the fundamental and extensive fields of attention are:

- 1) Observing the Arctic from a broader perspective and researching it;
- 2) Arctic international collaboration
- 3) The review of the Arctic Sea Route's feasibility.²³¹

²²⁹ Ibid. p. 13.

²³⁰ Japan, *Japan’s Arctic Policy*, The Headquarters for Ocean Policy, October 2015, http://www.research.kobe-u.ac.jp/gsics-pcrc/sympo/20160728/documents/Keynote/Japan_Arctic%20_Policy.Pdf.

²³¹ Ibid. p. 2.

The objective of Arctic Policy "is the definition of more precise action policy, first from "Proactive Peace Contribution' perspective" It is based on the principles like international cooperation, community security, surroundings, transshipment, technology and science and "the variety of approaches, with input from business, academic institutions, and administration. To create Japan a key player in regional and global action to address Arctic problems.²³² Although there are several considerable subchapters are regarded as priorities. 1) Environmental concerns globally; 2) Arctic Indigenous Peoples; 3) science and technology; 4) Law enforcement and promotion of international co-operation; 5) Arctic Seaway; 6). At the Kiruna Ministerial Meeting in Sweden in May 2013 Japan was granted associate membership by the Japanese Arctic Council.

Two leading factors inherent in the Japanese Arctic Policy document: I) science and training and ii) global cooperation. The research & development in the worldwide scientific establishment is mainly concerned with scientific and technological. Specific activities, such as the encouragement of scholarship on the Arctic, the contributions to policy and problem solving, and the tangible suggestions, such as the recent research vessel of the Arctic are well represented. The basic ocean strategy plan is a strategic and thorough focal point in supporting global and international collaboration. The Policy identifies polar coding as the main international instrument and highlights it. International greatest essential means of enhancing maritime security. The Environmental Protection factors expressly acknowledge responsible resource usage and escalating global warming concerns. The list of sustainability projects largely relates to economic activities and the Arctic Sea Route as well as commodities (minerals and marine livelihoods). In consequence, whaling has not been highlighted, albeit it is important, concerning marine live commodities, perhaps because it would be too controversial a problem for Japan that withdrew in 2019 from the IWC. Of course, the Ainu are Northern indigenous Japanese, whereas the Arctic is a homeland of Indigenous populations. Peoples, Ainu people, the northern Japanese, are not explicitly noted in the northern region of Japan. The Japanese's explanation of their very own experiences in interacting with indigenous populations could have contributed considerably to the human and indigenous groups. Japan's strategy focusses around science and technology, the promotion of global cooperation, the

²³² Japan, *Japan's Arctic Policy*, 2015, 2

utilization of natural resources, and the Arctic Sea Route (economy), and global environmental concerns, especially climate change, can be determined. Overall the strategy is less focus on the issue related to Indigenous peoples, national security and governance.

4.5 Republic of Korea

Republic of Korea adopted its first ever Arctic policy in December 2013 as a result of the government's intention to execute "a comprehensive Arctic policy and follow-up measures" throughout the country.²³³ Die Vision der "Masterplan" (15-page document with illustrations) is to "contribute" to a sustainable future for Arctic governments and international organizations in research, technology, and economics. As a result of this policy, the Republic of Korea hopes to: a) expand international collaboration; and b) create new market segments it is possible to participate in the Arctic Council and its Working Groups.²³⁴ They are incorporated in the following policy objectives: Building an Arctic Partnership, Enhancing Arctic Scientific Research, and Exploring New Commercial Opportunities in the Arctic are just a few of the goals.²³⁵ After these goals have been set in place for the next five years, "31 main plans will be developed to accomplish the following four primary strategic goals: a) increasing international collaboration with the Arctic region; b) encouraging engineering and physical sciences research capability; ".²³⁶ "Priorities" were regarded as the three policy goals: 1) Build a cooperative Arctic alliance; 2) Improve scientific research efforts for the Arctic; and 3) Explore new business prospects in the Arctic region.²³⁷ A continuous observer status was granted to the Republic of Korea in May 2013 as a result of the Part presents Cabinet.²³⁸

The Republic of Korea's Arctic Policy contains a defined vision and a means of primary goals, policy goals, and action items. A minimal and technological approach is taken, though. According to the policy aims, science and research, the economic, and global collaboration are the three most important indicators. It makes sense that they appear

²³³ Republic of Korea, *Arctic Policy of the Republic of Korea*, Ministry of Oceans and Fisheries, Korea Maritime Institute 2013. p. 4.

http://library.arcticportal.org/1902/1/Arctic_Policy_of_the_Republic_of_Korea.pdf

²³⁴ Ibid. p. 5.

²³⁵ Ibid. p. 6.

²³⁶ Ibid. p. 5.

²³⁷ Ibid. p. 6.

²³⁸ Arctic Council, "The Arctic Council: A Backgrounder"

together, resulting in a more credible and simpler to implement policy statement. Contrarily, there is no clear mention of environmental protection, pollution or climate change indicators, and they're briefly and ambivalently stated as I "new prospects for expansion" and ii) "severe difficulties to the livelihoods of residents in the Arctic and its biodiversity".

The Policy's goals are some of its most focused symptoms in this concise and precise paper. As a player in the international community, the Republic of Korea is interested in the Arctic because of its goal to expand its political capital, as well as the possibility of gaining economic benefits associated to its industry. With limited natural resources and a reliance upon unstable energy sources, the country may be able to gain from Arctic natural resources and trade routes.

4.6 Spain

Spain's Polar Policy Guidelines (in Spanish and English) was published in 2016.²³⁹ A 35-page booklet covers two introductory chapters, one on geostrategic factors and two more substantive chapters on scientific research, transportation, and sector issues as action plans. Spitsbergen and Greenland are the main focus of the Spanish Arctic Strategy. Spain's polar strategy was devised and accepted for historical reasons. Spanish whalers from Galicia, Cantabria, and the Basque Country were first documented in the 16th century sailing not only "in northern latitudes higher than the Labrador Peninsula and the Arctic Circle", but also "in northern latitudes higher than the Arctic Circle and the Arctic Ocean".²⁴⁰

One should not forget that Spain's pioneering presence in the Arctic regions is an advantage that is underappreciated in international forums, according to the strategy.²⁴¹ A huge number of Spanish researchers boosted their involvement in worldwide polar scientific programs in the early 1980s. According to the strategy, Spain has a significant presence in the polar areas.²⁴² As per the strategy Spanish Polar Committee, which was established in 1998 and is charged with creating synergy in the polar regions.²⁴³ Spanish operations are

²³⁹ Spain, *Guidelines for a Spanish Polar Strategy*, Ministry of the Economy and Competitiveness. http://www.ciencia.gob.es/stfls/MICINN/InvestigacionFICHEROS/Comite_Polar_definitivo/Directrices_estrategia_polar_espanola.pdf

²⁴⁰ Spain, *Guidelines for a Spanish Polar Strategy*, 2016, 7-8

²⁴¹ Ibid. p. 7.

²⁴² Ibid. p. 17.

²⁴³ Ibid. p. 6.

managed by the Ministry of Economy and Competitiveness' Directorate for Technological and Scientific Research. As part of the 1988–1991 National Plan for Research and Innovation, Spain launched the National Antarctic Region Research Programme (PNIA) in 1988.²⁴⁴

Without exception, there isn't anything major in the Strategic approach that could be considered priorities, other than the fact that "polar investigation, including education", is defined as an important "strategic priority" for "the Spanish provided a clear" and "because Spain has a significant presence in the high latitudes," .²⁴⁵ Spain has been a member of the Arctic Council as an observing member since 2006.²⁴⁶

Spanish seafarers and whalers were active in northern and Arctic waters in the 16th and 17th centuries, and Spain is currently a Consultation Party to the Antarctic Treaty. Aside from being part of the Mediterranean region, Spain might be seen as the European equivalent of a "south". In the Arctic regions, Spain's goal is to "promote diplomacy, environmental conservation, and security."²⁴⁷ As a "strategic priority for the Spanish scientific system," polar research, including education, is recognized as a "global geostrategic instrument." Spanish Polar Strategy has chosen Science and Education as its top goal.

Maritime passage alongside the northern sea routes, dealing with the Arctic and fisheries and the fishing industry are also identified as priorities for Spain's Arctic policy. The United States became the world's leading whaling nation in the 1830s, beginning in the late colonial period. In New York and New England, especially Cape Cod and adjacent cities, American whaling began. Whale oil was mostly used to make lights. At this point, whaling had become a tremendously profitable enterprise on Nantucket, with trips lasting years and stretching as far as the South Pacific. Whaling ships were acceptable targets for the British navy during the American Revolution. As a result, several whalers became privateers and fought the British forces.

Maritime transportation along northern sea routes, dealing with the Arctic (part of the infrastructure indicator), and fisheries and the fishing industry (Governance-and-Economy

²⁴⁴ Ibid. p. 5.

²⁴⁵ Spain, *Guidelines for a Spanish Polar Strategy*, 2016, 18

²⁴⁶ Arctic Council, "The Arctic Council: A Backgrounder"

²⁴⁷ Spain, *Guidelines for a Spanish Polar Strategy*, 2016

indicators) are also identified as priorities for Spain's Arctic policy. With regard to climate change and economic activities, the strategy takes two approaches. However, it notes that climate change has a "multi-dimensional and far-reaching influence," including (improved) "access to its natural treasures".²⁴⁸ In fact, the Arctic Strategy is not alone in having a two-dimensional or ambivalent approach to Arctic strategy. Aside from Climate Change and Commerce, scientific research is practically on par with Transportation and Sectoral Issues (primarily fishing resource and navigational) under Action Proposals. Duality, as mentioned above, is a wicked problem that poses a comprehensive challenge. However, in general, strategy lacks specific and measurable goals if it does not make strategic choices between concerns, even if they are in opposition to each other.

All-in all the strategy's concentration is on international cooperation and polar research. Spain is one of Europe's most vulnerable nations to climate change, and as a result, it maintains a major environmental research center and has shown a desire for cooperation on Arctic issues in its strategy.

4.7 United Kingdom

As part of the United Kingdom Foreign and Commonwealth Office's 2013 Arctic policy document, "Adapting to Change", was signed in the year 2013.²⁴⁹ Lately the updated policy "Beyond the Ice: UK policy towards the Arctic" was endorsed and signed in 2018.²⁵⁰

The UK Arctic Policy for 2013 (31 pages, including several pictures) As a result, the document will be constantly updated to reflect the government's policy towards the Arctic. In addition to providing an overview of future Arctic policy, it also provides a means of communicating current ones.²⁵¹ These principles will help to underpin the UK's vision of an Arctic "that is safe and secure; well administered with Native peoples and in conformity with international law." Respect for the national sovereignty of Arctic governments, the perspectives and concerns of all those who reside and operate in the Arctic, and for the ecosystem, its fragility and its essential relevance to the planet's warming. But it would be

²⁴⁸ Ibid. p. 10.

²⁴⁹ United Kingdom, *Adapting to Change: UK Policy Towards the Arctic*, Foreign and Commonwealth Office (FCO), 2013, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/251216/Adaptin

²⁵⁰ United Kingdom FCO, *Beyond the Ice: UK Policy Towards the Arctic*, Foreign and Commonwealth Office (FCO), 2018, <https://assets.publishing.service.gov.uk/government/>

²⁵¹ United Kingdom FCO (2013), *Adapting to Change*, 9.

inaccurate to claim that the UK should not take a leading role in Arctic issues"; ii) cooperation, as "the diversity of Arctic actors, interests, and expertise implies that dialogue and cooperation should be at the heart of Northern policy making."²⁵² Further, the 2013 Arctic Policy "details for the first time the United Kingdom's interests in the Arctic, how we will work with Arctic States and the broader international public, and what expertise the United Kingdom can volunteer to help meet several of the lengthy difficulties facing the sector"; it also outlines the United Kingdom's genuine influence in the region, our priorities for practical action, and our readiness to step up to the plate in appropriate places. It acknowledges that what happens in the Arctic has a worldwide influence and can be a genuine worry for people well beyond the Arctic Circle. United Kingdom will engage with international partners in achieving a balance between human development and environmental protection. " These three pillars — human, environmental, and commercial — all contribute to the UK's overarching Arctic goal, the report says."²⁵³

The new UK Arctic Policy of 2018 is basically a review of progress since its 2013 publication and claimed to be based on the same three key concepts as the previous version published in 2013.²⁵⁴ There is a statement in the 2018 Arctic Policy stating that Britain "holds fast to vision of a Global Britain that is engaged in the world and working with our international partners to advance prosperity and security in the Arctic" furthermore that "UK science and innovation helps advance global understanding of how changes in the Arctic have global consequences and helps to find new solutions to the challenges".²⁵⁵ After all, the UK has always been a worldwide leader in Polar Affairs, and British ideas have long been influential in polar science, exploration, government, business, and nature conservation, according to the 2018 Policy. Despite the United Kingdom's desire to leave the European Union, the 2018 Framework "reaffirms our intention to remain a significant player in Arctic affairs".²⁵⁶ Actions and priorities in three areas are outlined in the UK's Arctic Policy 2018: 1) protecting global influence; 2) protecting people and environment; 3) encouraging prosperity.

²⁵² Ibid. p. 7.

²⁵³ United Kingdom FCO (2013), *Adapting to Change*, 9

²⁵⁴ United Kingdom FCO, *Beyond the Ice: UK Policy Towards the Arctic*, 2018, 3

²⁵⁵ Ibid. p. 7.

²⁵⁶ Ibid. p. 7.

UK's Arctic Policy, the 2018 Plan makes clear that Britain has always been a leading country in Polar matters, where British perspectives have long held power in the sectors of Arctic science, adventure, diplomatic and business. As per its Arctic policy UK is well-positioned to share knowledge and skills across both polar regions. After Brexit, the Minister of State for Polar Regions reaffirms "our aim to be a prominent player in Arctic affairs" in the statement's foreword.²⁵⁷ While engaging with international partners to improve prosperity and security in the Arctic, the 2018 Policy presents a vision of a "Global Britain" respected internationally and engaged in the globe affairs. There is also a commitment to maintain the UK's position as the world's first government to set legally enforceable carbon neutrality under the 2008 Climate Change Act, as well as one of the first Arctic Council Monitoring States.

Promoting wealth, protecting global influence, including research and international cooperation, and protecting the environment to a certain extent are all considered to be in focus in UK's Arctic strategies, while Protecting individuals, on the other hand, seems less important. The United Kingdom, which is also a permanent observer at the Arctic Council, is committed to maintaining the European Union's position on this issue. The British administration has formulated it clear that the country has a strong environmental, political, economic, and scientific stake in the territory, and that it is eager to accommodate with technological knowledge in the region if needed. UK has no territorial influence in the area, but it is plainly interested in new maritime routes and renewable energies as well as the chance to have a say in global affairs. It's not just the administration that's interest in the far northern, but also English oil firms.

Conclusion

All the regional actors' interests are primarily economic as reflected from their Arctic policy documents. Factors including environment is low on their agenda but as far as cooperation is concern all the regional actors have focused that in their policies. The most important point of attention is various definitions of Arctic region in their policies. Most of the states have used the word "Arctic" except France who instead use "The North" throughout its policy document.

²⁵⁷ United Kingdom FCO, *Beyond the Ice: UK Policy Towards the Arctic*, 2018, 2.

CHAPTER FIVE

ARCTIC OCEAN REGION: A ZONE OF COOPERATION OR COOMPETITIN

Arctic region is in the focus of the international community as result of climate change and global warming. Arctic region is changing from a marginal area to a global pitch with various important geopolitical and geo-economic aspects. The main driver of changing Arctic is the remarkable warming of the region which has resulted in increased melting of Arctic sea ice, hence opening up of Arctic Ocean once unimaginable. The opening Arctic as already discussed pave the way of extraction of hydrocarbon and most notably maritime trade routes. With such enormous potential the region may possibly have various consequences in terms of trade policy, energy security, trade, environmental anxieties and power relations for many states. Subsequently, actors, factors and incentives regarding the development of the region are burgeoning and getting more complex. There is multiplicity of views among the experts when it come possibilities emerging from the melting Arctic. For some the region is becoming a source of competition among regional and extra regional actors, because of a number of disputed issues, particularly territorial disputes among regional states and issues of legality of the emerging trade routes. While still others view the region as a zone of peace and stability in the presence of multilateral cooperation among states. Moreover, some scholars' opinion is that because of divergence of interests and presence of all great powers the world might witness another Cold War-like situation in the Arctic Ocean in the years to come.

This chapter examines the probable geopolitical scenarios emerging from all the changes that are taking place in Arctic Ocean. The chapter consist of two parts, 1. Competitive Arctic, 2, Potential for Cooperation in Arctic.

5.1 Competitive Arctic

In contemporary era, Arctic Ocean has become a central figure of climate change's overwhelming impacts, in such situation region's role as a center for geopolitical competition needs substantial amount of attention. The Arctic region is warming at rapid pace resulting in thawing and disappearing sea ice, numerous states have fixed their eyes on the opportunities generating from melting Arctic. Region is attractive due to its emerging geoeconomics, first region's natural reserves, second shorter maritime trade

routes for global flows. The 21st Arctic region, is troubled with thawing polar ice caps, all set to become a center stage for an inclusive competition among the stakeholders, apart from this there are number of issues which have the intensity to lead states to a dangerous competition, hence, can result in vicious conflict and confrontation in the forthcoming.

In international politics conflict, occasionally amounting to war, is supposed to arise when there are numerous independent states and no enforced system of law within them."²⁵⁸

Arctic Council is one example of an organization that tries to resolve issues in the Arctic region. With no formal ruling authority on issues of security, the governments are in direct rivalry for Arctic supremacy and the socio-economic benefits. When it comes to 21st century Arctic ocean, competing objectives overshadow obvious things as the consequences rise. Geostrategic engagement involving Russia, China, Europe, and the United States presents various variables that could respond to challenges.

Despite continued functional cooperation among Arctic states and non-Arctic states in the region, the jeopardy of Arctic to become a forecourt for regional and great power competition is on the rise with every passing day. The thawing sea ice is fueling the process of geopolitisation of the region. Subsequently, both Moscow and Washington are militarizing and securitizing the region, on the other hand Beijing is growing its economic stakes in the region for serving its long term plan of securing global superpower status. The US administration is accusing both China and Russia on their geopolitical activities in the region as threat to its national security and therefore increasing its presence in the region. As consequence, at present matters of Arctic security are higher on agendas than ever in the past.

