Geopolitics of Shipping Lane and Resources in the Arctic

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Abstract

Resource abundance and potential lucrative trade routes through the Arctic lead to geopolitical competition, conflict, and rivalry. The Arctic glaciers are melting with global warming, making the Arctic more accessible for such activities. According to the United Nations Convention on the Law of the Seas, polar states may assert their claim to the Arctic through their continental extent or as part of their Exclusive Economic Zone (EEZ). Various bids have been submitted by polar states, predominantly Russia, to claim regions of the Arctic in Commission on the Limits of the Continental Shelf (CLCS). The following paper analyses the geopolitical rivalry and the environmental concerns of such reckless competition. Environmental degradation is the reason states should cooperate in the Arctic. The paper also aims to examine the costs and benefits attached to resource exploitation in the Arctic. Excessive exploitation would lead to disastrous consequences of increased water levels of the seas around the globe. The trade route through the Arctic passage could considerably reduce the shipping time for goods. All these developments are making the geopolitics of the Arctic conflict-prone and risky.

Keywords: Resource Abundance, Trade route, Geopolitics, Ecology, Exclusive Economic Zone, Continental extent, Economic interdependence, Arctic passage.

Introduction

The Arctic is the northernmost region of the Earth, situated within the Arctic line at a latitude of 66.5° north of the equator. The region is covered with mostly freshwater glaciers and icebergs. The Arctic Ocean comprises of Canadian Arctic Shelf and the Russian continental shelf (the largest Arctic Shelf). Being the north pole, the Arctic has unique features in terms of ecology

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and climate. The Arctic is home to various endemic species and indigenous people. A huge share of permafrost ice caps makes the Arctic largely inaccessible for human exploration. The Arctic sustains a delicate marine ecosystem within its region, and any attempt at ruthless exploitation of resources can lead to the complete extinction of various polar species and the ecosystem.

The Arctic region is vested with large stocks of natural gases and petroleum reserves. The economic significance of the Arctic makes the region geopolitically competitive. The polar states are increasingly making their claims over the Arctic as part of their energy ambitions. The northern trade routes can significantly reduce the shipping duration of goods. The Northwest Passage (NWP), the Northeast Passage (NEP) and the Transpolar Route are potential routes of strategic and economic significance. The Transpolar route is not viable in the near future due to permafrost ice caps (Zandee et al., 2020). Global warming gradually makes the Arctic accessible, and nations have started their efforts to gain control over the unclaimed territory and resources in the region. The foremost objective of the countries on these adventures in the cold desert is to acquire some stakes in the natural resources and trade routes (Gross, 2020).

On December 10, 1982, the United Nations Convention on the Law of the Sea (UNCLOS), also called the Law of the Sea Treaty, was signed. This treaty was a milestone in matters concerning international navigation. This convention established the Commission on the Limits of the Continental Shelf (CLCS) with the purpose of facilitating the Convention regarding the delimitation of the jurisdiction of the continental shelf beyond 200 nautical miles (NM) (FUNCTIONS OF THE CLCS, n.d.). Russia was the first country to extend a bid to CLC in 2002, but it was declined due to insufficient evidence. In 2015, Russia resubmitted a bid to the CLCS to lay a claim to 1.2 million square kilometres (KM²) of the sea shelf of the Arctic stretching over 350 NM from its national shoreline boundary (Russia lays claim, 2015). Denmark, Canada, and Norway have also made their respective bids on the Arctic seabed to the CLCS in the same race (Drewnia et al., 2018).

Natural resources such as oil and gas are major reasons for growing regional tension in the Arctic, with the added burden of the trade route. The geopolitical significance of the Arctic gained prominence with two incidents. In 2007, Artur Chilingarov, a Russian scientist, set a Russian flag on the seabed at the north pole. This act alarmed the Arctic nations, and specifically the Canadian Prime Minister responded with a pledge of a bold military campaign in the high north in his Throne Speech (The House of Commons, 2007). The second prominent catalyst in the geopolitics of the Arctic appeared in 2008/9. The publication of the United States Geological Survey report on the potential oil and gas reserves in the region. This report gave impetus to the strategic importance of the High North (Gautier et al., 2009).

