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The geopolitical challenges to engage stakeholders into Arctic climate change adaptation – military action and the challenges for an Arctic Citizenship

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Abstract: Climate change adaptation in the Arctic is a powerful notion based on a challenging and impermanent reality of continuous complex interactions between the natural and social structures. The geophysical and geopolitical aspects of the Arctic system and the global context are naturally interlinked, and the human aspects of societal existence are even more integrated resulting in a range of collective opportunities, risks, and responsibilities as a civilization, as Arctic citizens, and as global citizens. Our analysis indicated that there are at least three key factors that stand in the way of the implementation of the Arctic climate agenda: 1) unresolved territorial and other disputes among Arctic coastal states, 2) the intensive (re)militarisation of the region (with Russia as a central player), and 3) noticeable economic dynamism, accompanied by strategic competition between key stakeholders – including non-Arctic states, such as China. The priorities for the region are still set by old-fashioned, mechanistic, political agendas, combined with unsustainable natural resources management strategies. Overall, our research indicates that the threat of climate change is not enough to mobilise the Artic nations under a sense of regional citizenship or to raise awareness on the need for a coordinated and inclusive climate change adaptation policy, based on Arctic cooperation.

Keywords: climate change, adaptation, geopolitics, Arctic Citizenship, militarization.

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Introduction

The Arctic Region presents a unique set of characteristics that influence and is influenced by geography, geopolitics, scenarios of natural resources management, sustainable development targets, levels of stakeholder engagement, cooperation and human environment. Despite its sparsely-populated communities, vast extensions of land, its wealth in natural resources the region is also a source of innovation, as new business models, collaborative synergies of pioneering technologies and new economic models like Smart specialisation, circular economy have emerged to assist dealing with the pressing challenges related to climatic and socio-environmental impacts. The geography, geopolitics, the economic and human dimensions of the Arctic are fundamental aspects that help defining the future of this strategic region.

The overall aim of this paper is to analyse the geopolitical challenges to engage stakeholders into Arctic climate change adaptation, the key elements that represent obstacles to the implementation of the Arctic climate agenda, the new geopolitical trends and the challenges for a sense of Arctic identity or Arctic Citizenship (Arruda, 2019). This paper starts presenting the 21st century perspective of climate change adaptation, followed by the complex components of the Arctic climate change agenda as well as the emergent geopolitical trends. It also dedicates a session to the analysis of the current Arctic context from a closer geopolitical point of view by discussing key elements that make the implementation of the Arctic climate agenda a complicated venture in terms of stakeholders' engagement, Arctic security policies and multi-level collaboration.

The paper uses a comparative study based on literature review combined with regional reports related to climatic and social impacts analysed jointly with live elements provided by international conferences geopolitical discussions, workshops and direct conversations in "petit comités" style held in Norway, Greenland, Iceland, Canada, Russia, China and the US in the period of October 2018 until the first quarter of March 2022, with the representatives of local governments.

Climate Change Adaptation in the 21st century Arctic

Adaptation seems to be the key word for the future. It is a powerful notion based on a challenging and impermanent reality of continuous complex interactions between the natural and social structures. These interactions have important geographical and geopolitical perspectives (Arruda & Krutkowski 2017)

that can present dramatic consequences or create extraordinary geo-capabilities for stakeholders. These geographical and geopolitical perspectives involve the holistic study of the interactions among human and natural systems (Norton & Mercier 2016) and the contemporary world series of changes requiring severe and immediate physical and social adaptation with decisive geopolitical interfaces. Geography and geopolitics are uniquely positioned to link different facets and provide the basic building blocks for understanding scenarios of natural resources management and use, sustainable development, cooperation and human environment. As resources are finite, stakeholders, as agents of change and adaptation, must employ strategies that allow an efficient and durable use of the available resources (Aikins 2014, 261; Huckle 2002, 65; Sergunin, 2021) in a peaceful and mindful way for generations to come. The spatial-temporal dimensions of sustainability call for geographical and geopolitical approaches to enhance the understanding of the dynamics, complexity and interactions of competing variables in various scales (Firth, 2011, 14; Grindsted 2013, 18). The geophysical and geopolitical aspects of the Arctic system and the global context are naturally interlinked, and, because of globalization, the human aspects of societal existence are even more integrated resulting in a range of collective opportunities, risks, and responsibilities as a civilization, as Arctic citizens (Arruda, 2019) and as global citizens.

Contemporary and rapid social change in the Arctic region also ignites new ideas and practices of modernity contrasting locally situated practices (Traditional Knowledge – TK), accelerating the fragmentation and dispersal of modernity into constantly proliferating "multiple modernities" triggering "distorted" or "divergent" patterns of development, and re-assembling what is often designated as "tradition" (Arce & Long 2000, 1).

Climate change has a significant role in the Arctic socio-political-environmental changes as the melting ice triggers new debates over territorial sovereignty of Arctic coastal states (Berkman & Young 2009; Konyshev and Sergunin, 2020). Indigenous communities in the resource-rich areas of the Arctic are increasingly exposed to severe climate change impacts as well as the external pressures of development advocated by governments and their industry partners (Arruda, 2018). With the discovery of vast energy resources in previously inaccessible areas of the Arctic, the governments of littoral states are taking new measures to assert their territorial sovereignty over frozen land and the newly opened waterways turn into trade routes (Arruda, 2018; Elferink, 2011; Vinogradova et al., 2021). Climate change and modernization have thus become two intrinsically linked forces that severely alter the context in which the indigenous populations sustain a livelihood (van Voorst

2009) extending impacts on economic dynamics that can be even more complex when considering Arctic geopolitical decision-making.

