

The Geopolitics of Greenland and The Arctic

02 February 2024

Abstract

The paper analyzes the geopolitics of the Arctic which is dominated by military and security aspects, the climate change with new shipping routes, significant resources, and by Greenland with its independence debate. Eight Arctic States have territory in the Arctic Circle: United States (Alaska), Russia, Canada, Iceland, Denmark (Greenland), Norway, Sweden, and Finland. Greenland (Kalaallit Nunaat) is the world's largest island with 2,186,000 square kilometers and approximately 56,000 inhabitants. Greenland is geologically a part of North America, but belongs politically to Europe. It is the largest Arctic landmass (as the North Pole consists of ice only) and its location between Canada and Russia explains its geostrategic importance. After the end of the cold war, an institutional framework was established for the Arctic Region; the Arctic Council is the most important with the eight Arctic States, observer states and non-governmental organizations, in particular Inuit organizations like the Inuit Circumpolar Conference (ICC). In addition, security fora were established, but all organizations are affected or even paralyzed after the suspension of Russia since 2022.

The melting of ice due to the global warming opens three potential shipping routes in the North, the Northern Sea Route (NSR, Northeast Passage) around northern Russia, the Northwest Passage (NWP) through the Canadian Arctic Islands and the Central Sea Route (Transpolar Sea Route TSR).

Meanwhile, Russia and China are more engaged and advancing in the Arctic region which is a major challenge for the United States of America. Various Arctic States made territorial claims in the Arctic Region based on the United Nations Convention on the Law of the Sea (UNCLOS). In February 2023, the responsible Nations Commission on the Limit of the Continental Shelf (CLCS) recommended to accept Russia's claims for a total of 1.7 million km² including the North Pole area, despite competing claims of Canada and Denmark (Greenland) which is a major strategic gain for Russia. Since World War 2, the United States are present in Greenland with a large military base which is halfway between New York and Moscow. A new security challenge for the Arctic geopolitics is China which has defined itself as a Near Arctic State in 2018 and which has built several research and satellite stations in Scandinavia. China is massively engaged in Greenlandic economy. Greenland's independence debate has reached a critical stage where Denmark and the European Union at risk to lose their status as Arctic actors. Currently, the Greenlandic economy is heavily dependent from fishing and from Danish subsidies which cover around 20% of the state income. The utilization of its rich resources could bring Greenland the necessary income to become independent or at least to diversify its economy. On the other hand, the Greenlanders fear an uncontrolled influx of foreign workers and the destruction of their environment and of the fishery. Denmark could be replaced by another actor who would be willing to do the necessary investments. In particular, the United States could take over Denmark's subsidies and make a major strategic gain in North America. In Greenland, a Free Association is discussed as possible solution, something which was successfully implemented by several Pacific Island States already. For these reasons, the European Union must generally show a much stronger engagement in Greenland and the Arctic to maintain its presence.

Content

- 1 The Geopolitics of the Arctic 3
 - 1.1 Introduction 3
 - 1.2 The Map of Greenland 3
 - 1.3 Institutions 5
 - 1.3.1 The Arctic Council 5
 - 1.3.2 Inuit Circumpolar Conference (ICC)..... 5
 - 1.4 Maritime Issues 6
 - 1.4.1 Sea Passages 6
 - 1.4.2 United Nations Convention on the Law of the Sea (UNCLOS)..... 6
 - 1.5 Military and Security Aspects 8
 - 1.5.1 The NATO versus Russia 8
 - 1.5.2 China’s Role in Arctic Security..... 8
 - 1.5.3 Cyber Threats 9
- 2 The Geopolitics of Greenland 9
 - 2.1 Brief History 9
 - 2.2 Economy and Politics 11
 - 2.3 The Independence Debate 12
- 3 Conclusions 13
- 4 References 15

1 The Geopolitics of the Arctic

1.1 Introduction

The geopolitics of the Arctic is dominated by military and security aspects, the climate change with new shipping routes, significant resources, and the independence debate in Greenland.¹ Greenland (Kalaallit Nunaat) is the largest Arctic landmass and its location between Canada and Russia explains its geostrategic importance. After the end of the cold war, a growing institutional framework was established for the Arctic Region; the Arctic Council and accompanying security fora, but all organizations are affected or even paralyzed after the suspension of Russia since 2022.

Meanwhile, Russia and China are more engaged and advancing in the Arctic region which is a major challenge for the United States of America. Greenland's independence debate has reached a critical stage where Denmark and the European Union at risk to lose their status as Arctic actors.