The environmental concerns attached to the Arctic are severe in terms of their impact on sea level rise and global warming. In 2020, the Koninklijk Nederland's Meteorologist Institute (KNMI), or Royal Netherlands Meteorological Institute, estimates the complete disappearance of sea ice in the summers by 2050. The global sea level will rise up to 10-30 cm by the end of 2100 due to the drastic melting of the Greenland ice sheet (Weather and Climate in the Arctic, 2020). The large amount of greenhouse gases stored in the permafrost can have devastating impacts on human civilisations. The loss of permafrost can release approximately 5000 gig tons of CO2, including other gases such as methane (Weather and Climate in the Arctic, 2020). The Intergovernmental Panel on Climate Change (IPCC) projects a rise of 1.1 metres of sea level compared to the 1986-2005 level by the end of 2100 (Summary for Policymakers, 2019).

Under such geopolitical competition over the lucrative trade route and natural resources, the Arctic acquires a significant theme for any discussion on international relations. The recent Russia-Ukraine war has increased speculations about future strategic relations and harmony in the Arctic region. The Arctic enjoyed peaceful isolation throughout the history of international politics and witnessed only slight militarisation during the Cold War period. The cold war circumstances have disappeared now, and the current tussle can arise out of natural resources and trade routes with the "Arctic Meltdown" (Borgerson, 2008). This paper aims to evaluate the current geopolitical

competition among major Arctic players over shipping lanes and natural resources. The Arctic could not stay isolated for long as the demand for oil and gas is increasing rapidly. The other objective of this study is to explore the idea of "Arctic Exceptionalism" in contemporary times.

Geopolitics of the Arctic Passage

The whole buzz in international politics about the Arctic could be attributed to the Arctic Passages as the alternatives for the Suez Canal route of international shipping. The Arctic offers three routes, namely the Northeast Passage (NEP), the Northwest Passage (NWP), and the Transpolar Passage (TPP). The former two lanes are seasonally functional, with special kinds of ships equipped with icebreaker capability. The TPP offers the shortest lane for shipping, but it's covered with multi-layered permafrost. Therefore, the TPP is not navigable in the near future.

1). The Northeast Passage or Northern Sea Route:

The Northern Sea route is part of the Northeast Passage, but for academic convenience, it is frequently used interchangeably. This lane was formally initiated by the Soviet Union in the 1930s, but due to limited navigable capability and ice covers, it remained non-operational for decades. The Northern Sea Route comprises multiple straits. The route connects the Pacific Ocean to the Atlantic Ocean through the coasts of Russia and Norway. Russia exclusively claims the route due to its longest coastline along the passage, icebreaker capacity, and heavy military presence. The passage is considered the alternative to the Suez Canal route for shipping and reduces transport time by 40% (Zeng et al., 2020). A study conducted on Arctic shipping concluded that the Transpolar route could be the cheapest and fastest lane through the Arctic, but in the near future, the NEP might be the most favourable route in the Arctic (Østreng et al., 2013).



Figure 1 Northeast Passage (Map: Arctic Portal)

Three factors point to the NEP as the sea route that will be favoured in the foreseeable future. Great stretches of the route go along or through parts of the Arctic where great amounts of resources are found or likely to be found both onshore and offshore. The second factor that favours the NEP is the already established and continuously developing infrastructure along the route. And the third factor is the less challenging ice conditions and the longer sailing season during summer. (Dahl)

Figure 2 shows the seasonal and geographical variation of ice thickness along with the long-term decline of ice coverage, which can further boost traffic in the Arctic.

The long-standing infrastructure and regular monitoring of NEP make it an attractive route in the Arctic. The route has significance in promoting convergence between Russia and China. China, in 2018, released its Arctic White Paper, claiming to be a "near-Arctic state". China acknowledged the "Polar Silk Road" concept (Goldstein, 2019). Due to the Ukraine-Russia conflict, European collaboration for infrastructural development in the Arctic Passage might decrease, which in turn leads to the proximity between China and Russia.

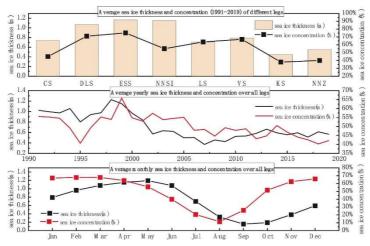


Figure 2. Ice distribution and variation throughout the NEP from 1991 to 2019 (Jiang et al., 2021). Data source: CMEMS

2). Northwest Passage (NWP):

The Northwest Passage, like its counterpart in the east, connects the Pacific Ocean to the Atlantic Ocean via the Arctic Ocean. This route runs through the coasts of North America and the Canadian Archipelago. Canada asserts its sovereignty over this passage and considers it internal. The United States

opposes this idea and considers the route an international water (Charron, 2005).