In the last decade, the North experienced the increase of a wide spectrum of business activities, management systems and new ventures of enterprise. Side by side, the old and traditional activities like oil and gas, mining, and shipping are operating with blue and bioeconomy, tourism, innovation, and entrepreneurship. New business opportunities are on the rise and Arctic stakeholders are playing a key role in facilitating and creating favourable conditions for boosting Arctic economic activity (Arruda and Johannsdottir, 2021). The Arctic is considered a developing region, but this cannot be seen as a conventional development process like the one experienced in the south along the last centuries. Due to intrinsic and multidisciplinary complexities with amplified effects at local, regional, and global levels, the proactive engagement of stakeholders demonstrates the relevance of the new dynamics of the North under the lenses of extractive industries, sustainable development, geopolitical interactions and the well-being of the region's population, themes that will be extensively amplified in specific sections ahead.

The Arctic complex climate change Agenda and emergent geopolitical trends

For the last two centuries, the world has been explained according to a mechanised way of thinking based on the industrial revolution, on the trend to mechanise and polarise forces and processes and ways of thinking. This mechanical worldview, not well adapted to change, "continues to maintain its attraction as it provides a sense of order, purpose and control" (Boulton, et al., 2015, 20), but it is not capable of capturing, perceiving, explaining the trends of promoting the necessary positive changes.

This mechanistic worldview has underpinned processes of management, business, policymaking, geopolitics and education by shaping how stakeholders should engage with economics, societal and political factors and forces (Boulton, et al., 2015; Sergunin, 2022). The mechanical perspective assumes that it is possible to control the future of the economy, society, ecology, geopolitics, energy, natural resources and climate, because this mind-set is based on a stable, non-changeable, non-dynamic worldview (Arruda, 2019). Consequently, it does not lead stakeholders to explore changeable multiple perspectives, interrelationships, unpredictability, interdisciplinary knowledge or co-evolution.

The counterpoint of a static, mechanistic viewpoint is "change" and the necessity of multi-stakeholder adaptation under the lenses of Complexity Theory. In other words, change is relevant to stimulate creativity and adaptability being Complexity "a theory of perpetual novelty, disequilibrium and creativity" (Morrison, 2008, 29) by admitting that knowledge is partial and incomplete; the future depends on historical dynamics, it is unpredictable and constructed by an adaptive re-organization of interactive and interconnected components interpreted according to emergent patterns (Arruda, 2019). "Complexity theory is a theory of change, evolution, adaptation and development for survival" and according to the definition of Morrison (2008, 16): "It breaks with simple successionist cause-and-effect models, linear predictability, and a reductionist approach to understanding the phenomena, replacing them with organic, non-linear and holistic approaches respectively (Santosus, 1998, 3), in which relations within interconnected networks are the order of the day (Youngblood, 1997, 27; Wheatley, 1999, 10)".

The world cannot be mapped by mechanical thinking anymore, this same way of thinking that led societies to the previous two world wars. It creates the need of perspectives aligned to complexity thinking capabilities (Arruda, 2019) based on "systems approach" or a holistic perspective of interconnected components of economic, social, environmental, cultural, scientific, and geopolitical interconnections. This is a challenge for multi-stakeholder adaptation: capturing the dynamic nature of change, in face of the complexities of the Arctic climate change agenda.

The Arctic climate change agenda is based on Arctic sustainable economic growth, on Social Responsibility, clusters of innovation based on innovative business models (Arruda and Johannsdottir, 2021), on a durable approach to job creation, the use of environmental efficient technologies, innovative solutions for socio-cultural affairs and, above all, peace in the region. Coordination and cooperation among the eight Arctic nations, industry, scientific research and civil society organizations are key components of this process, paving the way for a specific customized approach in conducting sustainable practices in compliance with human rights, Arctic environmental standards, multicultural perspectives on sustainable development and corporate social responsibility (Arctic CSR).

CSR in the Arctic means the continuous voluntary commitment of companies to contribute to sustainable development through its business practices. Practices aligned to ethical principles, respect to cultural differences, respect to intergenerational rights of a healthy environment, capacity building to promote sustainable livelihoods, skills enhancement, and quality of life. CSR in the Arctic consists in integrating social and environmental concerns in business operations and in the interaction and engagement with multiple stakeholders.

A complex period of change is ongoing, not only involving physical and geographical adaptation but more in-depth processes of multicultural encountering and co-creation of sustainable futures. This very delicate balance requires mutual learning and multicultural understanding of socio-technical systems, green energy systems, sustainable business practices, positive political will to implement effective and tangible action to address climate change impacts and benefits, for multiple stakeholders, mainly local communities of the Arctic.

Climate change adaptation in the Arctic is a gigantic task that requires multi-stakeholder coordination, cooperation and collaboration in harmony with the Polar-Net Zero policies, net zero targets to reduce global levels of greenhouse emissions established by COP 26, the specific climate change targets established by the EU Arctic policy, The Paris Agreement as well as the Arctic Council's Ministerial Declaration. The purpose is to enhance understanding that energy-related GHG emissions contribute more than 75% of total emissions, and the path to reduce GHG emissions depends on actions to: (1) reduce energy use as a whole; (2) ensure energy created comes from renewable sources; (3) ensure all energy created is not wasted (Arruda, 2018). Fossil fuels still supply a majority of the energy used in the Arctic in need of tangible cost-effective energy efficiency measures and development of renewable energy technologies. The Arctic has been seen as the pioneer of advancing renewably powered micro-grid technology and a land of opportunity for cost-effective energy efficiency towards the vision of a low carbon Arctic energy system (Arruda, 2018).