Today there are a number of unresolved issues that have the potential to intensify competition among regional and extra regional actors in the melting Arctic. The following section explains and analyze the issues and possible scenario emerging from the melting Arctic, which if not resolved can dragged the region into severe competition and confrontation.

5.1.1 Maritime Trade Routes and Issues of legal Complexities

First and foremost, factor which can lead the region to a zone of competition among

²⁵⁸ Kenneth Neal Waltz, *Man, the State and War: A Theoretical Analysis* (Columbia University Press, 2018).

regional and extra regional actors are the legal status of the emerging maritime trade routes; Northwest Passage and Northern Sea route.

5.1.1.1 The Northern Sea Route

The Northern Sea Route is one of three possible future Sea routes in the Arctic Ocean. This shipping lane which runs by the side of the Russian Arctic coastline from Murmansk on the Barents Sea, along Siberia, to the Bering Strait and Far East connecting the Atlantic Ocean to the Pacific Ocean by the Bearing strait. The route passes through the Arctic waters but most of those waters are within the EEZ or even in some areas in the internal waters of Russia.

There has been a debate regarding the legal status of Northern Sea route, some social science scholars are of the opinion that both NSR and NWP are synonymous while other argues that the NSR and the NEP are two different sea routes. It is possible that the Northern Sea Route might be a source of confrontation involving Russia, the EU, China and also the United States in the future due to different claim of all the parties. Use of the NSR will decrease journey time on of the trade routes by a substantial amount compared to the existing maritime routes.²⁵⁹ As the sea ice disappears, it is expected to become a key maritime trade route between Europe and Asia.

At present much of the hostility stems from Russia's control over the Northern Sea route.²⁶⁰

The United Nations Convention on the Law of the Sea is frequently used to address maritime issues (UNCLOS). Which divides Oceans into numerous zones, “including internal waters, territorial seas and the Exclusive Economic Zones (EEZs)”, all of which have different levels of ownership and transportation rights.²⁶¹ Russia's administration of the NSR is at the heart of the issue. While the rest of the globe is warming, Russia is getting warmer at a 2.5 times higher rate. Russian regions have seen their warmest temperatures ever in 2020, resulting in the destruction of land the size of Greece and a third higher carbon dioxide than in 2019 (Russian forests account for one-fifth of the world largest carbon dioxide emission).²⁶² In Siberia, flash floods wiped out entire communities and forced

²⁵⁹ “The Emerging Arctic,” Council on Foreign Relations, 2014, <https://www.cfr.org/video/video-emerging-arctic>

²⁶⁰ Matthew Bryza et al., “Cooperation and Conflict in the Arctic,” 2014, 38-39,

²⁶¹ Ibid. p. 38-39.

²⁶² Juha Käpylä and Harri Mikkola, “Arctic Conflict potential: FIIA – Finnish Institute of International Affairs,” FIIA, March 29, 2018, <https://www.fiaa.fi/en/publication/arctic-conflict-potential> , 4

thousands of people to flee their homes. For the first time in over 40 years, Arctic Sea ice was at its fourth extent in 2020.

According to international law, the NSR is now under the purview of Russian legislation. However, other governments, notably the United States and the European Union, are interested in using the NSR. A prospective Russian NSR legislation has them on edge, though, as they believe Russia will blackmail others for its gains. It results from the unclear amount to which Russia may manage maritime traffic through to the NSR. Currently Russia has enacted Article 234 of the UNCLOS, which allows Russia to assert environmental safety responsibilities for all maritime passages through this area, in other words it effectively handed them de facto control of the NSR, requiring necessary “icebreaker escorts first from Russian breakers fleet for every ship” passing through the NSR.²⁶³

In addition to the United States and Europe, this has sparked global worry. Unresolved issues originate from UNCLOS' interpretation and legality determination has the potential to lead the region to conflictual situation in the future, once the route become fully navigable. On the other hand, the Arctic Council does not have an administrative responsibility and can only suggest ideas or offer perspective for resolving issue, partly as issues of security is not included in the agenda of Arctic Council since day one. In this case, a lack of oversight is contributing to turbulence and can result in a conflict.

5.1.1.2 Northwest Passage (NWP)

The Northwest Passage an alternative and significant sea route in the region, the route allows shipping from North Atlantic to the North Pacific Ocean, through the narrow Canadian archipelagos. NWP is not a single channel instead it contains a series of associated passages and channels, though not all of these are maneuverable due to their size and rigid ice conditions in the area. Correspondingly, legality of status of the Northwest Passage is also contested one. Canada claim that the NWP is its internal waters, while other states, particularly the US consider this passage as an international waterway where all the states have equal right. Such claims have put Canada in a position that is quite similar to Russia's claim over the NSR.

²⁶³ Kříž, Zdeněk, and Filip Chrástánský. “Existing Conflicts in the Arctic and the Risk of Escalation: Rhetoric and Reality.” *Perspectives* 20, no. 1 (2012): 111–39. <http://www.jstor.org/stable/23616259>

The route has never been taken to consideration until the late 20th century. The main reason was the thick ice cover in the area. States had never shown interests in the NWP because it was thought to be risky to utilize the route for shipment in the presence of ice packed Arctic. Things are changing as the Arctic Ocean is melting not only regional but extra regional states are also seeking to gain maximum turf of influence. Despite the issue of control of the passage between USA and Canada, the route is seen an important shipping route from North Atlantic to North Pacific Ocean. However, as of now all the stakeholders are approaching these skirmishes in a very low-toned way just to avoid any kind of abrupt confrontation.²⁶⁴ As these routes are partially accessible therefore the issue of legality and right of innocent passage are sidelined, but once they get fully ice free and operational different stakeholders will try influence and exercising right of innocent passage under UNCLOS. But as Canada has historically maintained the control of this route, it will try to preserve such control in the future as well, in such situation things can get worse once the route become accessible regional as well as extra regional states will try every possible option to internationalize the route for trade and other commercial activities.

Additionally, the instant commercial prospects should not be exaggerated. For shipment corporations, when calculating the overall cost distance between crucial harbors is just one factor among many. Both NSR and NWP remain locked for much of the year and are quite hindered due to unpredictable seasons, therefore transits on these routes remain risky without icebreakers assistance.²⁶⁵ For Koivurova, it's too early to say, whether the NSR and NWP will be leading towards competition or Cooperation, because as of now Arctic Ocean is in the process of amplification. Arctic sea ice is melting and when these navigational Highways would become more open, there will be more challenges as far as the legal status of the routes. Opening of these routes may bring be deep-rooted tension among state.²⁶⁶

Although at present all the parties approached both the issues in a low-toned way, indicating that slight interests from the US, China and the EU just to avoid any abrupt

²⁶⁴ Emmanuel Guy and Frédéric Lasserre, "Commercial Shipping in the Arctic: New Perspectives, Challenges and Regulations," *Polar Record* 52, no. 3 (December 2016): pp. 294-304, <https://doi.org/10.1017/s0032247415001011>.

²⁶⁵ Ibid. p. 300-301.

²⁶⁶ Timo Koivurova, Zoom Link Interview,

hostility in the polar region. Koivurova, is of the view that these trade routes could become a matter of dispute in the future, once they get ice free with more accessible and viability for international maritime traffic.²⁶⁷ Though at present things are quiet, but the real test is yet come because once the routes get operational things will definitely heat up as regional as well as extra regional states have already put greater emphasis on transpolar trade route in their Arctic strategies. Almost all the states with official Arctic strategies, have prioritized emerging maritime trade routes in the high north, which clearly indicates they are enthusiastically waiting to utilize these routes. Any kind of hindrance on behalf of Russia or Canada can provoke tension in the region.

5.1.2 Territorial Disputes

Territorial disputes among the regional states are another important factor which has the potential to drag the region into dangerous conflicts. Border conflicts and territorial ambitions have a long history of being linked. Expansionism is one means through which states have attempted to gain reputation and power in geopolitics. Whenever there are disagreements about borders and the control of land and water, such a maneuver comes into play. In the case of Arctic Ocean there are two important territorial disputes, the Lomonosov Ridge and the Svalbard Treaty.

5.1.2.1 Lomonosov Ridge

A shelf called Lomonosov Ridge located in the Arctic Ocean. Ellesmere Peninsula is part of the Canadian Island Arc, stretching from the North Pole to the New Siberian Islands in Russian and the Arctic Ocean.²⁶⁸ On the surface, it's a border conflict, but it's more of an economic argument, given how much wealth and personal profit can be reaped by extracting the minerals. There under the Arctic Ocean, there is a disagreement over separating the national shelves. By UNCLOS, "coastal countries are entitled to economic control over waters that stretch as far as 200 nautical miles from their shores."²⁶⁹ Which country has jurisdiction over which this determines Arctic seas? If a nation can prove its coastline extends beyond present limits, it can claim the region as part of its territory and EEZ.

Those that seek to expand their Exclusive Economic Zones must submit a formal request

²⁶⁷ Koivurova, Interview.

²⁶⁸ Käpylä and Mikkola, "Arctic Conflict potential", 5

²⁶⁹ Matthew Bryza et al., "Cooperation and Conflict in the Arctic," 2014, 44

to the UN Commission on the Limitations of the Coast Line (CLCS) under the UNCLOS “formal submission to the United Nations Commission on the Limits of the Continental Shelf CLCS”,²⁷⁰ such assertions are evaluated using scientific data. If their appeal is successful, those governments have national sovereignty to the seafloor riches, but not to the seafloor resource base, which is part of the high seas outside legislative competence. If tensions amongst states rises, it could be a spark for violence, ultimately lead to conflict. This form of dispute is exemplified by the Russian flag that was put on the ocean bottom in 2007. Currently, Russia, Canada, and Denmark argue that the Lomonosov Ridge is a logical outgrowth of their coastlines, resulting in controversy.²⁷¹ Despite the rarity of territorial conflicts, considering the high stress at stake, prolonged conflicts might lead to violence. A large portion of Russia's permafrost is thawing. In Russia's Arctic cities, where over 2 million people live, more violent freeze-thaw cycles are destroying urban infrastructure and posing a growing threat to Russia's 200,000 kilometers of oil and gas pipelines, not to mention the thousands of miles of highways and rail lines that span some of Russia's largest rivers.

5.1.2.2 The Svalbard Treaty

The Svalbard Treaty controversy is also a border dispute in the high north. This pact dates back to the 1920s. Numerous states including EU members and Russian have signed the Svalbard Treaty, which governs the Svalbard archipelago.²⁷² Unlimited access to the territories and equal opportunities to engage in commercial activity are guaranteed to all those who have signed treaty, as well as Norway (rights fully exercised only by Russia, which inherited the Soviet mining settlement of Barents burg on Svalbard Island). Some of these governments' concerns revolve around what exactly is covered by this agreement, the archipelago and sovereign waters or perhaps beyond. Inevitably, each country will seek to advocate a position that serves its own interests. Because of Norway's geographic location, the country wants to assert its sovereignty over the archipelago's lands and coastal waters. While other signatories believe it should be "perceived more broadly" and limit

²⁷⁰ Käpylä and Mikkola, “Arctic Conflict potential”,25

²⁷¹ Ibid. p. 5.

²⁷² Christopher Tremoglie, "Arctic Geopolitics Reconsidered: Pathways to Conflict and Cooperation" 20 June 2020. *CUREJ: College Undergraduate Research Electronic Journal*, University of Pennsylvania, <https://repository.upenn.edu/curej/250>

Norwegian jurisdiction in those waters, Norway disagrees. Even though this argument has not yet resulted in a full-blown battle, it can do so in the future.

5.1.4 Fisheries

Fishing rights are another motivation for region's waters to be governed. Many fish species can be found in the Arctic Ocean region.²⁷³ Low scale conflicts between Arctic states have occurred from differences over the regulation of these areas. Norway around the Svalbard archipelago created a zone for fisheries, Norway has maintained this area's dominion under the UNCLOS.²⁷⁴ This has produced friction among the countries that signed the Svalbard Treaty. These are issues that can erupt into a confrontation in this territory that is ongoing and changeable.

Differing viewpoints on fish stocks are not new. Fisheries dominance is crucial for Arctic states and EU members that devour a large number of fish taken in the Arctic. Arctic and EU fishing industries have a significant economic impact, as evidenced by statistics. So, fishing accounts for 85 percent of Greenland's export revenue, 40 percent of Iceland's export revenue, and the third price results for Norway. In total about a third of the Arctic fish captured is marketed in the European Union.²⁷⁵ In the Arctic fishing business, there are enormous economic implications that result in competitiveness between states. The combination of laws and recorded. Several variables could lead to conflict in the Arctic, including rules and restrictions on the management portal.

5.1.3 Environmental Concerns

Moreover, fishing in the region has a variety of environmental repercussions. Due to the decrease in sea ice levels, more individuals are encouraged to fish in the area, causing additional harm. First, a greater number of fishing ships will lead to increased pollution. As a result, the Arctic ecology is ravaged. As a result of overfishing, Arctic fish stocks are depleted, and species are threatened with extinction. The financial and ecological impacts of fish stocks are severe. National rules to regulate fishing have been passed by states to help protect the Arctic. Historical evidence illustrates that despite the right intentions, the

²⁷³ Maria L. Laganga, "With Ice Melting, U.S. Pushes for Limits on Fishing in Arctic Ocean," *Los Angeles Times*, February 22, 2014, <https://www.latimes.com/nation/la-xpm-2014-feb-22-la-na-nn-arctic-ocean-fishing-20140222-story.html>

²⁷⁴ Tremoglie, "Arctic Geopolitics Reconsidered: Pathways to Conflict and Cooperation" ,25

²⁷⁵ Ibid. p. 26.

management of places can create conflicts and violence. There is also the issue of non-Arctic states fishing illegally in these regions. The chance of miscommunication or maritime mishaps, which might escalate to war, is increased by such actions.

Although all the Arctic states and extra regional states have included specific section on environmental protection in their strategies but in practical, they have done very little for the protection of environment.

5.1.5 Hydrocarbon Reserves and Other Natural Resources

The rivalry will be fierce, and stakes will be high for mining previously released resources and people. A country can gain considerable financial benefits over others by acquiring petroleum deposits, minerals, rare stones, and rare earth minerals. Due to the potential rewards, countries can strive for Arctic domination, which is perhaps the most important element when considering possible conflict situations.

When it comes to Arctic tensions; Russia is a key player. In their words, as per Moscow's Arctic strategy it wants to "transform the Arctic into Russia's resources center for the 21st century".²⁷⁶ Russia has invested a lot of currency, time and effort in building an infrastructure that will allow them to develop their skills in the Arctic region. Its aggressiveness has alarmed neighboring countries, which is why, at least in the eyes of Western media, analysts, and politicians, they are the nation most likely to start violence and hence, leading to the disruption of peace in the region. Some of Russia's tactics, such as seizing land in the Arctic, have been debated previously (hence the controversy over the Lomonosov Ridge and the flag's planting on the ocean floor). Defensive negotiations and narrow interpretation of UNCLOS are other ways Russia has tried to expand its territory and influence in the Arctic. Others, like the U.S, resisted Russia's attempts to claim sovereignty over the Lomonosov Ridge and the resources it holds. As an "available phenomenon in the shallow oceanic part of the Arctic Ocean Basin," the crest is not "a feature of the territorial waters of either Russia or any other state," according to the United States government. Unresolved issues such as the Lomonosov question, or future disputes of the same nature, could result in a major place in situations the majority of the Arctic Council.

The Russian government has also stated that they are willing and able "to employ military

²⁷⁶ Käpylä and Mikkola, "Arctic Conflict potential".

force necessary to defend" their objectives in the North Atlantic. Old Soviet air installations have opened again, and the military presence in the area has increased. It's made the United States uncomfortable, and they've reacted. The United States' response to Russia's moves by expanding military involvement and joint training with NATO. Russia felt uneasy as a result of this. It's important to be aware of the challenge that has arisen due to these governments' activities. Such moves from Russia and the US or any other states in the Arctic Ocean region will lead to the militarization of the region, where competition and conflict cannot be avoided.

5.2 Cooperative Arctic

Intra-Arctic problems do exist, and they must be dealt with. In the absence of bi- and multilateral methods to resolve them, Arctic cooperation may be threatened. However, the threat of a confrontation within the Arctic region should not be overstated for a number of reasons. Although competition among global businesses will increase, Arctic states stand to lose if the Arctic dynamics slips into a conflictual state of affairs, creating an unproductive investment and development climate for Arctic extraction and development of those maritime trade routes. Even though misunderstandings and erroneous assumptions sometimes happen, this economic logic is increasingly steering region's geopolitical dynamics.

It's no secret that Russians are devoted to internationalism, structures, and international norms regarding Arctic cooperation. There's also a discussion of Russia's economic potential and realistic concerns for stability, given their importance in the Arctic. For McKenzie Russia is one of the most important actors in the region and an excellent geopolitical companion.²⁷⁷ Historically Moscow has been part of various proclamation and several multilateral accords to promote collaboration and multilateralism.²⁷⁸ In Arctic region there had been successful contacts since the 1973 when agreement on the protection of polar bears was signed. Moreover, The Arctic Council's multiple international accords have also been a success story. This list includes the 2011 Arctic Search and Rescue

²⁷⁷ Jeremy M McKenzie, "A Case for a Stronger Partnership with Russia in the Arctic," Pacific Council on International Policy (Pacific Council on International Policy, December 23, 2019), <https://www.pacificcouncil.org/newsroom/case-stronger-partnership-russia-arctic>

²⁷⁸ Tina Hunter, "Russian Arctic Policy, Petroleum Resources Development and the EU: Cooperation or Coming Confrontation?" In *The European Union and the Arctic*, edited by Nengye Liu, Elizabeth A. Kirk, and Tore Henriksen, 172–99. Brill, 2017. <http://www.jstor.org/stable/10.1163/j.ctt1w8h3gv.12>

Partnership, the 2013 Arctic Oil Pollution Prevention and Response Agreement, and the 2017 Arctic Scientific Economic Cooperation.²⁷⁹ The Arctic Council countries will also earn from cooperating rather than competition. In fact, cooperation between the Arctic states and Russia is in everyone's best interest. First and foremost, collaboration reduces the inefficiencies and infrastructure imbalance that all Arctic nations suffer from, the partnership is also crucial to the environmental sustainability of the Arctic region and to enhance security of the region.²⁸⁰

Additionally, coordinated efforts in resource extraction will be financially lucrative and lead to continued economic collaboration to overcome common difficulties, that will be mutually advantageous for both parties involved. The following are some reasons why cooperation could triumph over competition and conflict in the future.