Figure 3. The Northwest Passage. (Map: Arctic Portal)

NWP has minimal applicability since they face significant obstacles that impede their ability to uphold their sovereignty within the region. In an event, Pro. Byers argues that, the probability of Canada winning its sovereignty claim hinges in part on the Canadian government's ability to convince the United States that it is in its own national security interest to allow Canada to control the Northwest Passage. (Canada and the Arctic,2007).

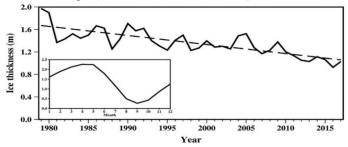


Figure 4 shows the thinning of ice along the NWP from 1980 to 2015, along with variations in the ice thickness throughout the year.

The Canadian military presence in the Arctic is also limited to search and rescue missions. In 1985, Canada enacted the Arctic Water Pollution Prevention Act to regulate Arctic water pollution and enforce "Zero Discharge" in the Arctic. This act was a deliberate attempt by Canada to showcase its capacity to enforce the regulation in the Arctic (Charron, 2005).

Due to heavy winter ice accumulation, the NWP is currently functioning in a few selected months. But the gradual thinning of ice due to climate change could increase the navigable months with larger ships.

3). The Transpolar Passage

The transpolar passage or route offers the fastest route from the Pacific to the Atlantic Ocean (Drewniak, 2018). The lane, hypothetically, directly passes through the Arctic Ocean. Under current conditions of ice cover, the viability of TTP seems like a distant dream, but climate change has brought drastic changes to the region. According to one World Wild Life report, --- "Even if we significantly curb emissions in the coming decades, more than a third of the world's remaining glaciers will melt before the year 2100. When it comes to sea ice, 95% of the oldest and thickest ice in the Arctic is already gone". (Hancock) The KNMI (2020) predicts the absolute disappearance of ice by 2050 in the summer months of the year. The transpolar route would have various consequences for the geopolitics of international trade and shipping. It could challenge the NEP and NWP relevance in the Arctic. In contrast, various hot debates took place in the context of the Transpolar route. The transpolar lane is entangled in its peculiar limitations. According to Bennett et al. (2020), lack of an intermediate market, cold weather, limited hydrographical

knowledge, and insufficient declinational demand for shipping could reduce the preference for the route. Figure 5 depicts all three routes of Arctic shipping.

Narrative of Rush for the Arctic Resources:

The geopolitical significance of the Arctic remained in isolation throughout history as a cold desert in the High North. During the Cold War, slight militarisation could be traced between the superpowers in the region. The cold war tensions were not centred around the Arctic Ocean. The Arctic enjoyed healthy insulation from global politics and geopolitics.

Theorists termed this *Arctic Exceptionalism*. The Arctic region symbolises a zone of peace characterised by stability, cooperation, and harmony (Käpylä & Mikkola, 2017). The planting of the Russian titanium flag in the Arctic Sea bed in 2007 sparked the narrative of a rush for resources (Parfitt, 2017; Borgerson, 2007).

The assessment of potential resources in the Arctic significantly increased the geo-economic value of the High North. In its report, the United States Geological Survey revealed that undiscovered natural resources lie in the Arctic. Approximately 13 percent of the world's undiscovered oil could be found in the Arctic. Similarly, the earth's 30 percent of liquid natural gas and

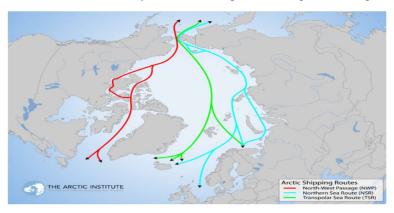


Figure 5. Northern Sea Route, the Northwest Passage and the Transpolar Sea Route. Map: The Arctic Institute

feet, and 44 billion barrels of undiscovered oil, natural gas, and natural gas liquids are located in the Arctic. The potential conflict waits in the region, as highlighted by the report; 90 percent of these resources could be found in the Exclusive Economic Zone (EEZ) of the Arctic states (Gautier et al., 2009).

The resources in the Arctic attract conflict among the nations in the Arctic Circle. The gradual melting of ice further offers chances for the accessibility of resources in the region. The abundance of resources could be a catalyst for geopolitical competition in the High North (Zellen, 2008). Huebert (2001) is famously known for his thesis, *Sovereignty on the Thinning Ice*. Huebert suggests a pessimistic view of climate change in the Arctic. He predicts that Canadian sovereignty is at stake in the High North with the melting of ice sheets since more players will engage in the region, undermining Canadian sovereignty. New economic and commercial activities regarding shipping and natural resources in the Arctic have increased due to melting ice and developments in technologies and infrastructure. These advancements have heightened the Arctic's geopolitical and geo-economics importance (Brutschin & Schubert, 2016).