Adaptation to climate change also requires engagement of all stakeholders and Arctic nations in terms of sustainable patterns of production and consumption, responsible supply chains, innovative business models and compliance with socio-environmental regulation and standards. This is an area of studies also interconnected or interdependent on geopolitical aspects related to terrestrial and maritime systems of energy, trade, transport and military capabilities because the relationship between climate change capacity building for adaptation and geopolitics is evident when the analysis turns to specific geopolitical contexts of not-so clean energy systems (coal and oil and gas continuous exploration in Siberia) and energy production from Russia and China counterpointing the efforts of cooperation and collaboration towards net zero climate policies of adaptation and mitigation. This political context is also emphasised by the strategic importance of the Arctic region to Russia in terms of terrestrial and maritime affairs, natural resources, and military facilities. Just before the beginning of the presidency of the Arctic Council in 2021, under Russian presidency, the Russian Foreign Minister Sergei Lavrov stated that: "It has been absolutely clear to everyone for a long time that this is our territory, this is our land" (AFP, 2021; Yakovenko, 2022).

The Arctic revealed to be a strategic geographical area of contrasting agendas related to natural resources, geopolitical interests and territorial and maritime disputes of Arctic and quasi-Arctic countries that want a piece, a portion, of the resources that are being unveiled due to the melting ice. These contrasting interests asseverate the challenges of engaging all the Arctic stakeholders into a climate change net zero agenda resulting in a resistance to realize the Arctic identity as per the Arctic Citizenship Theory (Arruda, 2019) meaning a sense of belonging to a broader Arctic community, beyond national boundaries, emphasizing the common grounds of Arctic people based on the universal values of human rights, democracy, non-discrimination and multicultural diversity, consisting of voluntary practices oriented to justice and Arctic consciousness (Arruda, 2019). This theory advocates for the "active co-creation of adaptive solutions to complex and unpredictable real-world problems", a model that reveals the importance of the Arctic identity, interconnectedness and interdependency of the beings living in a very sensitive region in terms of social, economic, environmental, cultural and geopolitical impacts of decision-making.

Last but not least, another phenomenon that represents a challenge to stakeholders' engagement is the process of Arctic militarization that completely opposes to the Arctic climate change agenda and to the sense of Arctic identity or citizenship. It also goes against the efforts of keeping military tensions low in the high north bringing to the Arctic an arsenal of nuclear weapons and increasing the risks to the local populations and neighbour nations asseverating the current concerns of nations like Norway and Finland in terms of maritime and terrestrial security. Along January and February 2022, Norwegian fishermen have warned of such large military exercises close to fishing areas causing substantial disturbance to the fisheries and concerns for vessels to sail over long distances to stay safe from missile firings.

The recent invasion of Ukraine triggers a set of embargo measures and diversion of investments that will make the engagement of the Arctic stakeholders even more challenging in terms of the achievement of Polar net zero targets, climate change adaptation, research collaboration, green investment, and Arctic socio-environmental protection. The repercussions of the Ukraine invasion bring severe tension and instability to the Arctic region by turning it into an area of strategic competition and neo-colonialism, apart from fading any attempt of pursuing a sense of Arctic identity so important to achieving a sustainable future plan for the region.

Geopolitical challenges of the Arctic adaptation to Climate Change

If we analyse the current context from a closer geopolitical point of view, we may identify at least three key elements that make the implementation of the Arctic climate agenda complicated. Those would be the still unresolved territorial and other disputes; the intensive process of militarisation of the region; and the economic dynamism accompanied by strategic competition of the key stakeholders.

Unresolved disputes: a "stumbling blocks" in the melting Arctic ice

Although most of the territorial and maritime disputes in the region have so far been peacefully resolved, four outstanding issues remain a "stumbling block" that affect relations between arctic coastal states to a greater or lesser extent.

The most benign among them is the dispute over Hans Island, the sovereignty over which is equally claimed by Canada and Denmark (via Greenland). According to Coates et al. (2008, 157), although the island has no economic value and does not affect the maritime demarcation of any of the mentioned countries towards the north or south, the dispute over it continues. According to the same authors, the main reason is a need that occasionally appears on the domestic political level in both countries. In other words, when it is necessary to stir up interest of certain segments of the electorate, especially before the elections, emphasising the importance of preserving sovereignty over the island is very suitable for attracting nationalist-oriented population, so this issue stands out as a very important topic in political rhetoric. However, according to Fairhall (2010, 36), the reality in the field is much different, sometimes even a little comical. As he explains, it is not uncommon for soldiers of the two countries to leave flags and even domestic alcoholic beverages as gifts to each other during regular patrols on the island. This state of affairs points to the conclusion that it is more about symbolism and less about a realistically complicated dispute that is difficult to resolve. This is evidenced by the fact that in 2012, Canada and Denmark even considered the possibility of dividing the island in half, but such an agreement has not yet been officially reached (OWP, 2021).

On the other hand, the dispute between Canada and the United States (US) regarding the process of delineation of maritime zones in the Beaufort Sea is a much more complex issue. It is based on the 1825 agreement between Russia and Great Britain, which was inherited by the US and Canada after the former bought

Alaska in 1867, and the latter acquired Britain's rights in 1880. According to this agreement, the eastern border of Alaska was set at the meridian line of the 141st degree, in its prolongation as far as the frozen ocean. Accordingly, Canada believes that this "established both the land border and the maritime boundary, and that both must follow a straight northern line". In contrast, "the US holds that the delimitation applies only to land and therefore does not extend beyond the term of the land boundary on the coast". In other words, "for delimitation in the Beaufort Sea, the US considers an equidistance line to be the legally and geographically appropriate solution" (Østhagen & Schofield, 2021, 12-13).

The dispute between the two sides sharply intensified in the 1970s when significant hydrocarbon reserves were discovered in the area (Byers, 2013), and then again in 2004 when the US leased eight plots of land below the sea for resource exploitation (OWP, 2021). It is interesting to observe that "while one proposed boundary line grants the US the larger portion of the Continental Shelf, this would then give Canada the larger Exclusive Economic Zone (EEZ) and vice versa" (Byers, 2013, 60). In other words, "in spatial terms, both Canada and the US would benefit from adopting the other's position" (Østhagen & Schofield, 2021, 14). Probably aware of this, in March 2011 the Canadian government expressed a desire to work with the US to settle boundary disagreements. However, negotiations were suspended at the end of the same year, after the two countries decided that "they would need more scientific information on the existence and location of hydrocarbon reserves before negotiating a boundary" (Østhagen & Schofield, 2021, 14).