1.2 The Map of Greenland

The word Arctic is derived from the Greek word for bear (*arktos*), Antarctica then means 'without bears'. The Arctic Circle is the region as the land and sea area north of the circle of latitude at about 66°34' North where the sun above the horizon for 24 continuous hours at least once in the summer and below the horizon for 24 continuous hours at least once in the winter.² Eight Arctic States have territory in the Arctic Circle: United States (Alaska), Russia, Canada, Iceland, Denmark (Greenland), Norway, Sweden, and Finland. The so-called *Arctic Five* have mainland coasts north of the Arctic Circle, the United States (Alaska), Canada, Denmark (Greenland), Norway, and Russia³.

There are various definitions of the Arctic region, but all of them include at minimum the Arctic Circle and at least parts of the eight Arctic States.

Greenland (Kalaallit Nunaat) is the world's largest island with 2670 kilometers from north to south and up to 1200 kilometers from east to west, a land area of 2,186,000 square kilometers with about 56,000 inhabitants and a coastal line of more than 44,000 kilometers⁴. The map shows that Greenland is geologically a part of North America, but belongs politically to Europe⁵. It is the largest Arctic landmass (as the North Pole consists of ice only) and located between Canada and Russia which explains its geostrategic importance⁶.

Eighty percent of Greenland are covered with ice⁷. Without ice, Greenland would look like a ring of land with a huge central sea, i.e., Greenland is not a compact land mass⁸.

¹ Iceland 2020

² O'Rourke et al. 2024

³ O'Rourke et al. 2024

⁴ Iceland 2020

⁵ Greenland 2023

⁶ Taagholt/Hansen 2001

⁷ Greenland 2023

⁸ Wenger 2023



Map of Greenland

Source/Author: File:Greenland on the globe (Greenland centered).svg – Wikimedia Commons

Date 26 April 2011

Author: TUBS

Map includes elements that have been taken or adapted from the map: Greenland (orthographic projection).svg. (by Connormah). No changes made here.

Page URL:

https://commons.wikimedia.org/wiki/File:Greenland_on_the_globe_%28Greenland_centered%29.svg

License: Creative Commons Attribution-Share Alike 3.0 Unported via *Wikimedia Commons*

Link to license: <https://creativecommons.org/licenses/by-sa/3.0/deed.en>

1.3 Institutions

After the end of the cold war, a growing institutional framework was established for the Arctic Region; the *Arctic Council* is the most important.

1.3.1 The Arctic Council

The Arctic Council of the eight Arctic states United States (Alaska), Russia, Canada, Iceland, Denmark (Greenland), Norway, Sweden, and Finland was founded by the *Ottawa Declaration 1996* as intergovernmental forum for the Arctic Region. The Council is based on consensus and does not handle security and military aspects⁹.

In addition to the eight member states, six organizations representing Arctic indigenous peoples have status as Permanent Participants¹⁰, see Section 1.3.2. In 2013, China, Japan, India, Italy, the Republic of Korea, and Singapore became Arctic Council Observer states in addition to the previous observers France, Germany, The Netherlands, Poland, Spain, Switzerland, and the United Kingdom.¹¹

The *European Union (EU)* has applied in 2013 for observer status, but the application is still pending. However, the *European Commission* appointed an *EU Special Envoy for Arctic Matters* in 2021¹² which reflects the growing interest of the EU in this region.

The Council has adopted three legally-binding agreements, the *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue (SAR) in the Arctic (2011)*, the *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (2013)*, and the *Agreement on Enhancing International Arctic Scientific Cooperation (2017)*¹³. After the beginning of the Ukraine war, Russia was suspended, and Norway took over the Chair from Russia in May 2023. The seven remaining Arctic states are also called “*A7 states*”. The future of the Council is uncertain.

For security matters, discussion fora were established, the *Arctic Security Forces Roundtable (ASFR)* in 2011 and the *Arctic Chiefs of Defense (ACHOD) Forum* in 2012¹⁴. In 2016, the *Arctic Coast Guard Forum (ACGF)* was founded¹⁵. These fora were also affected by the tensions with Russia.

1.3.2 Inuit Circumpolar Conference (ICC)

The Inuit interests are represented since 1980 by the *Inuit Circumpolar Conference (ICC)* which is engaging for the rights of Greenlandic, Canadian, US and Russian Inuit¹⁶. Greenland with its Inuit majority has a special position here. As Canada formed in 1999 the Inuit province Nunavut which covers most of Northern Canada, the relations between Greenland and Canada were intensified. In total, 6 Indigenous organizations are engaged in the *Arctic Council*:

- Inuit Circumpolar Conference (ICC)
- RAIPON – Russian Association of Indigenous Peoples of the North, Siberia, and Far East
- SC – Sami Council Arctic
- Aleutian International Association
- Arctic Athabaskan Council

⁹ O’Rourke 2024

¹⁰ O’Rourke 2024

¹¹ Brimmer 2023

¹² Gomes 2021

¹³ Brimmer 2023, O’Rourke 2024

¹⁴ Däumer 2021, Rachold 2022

¹⁵ Däumer 2021

¹⁶ Taagholt/Hansen 2001

- Gwitch'in Council¹⁷.