5.2.1 Historical Precedent

Historically the polar caps Antarctica and the Arctic region have a history of peaceful coexistence. The Arctic, excluding Antarctica, is the world's least conflict-ridden region. Although the Arctic is not like Antarctica, numerous countries have territories in the region.²⁸¹ They are fighting for high-stakes oil exploration as well as long-term monetary benefits in the region. In the past, though, these governments have shown a willingness to lasting collaboration and cooperation, which are the best means to achieve each country's security and economic gains.²⁸² Since the end of the Cold War Arctic region has remained the most peaceful and stable region.

5.2.2 Arctic Council

Arctic council has played a key role in fostering cooperation among the regional as well as extra regional actors in the Arctic region. As a result of the Arctic Council's efforts, a culture of non-conflict was born in the Arctic region. Based on the concept of "Arctic governance towards interstate peace and cooperation" which was launched in 1996.²⁸³ A best example of AC promoting cooperation is the Kiruna Declaration of the Arctic Council

²⁷⁹ McKenzie, "A Case for a Stronger Partnership with Russia in the Arctic,"

²⁸⁰ McKenzie, "A Case for a Stronger Partnership with Russia in the Arctic,"

²⁸¹ Stephanie Pezard, Abbie Tingstad, and Alexandra Hall, "The Future of Arctic Cooperation in a Changing strategic environment: Insights from A Scenario-Based Exercise Organized by Rand and Hosted BY NUPI," *RAND Corporation*, 2018, <https://doi.org/10.7249/pe268>, p. 16.

²⁸² *Ibid.* p. 16.

²⁸³ Tremoglie, "Arctic Geopolitics Reconsidered: Pathways to Conflict and Cooperation" 33.

of 15th May 2013. This declaration reinforced the commitment of the council to multilateralism by endorsing the “status of the Council as the leading forum for international cooperation in the Arctic”.²⁸⁴ In addition, it has served as a mediator in cultural and environmental issues, which is essential for sustaining peace and stability of the region. The Arctic Council's role was to act as a middleman between Arctic states to maintain the partnership, which culminated in several written contracts and the strengthening of internationalism. Under the auspices of Arctic council several binding settlements have been concluded, including “the Arctic Search and Rescue Agreement, the Arctic Marine Oil Pollution Agreement, and the Arctic Science Cooperation Agreement”.²⁸⁵

The agenda of the Arctic Council is rather broad. Covering different issues of "soft security", including economic security, economic development, environmental and social issues, sustainable development, pollution, and many more. One of the interesting points is that from the very beginning the Arctic Council agreed to exclude issues of military security. This is perhaps one of the reasons why the Arctic region is considered among the most peaceful regions on the earth.

All of the Arctic states (together with observers and other non-Arctic states) are trying to apply green technologies and elements of sustainable economic development. On one hand, they recognize new potential and opportunities for economic development, while on the other hand, they are aware of the challenges and threats, that it might bring as well.²⁸⁶ When it comes to bringing together different actors Arctic council has played its part as stated by Wehrmann “The Arctic council has succeeded in bringing together some very different stakeholders not only states also indigenous organizations, off course observer states and non-Arctic states, so there has been a great number of actors that AC has engaged in its dialogues and discussions, for promoting cooperation”²⁸⁷ Thus the present day peace in the region (Arctic exceptionalism) is mainly contributed by the Arctic council.

²⁸⁴ Pezard, Tingstad, and Hall, “The Future of Arctic Cooperation in a Changing Strategic Environment,” 2018,1.

²⁸⁵ David Balton, “Will the Task Force on Arctic Marine Cooperation deliver?” Wilson Center (Wilson Center, October 2018),

<https://www.wilsoncenter.org/article/will-the-task-force-arctic-marine-cooperation-deliver> .

²⁸⁶ Barbora Halaskova, Zoom Link Interview.

²⁸⁷ Dorothea Wehrmann, Zoom Link Interview.

5.2.3 Institutionalism

Another key reasons why Arctic cooperation has been fruitful is because of the communitarianism that exists. Nations can work together on achieving common goals in the Arctic because of institutional relationships. A sustainable partnership and combined efforts to safeguard Arctic indigenous peoples, maritime safety, and search-and-rescue missions would be encouraged. It can also help safeguard the Arctic from rising temperatures and pollution-related problems.

5.2.4 Environmental Challenges

All Arctic countries have shown interests in preventing Arctic pollutants. The exploitation of Arctic energy production challenges environmental protection because of oil rigs, gas pipelines, and oil well leak concerns. As of now, there is only a limited amount of technology that can reduce the risks involved with an oil leak. In the absence of biological degradation, evaporation, dissolution or precipitation in oil spills, numerous hazards could lead to a tragedy. Out of respect for the Arctic environment, such a calamity would have a marginal economic impact on the region. Due to an expected increase in maritime travel and the Arctic as that of the sea ice melts, emissions from marine technology exacerbate "water, air, and polluted air" in the Arctic region. The Arctic states must preserve a zone of cooperation in light of these possibly disastrous repercussions. In order to deal with these challenges, it requires Arctic states and states from other regions to work together in coordination so that to handle these environmental issues that may have great implications on all of them.

There have been agreements to reduce emissions in the Arctic as a consequence of coordination among Arctic states. To deal with environmental risks multinational efforts have been made by the Arctic states. As a result of such coordination, the Arctic Council's Working Group on Emergency Prevention, Planning, and Response were formed (EPPR). Moreover, the member made another effort to limit pollution in the region by creating "the Marine Oil Pollution Preparedness and Response in the Arctic (MOSPA)".²⁸⁸ MOSPA has facilitated a cooperation between all Arctic governments to set rules to control contamination and disaster management. The existence of international cooperation and

²⁸⁸ "Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic," Arctic Council, <https://oaarchive.arctic-council.org/handle/11374/529>

membership in these groups has played an important role in maintaining peace and security in the region.²⁸⁹ In the melting Arctic issues related to environment, safety and security will emerge in the future as well, no state can deal these issues alone, so to tackle them states will need to cooperate with each other. Such coordination will not only help in curbing these issues but it will also help in promoting peace and stability in the region.

It's no secret that Arctic is one of the most effected region in the entire planet by climate change. As a due to climate change, the Permafrost has seen considerable changes. Arctic midsummer ice has shrunk by 30 percent during the past 40 years, while ice thickness has shrunk by 40 percent. The temperatures in the Arctic have risen by over 35 degrees Fahrenheit in the past few decades.²⁹⁰ Therefore, Arctic states have worked together to adapt to climate change and efficiently reduce the consequences resulted from climate change. Countries in the EU and North America had partnered up with Russia to create Arctic conservation areas. All states regional as well as extra regional are trying for the application of green technologies and essentials of sustainable economic development in the region. They identify new opportunities and potential for economic growth, at the same time, they are conscious of the all challenges and dangers, that it carries as well.²⁹¹

Rising temperatures disappearing sea ice have a long-term impact on the region's environment as the planet warms, plant growth changes, which in turn affects the populations. The pet rescue populous habitat is affected by sea-ice breaking. Wildlife such as penguins, walruses, caribou, and walruses are among those whose habitats have shrunk due to global warming.²⁹² A multinational effort has been launched by governments (including some non-Arctic countries) to protect Arctic wildlife and avoid the destruction of the plant that lives in the region. In the EU and North America, the Arctic companies have ratified forces with the Arctic Council. To add insult to injury, Arctic natives are also at risk due to environmental problems. Fishing, foraging, and collecting are how native communities in the Arctic rely on the ecology for their subsistence. By changing their food

²⁸⁹ Barbora Halaskova, Zoom Link Interview,

²⁹⁰ William L. Chapman, "Global Security, Climate Change, and the Arctic," *Swords and Ploughshares* 17, no. 3 (Fall 2009): 5-9,
<http://acdis.illinois.edu/assets/docs/505/GlobalSecurityClimateChangeandtheArctic.pdf> ,8

²⁹¹ Barbora Halaskova, Zoom Link Interview,

²⁹² Arctic Climate Impact Assessment, *Impacts of a Warming Arctic* (New York: Cambridge university press, 2004), 46.

supply, rituals, and way of life, these emerging concerns threaten indigenous consistent quality.²⁹³ These Arctic countries have to work together to defend "culture and identification demographic, health problems, commercial sectors, and local governments" in an attempt to safeguard these people from harm. This is a cooperative endeavor that knows no borders and barriers to attain a larger benefit. As a result of this international project, a culture of cooperation is fostered among the states, which would, in turn, reduces the likelihood of any emerging competitive aspect in the Arctic region.

5.2.5 Military Cooperation

In addition to being a factor in possible conflict, military expansion can also be considered an opportunity for Arctic partnership. During joint missile launches, the Arctic states can train emergency responses to various hypothetical situations that could arise in the foreseeable future as it allows states officials to work together.²⁹⁴ There are various ways to do this, from missile launches to search and recovery missions. As a result of such exercises, governments and organizations can work together more effectively. Examples include cooperative military exercises between Russia and NATO member Norway in the Arctic Barents Sea. There is also a history of coordination between Russia and NATO, two political foes with an unstable, changeable relation. Between 2003 and 2013, Russia, the European Union, and the United States undertook bilateral talks (beyond the Arctic) known as FRUKUS.²⁹⁵ Chiefs of Defense from the Arctic governments are now meeting every two years, and Norway (a NATO member) and Russia conduct annual Arctic military exercises to strengthen this trend.²⁹⁶ These military activities has helped strengthening forces of cooperative mechanism in the polar region.

Russia, the United States, and the European Union have also conducted numerous cooperative royal navy search and rescue (SAR) drills. Despite significant worldwide worry, Russia's military expansion in the Arctic appears to be principled in form and has allowed a certain level of coordination between the Arctic governments. Regular collaboration between any of these countries improves ties and fosters stability and

²⁹³ Matthew Bryza et al., "Cooperation and Conflict in the Arctic," 2014, 42-43.

²⁹⁴ Alexander Shaparov, "NATO and a New Agenda for the Arctic," RIAC (RIAC, September 24, 2013), <https://russiancouncil.ru/en/analytics-and-comments/analytics/nato-and-a-new-agenda-for-the-arctic/> .

²⁹⁵ Sørensen, Toft. "From International Governance to Region Building in the Arctic? " 2013, [6](#)

²⁹⁶ Frederic Lasserre, Jérôme Le Roy, Richard Garon, "Is there an Arms Race in the Arctic?", *Journal of Military and Strategic Studies*, VOLUME 14, ISSUES3& 4, 2012.

cooperation in the region. But although Russia is typically viewed negatively, it plays a key role in sustaining and promoting cooperation in the region. Moreover, Russian military involvement in the Arctic has raised fears in the West, shouldn't be interpreted as a prelude to war. Russia's Arctic policy is based on a commitment to cooperation, which is a crucial component. Michael Paul view Russia's role as a more positive in the Arctic affairs because "Russia is interested in keeping cooperation as it needs peaceful and stable situation in the Arctic to use it resources especially gas and oil exploration, so Russia itself must be interested in keeping cooperation going on till there is no necessity for confrontation in the Arctic".²⁹⁷ A major goal in the Russian's Arctic policy is to maintain mutually beneficial regional and international interaction of the Russian Federation with the Arctic countries based on international treaties and agreements to whom the Russia/Soviet Union is a party.²⁹⁸

Russian participation in the Arctic Council is also significant. From 2004 through 2021, they are planned to be the Arctic Council's first chairman. Even if academicians, commentators, and political analysts warn differently, given that Russia is the Arctic's leading power, its willingness to collaborate will go a far toward preventing crime. A high focus was also placed on cooperation in Russia's Foreign Policy Concept for 2016.²⁹⁹ A policy "focused on maintaining peace, prosperity, and outcomes information sharing in the Arctic" was supported in it. Strengthening collaboration within the Northern Eight" was also mentioned. As part of that pledge, the Arctic Council agreed to fight any attempts to incorporate into the Arctic components of politics of animosity and military conflict and to sensationalize exposure to higher generally, as a result, Russia's activities must correspond to its stated policy. It has thus far preserving the Arctic region; a cooperative area could be aided by its resolve to "protect the Arctic as a calm territory."

Arctic governments (such as Russia and Canada) have boosted their military presence and capacity in the Arctic, but there is broad consensus that Arctic states are mainly involved

²⁹⁷Michael Paul, zoom link Interview,

²⁹⁸ Strategy for Development of the Arctic Zone of the Russian Federation and Provision of National Security for the Period Up To 2020, The Russian Government (TRG).

<http://static.government.ru/media/files/2RpSA3sctElhAGn4RN9dHrtzk0A3wZm8.pdf>

²⁹⁹ Russia, "Foreign Policy Concept of the Russian Federation," The Ministry of Foreign Affairs of the Russian Federation, (2016), https://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptlCk6BZ29/content/id/2542248

in monitoring and managing the opening territory and their different sovereign nations in that region.

5.3 21st Century Arctic is About Cooperation

The 21st century Arctic Ocean is based on cooperation rather than conflicts or competition. Although intra-Arctic problems exist and must be resolved to prevent any future conflict. If remained unresolved these issues carry the potential to harm Arctic's peace and stability. However, the threat of a confrontation within the Arctic region should not be overstated and spatialized. Although competition among actors will increase in the years to come, because of the emerging geo-economics of the region. Arctic states stand to lose if the Arctic dynamics slips into a conflict state, creating an unproductive investment and development climate for Arctic extraction and polar trade routes. Even though misunderstandings and erroneous assumptions sometimes happen, this economic logic is increasingly steering 21st Arctic region's dynamics.

From natural resources perspective overall, there isn't much to fight over, and even if there was, Arctic weather conditions would make it difficult to exploit. The Arctic region does not consist solely of the Arctic Ocean, notwithstanding certain unresolved ownership problems. There are substantial land areas above the Arctic Circle that are undisputedly under the sovereign control of the Arctic states, each having its own set of national laws to govern them. Furthermore, the existing 200-nm EEZs in the maritime Arctic from the shoreline to the Arctic Basin are mostly uncontested and clearly defined.³⁰⁰ Almost all of the Arctic coastal states have either filed or in the process of filing rights to extend their continental shelf that is outside of the 200 nautical miles' boundary. In the case of Canada, Denmark and Russia these shelf claims are going to be partially overlapping and this is an issue that will have to be sorted out.³⁰¹ But still the issue is not that severe which would lead to confrontation in the region, as UNCLOS has clearly defined each aspect of maritime boundaries and jurisdiction.

The indisputable EEZs of Arctic states contain an estimated 85-90% of undiscovered hydrocarbon deposits.³⁰² With legal sovereign control over these undisputed areas, the

³⁰⁰ Oran R. Young, "Whither the ARCTIC? Conflict or Cooperation in the Circumpolar North," *Polar Record* 45, no. 1 (2009): pp. 73-82, <https://doi.org/10.1017/s0032247408007791>, 77.

³⁰¹ Frederic Lasserre, zoom link interview,

³⁰² Andrew Hart, Bruce Jones, and David Steven, "Chill Out Why Cooperation Is Balancing Conflict

Arctic is no longer a “*terra nullius*”, open to claim by any nation at any time. However, a contested and fragmented geographical position around the North Pole still has significant petroleum resources but in reality it’s tough and expensive to extract hydrocarbons near the North Pole, because of the severe operational environment. This means that the region’s economic potential is underutilized, and Arctic hydrocarbon extraction will most certainly take place within the EEZs for the foreseeable future.³⁰³ As a result, long-term conflict over hydrocarbon development in this remote region is improbable. Which means that Arctic Ocean would remain an exception in the international politics in the future at least for few decades.

When we talk about issue related to the governance, Arctic does not have a governance vacuum. Arctic governance has a wide range of concerns on its agenda, from environmental protection to indigenous rights, economic development to military activity. There is no single governing structure or institution tasked with dealing this spectrum of challenges; instead, several approaches are used. Arctic management is not a cohesive framework. Up to this point, Arctic leadership and cooperation frameworks have evolved gradually in response to specific sectoral and practical concerns. As a result, Arctic governance is now a patchwork of national, provincial, regional, and planetary governance structures, regulations, laws, and accords.³⁰⁴

Furthermore, all the Arctic states (A8) have indicated a desire for international cooperation and backed it up with high-profile steps to foster confidence, despite existing competition in many spheres. Even after the most debated issue of Russian flag planting stunt in 2007, which was followed by actions aimed at defusing the situation, rather than intensifying rivalry, such as those outlined in the Ilulissat Declaration by the Arctic littoral governments in 2008, which is noteworthy.

All Arctic countries have also established strikingly similar Arctic plans and tactics, which highlight the necessity of partnership to deal the Arctic challenges. In addition, all Arctic Council members and observers have accepted Arctic multilateralism as a result of the

Among Major Powers in the New Arctic” (Brookings, May 30, 2012), <https://www.brookings.edu/research/chill-out-why-cooperation-is-balancing-conflict-among-major-powers-in-the-new-arctic/> , 7..

³⁰³ Young, Oran. (2009) “Whither the Arctic, 75.

³⁰⁴ Christoph Humrich and Klaus Dieter Wolf, *From Meltdown to Showdown? Challenges and Options for Governance in the Arctic* (Frankfurt : PRIF Report, 2012), 2.

Arctic Council. The Northern Council's Internally for business operations Declaration, issued just last month, reaffirmed the Council's position as the premier international forum for Arctic cooperation. Official policy declarations may, of course, only express a desire for collaboration while downplaying actual points of conflict, such as divergent economic or security policy goals. Although Arctic cooperation narrative continues to mould the general perception of Arctic governance toward interstate harmony and collaboration, this is not the case. Crucial to keep in mind: while circumpolar (Arctic Council) and regional framework (Barents Euro-Arctic, Nordic, Baltic Sea Council) interaction is important in Arctic governance and cooperation, they are not all-inclusive forums for the Arctic states. Various international forums are also important. All Arctic countries are OSCE members, while some are members of NATO or the European Union.