Furthermore, US-Canadian relations are burdened by another open issue – the Northwest Passage (NWP), which runs through the Canadian archipelago. The essence of the problem between the two sides is as follows: the US believes that the NWP should be an international strait that everyone should use, while Canada is of the opinion that it belongs to its internal waters and that Ottawa should have exclusive jurisdiction (Fairhall, 2010, 31).

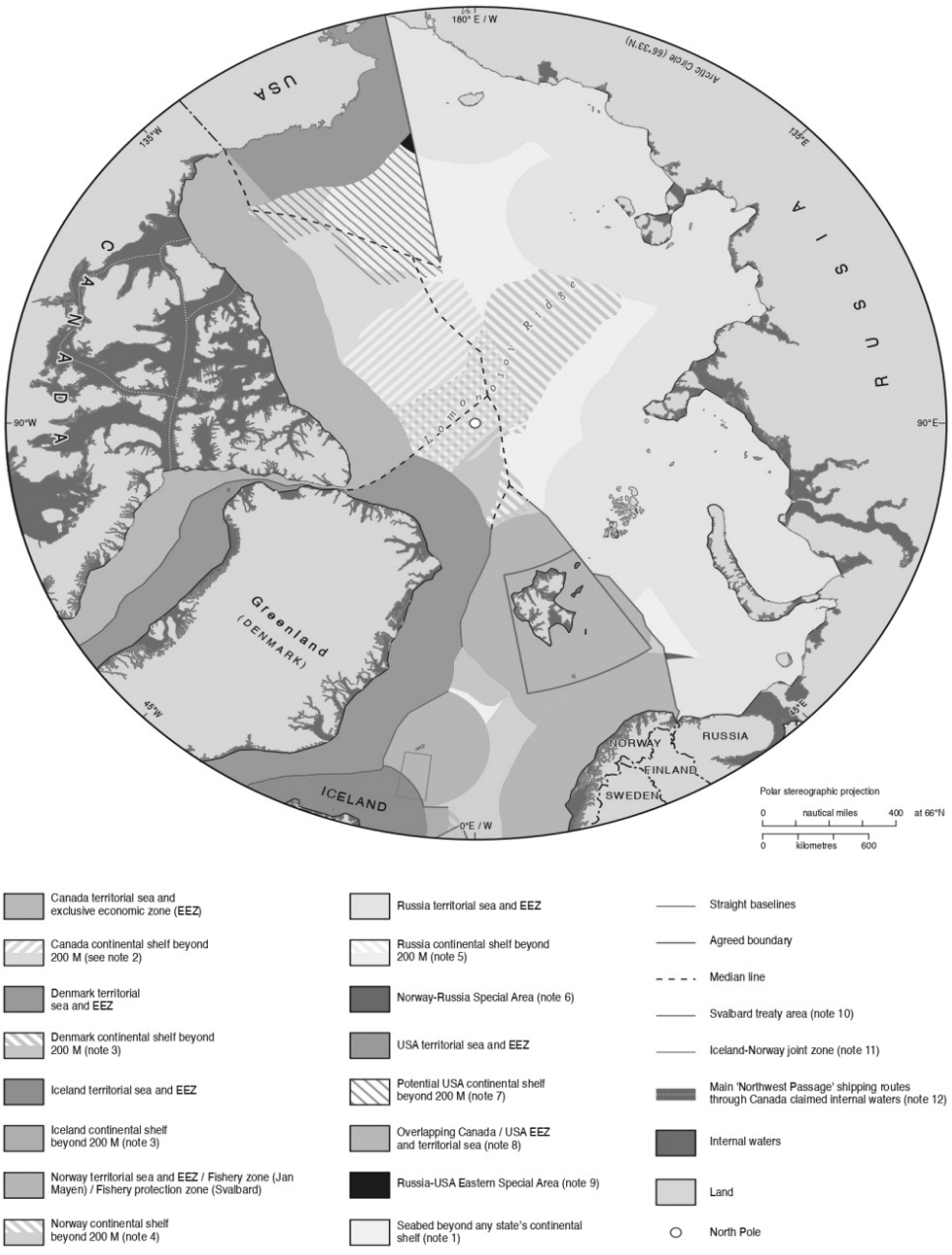
According to Petkunaite (2011, 66-67), the whole controversy began with the 1969 crisis, when the American oil tanker S.S. Manhattan passed through the NWP without proper permission from the Canadian government. After that, Ottawa adopted the so-called Arctic Waters Pollution Prevention Act in 1970, which "allowed Canada to claim some legal jurisdiction over the vessels navigating in the Arctic Archipelago and discouraged tanker transits through the area". But still, the attitude of the Americans did not change significantly even after that decision. This is evidenced by the navigation of the American icebreaker Polar Sea on the same route in 1985, which caused noticeable tensions between the two countries. Responding to the activities of Washington, Canadians drew straight baselines

around its Arctic islands in the same year, pointing out that they were based strongly on historical usage by the Inuit who travelled between islands while the sea between them was ice (Byers, 2013, 132).