The ICC founded together with other organizations the *Arctic Economic Forum (AEF)* in 2014 and Greenland joined it to promote its mining plans. For the same reason, Greenland joined the *European Raw Materials Alliance (ERMA)* in July 2021 which intends to reduce the dependency from China with respect to raw materials¹⁸.

1.4 Maritime Issues

Maritime issues are new sea routes (passages) that are increasingly ice-free and territorial claims based on UN law.

1.4.1 Sea Passages

The melting of ice due to the global warming opens three potential shipping routes in the North. The new sea routes are currently not permanently ice-free, but are expected to be mostly ice-free between 2030 and 2040¹⁹.

- the *Northern Sea Route (NSR, Northeast Passage)* around northern Russia which is significantly shorter than the normal *Southern Sea Route SSR* around India and would be an attractive shipping route for Asian countries like China, Japan, and Korea. Russia and China already invested in various Northeast Passage projects to transport gas from Siberia to China²⁰. This includes the transport of liquefied natural gas from the Russian Yamal region to China²¹.
- the *Northwest Passage (NWP)* goes through the Canadian Arctic Islands and Canada argues that the NWP is in its territory while the United States hold the opinion that this is an international sea route with freedom of navigation and overflight²².
- the *Central Sea Route (Transpolar Sea Route TSR)* goes through the center of the Arctic Ocean and as it may be the first ice-free route, it would make Iceland a very promising place for a large port²³.

1.4.2 United Nations Convention on the Law of the Sea (UNCLOS)

Territorial conflicts also exist on the sea. The *United Nations Convention on the Law of the Sea UNCLOS* of 1982²⁴ came into force 1994, specified the coastal sea and its contiguous zone, defined exclusive economic zones of the coastal states and an *International Seabed Regime (ISA)* for some Pacific areas. According to UNCLOS²⁵, the coastal seas are the sea strips with a maximum of 12 nautical miles from the coastal baseline, in further 12 nautical miles (22 km), the state can continue to enforce laws (the contiguous zone). The *exclusive economic zones (EEZs)* cover 200 nautical miles from baseline where the coastal nation has sole rights for research, artificial buildings (such as oil platforms) and exploitation.

Huge territorial claims can be made based on so-called continental shelf (geologic extensions of the own land mass). The continental shelf is the natural (geologic) prolongation of the land territory up to 350 nautical miles from the coastal baseline; or 100 nautical miles beyond the

¹⁷ GeoBW 2021

¹⁸ Nutall 2021

¹⁹ Iceland 2020

²⁰ Fernández-Montesinos 2023

²¹ Iceland 2020

²² Gomes 2022

²³ Gomes 2022

²⁴ More precisely, this is UNCLOS III, an extension of the previously existing UNCLOS I and II from 1958 and 1968.

²⁵ Note that UNCLOS has a lot of details and special regulations which cannot presented here, but complicate many of the sea conflicts, see Sakamoto 2023

2500-meter isobaths (the line connecting the depth of 2,500 meters). The claiming nation must prove that the seabed is geologically a continuation of the own land mass.

UNCLOS zones	
Coastal zone 0-12m	12 nautical miles from coastal baseline with full control by coastal state
Contiguous zone 12-24m	additional 12 nautical miles where coastal state laws are still applicable for pollution, taxation, customs, and immigration
Exclusive economic zones (EEZs) 0-200m	Within 200 nautical miles from the baseline, the coastal nation has sole exploitation rights over all natural resources
Continental shelf 0-350m or more	natural (geologic) prolongation of the land territory up to 350 nautical miles from the coastal baseline; or 100 nautical miles beyond the 2,500-meter isobaths (the line connecting the depth of 2,500 meters)

The United States is not a party of UNCLOS III, but is following UNCLOS provisions relating to territorial waters, the EEZ, and navigational rights²⁶. Any claims must be made to the *United Nations Commission on the Limit of the Continental Shelf (CLCS)* with sufficient geologic evidence. The CLCS can make recommendations, but cannot draw borders as this has to be done by agreement of the involved states. However, despite the CLCS explicitly states that their recommendations are no prejudice, it will be very difficult to dispute a claim that was accepted by the CLCS.