Participating in these institutions may include a great deal of policy competitiveness and power politics, but at same time it also generates a critical aspect of mutual trust among the participants. In any event, conferences serve as vital platforms for addressing global concerns that have ramifications for the Arctic region, for better or for ill (such as military and security policy issues). Of course, the position of NATO in Arctic cooperation is particularly complicated due to Russian hostility against the organization generally and to Arctic administration specifically. Most of the time, NATO has chosen not to be overly present in the region, which has helped to promote a friendly and cooperative environment. The Northern has also seen the emergence of numerous bilateral agreements covering a wide range of topics and fields. In particular, the 2010 marine delineation pact in the Barents Sea resolved Norway and Russia's long-running border dispute. In a similar vein, the 1998 US-Canadian accord has stabilized the situation and reduced tension at the passage despite the fact that the United States and Canada disagree on the NWP's status. As part of the deal, the United States vowed not to send ships through NWP without Canada's permission, and Canada committed to always grant that permission.

Kathrin Keil advocates a more realistic and mutual benefit strategy for the Arctic region, partnership above confrontation. For him since the “the Arctic countries' indisputable borders and water areas have substantial resource bases”, therefore, discussions should be oriented on cooperation rather than confrontation. Aside from that, coordinated efforts in resource extraction will be financially lucrative and would lead to continued economic

collaboration to overcome common difficulties, that will be mutually advantageous for both parties involved.³⁰⁵

Conclusion

Arctic region is going through geographic changes due to climate change, thenceforth opening up for extraction of natural resources and maritime transportation. Subsequently, the possibilities for both cooperation and competition are emerging in the region. Competition and conflict can occur from unresolved issues related to maritime trade routes possession and some territorial disputes among regional states. But as of now the region has remained a zone of peace and cooperation, largely because of the multilateral forum to be specific the Arctic Council. It is too early to say that emerging geoeconomics is leading the region to a zone of intensified competition among regional and extra regional actors. The region has merely been spatialized as “Cold Front”, “Arctic Boom” by different actors. The current status of the region is functional cooperation with high stability.

³⁰⁵ Pavel Devyatkin, “Russia’s Arctic Strategy: Aimed at Conflict or Cooperation?” The Arctic Institute, February 6, 2018

CONCLUSION

As a result of climate change and global warming Arctic Sea ice is rapidly receding and facilitating access to an array of extremely prized natural reserves across the Arctic region. Apart from energy reserves the region is home to a heap of precious minerals, fisheries, and most notably opening up of highly important new shipping routes through the Arctic Ocean region. These rapid changes of the region have gain tremendous attention from different quarters of world. In order to gain leverage on the emerging geoeconomics of Arctic Ocean, regional as well as extra regional states have either adopted official Arctic strategies or updated their previous policies on polar region. All the states are representing and spatializing the region from alternative angles, some have approached the region as opportunity for economic development particularly extra regional actors, while still others are more concerned on the aspects of security and sovereignty.

From geoeconomic perspective the important consequence of melting Arctic is the opening up of possible maritime trade routes in the region. The Northern sea route and the Northwest passage are the two trade routes that are most debated in the international community. Currently, both these routes are impossible to navigate due to the presence of thick sea ice, except in extreme summers for a maximum of 3 to 4 months NSR and NWP are navigable for a small size vessel but with icebreakers escorting. When and if these trade routes become fully accessible for profitable use, shipment times could be shortened by up to fifty percent, promoting and enhancing mutual trade among different quarters of the world. Though these trade routes have been fantasized by different sectors including popular media, policy makers, and intellectuals, as alternative and attractive for global trade, the real picture is somewhat different. These emerging geoeconomics is being overstated and constructed, as there are number of issues related to these routes, lack of infrastructure, Russian domination on shipment fees, high indemnity, strict data dearth and harsh and unpredictable weather conditions are some of the challenges to overcome, in order to make these routes compatible and lucrative. Moreover, issues of legality of these routes are also a disputed and unresolved factor.

As far as the energy reserves of Arctic Ocean the possible hydrocarbon prize contains a large amount of latent financial advantage for native communities and the Arctic states. Numerous field surveys have revealed that the Arctic region possess never-ending natural

gas resources, grease oil, hydroelectric power and other precious minerals. Further, the untapped wealth under the ocean is becoming more and more exploitable with advancement in technology, even though their exploration still seems complicated and expensive due to icecap of Arctic Ocean. The Arctic energy resources have great potential, but scientific constraints could be the real barrier in near future. Additionally, Arctic resource potential has always been misunderstood and constructed as a source of competition, but the real picture is quite opposite, as studies suggests that 90% of Arctic's hydrocarbons fall exclusively under A8 states national jurisdiction once they claim their Exclusive Economic Zones.

The 21st century Arctic has always been represented as an area, where fierce competition would dominate due to the emerging geoeconomics, as states would try to gain influence at the expense of others. The region has been identified by some scholarships and mainstream media as "Cold Front" and a zone for "New Cold War". Although there are number of pending issues that can fuel conflict and competition in the region. The most threatening among them is the legal disputes on the NSR and NWP, which if leave unresolved has the potential to dragged the region into conflict. Moreover, territorial disputes among regional states and spillover of conflicts from other region can also affect peace and stability in the region. But despite the presence of all these unresolved issues present day Arctic is with high stability and functional cooperation among regional and extra regional actors. All the actors with presence in Arctic Ocean know the importance of maintaining peace and stability in the region for their productive economic interests. Moreover, all the states have emphasized the importance of international cooperation in their national strategies so that to realize their main objectives of economic development. The present day peaceful and stabilized Arctic geopolitics is mainly contributed to Arctic council, a form which was initially established for functional cooperation on the protection of environment. Since than the region has been witnessing enhancing international cooperation with every passing day under the auspices of Arctic council along with other legal frameworks.

RESEARCH FINDINGS

- Arctic Ocean is warming faster than any other region on the globe, as a result of Climate change and global warming. The warming Arctic is losing its ice cap, which is transforming the region from a frozen zone to an economic hub. This transformation is becoming a blessing in disguise for regional and extra regional actors, as the thawing sea is paving the way for extraction of natural resources and opening up of new maritime trade routes in the high north.
- The assertion on the shifting of global trade northwards is one of the fabricated myths by mainstream media, which undermines the factual complications linked with the possible trade routes in the melting Arctic Ocean Region. The complications with the Arctic trade routes are numerous, including issue of legality among regional and extra regional actors, harsh weather conditions and absence of proper Sea lines of communication.
- The rhetoric of burgeoning war on Arctic's natural resources is another over exaggerated popular media trend. Scholarships suggest that about 90% of the total Arctic natural reserves fall under the national jurisdictions of Arctic states. These reserves are either in the territorial waters or in the Exclusive Economic Zones of the coastal states. Apart from this in case all the littoral states submit their claims to the international law commission for the extensions of their respective continental shelves, almost all the resource laden area would be under national jurisdiction of costal states. Hence, the region would provide very little or probably nothing to compete for, instead all the states would have to trade with regional states to gain economic interests, which would further strengthen Arctic cooperation.
- Once the region gets fully ice free and navigable, the possibilities of competition and conflict would untimely rise, because of unsettled legal disputes on the maritime trade routes. Legality of the NWP and NSR is in question, both Russia and Canada claim that NSR and NWP passes through their internal waters, therefore, any navigation via these routes is subjected to their permission. On the other hand, US, China and EU member states have altogether rejected these claims, as they consider these trade routes as international water ways where all the states preserve the rights of innocent passages as per the UNCLOS of 1982. As the routes are not navigable at present things are quite

clear but in future once these routes get fully functional, they have the potential to dragged the region to conflict if not resolved.

- Despite many challenges and myths, the present-day Arctic Ocean Region is with high stability and functional cooperation among regional and extra regional Actors. All the Arctic states are aware of the fact that maintaining peace and cooperation offers instant and lasting benefits to them. Only a peaceful and stable Arctic can attract investors from the outside world to the region.
- Legal frameworks and organizations such as Arctic Council, are playing an integral role in maintaining peace and stability in the Arctic Ocean region by promoting dialogue among member state. Moreover, Arctic Council is a central pillar for the current peace and stability in the region as it provides rule which are abiding by all the member states.

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Annexures

Annexure 1.

Lassi Heininen

Question. How is the emerging geoeconomics of Arctic Ocean region shaping regional geopolitics?

There are several factors and actors in the region like indigenous people and other autonomous regions they have their own self-governance no when we think of geoeconomics particularly having economic actors come outside of the region in influencing the region their influence is first of all to the Governance of the Arctic and then indirectly to the geopolitics of the region, so yes I mean their impact are there but how I mean tricky question because on the other hand globalization is seen as challenge and threat by the arctic states and even by Arctic indigenous people on the other hand all the arctic states are the member of UN indigenous people are very much emphasizing role of United Nation for the indigenous people for example so United Nation is global that means that some impacts of globalization might be something which arctic actors don't like so. But at the same time they use International forum like United Nation so maybe you have to ask that what kind of influence is there if that is mostly political influence then I think that the general understanding is negative I mean the reaction of Arctic states and other actors are negative that if it is some kind of economic impact there they will have a clear share so if they think they will benefit then it's mostly positive. But of course what does it mean like big International mining companies including oil and gas companies most local actors don't like that but then of course there are several arctic States who are supporting this has become a very hot issue in the USA because Trump administration has said that its giving licenses to shell in Alaska side but forthcoming Biden administration will cancel that. It's not ready to give that it has become a hot issue there but there is Norway

I mean Adnor a state own oil company they are there drilling oil outside coast of Norway and they very much support that so it depends what kind of impact a there are and how the local actors are calculating weather its beneficial or not so. Competition is always there whenever we have economics because it's all about business.as you try to compete your rival, But when it comes to geopolitics it's really different someone are defining competition almost like conflict although it's not I mean there might be some soft political measure to try to have more gains so then we are having competition let's say between China and USA it's not a conflict but it can become but at present there no a trade war between these two states and that's why, if you make it very clear that

you mean conflict versus cooperation then it's very clear

The issue of Northwest passage in Northern sea route is not yet an issue of cooperation or competition it's a matter of international law it depends upon the interpretation of international law between Canada and USA when it comes to the Northwest passage because Canada help declared it several years ago that its internal water

The issue of Northwest passage in Northern sea route is not yet an issue of cooperation or competition it's a matter of international law and their different interpretations of International law like between Canada and USA when it comes to the Northwest passage because Canada has claimed it several decades ago that it passes through its national water even they have change its name the official name is Canadian northwest passage. In this case Canada supports Russia as Russia also has a similar case regarding the northern sea route and has the same interpretation of international law.

Because Russia has the same interpretation when it comes to Northern sea route. International Maritime law allow that you can do this. But then of course the other they have to accept this status. USA challenging both Russia and Canada regarding the legal status of these trade route. Because of the principle open Seas which is universal and that is not only dealing with Arctic that is for all the oceans. But the Nordic countries support Canadian interpretation and Russian interpretation. So I mean that is something that UNCLOS? That is the constitution of the seas of the roads including the Arctic Ocean and it is very much I mean or the Arctic States they lean on that of course us has not ratified that it and is not a party to the United Nations convention on law of sea yet however they are much clean on that accept this these trade route so I would argue that except us and all other actors play by the same rules so then there is there no conflict. But then of course within that Russia is very much improving and keen to increase international news of the northern sea route and there is a Russian legislation there and all the actors they have to play by those rules because otherwise there is no access for them so then there will be competition who is the fastest and who has the best offered to the client so in other way you can say that there is competition within cooperation. Because all the actors have to agree on the rules before they can go there and then after that they will try to compete economically or they be competing in terms of technology. So that's why it's bit more complicated to say a conflict or cooperation when it comes to the big picture, I know we're talking about geopolitics then of course the mainstream policies or the current mainstream interpretation is that there is high geopolitical stability based on constructive cooperation in the Arctic region. That's why I don't I mean there are every now and then said that it there may be some policymakers and even some Scholars are saying there are emerging conflicts

but that's not true there are no conflicts even today. I mean of course they don't know what will happen tomorrow but we know there is so solid Corporation between the actors simply because its mutually beneficial all the actors then you will gain so much more by operating instead of creating contract but again there is competition within the Corporation will it come to economics and even in science there is cooperation in the scientific research India take but of course there is a certain academic competition who is the first who will have in access to some parts of Greenland or in other region or any other parts of Russia so I mean you are right by putting geo-economics is the main issue factor in your thesis because I mean Joe Economics is taking Georgia politics I mean not totally but in many ways and if the Arctic is globalized then it is of course impacting more and more Arctic region but you have to understand that there is state sovereignty in the Arctic is so solid and therefore state are still the most important actors if you are thinking about the oil and gas companies there are only a few private ones most of them or state own or state control companies, and it is the state for giving them licenses is there and you can have example from Russia so it's not that free as compared to other parts of the world that's why geo-economics cannot takeover geopolitics totally. At least not for now and also if indigenous people have more self-governance status and most probably they will have in the near future and they are politically active they are not economic actors so again it will emphasize the importance of geopolitics and here we have to we have the approved definition of the politics we cannot have the protocol definition of preoperative we have to recognize factors like identity knowledge climate change is very much if sensing the importance of knowledge and who are those in the Arctic who have the most knowledge on climate change well scientific community and Indigenous people not state and that's makes that kind of view of Critical Care politics including the other actors and factors more important that's why you cannot explained by only using Jay politics and your economics you have to have both economics and geo politics

Question. How do the Arctic states view increase Chinese presence in the region?

Well it's an interesting question recently and of course one of the reason why there are these alarming messages saying about imaging contracts which I mentioned earlier but before talking about China you have to clarify there are a talkative and they are the member of Arctic Council. within them are five littoral state and three non-littoral. And it is interesting that they have been to ministerial meetings of the 5 littoral states, apart there is no institution of these five littoral, the only station is the Arctic Council for all the eight state indigenous people organization and that's why the 5 littoral States the only common issue is the Arctic and now we will come and now we will come back to the importance of United Nations convention on law of sea one of your question is the need for Arctic treaty no and this is exactly the explanation the littoral states have and they

don't feel that there is any need of activity for Arctic along with the United Nations convention of the earth because UNCLOS is enough for environmental protection and other issues so in the near future we will not have another Arctic treaty but it might come in the future.

So if the five littoral state of course? And I you think about the Arctic region its first of all consist of Arctic Ocean and Arctic 2 rim lands. So that's why it is very essential when it comes to Arctic region. so yes we know that USA is not welcoming China to the Arctic region, but is that because of the Arctic or because of general relations between the two states. Is that because of France policies is that because of technological advancement in China yes I would say that it is the outcome of the overall general relations between the two states. In emerging conflict between these two state I would say the Indian Ocean and the South China Sea they are much more important much more important for both US and China than the Arctic Ocean. The Arctic ocean this not play that important role at all but of course it is? The US Secretary of State Mike Pompeo in one of his speech one and half years ago, actually I was there, he presented Russia and China a threat to USA. But I think it was not about the Arctic Ocean it was more about is a good enemy in a way if you understand what I mean good it because it's so easy to talk it that they are there and then the listeners in away make their conclusion or that's a bad thing although it's not clarified what does it mean of course I mean China is looking for resources and energy absolutely and that is the competition going in the world I mean in the countries like Russia who has so much resources that they don't have a need to go to the other borders and there is China in some other countries who don't have and they have to go but it's and that's partly economic Cooperation, I mean energy why Middle East has become so rich because they are exporting oil. So it's a business. so in the arctic you have oil natural gas and fisheries, and some mineral of course that is one of the aims of China in The Arctic but there is another and that is scientific research China has invested much more in the scientific research in the Arctic but less than that of Antarctic. Because China has started that too much earlier and they have established four Research Station in the Antarctic, they have won in the Arctic so I mean why they have come to the Arctic when one reason was the because they were in the early 2000s, another reason was of course resources and trade routes and of course climate change. Climate change became much more important only about 10 years ago so China it is interesting to know what is going on in article climate because it has direct impact to the climate in the Mainland China and similarly it has a climate impact in Pakistan in India I mean it would make sense to know Arctic research is international we don't have any national project in The Arctic we only have International project because it would make sense.

So that is another reason and then China is doing International cooperation in The Arctic and also at least earlier it was laboratory to test how to do International cooperation and that's why? I don't

know you have heard about Chinese Nordic Arctic research Corporation that's something that I have been I have been in from the beginning and now because of Covid 19 the conference last year was not organized so hopefully this year but I mean this is exactly idea to try to know more about the Arctic 5 Arctic States and then China it has been very solid going.

Of course we know that China is developing its navy and Chinese submarines have the ability to go to the Arctic ocean, but then the question is why would they go there why would they go to the Arctic Ocean. Chinese research vessel has been sailing through the Arctic Ocean but that's for research activities. When it comes to an alternative trade routes you are right from the standpoint of China absolutely it would be very important alternative way to do if I would be a station in China I would exactly be more active today develop this trade routes and the reason for this as you said. And that's why China and Russia are cooperating a lot when it comes to the Yamal LNG project and it was impressive as I was there in the Yamal Peninsula few months before the opening of the harbor there and just a few months before the first ship to the East Asia and it was impressive to see I mean it was a really massive facility and Deepwater Harbours, and there was a big delegation from China including few researchers and policymakers exactly because of this importance.

So it's strategically important for China as well as South Korea and Japan you have that one reason to be active there but they have to do that in cooperation with Russia I mean because it's going to be via the NSR because it doesn't make sense to go via the Northwest passage. So it has to be the Russian one for that they need to have close cooperation with Russia so here cooperation is more important and China can do that alone and incorporation workshop seldom help they provoke the other which is understandable.

Question. What is the role of Arctic council in preventing conflicts and promoting cooperation in the region?