As Käpylä & Mikkola (2013, 4) explain, "no one is contesting Canadian sovereignty over its maritime area...The US just wants to avoid establishing an unfavourable legal precedent in the NWP that might hinder the free flow of global trade or jeopardise the free movement of the US Navy in other parts of the world". In that context, it is important to point out that on 11 January 1988 Canada and the US signed the so-called Arctic Cooperation Agreement. According to Petkunaite (2011, 68-69), it was the result of years of efforts by then-Canadian Prime Minister Mulroney and US President Reagan and it indicated "a pledge by the US that all navigation by the US icebreakers, within waters claimed by Canada, would be internal and could be performed with the consent of the Canadian government". Such an agreement, as the same author explains, "allowed for practical cooperation on matters related to the NWP, while affirming that both countries would agree to disagree about the status of the passage". In other words, "it demonstrated the possibility of functional cooperation without settling legal differences". However, as Petkunaite (2011, 69) concludes, "it did not eliminate the possibility of confrontation – it simply postponed it".

The last and at the same time the most delicate dispute between the Arctic coastal states is the one concerning the Lomonosov Ridge (ECON, 2007; Filijović, 2010). Given that it is rich in significant energy and other resource potentials, Canada, Denmark and Russia each assert that the ridge is a natural extension of its continental shelf (Map 1).

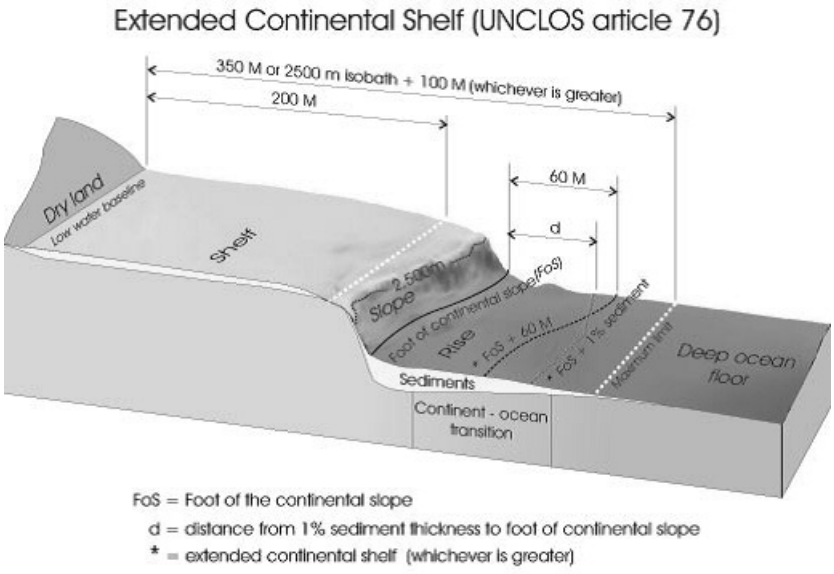
Map 1. Overlapping claims of Arctic coastal states



Source: www.durham.ac.uk/ibru

The parties involved agreed that a solution to the dispute should be sought on the basis of the United Nations Convention of the Law of the Sea (UNCLOS), according to which coastal states can extend control outside their EEZ of 200 nm if they prove that their continental shelf extends beyond that, which is done through a formal submission of a request to the United Nations Commission on the Limits of the Continental Shelf (CLCS). If they succeed in doing so, the Commission may approve the extension, provided that the country concerned scientifically proves that the extension of its seabed contains at least 1% sediment, as well as the base of the continental shelf within the EEZ (UNCLOS, Article 76, 83) (Graph 1).

Graph 1. Graphic representation of the conditions for the extension of the continental shelf prescribed by UNCLOS



Source: Jares (2006)

Following the signing of UNCLOS, a country has 10 years to submit a formal request. A negative decision by the CLCS, however, is not final, and the country may proceed with collecting additional scientific evidence to further back up its claim (Käpylä & Mikkola, 2013, 4). In this regard, it is important to note that Russia submitted the request to the commission on two occasions, in 2001 and 2015,

Denmark also submitted two partial requests in 2009 and 2014, and Canada one partial request in 2019 (Baker, 2020, 4-5).

However, although the parties involved are in principle determined to resolve all issues amicably, certain circumstances related to this particular dispute call into question the entire process of delimitation, and thus the character of the final outcome. As Käpylä & Mikkola (2013, 5) point out, there are very implicit procedural challenges related to the exercise of the right to extension that can foster conflict dynamics, such as the weak legal mandate of the commission or the non-transparency of the whole process. To be more specific, the fact is that the decisions of the CLCS are not binding, but recommendatory, which indicates that the commission does not have the legal authority to resolve border disputes between the countries involved. In addition, the commission has no obligation to publicly justify its decisions, just as countries do not have to publicly disclose their scientific data to support the claim. These procedural weaknesses can diminish the legitimacy of any CLCS decision, particularly if a certain coastal state does not approve of it. Besides, the activities of some Arctic nations do not relieve the conflict dynamics, encouraging others to distrust their sincere commitment to resolving open issues peacefully (such as the demonstrative display of the Russian Titanium flag at the bottom of the North Pole in 2007 or some statements by politicians promoting appropriation of still undivided territories). Moreover, such behaviour often leaves the impression that there is "some kind of ownership battle between Arctic coastal states", which can "potentially lead to diplomatic disputes or even to the use of hard power as a way of securing the claim to one's 'own' continental shelf" (Käpylä & Mikkola, 2013, 5). Unlike previous disputes, where countries are all close allies and NATO members, and where the potential for conflict between them over disputed issues is close to zero, when it comes to the Lomonosov Ridge, this is clearly not the case. On the contrary, Russia has repeatedly drawn the attention of other Arctic states to the fact that the area around the North Pole is of strategic importance to it and will not easily allow others to challenge its sovereignty over the area that it – in its own opinion – claims a legitimate right to. After all, the process of increasingly intensive militarisation of the Arctic provides strong evidence towards this notion.

Russian (re)militarisation of the Arctic: a hot topic in a cold region

Emphasising the importance of the Arctic region for Russia, just before the beginning of the presidency of the Arctic Council in 2021, Russian Foreign Minister Sergei Lavrov said the following: "It has been absolutely clear to everyone for a long time that this is our territory, this is our land" (AFP, 2021).