In recent years, the available literature on the Arctic has increased manifold, speculating about the resource competition in the Arctic. The Arctic resources extend an alternative to the current demand for natural resources. However, the exploitation of Arctic resources is associated with a high cost in terms of the current market price of those resources (Zandee et al., 2020). Again, the extraction of Arctic resources could cause severe environmental dangers. As noted by the World Wild Life organisation, "The vast size, remote location, and extreme weather conditions—combined with the complete lack of infrastructure for responding to oil spills—make drilling in the Arctic Ocean extremely dangerous. Our ability to respond to emergencies and oil spills is severely limited". (How Would Offshore Oil and Gas Drilling in the Arctic Impact Wildlife? 2021). Melting permafrost in the Arctic would release large amounts of CO2, methane and other stored greenhouse gases. The figures suggest that the stored CO2 in the Arctic is a hundred times more than the

annual emissions of greenhouse by anthropogenic causes (Weather and Climate in the Arctic, 2020).

The Utopia of Arctic Exceptionalism

The Arctic has been considered a zone of peace and cooperation throughout the history of international conflicts. According to a set of scholars, the major reason for such insulation is the concept of *Arctic Exceptionalism*. The idea originated in the romantic tradition, referring to the peculiar characteristics of geography, biology and human life in the Arctic. The Arctic represents a beautiful desert challenging outside interference (On Arctic Exceptionalism, 2015). Recently, the term transformed into the political version of 'zone of peace and 'territory of dialogue.' This new geopolitical idea of Arctic Exceptionalism postulates that the Arctic region epitomises an apolitical territory characterised by peace, coexistence, and functional governance separated from international politics (Atland, 2008).

The other set of scholars rejects the idea of Arctic Exceptionalism and speaks about the geopolitical significance of the Arctic in terms of resources, shipping lanes and environmental concerns. The insulation of the Arctic is primarily based on the inaccessibility of the region. With the gradual melting of ice, the Arctic will acquire greater significance and even turn into a zone of conflict due to the clash of national interests among nations in the region (Huebert, 2001). Resource exploitation in the Arctic requires advanced technologies, extensive infrastructure, and huge capital investments due to harsh weather conditions. Resource extraction costs in the Arctic exceed the current market price of those natural resources (Zandee et al., 2020). The Russia-Ukraine war affected the institutional structures of governance in the Arctic. The military issues were kept outside of the Arctic Council's mandate. The Ukraine crisis opens up speculations about the geopolitics in the Arctic and the nations' adherence to Arctic Exceptionalism (*On Arctic Exceptionalism*, 2015).

The thinning of the Arctic has brought two superpowers within a distance of around 100 miles. The melting of ice opens the gate to abundant natural resources in the Arctic, which might turn into a new cold war in the High North

(Gavin, 2022). The Russian attack on Ukraine created suspicion and insecurity among Arctic nations. This prompted Arctic states to join the North Atlantic Treaty Organization (NATO) to counterbalance Russian dominance. Sweden and Finland have officially applied for NATO membership (Masters, 2022). The geopolitics of the Arctic are transforming, and the idea of Arctic exceptionalism presents an over simplistic and partial view, describing the Arctic as a closed and isolated system of governance (*On Arctic Exceptionalism*, 2015).

Conclusion

The Arctic largely remained outside the global politics of power struggle in history. The challenging weather conditions were the major reason for such isolation. But as the ice sheets melt with climate change, nations look towards the Arctic through the lens of national energy security and economic interest. The huge potential of resources in the Arctic invites the energy greed of countries around the world. The Ukraine crisis and the consequent deteriorating relationship between Russia and the West pose another set of issues. After the Russian invasion of Ukraine, there are speculations about the security of the Arctic (Gavin, 2022). Russia, being the biggest player in the Arctic, has already operationalised a number of ice breakers, military bases, and fee taxation on the Northwest Passage. Due to infrastructure development, Russia is clearly far ahead of other nations in terms of its claim over the Northeast Passage (Zandee, 2020). The Canadian narrative of sovereignty over the Northwest is questioned by the US in international politics. The sovereignty over the Northwest Passage was a major focus in various foreign policy statements of Canada after the 2007 Russian flag incident. The Arctic countries have made proposals to the CLCS in response to their claims to the region. The US geological estimate gave further impetus to the growing tensions. The natural resources in the Arctic could turn into an energy price for nations marching towards the Arctic. The idea of Arctic Exceptionalism has its limits and might become obsolete in the coming decades with melting ice (On Arctic Exceptionalism, 2015).

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