So the answer would be that it directly plays very small role but indirectly Arctic Council play very important role and it the Arctic Council which has managed to do commitment for geo-political stability and constructive cooperation that the mechanism and that's a precondition for economic cooperation so I would say that here I would say that the more important role of the Council has played there the less competition there is and the less need for competition there is. Because as I said there is understanding that cooperation and stability are mutually beneficial for all the parties so all the parties recognize that and they agree on that and Arctic Council is one of those form for Arctic states to make Corporation closer and to have them to become closer because they understand that they have common interest and that's why they would prefer cooperation instead of conflicts and competition. It includes all aspects in natural resources trade routes but directly after Council doesn't have the authority impose any decision regarding natural resources and trade

route because natural resources as well Maritime trade routes are under National jurisdiction and it's up to after States to decide and the one bite of the Arctic Council. And there is and there is another important thing that one of the Arctic state disagree to discuss any particular issue that issue cannot be discussed in the Arctic Council like both military issues and issues related to fisheries are not included in the Arctic agenda and that is why International agreement on the Arctic Ocean was negotiated between Arctic States European Union and Asian States and it's very interesting as it was not the Arctic Council because it doesn't have the mandate to discuss these issues

Question. Have the Arctic states done enough to protect the environment of the region? As most of the Eastern states they blame the Arctic states that they have not done enough to protect the environment in street they are following their narrow National interest in the region.

Answer, yeah I mean that's very important argument and it's rather correct argument because that's true the attitudes are not protecting the environment enough they have not taken seriously yet the climate change the Arctic is repeatedly melting due to the climate change and that is exactly the point as I said earlier that only 6 years ago what are the worldwide implication of the Global Arctic because earlier we were thinking that the Global effects to the Arctic that is Arctic States view impact to the Arctic but now they know and they have to admit that there are worldwide implication of the melting Arctic outside of the region so what to do I mean the Arctic Council is for environmental protection and for functional cooperation but the problem is that the main current based on the state policy is that there is this kind of ambivalence between Arctic development Arctic environmental protection vis a vis because if I have to recognize what is the most important priority for the Arctic States I would say its economic activities so that is the driving force and then comes environmental protection climate change research in the object and that is why it is in the end of the day you have to decide which one is more important economic activity or environmental protection climate change and other factors the then the decision is easily economic activities so this kind of political inability to make the hard decision and by that way criticism from India and all other Asian States is correct that's true but I mean there is no legal agreement or treaty on that so it's a slow process and all the time you have to agree who can do anything what only one of the actors would not accept I mean I am totally agree and I saw open using my patience with that because I see too little too late when they could do much better. So the only way we can do is via Corporation to convince the Arctic States don't hesitate, do it now, and here of course we need that Global pressure as well I mean we have all these observer states as well India China it's good to have that pressure within the Arctic Council I have been in this meeting so I know that they have they can influence in the meeting although they are not permanent participants they are observers

and so I think to try to impact Arctic States via Cooperation why are some kind of inputs coming from research or some other that's exactly the way how you can influence the situation but I mean this growing Global concerns is exactly something we have for years is going to be increase and it is when I was in a conference in New Delhi years ago it was very important for me to hear when an Indian said that climate in the Arctic has direct impact to the Indian monsoon do I knew that before him but to hear that in India there it's very it was very important for me, because then when I came back I could say to the decision maker in field in other after States listen to their to this guy because they have seen them that's already there.

Question. What would be the future of Arctic ocean region?

I don't think so there would be any conflict in the Arctic region, 2 to 3 years ago both Russia and United States of America agreed on the confidence building measures in the Bering Strait exactly trying to avoid any situation that would lead to some kind of accident or incident in the region. So both the states would like to have their access to the Arctic Ocean region so that's why they have the Cooperative mechanism.

I am among those guys who have said for years that your political stability in the Arctic region has been very Resilient and solid. Resilient as it has passed several tests, like when the Russian went to the bottom of north pole in 2007 and the reactions of Arctic state that it is a kind of aggression, and it was said the P values stability in the region but it didn't happen then the Crimean crisis again it was said that we will use stability and cooperation in the Arctic region, no we did not lose that It has been continued. Last day after the speech of US Secretary of State Mike Pompeo again it was said that now we will lose the stability in the region and the Cooperation will end in the Arctic council, no that did not happen. Different political stability in the Arctic region is the man-made and it is man made because all the parties understand that is mutually beneficial for their common interest and because their common interests exist there that's why it is Resilient. And I have set this directory in the USA and in Russia in a different meetings of policymakers that you are not going to Rob the boat you are not going to open a new front because you understand that you don't want to have a new front because there are already new Fronts there in the international politics. So let's have this some kind of place for confidence and we could easily say that cold war was all about conflict and competition well yes what you had confidence between the two parties you had confidence building measures and arms control for example because nuclear weapons has become so dangerous to threaten both sides.

Let's see the Biden administration might increase cooperation and might show their interest increasing cooperation from the US side. And think about this Russia is the next chairman of the Arctic Council and will take the chair in this year at the same time the bad is depression in the US

and in Russia taking the chairman of Arctic Council so both have both parties have interest cooperate.

Annexure, 2.

Barbora Halaskova

Question. How is the increasing competition for geo-economics (Natural resources and Maritime trade routes) among regional states in the Arctic affecting the role of the Arctic Council?

The agenda of the Arctic Council is rather broad. Covering different issues of "soft security", including economic security, economic development, environmental and social issues, sustainable development, pollution, and many more. One of the interesting points is that from the very beginning the Arctic Council agreed to exclude issues of military security. This is perhaps one of the reasons why the Arctic region is considered among the most peaceful regions on the earth. All of the Arctic states (together with observers and other non-Arctic states) are trying to apply green technologies and elements of sustainable economic development. On one hand, they recognize new potential and opportunities for economic development, while on the other hand, they are aware of the challenges and threats, that it might bring as well.

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) of Arctic Ocean a source of cooperation or competition?

As already mentioned, all of the Arctic states do cooperate together. Three of them (Denmark/via Greenland, Finland and Sweden) are members of the EU. Four out of A5 are NATO members (Norway, Canada, US, Denmark). The existence of international cooperation and membership in these organizations also helps to keep the region as a zone of peace and security.

Question. How do the Arctic states view increase Chinese presence in the Arctic Ocean Region?

China's involvement in the Arctic is part of their foreign policy approach. Chinese wants to be present in all important regions around the world, and the Arctic region is not an exception. Chinese priorities in the Arctic according to their official policy – the focus is on the governance of the Arctic, and international, global cooperation, including the international community in the Arctic. Also, they put emphasis on the economy. Chinese interests in reality: international trade, shipping and natural resources (oil and gas). The question is What political and security consequences may Asian powers' involvement have on the future development of the Arctic region? Distribution of power in the region and greater involvement in the Arctic governance/policymaking. The closest relationship from the Arctic states has China with Russia. Thanks to the EU sanctions against Russia after the annexation of Crimea in 2014, Russia decided to further strengthen cooperation

with China, giving them licenses for exploration and exploitation of oil and gas in the Arctic, in exchange for a large amount of money and also access to know-how and western technologies.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

I believe that there is no need for new regimes or legal frameworks. The existing ones, with the Arctic Council at its forefront, are capable enough to deal with any potential conflicts.

Annexure 3.

Timo Koivurova

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) of Arctic Ocean is shaping the regional geopolitics of the region?

Answer. Well I would start my answer by saying that it is very important to give a thought on the timelines as to how we are evaluating the situation of oil and gas in the Arctic region if we are talking about for example Offshore oil and gas activities there are great uncertainty as to how these will be developed because it cost what sum of money to start drilling oil and gas in these very hospitable environment even if the climate change is for his for example melting Arctic oceans sea ice stare there are improvements to make kind of commercially viable the Offshore oil and gas so that will be a big question mark for the future and it will not likely caused tension between the Arctic state specially between the Arctic council States because their Maritime zones are particularly most of the oil and gas are really close to their there coastal areas so there are no disputes for the maritime boundaries.

As far as the maritime trade Maritime trade routes are concern this is also a kind of longer term development so the transit passages have not been really picked up so there are not much vessels navigating through the Arctic in the Northern sea route or in the Northwest passage. Simply because there is not much it is still very difficult to navigate to through these waters because of the presence of ice still there in the Arctic Ocean if you look at the right inside there are a nuclear icebreakers to escort the vessels in the Northern sea route, but it will be of more force transformation of the Arctic then a kind of natural state of affairs especially due to the climate change and simply because the climate change would obviously would be making the Arctic question so is it is already decreased dramatically what 40% of its original size let's save from 1970s and it is likely to b B4 time fully open without somewhere around 2040 that's the kind of projection that environmentalist models have predicted so it will take some time across the Arctic Ocean not only from the northern in western sea route but also from the top through the north pole so my view about the emerging Economics of Arctic is as a driver of geopolitics in the region to some extent it is but in reality not

that much is happening integration architect for example in the Northern sea route there are some traffic is going through the northern sea route to pick up the Natural Sources like minerals oil and gas and ships it to the commercial Centre like China Korea and us some European States but the transit passengers is not really been frequent so that has been the kind of tissue that why Mini have been disappointed at how slowly these Northern sea route is developing so there is so there is some traffic increase in the Northern sea route but still it has not been used as a transit route yet has been used more like a destinational route where ship carry Natural Gas and ship it to the commercial centers. Such kind of traffic has been increased in the Northern sea route

So when we talk about the role of Arctic Council with these developments at the moment there is not much visible I think what is most visible is more in nation-state all over the world are interested in becoming observers to the Arctic Council. Arctic council is not at an Intercontinental organization because it is not been established by a treaty but it has been established by a declaration so we can call it intergovernmental forum for cooperation manually between the 8 Arctic States indigenous people and also observers which are now about 39 observer together with European Union which is not secured it's observer status yet but so how it's visible in the work of Arctic Council because it's the only real forum at the moment for discussing the Arctic issues you are not kind of government to government setting there are increasing interest from other parts of the world as you know India is observed to the Arctic Council China South Korea, Japan so also this states that are very far away from the Arctic region and Singapore is also one of the observer to the Arctic Council so they are being there in the Arctic Council observing the development of Arctic region.

Question. How do the Arctic States view increase Chinese presence in Arctic Ocean region?

China got in observer status in Arctic council in 2012 and released its first Arctic strategy in 2018 calling itself a “Near Arctic state” there has been in increasing concern specially from the parts of United States of America and to some extent also from its allies and European Union in those countries that are called Western States and they are part of the NATO but all in all it has been the United States who is viewed China suspiciously in the Arctic region. In 2018 in Finland in foreign ministerial meeting of the Arctic States US Secretary of State Mike Pompeo before the start of the meeting he gave a presentation to the international audience and really bad mouth the role of China in the Arctic Council, he accused China of doing all kinds of wrongdoings and that is his words he really accused China of doing various kinds of activities that are harmful to interests of the United States of America in the region. But in our study and on the real grounds we don't see this pattern in Chinese policy in the Arctic China has increased its presence in the Arctic it has conducted much more research and scientific activities in the UK and in some of the countries it has Tata commercial

activities commercial developments commercial investments there is some tourism management. And investment in Finland, Iceland some mineral investment in Greenland which belongs to Denmark so very fragmented investment and of course commercial investment in Russia after the Crimean crisis and specially in terms of natural gas from the Arctic to China has increased its presence in the Arctic region. Still there is no evidence that it has increased its military presence in the region all the US is indicating that it has already has the capacity to do that but it's true that that you are state is confronting China globally is China is doing activities around the world and some has woken up to counter China, growing Chinese influence and different parts of the world and that also includes the Arctic region. yeah so what they have been doing for instance they are actively working with Arctic States in Greenland Chinese Corporation participating in being construct couple of air strips where airplane can length than us contacted Denmark and said that this is absolutely unacceptable that China could be part of the developing Greenland and in general and special during the Trump administration era it has been very hard on china. Not only two members like Norway Denmark but also no network members like final in Sweden that we should not cooperate with China and we should be very cautious of specially cautious of 5G investment of China in the region of Huawei so much of this is really about USA is concerned about Chinese presence in the whole world but also in the Arctic but also to some extent European Union has started uneasy about Chinese presence and investment in the strategic infrastructure in general so that's another player who is kind of gradually increased scrutiny our China Chinese strategic investment. Also in the Arctic region so it's fair to say that these days all the Chinese that's a more corner plot larger investment to the Arctic region as well they are under very heavy scrutiny and suddenly they are not easily acceptable in the Arctic States that would be one take on China. And China has been welcomed in the Arctic Council because Arctic Council has been doing sustainable development environmental protection.

Question. Is the merging Geoeconomics of Arctic would be a source of cooperation or conflict?

So I would say in the Northwest passage that is now under the jurisdiction of Canada has already a long standing controversy dispute between Canada and its close Ally USA. USA says that Northwest passage is in international straight while Canada is of the view that the Northwest passage is in the internal water of Canada USA second testing the legal view of Canada that the Northwest passage would be e its internal waters for United States its International state straight and it's and its vessels should be able to navigate through the Northwest passage on the basis of those rules that are laid out in the international convention on law of sea in 1982 USA is also against Russia's legal claims in the Northern sea route so it's contesting since 1970 the perception of Canada

Soviet Union now Russia in terms of this house one important distinction Canada is not developing Northwest passage in international transport route while, Russia is working on the development of Northern sea route as a commercial International route it is also dedicated to provide ice breakers vessels passing through the northern sea route this is important distraction while discussing the northern sea route in North West passage whether there will be competition or Corporation difficult to say because the amplification of Arctic is continued the ice is melting and when these navigational Highways would become more open there will be more challenges legal status and that means there may be confirmed tension among state. China is also played it in a strategy that it's not going to take any stands regarding the legal status of Northwest passage and northern sea route. These trade routes may become a matter of dispute in the years to come once these Road become more accessible and viable for international traffic.

Question. How the role of Arctic council would be affected with increasing competition among state?

Answer. Arctic Council is the predominant in the governmental forum, it is not intergovernmental organization it is an inter-governmental forum to discuss issues of environmental concern and promote cooperation among States. Arctic States has already stated in 2008 that there is in overarching legal regime for the Arctic Ocean under the United Nations convention on law of sea 1982 which is also considered as the constitution of the oceans so that already regulates lot of issues and will become issues when the ice melt in the Arctic oceans so my sense would be that currently the Arctic Council has been able to digest all of the different players who want to be there in The Arctic including China architect of days in various Arctic areas whether that will be the case for the future when winter will be more economic activities for various purposes in the Arctic Ocean region in the sea and land areas it may well be that may need to be a new type of discussions about how to deal with these issues perhaps Arctic Council would need to be remodified to some extent perhaps it needs to be given more power in terms of security issues now it cannot deal at all with security issues because military issues have been excluded from its mandate since its establishment so it's extremely difficult to say anything clear on that.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

I don't think there would be a new Regime regarding the Arctic because the UN convention on law of the sea already the Arctic as well.

Point on Environmental protection

Yeah it's true that perhaps it's always important to think but as I already explained that Arctic is a

not like Antarctica where there is no permanent living there another any Sovereign state there, while on the other hand Arctic is Shared between eight States and there is 5 million prominent people living there in The Arctic of these eight states and also of course in these people so all of these States every state has their own environmental policies in Environmental strategy and they don't touch their own. the only on their land areas it's easy to they should they should protect environment in The Arctic because these are the international areas everything that Arctic Council is trying to protect the Arctic environment and mostly from pollution from mid latitude.

Annexure 4.

Interview; Dr. Michael Paul

Question. Is the emerging geo-economics of Arctic ocean region a source of competition or cooperation among the states?

Right now it's mainly the scene for cooperation but there is certain science that it becomes more and more of competition first, because there is a power competition between the United States, China and Russia evolving. We see it already in the Obama presidency and we see it in ongoing militarization by Russia in the Arctic so there are certain scenarios which show that situation in the Arctic is becoming more competitive and more like escalating strategy. On the other hand, Russia especially is interested in keeping cooperation because it needs peaceful and stable situation in the Arctic to use it resources especially gas and oil exploration so Russia itself must be interested in keeping cooperation going on till there is no necessity for confrontation in the Arctic also as I mentioned the militarization on behalf of Russia is ongoing process which is becoming even for the United States more and more of a problem. Who has there that hypersonic weapons which will be deployed in the Arctic and they ensure the American security, national security.

How do the Arctic states view increase Chinese presence in the Arctic Ocean Region?

Clearly China is becoming more and more of a competitor in the Arctic. we have seen that in Greenland and we have seen it of several attempts of China to buy certain yards of Greenland, to invest in Iceland and to establish its presence in the Arctic region. But it's also a mixed situation because on the one hand China seems to be interested to get some foothold in the Arctic for its. Polar silk road, on the other hand, for example Denmark is very eager to attract investments from the side of China so it invited China to get there. So it's a mixed situation on the one hand from the perspective of the United States China clearly is a competitor and they ensure the national security of the United States get it military presence for example on Greenland, which is one of the situation which will hopefully not realized but on the other hand China is like the other states interested in using the sea routes of the Arctic and using the resources in the Arctic in the long term a few.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is

there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

The answer is quite simple because you have to look at the declaration and it's clear that the main important actors in the Arctic perhaps are not interested in establishing another an Arctic treaty regime so that won't happen in the near future

Question. How do the Arctic States view increase Chinese presence in Arctic Ocean region?

Perhaps as I called to Denmark they were interested in that certain observer states from Asia for example should play more active role in the Arctic and when you look at the South Korea and other Asian states they are China very much interested in exploiting the resources and using the sea routes so invited them so why should say play a negative role and the Arctic Council itself has to be looked at as a kind of cooperation system and not a decision making forum. Much will depend on how strong is the cooperation in the Arctic will survive so to save the next years and especially how was the Russian chairmanship of the Arctic council will be able to mitigate some of the evolving security dilemma problems which Russia itself is responsible for creating.

Question. Will the competing interests of regional and extra regional states lead Arctic to another Cold War like situation?

I think that the historic analogy of the war is wrong we have another very dynamic situation which is much more complicated in the context of cold war has been but nevertheless so as in sea route as you may know is the national waterway of the Russian and other countries like the United States and Germany has the argument that it's an international sea route. My own argument is that it would be in Russia's interest to Internationalize, international sea route like by the way Gorbachev proposed in his moments speech, so it really depends on whether Russia is able to invest in the infrastructure of the Northern sea route so that it becomes an attractive option. But in the foreseeable future it will not compete vs Panama Canal or Suez Canal route because it's too expensive and too risky and takes too long and so on and so on you knows the argument I guess.

It will be the just small part of the Arctic even when china argues that arctic belongs to nobody what everybody so to say. The arctic itself a zone the part of the arctic which we talking about rather it is a small part I would be in favorite of the colonies of the high seas and international waters so everybody can take future transpolar route with also permission of say Canada, Denmark, Russia and USA so I'm in favour of that in the we have to open sea ways in the future

Question. To what extent USA consider China as Competitor in the Arctic Ocean?