That such a statement is not unfounded is justified by the adoption of a series of strategic documents in 2008 with the aim of bolstering the country's Arctic military capabilities, as well as the accompanying process of revitalisation of existing and installation of new infrastructures in the region. According to the Centre for Strategic and International Studies (CSIS), in the last decade and a half, the Russians have reopened and modernised 50 previously closed Soviet-era military facilities – 13 air bases, 10 radar stations, 20 border outposts, and 10 integrated emergency rescue stations (Melino & Conley, 2021). In addition, they built 475 new military outposts, as well as 16 new deep-water ports, and in 2014 they established a new Arctic Joint Strategic Command at Severomorsk (the home of the Russian navy's Northern Fleet) (Gricius, 2021).

Consequently, with the increase in the capacity of military personnel, the number of military exercises of a smaller or larger scope increased. According to Conley et al. (2020, 12), only during 2017 the Northern Fleet conducted 4,700 exercises and 3,800 test combat training exercises "designed not simply to defend the Arctic territory, but to enhance power-projection capabilities and protect the New Siberian Islands near potential oil and gas reserves and along the Northern Sea Route (NSR)". Accordingly, modern defence and other systems are deployed throughout the region. Positioned at strategically appropriate locations, these are: S-400 and S-300 air defence systems for long range protection; P-800 Onyx anti-ship cruise missiles and Caliber-NK land-attack cruise missiles for medium-range protection; Pantsir-SA and Tor M2-DT systems for short-range base defence; and 3K60 BAL, K-300P Bastion-P and 4K51 Rubezh systems for coastal defence (Boulègue, 2019, 7-8). In addition to the above, in order to demonstrate its superiority in the High North, Russia recently included the most modern offensive missile systems in its existing Arctic arsenal. In December 2019, it confirmed the deployment of the hypersonic Kinzhal (Russian for "dagger") air-launched ballistic missile, which can be launched from Russian fighter aircraft with a conventional or nuclear warhead traveling more than 7,600 miles per hour and strike targets 1,200 miles away with precision accuracy". There is also the Avangard hypersonic glide vehicle, "which reportedly travels 20-27 times the speed of sound (15,000-20,000 mph) and can strike targets up to 3,700 miles away" (Burke & Matisek, 2021, 44). However, what draws special attention when it comes to Russian military capabilities in the region is the fact that "the Northern Fleet accounts for at least about two-thirds of Russia's navy's nuclear strike capabilities" (Boulègue, 2019, 8).

Bearing this in mind, Klimenko (2015) points out that the new Russian military capacities, no matter how much they have been developed recently, are not nearly as extensive as those from the time of the USSR, and that the story of Russia's military build-up in the Arctic is often exaggerated. Moreover, as some Russian

authors explain, the strengthening of these capacities does not represent some new remilitarization of the region, but the previously planned modernization of the military forces in accordance to the development of the overall national defence strategy (Sergunin & Konyshev, 2015; Sergunin, 2021). In other words, the revitalization of the existing facilities and the construction of new military infrastructure in that part of Russia was foreseen in advance and is taking place in accordance with Russia's national interests in the Arctic, as well as the existing development strategy of that region.[3]

However, despite these findings, many analysts from the West remain sceptical about Russian military activities. As most of them note, Russia's demonstration of military power in the High North has intensified significantly since the annexation of Crimea. According to Kendall-Taylor et al. (2021, 2), not only have the Russians increased the pace and scope of its Arctic military activities, but they have become "more provocative, incorporating elements such as live-fire training and amphibious landings". In addition, increased activity of submarines and other vessels, especially long-range aviation flights, was also observed. According to the same authors, "intercepts of Russian aircraft off Alaska have been more frequent in 2021 than at any time since the end of the Cold War", and moreover, for the first time, in October of the same year, a test launch of a Tsirkon hypersonic missile from a submarine was carried out (Kendall-Taylor et al. 2021, 2).

All of the above led other Arctic nations to reconsider their military strategies related to the region. Instead of conciliatory tones and emphasis on the preservation of peace and cooperation in the Arctic, which were present in previous documents, there are now claims about Russia's negative influence in the region, as well as the need to strengthen practical engagement and ties within North Atlantic Treaty Organization (NATO). For example, in the beginning of 2021, the US adopted the document titled Regaining Arctic Dominance. It states that the Army must "organise to win in the Arctic", and that the region represents "an arena of competition, a line of attack in conflict...and a platform for global power projection" (US Army, 2021, 1), with Russia perceived as one of the main threats to national interests. The same can be seen in 2020 Norway's Arctic Policy, where it is explicitly stated that "Russia's military modernisation poses a challenge to the security of Norway and other Allied countries" (Government of Norway, 2020, 16). In a somewhat milder form, but in line with this, are the new Arctic strategies of

[3] For more detailed information check: http://static.kremlin.ru/media/events/files/ru/f8ZpjhpAaQ0WB1zjywN04OgKiI1mAvaM.pdf

Sweden and Finland (Zeman, 2021), which recently signed a special agreement with Norway implying closer military cooperation (Holm, 2020).

Noticing the strengthening of Russia's military potentials in the region, NATO doubled its military activities in the period 2015-2020 (Evans, 2021), with a particular emphasis on the NATO exercise called Trident Juncture 18 carried out in 2018. It was held in Norway and adjacent waters of the Baltic and the Norwegian Sea, "with participation by all 29 NATO members plus Sweden and Finland", and was described as "NATO's largest exercise to that point since the Cold War. It featured a strong Arctic element, including the first deployment of a US Navy aircraft carrier above the Arctic Circle since 1991" (CRS, 2021, 42). Further, another military exercise is planned in Norway, called Cold Response 2022, which will reportedly be "the largest military exercise inside the Arctic Circle since the 1980s" (CRS, 2021, 42).