Answer....so its certain extent south china sea is relevant sea also in the context of the arctic because USA has used the narratives of the south china sea in the situation and south china sea puts the scenario which, I don't think is realistic but nevertheless change of china's foreign policy attracts

more aggressive policy hence many experts are thinking about even more competitive behavior between the china and the USA in future. But I don't think that the Arctic will be involved in that but there could be a spillover so to say USA and china into the Arctic but a future escalating situation between USA and china is much more realistic in the south china sea and in the Arctic ocean region.

Question. To what extent those trade routes NWP and NSR will be reasonable and productive? and when these routes would be open for the international trade?

It will be the first one the north east passage and northern sea route which is already in most parts of the year open for traffic and on the long term it will be open I guess 2030's to 2035 that's the most realistic time for in and the NSR will be open most parts of the year the so call ice free Arctic but you know that it doesn't mean that it would be ice free but certain percentage of will still be existing and makes a sea traffic still difficult to go through.

Question. As we know that Canada claims that the north west passage belongs to Canada because its archipelagos but USA continuous denied those claims they consider that the route is in international waters so in that case do you think that Canada and Russia we could see Russia and Canada on a one page against the rest of the world including USA and the European states with regard to the jurisdiction of the routes?

Answer. I don't have a clear answer to that, because it's from the German point of view the German government also like it should be international water ways North west passage and the NSR and to certain extent I can follow their arguments hopefully there would be pragmatic decision not the question on the concerning on the law of sea but it's really a highly political question and it consist more of questions for example infrastructure which is very still not existing in an extent which would make it possible to used it in international water. May be the future shows that Canada and Russia need international support for establishing an international water way so it will be also a question how you define your own national interest in that ways I think Russia is too narrow in that context and Canadian too.

As I mentioned in the start Russia is still must be interested in keeping a cooperation alive so it would not be an escalating situation hopefully. when it's the case it will be the spillover from the areas into the Arctic but nevertheless the Arctic is not more so called exceptionalism has found its end and the Arctic itself become a place in which conflicts can take place.

Annexure 4.

Frederic Lasserre

Question. How is the emerging geoeconomics of Arctic Ocean Region shaping the geopolitics

of the Arctic region?

The link with the Geo politics is to the extent that as you know Canada and Russia claims Sovereignty over the long passages Canada says its sovereign over North West passage and Russia says its sovereign over the North East passage the few straits between Russian islands and the Siberian coast and so this is challenged by off course the United States and also to lesser extent by Japan by the European union so the issue.?. For example the question how much traffic is there going to be if there is a lot of traffic going to be then there is a political stake with these claims or the United States the European union are going to challenge another Russia's positions to the extent that there is very little kind of traffic and most players agreed that it is not worth arguing it is not patrolling for an issue which is strategic because there is no traffic and that raises the question what about in the future well we don't know to what extent is Arctic shipping routes are going to develop in the future some say yes it will develop a lot in the future so maybe there will be conflicts emerging in the future others say no the transit traffic will remain very marginal and not very high when compared to the main strategic routes and still other think that with the melting of sea ice the shipping route that are going to develop is across the main Arctic ocean which is no subject to any Sovereignty claim so there will be no dispute at all anywhere so in between those three scenarios i think that they are likely to replace them somewhere in between so far it's very difficult to access the direction they are going to take it all depends on the pace of melting of sea ice and on the strategies of shipping companies because they are the only actors that are going to orient the political stakes as far as shipping is concerned.

Question. Keeping in view the legal disputes on the Northwest Passage Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations convention on law of the sea (UNCLOS) like Antarctica?

Both states have arguments and since its very divided as far as the opinions are concerned no side is willing to go to in a....?... because both sides hear that their arguments may be challenged and they don't want to live with the consequences so the north west passage situation is very similar with the North East passage Canada says that it has Sovereignty over north west passage because....?... the waters along the....?... similarly, as a land which is true sociologically speaking they say that Canada inherited from....?... title and so that they are sovereign over the waters just like the....?... being incorporated in through the British empire this is historical argument other argument is that the North West passage is not an international strait because this is very much toward the United States focus on the North West passage is not an international because it connects two ice seas whereas Canada underlines the fact that in the....?... issue which was settled by the international court of Justice, the court underline that there are two criteria the fact that it claims

two ice seas and the fact that it is used by international shipping as far as the second criteria is concerned Canada underlines the fact that well as far as shipping is concerned it's not really used by international shipping but how many voyages are necessary for a Strait to be used by international shipping we don't know nobody knows because the?...didn't display any figures to underline the fact that it should be considered as an international Strait so the two sides remain stuck on their position and neither says that these waters are international waters because they are not used by international shipping because the....?...title over these waters and inherited...?...whereas the United States and to lesser extent European Union say this is an international Strait and so it should be open to global shipping so far no side is willing to compromise on this and they all agree that they can live with this dispute which is proved as I said so far as there is no strategic Strait because there is no real shipping in this region it doesn't matter but it can lead an intense competition or intense conflict in the region if remain unresolved .

I have very much doubted Canada and the United States had disagreed on this topic for the past fifty years they even signed a treaty which says we disagree so which is Arctic international cooperation that dealt with the passage of American ice breakers through the northwest passage and this treaty it was written that Canada will always accept the transit of American ice breakers and the United States will always notify that ask for permission about the transit of the American ice breakers and this is doesn't prevented to....?... disagree so the treaty does stay that the two parties don't agree on this issue and they signed the treaty so for the two countries it doesn't really matters that they disagree so long as they have a working relationship we all know what their position is and the United States as far its own practical matters is very happy that Canada close the North West passage for security issues because the consequences of an open north west passage is that anybody can use it shipping companies traffickers terrorists we don't know and several academic observers in the United States including the...?...raise concern that if United States enforce the international status of the Northwest passage then anybody can use the northwest passage Canada cannot control an international space so I think this is also and the argument why the United States is repeating there position but doesn't press too much for it because if there is no traffic so it is not worth arguing about this and second because from the practical point of view there advantages to see Canada which is a close ally control the North West passage legally United States say it should be an international Strait we disagree with Canada so they save face but they are very happy that Canada controlled it.

Question. How do the arctic states view increase Chinese presence in the Arctic Ocean Region?

This is a very interesting question because China doesn't have a formed the same concern as the

United States with Russia or Canada all Arctic states view China presence in the Arctic as both an opportunity and a challenge the opportunity is that China has cash China is willing to invest in the economic projects...? In the construction of infrastructures so this is affective for all countries whether Norway Russia even Canada at one point were seduced by the idea of having Chinese financial to develop the economy but at the same time they are also wandering what is China really willing to do in the Arctic will it always abide by the regional rules or will it change position when it gets strong enough in the region and this is partly because off course China is a rising power so whenever there is a rising power in a region one may wonder whether this is real goal and also because China is being really reluctant itself to publicly express its goals in the Arctic it published its Arctic policy only a late in 2019 when you read the policy it is about the what China is really willing to do in the Arctic whether it's on purpose or not this remains debate it is a fact that the Chinese Arctic policy is not very clear about the China's long-term intentions in the Arctic so that few suspicion about Chinese goals in the Arctic this is why Canada...?...recently cancelled the proposed Chinese takeover of the...?... mine in the Arctic which also is why Russia which is closely cooperating with China in the Arctic is also uneasy about the developing cooperation with China...?...because Russia is a cash craft doesn't have enough money to develop...?...to develop infrastructures but at the same time in the Russian government there is growing concern about the Chinese intentions over the long term for instance a few months ago Chinese suggested that they could use their ice breakers to export convoys along the northern sea route and must denied it that it's our responsibility that there is no way China is going to begin its important convoys along the northern sea route this is our sovereignty so we can see that despite cooperation there are lingering tensions between China and Russia because China is a bit afraid either its wanted or not this is another question that either Russia is a bit afraid that China is going to take too much power in the Arctic so that could be indeed the right factor of growing tensions in the future in the Arctic it's not necessarily going to take place contrary to what we can read in the media it is not because China is interested in the Arctic that necessarily there will be conflict it really depends on Chinese policy...?..

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) a source of competition or cooperation?

It rejoins with what I have just said about Chinese relationship with Russia with Canada I think it really depends on the attitude of Arctic States and of China if China keeps abiding by the rules and remains low profile when dealing with Arctic States then I don't see why there should be conflicts in the future as you said China's interest in the Arctic in the short term are mostly economic have access to natural resources they want to have access to minerals oil and gas they don't want to take over the Arctic and they never said that they would do that only developed of being near Arctic

States so as to justify the fact in the region what they want is basically economic issue they want to have access to these resources to see over extend develop shipping routes because of the opportunistic attitude if there is a market then that would be profitable for Chinese shipping companies but this is not political they don't want to dictate what Arctic States should do in the region as far as they are concerned now and we also can see that Chinese companies always respected the rules when Chinese companies were involved in the Arctic they ask for..? ..and they ask permission for transit so there is nothing in the behavior of Chinese companies that...?... that in the future they might not be willing to respect the local regulations so yes indeed Chinese companies are very active in some parts of the Arctic that doesn't mean that this is going to lead necessarily to conflict it very much depends on political decisions in China and this I cannot figure what Chinese leaders are going to decide in the future

It's not a technical issue as far as naval technology and naval architecture is concerned we know how to build ice resistant ships that could fly northern sea route waters the Russians are building very strong ice breakers Chinese and Asian shipyards are building very capable...?...that can navigate the northern sea route or the Arctic waters so it's not a technical issue its very much an economic issue to what extent do shipping companies think they can make money in Arctic waters so when they are dealing with destination shipping as I said previously with the transportation of natural resources and this is developing because there is a lot of extraction going on right now in the Arctic but as far as transit is concerned it's not sure to what extent is going to develop past and in the future for now it's not developing very fast this is the trend that we can see and when we ask shipping companies are you interested in the development of Arctic market as far as transit is concerned most shipping companies say no because we don't see how it can easily make money in this market even Chinese companies are reluctant to develop the northern sea route the Chinese government would like Chinese shipping companies to go in to this market this is why they nearly force...?... National shipping company to develop this market but even officials privately say we are not sure it is profitable we are developing it because the Chinese government would like us to develop it but not sure that it could be profitable and most Chinese shipping companies I discussed with told me for now it's not sure for been possible market may be a niche market for very specific products and very specific conditions small market which can make money for very limited time frames with high prices from manufacturing companies they are willing to pay high price but to develop strong...?...service all the along the northern sea route most shipping companies say no, not for now at least so I think that China as it is very opportunistic is going to develop many options to see to what extent it can be profitable to develop its presence in the Arctic but I don't see why could be aggressive in the Arctic to just trying see to what extent they can develop business in the region

at least for the time being in 20 years I don't know but for now I don't see tensions erupting fast in the Arctic so long as the main goal is business opportunities from the Chinese point of view.

Question. Have the Arctic states done enough for the protection of environment?

Most of the non-Arctic states including the Asian states like India they blame the Arctic States that they are using the region merely for their narrow national interest in that case they haven't done anything to preserve the natural Arctic?

They are both right and wrong I explained Arctic States just like all states whether Arctic or non-Arctic whether developing or developed pursued economic growth policies and that led to the emission of greenhouse gases and to that extent indeed that had severe consequences in the Arctic it's true that because of climatologic factors as you know the Arctic is warming much faster than other regions in the world so this is largely due to past policies in developed countries but also in developing countries so I can't think it's fair to say its specifically because of Arctic States because of all developed states in the world that has the economic growth base on the burning of fossil fuel and we all live with the consequences of this global warming so yes I understand this argument that the developed world is largely responsible for global warming not mainly the consequences over the Arctic now if you want to be consistent with this...?...then all countries including developing countries should implement in coordination with developed countries policies so as to reduce the emissions of greenhouse gases and this is the objective of the climate negotiations which have something to do but not all is closely connected with the Arctic politics this is as you know the global climate negotiations in the frame of Paris protocol conferences and the other arguments raised by countries like India or other non-Arctic states that claim that Arctic countries are not welcoming enough third parties other countries I think it's a bit exaggerated it is true that regional cooperation in the Arctic is structured by Arctic States but this is the case in all regions of the world in the Pacific cooperation is structured by Asian states in the Europe the cooperation is structured by the European countries as so in the Arctic cooperation is structured by Arctic countries and they also welcome third party states with the status of observers is the status of observer leading to extensive....?...several countries realize after they were entitled with observer status they have little say in the institution that doesn't decide anything so they were disappointed because they expected the Arctic council to be the Arctic security council so they had a wrong reading of what the institution was about in my view because the Arctic council is not going to decide what the Arctic States are going to do it work by consensus as you know so it has little power to enforce over the seas of Arctic States so the observers mainly watch the Arctic countries Arctic States and native associations discussed about policies but they decide nothing so I know it that at points India and Korea were a bit disappointed about their little say over the Arctic issues but this is how it works

and also it's a bit contradictory to see that several states were disappointed with the little power over Arctic issues but they did not participate in the meetings of the Arctic council but you cannot say that you have not enough leverage power at the Arctic council but you don't participate in the meetings so it's also a contradiction in their own attitude from that point of view I think it also underlines the fact that the Arctic is a very trendy to say that Arctic is a strategic treaty so all countries wanted to have a say in Arctic affairs but its region just like as many others in the world it's not a very specific region from the economic point of view so I think if the Arctic hadn't been a trendy region then these protests that the third party states have much leverage over its policies and its politics and wouldn't exist.

Question. Do you think that the spillover of the competitions in other regions can destabilize peace and security of Arctic? Keeping in view the presence of major powers.

It's fear fuel by the United States that the growing interests of China in the Arctic might lead to military developments by the Chinese navy and that it could lead to a similar situation as what we can see in the south China sea I think it's nonsense for several reasons first because the South China sea...? China claims its Sovereignty over the archipelagos...? China claims maritime bases it's not very clear if its territorial waters exclusive economic zones continental shelves whatever but denying the...? in the south China sea is very explosive for China the south China sea is the Chinese waters and China never said that it claims Sovereignty over the Arctic so it's very difficult from that point of view to compare directly China's attitude in the south China sea and China's policies about the Arctic. Second China is actively building up its military strength in the south China sea it has little capacity in the Arctic to our knowledge it doesn't have Arctic capable nuclear submarines it doesn't have Arctic capable naval vassals nor it is going to develop dam in the short term in the long term off course we don't know but in the short term there is no sign that China is willing to develop military capacity to operate in the Arctic so I think that if the United States especially Trump administration developed fear that China is going to compete directly with the United States in Arctic waters with a scenario comparable with the south China sea it's out of fear and out of also that it must confront China wherever Chinese interests are with a YouTube blocking Chinese interests are where they are with a new policy very similar to containment .?... which was the American policy with the Soviet Union during the Cold War I think that this is very much...?... that the Americans were willing to...? we feel that China might become a real power and we would like to contain it and so we are developing the idea that China is a threat in several...? in the world in some regions it is true like in the south China Sea in the Arctic I don't really see China becoming a threat and this is a short term.

Question. Despite having a forum like arctic council there are still territorial disputes in the

Arctic Ocean. have the Arctic council done enough to resolve these issues?

As I said that the Arctic council is not a security Arctic council so it doesn't have the power to solve the problems it cannot tell what to do to Arctic States it works by consensus so if there is no consensus then there is no way that the Arctic council can solve disputes it is also in the mandate of the Arctic council as you probably know they can't talk about the military issues the United States underlined the fact from the very beginning we are not going to talk about military issues at the Arctic council so what it can discuss is issues about development and native issues and the environment economic development if all states agree but as far as acute tensions are concerned then there is a great reluctance to discuss the matter at the Arctic council so all the talks about military buildup in the Arctic this is not something that the Arctic council can do about it because the United States do not want to talk about this at the Arctic council. Second I think that the Arctic council has done a very good job to smoothen relationships between Arctic States because diplomat talk at the Arctic council meetings and that certainly helped smoothen up relationships although it's very difficult to qualify it must be underlined that ever since the Ukrainian crisis broke out in 2014 cooperation still worked at the Arctic council between Russia and the western states it didn't collapse the Arctic council and there were off course tensions right to stress the fact but it never seized on going work at their workshops which is as you know the core of the Arctic council cooperation and it never stopped the Arctic council from promoting agreements like the fishing maritime in which the Arctic council was you know a personal partner it never stopped promoting the development of the..? it never stopped the Arctic council also from facilitating the negotiations between Arctic States to draw their limits their boundaries in the oceans there are several agreements that were signed in the past several years between Norway and Russia between Norway and Denmark in Iceland so there are many examples of disputes that were settled in the Arctic but the media rarely mentioned that they prefer to that draws attentions which is partly true but there is also cooperation in the Arctic and the Arctic council is among the actors that promote cooperation so it's a very limited because of its...?...but it is also working I think as an international cooperating body.

Question. What is yours say about the future of Arctic would the world witness a more cooperative Arctic or the competitive Arctic where the great powers as well as the regional states they would compete for the resources as well as the control of these trade routes?

During our discussion several times I mentioned the fact that it very much depends on political choices from the country so I think that there is a lot of possibilities for cooperation to keep developing...? for one are several states to decide to destroy cooperation I mentioned that the colliding course of the United States with China was very much decision by the Trump

administration it was political decision. we will see what the new Biden administration is going to decide is it going to keep the same behavior towards China or it is going to be more cooperative that might change a lot about the China United States relationship in the world as well as in the Arctic the media also discussed extensively the Russia's politics in the Arctic saying that China is actively questioning the militarization policy in the Arctic I disagree I think Russia is very much afraid of the United States challenging and threatening its interests in the Arctic and that for security and domestic politics reasons also Russia is trying to develop its defensive capacities in the Arctic after several decades of decline of military capacities in the Arctic so I don't necessarily see Russia willing to challenge the other Arctic States in the region so this underlines the fact that there are many opportunities for cooperation there are many also possibilities that things are going to deteriorate in the Arctic that very much depends on political choices by the states but as far as the extraction of the natural resources or shipping routes I think we have seen that up to now they can be exploited with the cooperation spirit and by the Arctic council been managed relationships between Arctic States despite the fact that there is a crisis between Russia and the western states in the Arctic things remained largely manageable and the relationship didn't much deteriorate in the Arctic in Eastern Europe its very different there is a lot of tensions between Russia and Scandinavia in the Eastern Europe but not so much in the Arctic so I don't think necessarily that things are going to see booming of tensions and conflicts in the Arctic.

Annexure.6.

Kristian Åtland

Q1. How is the increasing competition for geo-economics (Natural resources and Maritime trade routes) among regional states in the Arctic affecting the role of the Arctic Council?

This is a big question obviously there is a growing interest in Arctic affairs not only among the Arctic council states and the member states of the Arctic Council but also from the side of outside actors including Asian powers and the Arctic has in recent years become a geo political arena. Arctic as well as non-Arctic states do what they can to position themselves for what is coming and the interest in the region from the side of the Arctic States and outside actors is understandable that they are interest in the natural resources that are located in this region and they are interested in the opportunities to utilize the maritime trade routes that go through the region into the North East passage along the Northern coast of Russia or through the North East passage through the Canadian archipelago and obviously climate change is an important driver of change in the sense that the region is becoming more and more accessible for resource exploration and ship traffic...?.. Arctic ocean and then Arctic seas that used to be ice covered or at least seasonally ice covered are now increasingly open and I think this is the context in which we should understand this when it comes

to the role of the Arctic Council there is an important arena not only for the eight member States but also for the observer states and the number of observer states is increasing as you know at 2013 meeting of the Arctic Council ministers which was called in Reykjavik, Iceland, in 2013 six new member states were admitted into the council as permanent observers and five of these six states were Asian powers China, India, Japan, South Korea, Singapore and the sixth one I think was European state Italy. This is an indication of the interest in the region for the being present in the Arctic council from outside powers China's interest in this region is understandable giving a China's rapidly growing energy needs and the trade flows that go through in from China. when the Arctic Council was established in 1996 there is an important foot note on the first page of Ottawa declaration which states that the Arctic Council should not deal with issues of military, security. I think this foot note was entered to the Ottawa declaration at the initiative of the United States because they wanted to deal with military and security issues in other form, so this is obviously an important limitation it means that this not an arena where military security issues should or can be discussed. and of the five Arctic Council states four of them are members of NATO and the US Canada now and Denmark and this is obviously a source of concern for the fifth one Russia is on the impression that these four states are pursuing for the coordinated policy aimed at enriching themselves at the Russia's expense and undermining Russia's economic and security interests in the region

Question. How do the Arctic states view increase Chinese presence in the Arctic Ocean Region?

China's interest in Arctic affairs dates back a few decades China established an Arctic research institute/ polar research institute Shanghai back in 1989. After the dissolution of the Soviet Union they approaches a research vessel and an icebreaker from Ukraine in 1993, that's called Xue long that is now being used actively and later they built another one in china Xue long 2 that occasionally navigate the Arctic ocean. China has significant economic interests in the region China is cooperating closely with Russia on a number of energy projects primarily the yamal LNG project. Which you obviously are aware of this is the huge project the Chinese they petroleum corporations CNPC has 20 % share in this project which is controlled by Russian company called Novatek and French company is also involved in this project and already liquefied natural gas from the yamal peninsula, has been transported on tankers from the port of on the Sabetta yamal Peninsula to Chinese ports and when this project is full developed fully loaded tanker is going to leave Sabetta if not every day then at least every second day. China has also invested heavily in energy projects mineral projects elsewhere in the Arctic in Greenland and Iceland and in other places so China is increasingly important player in the Arctic, but at the same time China does not identify itself as

an Arctic state of course a near Arctic state. China is obviously sensitive to the interests of coastal states, and to the established country of the Arctic States the five Arctic council states and Sweden Finland and Iceland is careful not to step on anyone's toes, certainly not Russia's toes. I mentioned that China got the seat at the table of permanent observer at the Arctic council back in 2013. I think this was important for China in terms of prestige and in terms of just getting a seat at the table and China is also heavily involved in various research activities including the archipelago of they have Svalbard research station in Svalbard which was established somewhere in 2003. China is increasingly important actor in the region. China is interested in the natural resources that are located there and the opportunities for ship traffic you know marine transportation particularly the Northern sea route along the Northern coast of Siberia.

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) of Arctic Ocean a source of cooperation or competition?

I think it is both, I mean it's difficult to say that either or it's both source of you know controversies and potentially also conflict you know getting access to the resources under the Arctic continental shelf I think simply put there three or four potential sources of conflict in this region first of all I think we shouldn't overestimate or dramatize the conflict potential this is generally relatively peaceful region at least comparative to maritime areas of similar sides elsewhere in the world there is relatively limited number of unresolved law under sea issues in this region comparative to similar maritime areas elsewhere in the world you can take the south China sea which is an area approximately 25% of the size of the Arctic ocean where we have a lot issues, including Maritime disputes more pressing maritime disputes but there are some difficult unresolved issues related to the outer limits of the continental shelf for instance. All of the Arctic coastal states have filed or in the process of filing claims to extended continental shelf that is outside of the 200 nautical miles' boundary. In the case of Canada, Denmark and Russia these shelf claims are going to be partially overlapping and this is an issue that will have to sorted out to somehow Russia as you know have filed claim to a 1.2 million square km shelf area outside of its current 200 nautical mile economic zone and between that point and the North pole that could be obviously a source of conflict but most of the known and interior exploitable oil and gas resources on the continental shelf are located closer to the cost and within the exclusive economic zones of the coastal states so in areas of undisputed national jurisdiction. In the case of Norway the long time standing maritime limitations disputes with Russia was solved in 2010 when Norway concluded that the limitation treaty with Russia or for the Barents sea and parts of the Arctic ocean and this treaty entered in to force in July 2011 and has now been functional for close ten years seems to be functioning well the difficult case in Norway's situation is to some extent Svalbard area and the so called fishery protection zone

which is 200 nautical mile zone around Svalbard and the legal status of the shelf area around the archipelago of Svalbard, where Norway and Russia have very different interpretations of the status of that shelf area so that could be a source of potential conflict but generally I think we shouldn't dramatize the conflict potential related to the access of oil and gas resources on the continental shelf. Second area of potential disputes relates to the living marine resources this region has some various productive marine areas where a lot of commercial fisheries take place for instance the Barents sea, the Greenland sea are very productive areas which have been managed well and the barren sea fisheries billion dollar a year industry that brings revenues and jobs to not only to North and Norway but also to Northwest Russia and all of the years they have been some disputes they have been incidents and episodes in the barren sea and in other parts of the Arctic related to the access to the maritime marine living resources also they have been disputes between the Arctic States and outside actors they have been disputes between Norway and Russia particularly in the Svalbard zone that I mentioned and also between Norway and Iceland for instance. If you go a few decades back, we remember the British Iceland Tug of war in the North Atlantic so all these episodes evolved various forms of force being used to enforce fishery and regulations that fishery disputes rarely escalate to the level of shots been fired or ships being sunk or lives being lost. The 3rd potential category of conflicts which you mentioned earlier and the shipping lanes and the legal status of the Straits for instance along the Northern coast of Siberia along the Northeast passage as well as the Northwest passage, whether these straits are to be seen as part of the internal waters of Russia in case of the Northern sea route or Canada in case of the Northwest passage whether they are to be considered international straits where the right of unhindered transit passage applies as for instance the Americans would argue. With growing ship traffic in these waters this is an issue that could potentially come to the surface but still the ship traffic is relatively limited in these waters the traffic is mainly destinational going to and from ports in the Russian part of the Arctic and the number of trans Arctic transit is still relatively limited even though there is a great increase year by year. On top of that I think we could may be also at the fourth potential source of conflicts which is related to the military activity in the region the military activity in this region is growing it's increasing this is something that is related to in no small measures to Russia's military modernization and Russia's development of military a civil and dual used infrastructure in this region on the Russian main land on the Russian Arctic and elsewhere and Russia's military activity for instance in the European Arctic has not only increased but there character has changed in the sense that it is becoming more aggressive more perhaps also provocative the Russia's naval exercise for instance in the Barents sea and in the Norwegian sea are becoming more frequent and more complex and take place further and further south and closer and closer to the Norwegian coast

line and there is of course a risk that this could lead to misunderstandings or cases of intended escalation if one state military activity takes place too close to another state's territorial line this could be misunderstood and lead to sort of an action reaction dynamic not the Arctic States really wanting we are already seeing some signs that the increased military activity in tit for tat measures between NATO members and Russia could lead to an incremental militarization of the region.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

This is a good question something that has been discussed within the research community and in political circles I think the general consensus is first of all these are very different regions the Arctic and Antarctica is essentially a piece of land surrounded by water whereas the Arctic is a piece of water surrounded by land and the Antarctic treaty have served this region well far more than a half century but this does not necessarily mean that the similar treaty for the Arctic is either possible or desirable because of the fact that the Arctic is primarily in maritime areas the UN law the sea treaty applies to this region and there is consensus among the Arctic States that any unresolved maritime disputes are to be resolved on the basis of the enclosed regulations so I think that general consensus if you ask at least majority of researchers dealing with this region if you ask politicians developing Arctic strategy in the policies general consensus would be that we are better served with more sector specific arrangements in the Arctic we have special regimes, fisheries management, and oil spilled prepare certain rescue agreements and so this must take sector specific management arrangements have sort of developed gradually but the important additions in the last decade with the Arctic certain rescue agreements which was concluded in 2011 under the auspices of Arctic council this agreement entered into force in 2013 also the Arctic treaty on oil spill preparedness in response the Arctic council agreement was concluded in 2013.

Question. Is Arctic ocean a global common?

Well there is sort of consist of different sub regions the situation which we got to research management varies from one point at the to another in case of the regions which we know the most...?..... responsible manner region Russian fisheries management cooperation is generally a success story the regional Russian coast guard are cooperating very closely in the management of these certainly joint resources. I think also in the Bering sea the US management has been responsible the resources there are really productive maritime areas but the uncertainty is of course related to climate change with the increasing temperatures in the Arctic increasing sea and water temperature in different parts of the Arctic you see different patterns of fisheries fish migrates to

different parts of the region north word movement of fish stalks poisons the quad in the Norwegian sea and the Bering sea is moving north words in search of cold waters north words and east words Russia but different fish species act different react differently to climate change...?... Species that the move around the...? And there is also been some issues in the Bering sea related to grab snow grab Fisheries conflicts between Norway and the European Union and also i think that the Arctic council states have taken a very responsible approach to the issue of fisheries in the central part of the Arctic ocean what if fish stalks move in to parts of the Arctic that are outside of the exclusive economic zones of the coastal states the main indication that they move fish stalks essentially stay in the shallow areas along the Arctic continental shelf very few fish stalks move in to the deep waters of the Arctic ocean but they have been discussions about prohibiting fisheries in areas outside of the 200 nautical mile boundary and discussions resolved then this in 2018 treaty dimension which is about to enter into force so I wouldn't say that this is sort of free for all...?... carried away when you read much about you know what is being said and written about the Arctic that there is a resource race going on you know uncontrolled competition among the Arctic States. I would say in reality the Arctic council states and the other Arctic nations are behaving in responsible manner and they have joined interest in managing the living marine resources properly and preventing you know oil spills and things that could destroy many of the coastal colonies that would be disastrous you know for tourism for instance in northern Norway if you have to the major oil spill reaching the cost distance of varying you know valuable area in many ways and I think the Arctic States are well aware of the risks and there is going ship traffic in this region not only tanker traffic but also tourist traffic a lot of tourists tourism screw ships going on for instance to salt? these are extremely remote areas and there are significant risks off course associated with this activity and I think that the Russians in there were they called the Arctic sector have developed not only military infrastructure but also civilian infrastructure what they called dual use infrastructure that is insulations that can be used for military civilian purposes when it comes to the civilian infrastructure it is essentially certain rescue stations logistics bases coordination centers for certain rescue operations in waters along with the northern sea routes this has been a priority issue in Russia's Arctic policies for quite some time.

Question. Why states as well as individuals are so optimistic about peaceful Arctic, despite the fact that, there several issues and more important the presence of great powers?

It is increasingly important arena for (a) resource extraction (b) ship traffic and (c) military activity so in that perspective you can say that there is a risk for interstate conflicts in this region between 2 or more of the arctic states or between Arctic and non-Arctic States at the same time the Arctic States are committed to developing policies that can prevent such scenarios work together you

know in regional forum such as the Arctic Council and in the Bering sea region the Bering council which is essentially successful cooperation arrangement demonstrates that the well in our case Russia and Norway and the NATO member and the non-member of NATO can work constructively together to resolve disputes and prevent the undesirable development in the region but it's necessary to distinguish between hard security and soft security when the sphere of soft security I think related to economic security and environmental security societal security and so on it's not easier to cooperate successfully with Russia even in the current political environment marked by growing tensions between east and west to Russia and NATO then it is put in the sphere of hard security or military security within the sphere military security it is a lot more difficult to cooperate with Russia Norway's military cooperation with Russia which used to be quite extensive was suspended was put on hold after the Russian annexation of Crimea in march 2013 and this seems to be a long standing or possibly permanent situation that we do not cooperate..?

Question. What would be the future of Arctic ocean region?

I think the political importance of this region is going to grow the natural resources that are located in the Arctic will be perceived in the region and outside the region as important there we going to see more human activity in at least parts of the region more ship traffic more fisheries more offshore petroleum activities more tourism and more research activity whether the Arctic States would be able to preserve the current political ability in the region remains to be seen on a lot of factors not only developments inside the region but also developments in other parts of the world and I think that is the factor that we often underestimate the risk of what I would call spill over from conflicts in other parts of the world in to the Arctic for instance the tensions between NATO and Russia great power competition between the US and China hold such developments will impact on the region's stability in the Arctic so that I think is the factor that we should take in to consideration the risk of spill over from other parts of the world into the Arctic.

Annexure 7.

Dorothea Wehrmann

Question. How is geo-economics of the Arctic Ocean Region shaping the regional geo-politics?

From my point of view There is actually a lot of talk that is not substantially needed in that range as mentioned in the book as I edited discrete analysis that would particularly those course is conducted by thousands of scientists and by media and one of the main conclusions is that there is usually a lot of hype about the Arctic resources while when we look in the Arctic ocean we see that especially in these times that resources especially our gas resources of course are exploited in some areas but not to the degree as often envisioned and also discussed in media and also by practitioner. It Was only from the states actually I think while there are some interests that enforce these kinds

of imaginations and obviously I mean the Arctic region is a region that is remote and it is difficult to encourage development in some areas if speak about economic development. And we have a high rates unemployment in the Arctic obviously there is great interest and increasing numbers of employment, for instance increasing industrial activities or by having visiting spaces.? and we can of course also consider touristic activities as industrial activities, because we are talking about tourism industry but having said that if we look to the grounds most of the resources are located in the areas that belong by law to the nation state that are above the Arctic ocean so there is off course a big talk about how the world is affected by these resources once they explored if consider climate change and the affects that the burning of fossil fuels has for all climate that still this is an observation that can ask for the past years most often discussed there is a big interest in extracting the resources because the financial benefits that arise from soil, oil and gas and so on that obviously in these times this is changing quite a bit because climate change there is less interest in extracting oil and gas and I there is change a shift say toward the Fishery activities and tourists I think oil and gas are dominating that much in the future.

Question. How do the Arctic states view g Chinese Presence in the Region, particularly USA?

Well, as you know there is a change in the administration in the US so it is always difficult to talk about the Arctic states. First of all who is an Arctic state then views in the state had difference quite a lot and views different within an administration and also in view of the different administrations that we are following and that have been in charging the past so I would say it is important to differentiate between the different Arctic states it is not possible to just say what all Arctic say in view of the Chinese influence or presence in the Arctic region somethings that is positive or something that is negative that is not an easy answer, one can give and is important to locate the different strategies and if one looks in the Arctic to construct documents that's what I would recommend for your recent have a look at the Arctic Council website and the secondary it would really provide a detail information on the different media outlets. From my view at the regional level it is still about enhancing cooperation and encouraging knowledge transfer and its more inclusive approach off course they are stereotypes and fierce that are also driving some practitioners and also some scientists. I would say there is not a homogenous view towards the Chinese presence in the Arctic rather that it is more about one has to look at the different aspects that are defined as a matter of concern so if we consider climate change or if we consider science transfer and all other surveys conducted by the Arctic council there are different views and how far the Chinese can engage, should engage and should not engaged. So this is what we have something about and what means to have a look at in a specific way

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) of

Arctic Ocean a source of cooperation or competition?

Well, again I would say if you have a look at recent analysis on the use of trans fair that is conducted on these shipping routes. Arctic trade routes are still very limited and as long as the Arctic ocean is not ice free completely in the Arctic summer, I would say this would not be an issue of top priority concerns. Because of the different understandings of the northwest passage on the northern sea route and being an international route have been discussed for decades all right so this is not thing that will come up as something that will cause more conflict or less conflict but obviously as long as the shipping straits are not used in a more convenient way this will not change anything but if shipping will increase on these routes I think this will become a topic that will be discussed by legal authorities no less that will be more discussion at the International Court of Justice. I would say the International Civil Authority and then we will have to see how long what actually are in I mean they are legal organs and instruments in charge so that is something that would not cause any conflict in the way or causing war in the Arctic region.

Question. To what extent Arctic Council has played its part in promoting cooperation among the member states?

Well it has succeeded clearly, I mean if you have a look at the Arctic council agreements that have then adopted in past decades, agreements signed by all Arctic states this is a great accomplishment of Arctic council. The Arctic council succeeded in bringing together some very different stakeholders not only states also indigenous organizations off, off course observer states and non-Arctic states so they have been great numbers of actors that were engaged in these dialogues and discussions that the Arctic council and along the Arctic member states the Arctic council succeeded in maintaining interests in the Arctic region that a shape by cooperation. So if you want to have a look at the recent discussion paper that was published last year that was really about the transition of the Arctic council and how far the Arctic council succeeded in establishing trusts and also cooperation on this reality of actors engaged in the Arctic Ocean.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

Actually I think while there are some interests that enforce these kinds of imaginations and obviously I mean the Arctic region is a region that is removed and it is difficult to encourage development in some areas if speak about economic development...? we have high rates unemployment in the Arctic obviously there is great interest and increasing numbers of employment? for instance increasing industrial activities or by having? and we can of course also consider touristic activities as industrial activities no way because we are talking about tourism

industry but having said that if we look to the grounds most of the resources are located in the areas that belong by law to the nation state that are above the Arctic ocean so there is off course a big talk about how the world is affected by these resources once I exploited if consider climate change and the affects that the burning of fossil fuels has for all climate that still this is an observation that can ask for the past years most often discussed there is a big interest in extracting the resources because the financial benefits that arise from soil, oil and gas and so on that obviously in these times this is changing quite a bit because a climate change there is less interest in extracting oil and gas and I think there is a bit change a shift perhaps what I can say towards the great attention at this page to Fishery activities and also to tourism so I think oil and gas are dominating that much Arctic Council so they are still the patch of the Arctic states to contribute to sustainable development in the Arctic so there is going awareness on the environmental affects that any kind of industrial activity can have on the Arctic.