As explained by Baev (2021), the fundamental principle in Russia's regional policy is that the expansion of NATO activity constitutes a major security threat. Accordingly, given the growing tensions over Ukraine, as well as the fact that, except for Russia, all other littoral arctic states are also members of NATO, it should come as no surprise that Moscow displays the military dimension of its Arctic strategy to such extent. However, the same author concludes that the prioritised military build-up is practically unhelpful for Russian Arctic diplomacy and hampers the implementation of cooperative economic and human development initiatives, including the issue of implementing the climate change agenda.

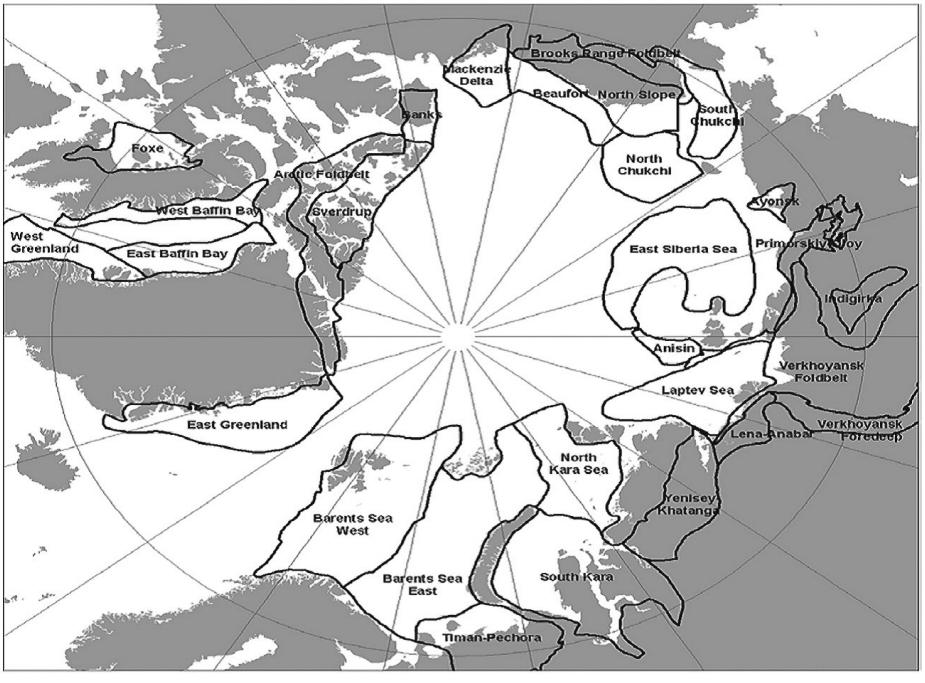
Economic dynamism and strategic competition: China's gambit in the High North

The reduction in the ice cover, as one of the consequences of the cumulative effects of climate change, has made the previously inaccessible Arctic hydrocarbon resources finally available, which accelerated exploratory and economic activities. A key point is the publication of the 2008 US Geological Survey, which estimates that there are approximately 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas and 44 billion barrels of natural gas liquids in the Arctic (Stauffer, 2009, 4). After that, a general investment and drilling frenzy across the region have ensued, while some other topics, such as environmental issues, have been left aside.

As Đorđević et al. (2017, 134-137) note, having in mind the mentioned estimates, the Arctic states have sharply intensified the activities related to the exploration of hydrocarbon deposits, while the volume of operations has visibly increased. For example, back in 2007, the Greenlandic authorities considerably

increased the number of licences issued for oil and gas companies, expanding the area for exploration and exploitation from 6,881.6 to over 101,000 square kilometres. Such growth has also been reported in the US. Between 2003 and 2007, the federal government issued 241 oil extraction permits for an area of 5,179.9 square kilometres in the US part of the Beaufort Sea, and in 2008 another 487 new permits in the Chukchi Sea covering an area of 10,926.5 square kilometres. Similar activities in the last decade and a half have been undertaken also by Canada and Norway in their part of the Arctic, and particularly by Russia, which has drastically increased the volume of operations in the Barents, Kara, Chukchi and Laptev Seas (Map 2), significantly investing at the same time in the development of onshore rigs. For example, it is enough to say that only from Yamal LNG, in Western Siberia, a tanker filled with 173,000 m3 of LNG is launched on the market approximately every 40 hours. However, what is particularly interesting to point out is the plan according to which Western Siberia should become "one of the world's largest LNG regions in the course of this decade", but also that China has 30 per cent ownership of Yamal LNG (as well as tankers) (Valberg, 2021).

Map 2. Existing and projected energy basins in the Arctic region



Source: Ronning & Haarr (2008, 2)

Namely, climate change, research of new transport routes and energy transition have motivated Beijing to actively join the Arctic arena. After gaining observer status in the Arctic Council in 2013, China made plans to create the so-called Polar Silk Route between Asia and Europe (as an integral part of its massive infrastructure project, the Belt and Road Initiative), and in 2018 presented its Arctic Policy where it declared itself as "Near-Arctic State" (Valberg, 2021). Accordingly, Beijing has practically demonstrated its interest in the region, investing heavily in energy and other infrastructure, especially along the NSR. According to Conley et al. (2020), China's Silk Road Fund and Chinese banks have so far invested billions of dollars in Russia alone, with new investments announced across the Arctic region. In addition, China has deployed two icebreakers in the area around the North Pole and announced the construction of a third nuclear-powered one. Yet, what is most striking is that it has created an extensive network of scientific research stations and institutes, such as the China-Nordic Arctic Research Centre, the China-Finland Arctic Monitoring and Research Centre, and the China-Iceland Arctic Science Observatory, whereby it recently signed an agreement to establish a China-Russia Arctic Research Centre in Russia (Yamineva, 2021; Conley et al. 2020). As Yamineva explains (2021, 158), China uses scientific diplomacy as an instrument of soft power, i.e. "as a way to enter the region in a manner which is non-provocative and does not raise fears and concerns among Arctic States – an approach that has generally been successful so far". Such an approach is in line with the aforementioned China's Arctic Policy, which states that "China prioritizes scientific research, underscores the importance of environmental protection, rational utilization, law-based governance and international cooperation, and commits itself to maintaining a peaceful, secure and stable Arctic order". In this regard, it is also important to point out that "China calls for the peaceful utilization of the Arctic and commits itself to maintaining peace and stability... and supports efforts to safeguard security and stability in the region" (China's Arctic Policy, 2018; Leksyutina, 2022).