Annexure 8.

Henrik Gram Pedersen

Question. How is the emerging geoeconomics of Arctic Ocean Region shaping the geopolitics of the Arctic region?

Yes, the interesting thing here is that this trade means that hydrocarbons from western Siberia reach both European and Asian markets. Because they can be simple westwards and eastwards and that is something new indeed direct shipping from distributed to the Asian markets is very new test to do with across the changing ice situation in size and also the construction of the ice breaking LNG carriers which can go autonomously for most of the year that needs so much ice breaker support so that put this sort of focus on especially LNG from the Arctic. The other factors are developing that I, would mention is international transit shipping between the Pacific and the Atlantic which has been much talked about and much expected has not really taken off it has increased from zero but the increase is only in relative terms so this is still the very limited the amount of goods shipped between the Atlantic and the Pacific or the other way and I don't see that changing drastically in the next few years.

Question. How do the Arctic States view increase Chinese presence in Arctic Ocean region?

The projects or the investments you mentioned it's only one deal and that is yamal LNG and now also the Arctic LNG is the second LNG project the others are propositions not really a concrete investment. But the yamal investment us substantial and it came about because Chinese companies were interested in LNG supplies but it also has a political aspect because it makes China such an important partner in the Arctic. But it must be stressed that this investment in yamal is on commercial grounds so it's good investments for the Chinese companies Russia has been very eager

to include Chinese companies especially after the sanctions against Russia from 2014 on, but the Chinese engagements started before that. But you can't look these as a political thing it also a very commercial thing other states have their mixed feelings about China and they don't accept that what China is up to, but i think many look at the Chinese initiatives and investments separately and try to find out that this is politically or commercially motivated there is not any uniform opinion about China in the Arctic ocean.

Question. Is the emerging geo-economics (Natural resources and Maritime trade routes) of Arctic Ocean a source of cooperation or competition?

This projects and also other projects on the horizon they require very substantial investments and particularly talking about Russia and for such investments from the growth to take place there is a need for peace and stability. So in that sense these projects may poster or at least help and support stability and peace if there is a tension there is not going to be much economic development in addition, I would like to say that there is no conflict about the ownership of the resources. Resources are firmly within the jurisdiction and ownership of the coastal states so there is no unresolved jurisdiction issue which is complicating these issues.

Question. Would the world witness a cooperative Arctic or competitive Arctic in the presence of great powers?

I think that is the big question I don't see really any very good reasons for conflicts starting in the Arctic region. But I think some spill over from conflicts in other regions and that is very difficult to predict and really to imagine how that to come about but serious conflicts between Russia and the west and China not could and it would spill over into the Arctic but it is very hard to see how in the Arctic itself, I don't see that there is much scope or reason to expect serious conflict, starting from in the Arctic.

Question. Has Arctic council done enough when it comes to protecting environment?

The Arctic Council is the not an international organizational forum and its main product is knowledge and science and certain policy recommendations. I think that the Arctic council has done a lot is to increase the general knowledge level about the Arctic especially in the environmental sphere when it actual regulations they have to be negotiated outside the Arctic council only with the help of Arctic Council. And I agree with you those treaties are failure more important for instance then polar cod for shipping in the Arctic waters which was negotiated under the international maritime organization.

Question. Keeping in view the legal disputes on the Northwest Passage and Northern Sea Route, is there a need to establish new legal regime for the Arctic Ocean Region within the United Nations Convention on Law of the Sea (UNCLOS) like Antarctica?

Well, I think it's not workable this issues are in the Arctic unlike the Antarctica it's an ocean which is surrounded by states and they have their exclusive economic zones and they have continental shelf. So actually it is very little sort of International waters in the Arctic just in the middle, so I think the main legal bases in the Arctic is UNCLOS which you know has quite comprehensive and comprehending the regional responsibilities and its good bases. And I don't think it sort of an overall treaty it is not likely to happen and I don't think it would so anything it would be better to work on the bases of UNCLOS and to establish regulations in the areas where it's needed. Which can be done in cooperation with the Arctic council states.

Question. Can NSR be an alternative to the Suez Canal in the years to come? As many experts believe that NSR would be an alternative to the Suez Canal in the years to come.

No I think that is totally unrealistic. There are many reasons why the Arctic will not be so important even if its technically possible to sail through the Arctic will be more technical possible these are something to do with trade base or the cargo base between North West Europe and Northeast Asia is not so big when it comes to build trade when it comes to container ships which is the big thing internationally there are limitations of the size of the ships you can use on the northern sea route and there is always some uncertainty there regarding the weather condition. Because even if there is less ice there come to be ice absolutely certain how long journey takes if it may be late on the just in time principle that is the problem and also there is you know no markets along the way for the container they move in the big harbors all the way from Asia to Europe in the Arctic there is no such cities or harbors. so I think routes will increase it will be important regionally but it will not be big change in a global trade flows.

Question. What could be future of Arctic ocean region?

I think and I hope that it will be possible to keep the Arctic outside the international rivalries but as we talked about earlier very much, elsewhere big challenge now in the Arctic is this changing climate which is destroying the some of the natural habitats of animals and is also you know affecting the global climate that is the big challenge.

Annexure 9.

Romain Chuffart

Q. How the emerging geo-economics of the arctic that is trade route as well as the natural resources is shaping the regional geo-politics of the region?

A. Interesting question I always start very Arctic views, from the Arctic states the people living the Arctic region and I think what we see for example northern sea route in Russia and north east passage as well we tend to see a lot more actors like china, Japan and other strong Asian nations being interested in shipping, but we have to think in term of climate change these nations are

interested in acting in arctic and being forced in the arctic presence of these in the arctic because of the climate change because of the repercussions of climate change on them as well and on the southern latitude. In terms of geo-economics I think it's hard to see as of now don't think so it that much shapes the geopolitics of the Arctic region. It will in the future definitely on the long run those opportunities especially on the North East passage and North Sea route they will shape the Arctic as well. But we have to still think arctic in terms of the region, in terms of the regional actors in the arctic as well so much have been said and media all that as much as I do I guess they always think that China is going to take over the arctic and Japan is doing something about curious and US laid India and India is now having arctic policies, Estonia is also having arctic policies its be consider non arctic states in the geo graphical terms and I think they see the geo-economics possibilities and opportunities of the Arctic. Arctic is so well delimited and all the resources are in the Arctic on the sea belt, minerals and resources at the water column as well when we think of the resources in the Arctic for example fish stocks as well as resources in water column all these very delimited as the international rules Russia has a sector of the Arctic and EEZ and all the arctic costal states also have the rights to the resources as UNCLOS so I think in terms of economics how it is shaping the regional and obviously we see how the ice is melting possibility it opens new shipping routes and that is something is to be taken into account especially applied in the shorting of the routes mainly between Asia and Europe so how quickly goes to Mediterranean to western Europe and obviously Russia is working with china to give Chinese companies more peritonitis and I think it shaping trade law in the west and my perspective from the international laws on the arctic but do not think it brings more I mean think about the title of the your thesis it might bring more cooperation to the table Russia rather than competition obviously

Yes, you are exactly right but the presence of the major 3 major powers Russia, USA and China that would always force them to play power politics game in the region especially keeping in the view that USA and China they are involved in strategic competition in the south china sea so that we may see spillover of that competition in the Arctic as well especially USA has again and again denied the status what china claim near arctic states and USA always said that there are no near arctic states.

Yes, and I think USA position is very clear I also think that this would narrative we see evolving over the past four years since 2015 ,2016 may be more 2016 is a product of the ongoing administration in the USA so it's a very much product of the current administration and less incline to international cooperation and has more hawk view on the power politics like more hawkish view. However, I think in terms of arctic governance has not change much the main body of the arctic council, main forum for cooperation in the Arctic since relatively well china is observer there with

all rights and duties pertaining having the observer

And so I do believe like the tension of the competition as which you seen in the South China Sea for example is much exaggerated in the arctic sea so at the moment working with the international law. I think the potential conflict has been bit exaggerated given the current fact just because the arctic governance is stable at the moment besides the everything. The Arctic costal states of the Arctic 8 so the Arctic 5 costal states and the states of the arctic 9.42.....

USA, Canada, Russia no way and Denmark with the Greenland these are the Arctic 5 and the Arctic 8 Finland, Iceland and high region government and the arctic council said that they have permanent seat in the arctic council they also have bilateral treaties and relations between them and arctic governance is quite unique in a way. If we see the potential conflict and tension has been reduced.

Question. Keeping in view the legal status the disputed legal status of the north west passage and northern sea route do you think that an Arctic treaty is the need of the time?

So the first treaty Pan Arctic treaty I think it's necessary at the moment as you said that the legal framework of the Arctic is delimited by the UNCLOS and actually even the USA is not the party to the convention. The US regards a lot of conventions as customary law as international law they have not signed or ratified but still taking to an account they still taking the clause of UNCLOS applied and I think the Arctic states at the moment especially A5 costal states would argue UNCLOS is enough because all the rights they have from the point of view of the coastal states UNCLOS has given you they have internal waters, contiguous zone, EEZ and then they have the high seas and they have freedom of navigation all states any state can do whatever they want on the high sea and UNCLOS.....?

Territory of the state in the water and the coastal states also have right to I think 200nm from the coast of that portion of shelf and then they can claim extended shelf and everything they have to prove at the three side science and scientific research have there the shelf is extended when we say claim in the arctic all the its claims take it to continental shelf and the portion of the continental shelf are these claims are regulated in the UNCLOS so there is a commission, there is UN commission on the limits of the continental shelf CLCS all of this for example Russian example Russia is claiming we see the media Russia is claiming north pole and the Denmark is claiming North East pole we think these are the potential conflicts actually it's a very boring process a document to be submitted to the commission of the continental shelf and the commission limits the signs and says okay given the evidence Russia is given this could be the continental shelf to limit the continental shelf. However, these overlapping claims over the Denmark and Greenland over the North pole and the Russian one delimited the couple of years ago they tend not to say anything and the commission tends to put the submission of the shelf and forget about it because of I think

they have 10 years to react and so they let the state discuss tiny bit at the moment the only claim over the extended claim has been recognized is one of the no way has extended continental shelf and because of the size they showed they were able to prove that belongs to them so just to show you get your answer regarding the arctic treaty. Both the governance, the arctic treaty, other bodies other regional operational bodies works quite well and the any other treaty you don't have to a pen arctic treaty covering everything because you have UNCLOS, but you also have regional treaties on the specific matters so the arctic council is not in the situation neither have the power nor the legal capacity to create treaties to work treaties but the arctic states were able to negotiate treaties for example there is a treaty on arctic scientific research to share all the signs and between the arctic states and the non-arctic states as well. There is a treaty on marine pollution and there is a treaty on southern rescue so what we see they are like very collaborative treaties they are not like to regulate the potential conflicts they are more tend to arctic cooperation they also show that both the arctic state and non-arctic states are willing to work on specific issues so southern rescue is being one, Arctic ocean is huge and having accidents then you need coast guards then you need some source of response so on specific issues the arctic states have been willing to cooperation on specific issues and to have legal reparations for certain issues and I think some non-arctic states, some non-arctic players such as European union they have been huge component of pen arctic treaty in the years past and don't be think it would be feasible and again I don't think the argument politically feasible of the arctic states nor to pen arctic treaty but there is also the argument that has to be there about besides this it's not needed nor required because the other international.

That would be covering the Arctic treaty and just to quickly about your last question about the north west passage, north east passage there is something interesting I think it would be a never tried a dispute in which one state is claiming its internal waters no they are international waters I think elsewhere in the world we would see it is a kind of dispute because USA and Canada they are all allies because they work together they active regionally together as well and they are into the very geo politically stable region it's a disputes that's not really a dispute. Canada is saying our internal waters and US is like oh no its international waters there is a high seas and sometimes there we sail boats and it doesn't really matter that way Canada is still having some claims over the jurisdictions of internal waters and USA doesn't say anything.

Does not really matter that way Canada has still historical claim some level off jurisdiction over it and in terms of internal waters. And don't say anything against we had the crystal Sovereignty and Cruise ship in 2016 that was the first terrorist vessel going through the Northwest passage and that name was Canadian Run I think and this was able to go through the Northwest passage by Canadian jurisdiction it's not the issue show the North East passage is are commercial Bridge from

Asia to Europe Northern sea route is more of the internal waters Russian section of the north East passage so I mean there's a difference they are different Geographically in the United Nation convention on law of sea it is very clear that Russia has jurisdictions on Northern sea route no one is claiming otherwise and Obviously if a non-Russian vessel or even Russian commercial vessel you have to apply for the permit to import or through the sea route so yes potential conflict is there in those cases

Question. How do the Arctic states view increase Chinese presence in the Arctic Ocean Region?

I think the growing presence of Chinese in the Arctic always has been very exaggerated. Obviously looking at the opportunities China is making sure that they have these commercial opportunities in the future as I do over the world part of the belt and Road initiative you and I think anything about it whether it could be good or bad for the planet I mean that's another debate I guess but in terms of the Arctic States as you said that there is a lot of skepticism buy United States of America as he is not welcoming Chinese presence in The Arctic as you said Chinese involvement in the Arctic affairs but I think its again the product of the current administration and definitely in 5 days' time there will be another Les hawkish view of collaboration and Corporation with China in The Arctic in regard the other country Russia is necessary again Russia is also not welcoming both I don't think so we have to see it that would be better here what we see here China and Russia forming an Alliance that would conquer the Arctic too much that would be making of this I think Russia is very steady in terms of economically they know that other in search of economic opportunities and so I think it's a manage of convenience between Russia and China is the main shipping Nation in the world and Russia has a passage and opportunities as to carry LNG from yamal to European market which is Russian main market and Chinese

Which is Russian main market and I think China just expand the LNG market to both Asian and Europe and I think Russia has over span historically to coach in both dynamics or trying to look to Asia to belong Asian force just because of its geography and don't think again it bring threats to the Arctic this is more within the country such as Russia jumping over the economic opportunities that could be Beyond the Arctic that collaboration that china would bring

Question. Sir as you mentioned that currently the pattern of politics is more cooperative then competitive or conflictual in The Arctic so what's your view in the future once these roots fully established and operationalized then what would be the status of the routes as per international law?

I still believe so when we took off ice free of the Icy Arctic we have to clear the three is survival in summers only and again you have to have ice breaker capacity even when we say ice free is not

like the Mediterranean or South China Sea when we say ice free there is some ice which still make some survival to navigate if you have some kind of ice breaker capacity and commercial shipping nations those cargo ships going through Northern sea route they will not have the ice breaking capacity so the ice breaker will be of high importance.

And I think Northwest passage of Canada there will not/might be not any commercial opportunities seen as we think if we to the northern sea route I think this side international law or is very settled and it is the part of Russia, there's Russian jurisdiction and obviously maybe Russia will make it easier for commercial ships to cross the Northern sea route but there will some permitting system of some kind and again it still like when we took off free trade System of all Nations we have accessible routes and we have some kind of permitting system that is easily accessible for everyone but in terms of international law at least to keep the question it is well settled this side is well settled and it will not like to remove because those we say as waters not say like ice waters to being under the United Nation convention law of sea.

Question. What is your personal opinion about future of Arctic more Cooperative Arctic are more a competitive Arctic? especially in the presence of major powers.

That's the interesting one I think you can guess well and I will with this one the future of Arctic lies in Cooperation and this cooperation will be the name of game. I can't really say the time frame of the future will continue in The Arctic that's not mean should we should not be aware of the potential conflict as International relations is very stepping and we have to aware any area of the globe there tiny potential conflict I think potential conflict is very less then we think it is in the Arctic currently there is no war no one wants war in the Arctic because of it cold no one has the capacity and Technical abilities to fight outreach war in the Arctic that would not be possible I mean the US only has 1 icebreaker and thinking of having 3 ice breakers Russia has 40 ice breakers.

But those ice breaking capacity I mean they are not military ships and military ships that can go into the Arctic a very few so that's the very realistic view I think from the realist perspective of international relations all of people always tend to think that war is invent everywhere but in terms of Arctic very rare I mean potential conflict is very less than elsewhere in the world that make sense I still think cooperation will be the key in the future.

Question. Arctic council was established in 1996 for corporation and to deal with the environmental issues mainly. States can't discuss security issues in the Arctic so how that Arctic states and regional states can resolve those legal disputes which exist there which is still kind of threat in the years to come which may exaggerate and become the source of conflict among the states?

So again the legal disputes of few and far between in terms of territorial disputes we have

Iceland...? between Denmark and Canada very tiny bit of the land that both Nations claims and that it doesn't seem to be on the agenda to be resolved anytime we have seen and don't think any state mind ...?

Island has to be high on the agenda and I think that's the case for many Arctic Nations in that parts of the Iceland and maybe let's say Canada is turning well more to Arctic minded nation the Arctic it not high on the agenda like Russia obviously ...? its north , Northern territories but in other Nations The USA for example is vary on foreign policy priorities and in the Finland Norway building Arctic identity in the past three years or over the past 10 years I guess the Arctic is still allow priority foreign policy and I think ok the best thing in terms of internal policy and I think developing the Arctic trying to have projects going on in the region is important for individual States but still remains allow property I just want to be specific in that even the Arctic States the Arctic lies on the agenda even they apply collaboration and Corporation...? foreign sections of the Arctic Council but it's in terms of legal potential conflict there especially the conflict is very technical in the whole and they more need to be resolved through a treaty for example the making ,the legal mechanism is there and states haven't used them through a treaty for example and obviously if it's a dispute on the UNCLOS you have the international tribunal of law of sea you can go there apart from the USA which is not the party to the convention how we can deny the jurisdiction of the tribunal so just it's how ..? I Don't think the potential legal disputes that big that state is willing to resolve them at the moment is that make sense on Arctic states.