Based on the above, it could be said that officially Beijing wants to achieve its interests through open and pragmatic cooperation with the Arctic nations, which will be beneficial for all the involved actors and the region as a whole. However, not everyone shares this view. On the contrary, since China declared itself a "Near-Arctic State", some countries in the region and the US in particular, have greeted it with disapproval and expressed doubts about the real intentions of the "Asian Dragon", notably after the release of information that "China is reportedly considering deploying submarines to the Arctic as a deterrent against nuclear attack" (Latham, 2021). After all, this is unequivocally confirmed by the previously mentioned US Army's document (Regaining Arctic Dominance), which explicitly

states: “The Arctic has the potential to become a contested space where United States’ great power rivals, Russia and China, seek to use military and economic power to gain and maintain access to the region at the expense of US interests” (US Army, 2021, 15). Moreover, even possible military-strategic scenarios for the Arctic region by 2050 have been developed on how China could behave in the future and how to react to it adequately (Conley et al. 2020).

As explained by Breitenbauch et al. (2019, 47), Beijing’s overall performance has caused many “traditionally non-security issues, such as sea trade and research, which function as a platform for cooperation in the region, to begin to look more like security issues in an age of strategic competition, casting further doubt on the maintenance of the Arctic as a low-tension area”. According to the same authors, this problem was further aggravated in 2019, when, at the Arctic Council meeting, representatives of Washington warned of China’s growing interest in the Arctic. While this increased attention is undoubtedly real, the authors point out that the tone and content of the presentation marked a shift toward the inclusion of China-related geopolitical issues in the Arctic Council, concluding that the Arctic has practically become yet another global theatre for long-term strategic competition.

Conclusion

Unfortunately for the Arctic and for the sake of climate change adaptation, the same mechanistic and old-fashioned political agendas based on electoral short-term sight combined to the natural resources management strategies still continue to dominate the priorities for the region and continue to create obstacles to the implementation of an inclusive and coordinated climate change adaptation policy based on Arctic cooperation. The political instability imposed to the goals and actions of the Arctic Council Russian Chairmanship jeopardize the collective approaches to sustainable development advocated under the “Responsible Governance for Sustainable Arctic” slogan for the mandate 2021-2023. The chronicle context of deep territorial and natural resources disputes combined with the latest geopolitical developments not only put in check any attempt of enhancing synergy and cooperation among the eight Arctic Nations, but it also shift the direction of financial resources and investments that are being diverted from climate change and green energy transition to strengthen military capabilities and alliances of neighbouring Arctic countries as there is a real fear for the expansion of a military action in the region. The existential threat of climate change is not enough to mobilize the Arctic nations under a sense of regional identity (or

citizenship) and common ground due to another emergent existential threat (the war) compromising basic human principles and values developed and consolidated along the last 75 years. This represents another layer of risks leading to a time of collective vulnerability and realignment of the Arctic nations' priorities, funding, military capabilities, and long-term economic and human development back-offs. From climate change priorities the focus moved into the challenges to Arctic security raising the fundamental question of what kind of Arctic cooperation can be expected in face of the new geopolitical scenario.

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GEOPOLITIČKI IZAZOVI ZA UKLJUČIVANJE ZAINTERESOVANIH STRANA U ADAPTACIJU NA KLIMATSKE PROMENE NA ARKTIKU – VOJNA AKCIJA I IZAZOVI ZA ARKTIČKO GRAĐANSTVO

Apstrakt: Adaptacija na klimatske promene na Arktiku je moćan pojam zasnovan na izazovnoj i nestalnoj realnosti kontinuiranih složenih interakcija između prirodnih i društvenih struktura. Geofizički i geopolitički aspekti arktičkog sistema i globalnog konteksta su prirodno međusobno povezani, a ljudski aspekti društvenog postojanja su još više integrisani, što rezultira nizom kolektivnih mogućnosti, rizika i odgovornosti kako za civilizacije, tako i za građane Arktika i građane sveta. Naša analiza je pokazala da postoje najmanje tri ključna faktora koji stoje na putu sprovođenja arktičke agende o klimi: 1) nerešeni teritorijalni i drugi sporovi među arktičkim obalnim državama, 2) intenzivna (re)militarizacija regiona (sa Rusijom kao centralnim igračem) i 3) primetna ekonomska dinamika, praćena strateškom konkurencijom između ključnih aktera – uključujući nearktičke države, poput Kine. Prioriteti za region su i dalje postavljeni staromodnim, mehaničkim, političkim programima, kombinovanim sa neodrživim strategijama upravljanja prirodnim resursima. Uopšteno, ovo istraživanje ukazuje da sama pretnja klimatskih promena nije dovoljna da mobiliše arktičke nacije motivisane osećajem regionalnog građanstva niti da podigne svest o potrebi za koordinisanom i inkluzivnom politikom prilagođavanja klimatskim promenama, zasnovanom na arktičkoj saradnji.

Ključne reči: klimatske promene, adaptacija, geopolitika, arktičko građanstvo, militarizacija.