In the Arctic, Russia claimed 2.0 million km² Arctic areas and argued that the so-called *Lomonosov Ridge* is an underwater extension of continental crust in the Arctic Ocean and thus an extension of Russian territory. The initial submission from 2001 was considered insufficient and was rejected, but then Russia sent a new submission in 2015 with two extensions in 2021 that finally included the *Mendeleev Rise, the Chukchi Plateau, the Gakkel Ridge and the Nansen and Amundsen Basins*²⁷. In February 2023, the CLCS recommended to accept Russia's claims for a total of 1.7 million km² including the North Pole area, only the claim for *Gakkel ridge* was not accepted²⁸. Based on this, Russia's accepted claims result in a long direct border with Greenland and Canada. Denmark on behalf of Greenland and Canada both claimed most of the territories that Russia claimed and which have now fallen to Russia²⁹. The United States did not object the 2015 submission of Russia and the submission of Canada, i.e., it did not dispute their claims, but US has started its own *Extended Continental Shelf (ECS) Project* to evaluate and secure potential claims for the US. There is a local disagreement between the United States and Canada regarding the maritime boundary in the Beaufort Sea.

Norway and Russia resolved their maritime border dispute in the Barents Sea in late April 2010 in a settlement³⁰.

In 1973, Canada and Denmark (for Greenland) agreed on demarcation of their border. The small *Hans Island* (1.3 km²) which belonged to Greenland was a matter of dispute, but both sides tried to avoid escalation and to support their claims symbolically with flags and bottles with alcohol on the island (*Whisky War*). However, the matter was serious as this could affect claims on Arctic sectors. In 2022, both sides agreed to a border in the middle of the island.

²⁶ O'Rourke 2024

²⁷ CLCS 2023

²⁸ Kunoy 2023

²⁹ O'Rourke 2024 The Kingdom of Denmark claimed in 2014 an area of 895,000 km² from Greenland beyond the North Pole to the Russian Exclusive Economic Zone, Dams et al. 2020

³⁰ Dams et al. 2020

1.5 Military and Security Aspects

1.5.1 The NATO versus Russia

Where the Arctic meets with the Atlantic, there are possible gaps (sea passages for the Russians) known by NATO as *GIUK (Greenland, Iceland, and United Kingdom)* and *GIN (Greenland, Iceland, and Norway)*. Denmark with the Faroes between Iceland, Norway and Scotland is important for the control of the GIUK and the GIN³¹. The area north of Scandinavia is known as the ‘*bastion area*’ where the former Soviet Union and now Russia has significant nuclear forces with *nuclear-armed ballistic missile submarines (SSBNs)* in an ice-free region with the Kola peninsula³²; it is a huge, permanently ice-free area³³. The NATO base in the Faroe Islands supports the so-called *bastion defense*³⁴.

To counter Russia’s massive military presence in Northern Russia in the cold war, US used the *Thule Air Base* in Northern Greenland which is halfway between New York and Moscow³⁵. After a crash of nuclear bomber in 1968 with hydrogen bombs near Thule, it was clarified that Greenland should not be used for nuclear purposes anymore³⁶. However, the base still maintains the very important *Ballistic Missile Early Warning System (BMEWS)* which was modernized providing 24/7 missile warning and space surveillance. The base also hosts a deepwater seaport and airfield³⁷ and the *Third Detachment of the 22nd Space Operations Squadron*, a global satellite monitoring network for tracking satellites in polar orbit such as *Galileo*³⁸.

Meanwhile, the *Thule Air Base* is known as *Pituffik Space Base*³⁹.

The United States however withdrew from its in Keflavik base in Iceland in 2006 against the will of Iceland.⁴⁰ The United States plan to build a deep-water port in Nome, Alaska⁴¹.

In 2012, and in accordance to its Arctic Strategy, Denmark merged the Greenland and Faroese military commands to establish a *Joint Arctic Command (JAC)* in Nuuk/Greenland and has modernized its navy. As the NATO does not provide sea surveillance, fishery protection and search and rescue tasks and as a coast guard may exceed the capacity of the small Greenlandic society for such a large territory, Greenland is still dependent from Danish support here⁴².

1.5.2 China’s Role in Arctic Security

A new security challenge for the Arctic geopolitics is China. China already signed in the 1920ies the *Svalbard (Spitzbergen) Treaty* which allowed all signatory states to utilize resources and to establish presences on this large Arctic Island which legally belongs to Norway. The Treaty was created to solve the disputed status of the island.

In 2013, China became an observer state in the *Arctic Council* and in 2018, it defined itself as *Near Arctic State* in a White Paper, as its most northern part is on the same latitude as the Aleutian Islands in Alaska of the United States⁴³. The sea passages (see Section 1.4.1) are viewed as *Polar Silk Road* within the *Belt and Road Initiative (BRI)*.

³¹ Fernández-Montesinos 2023

³² Rachold 2022

³³ Rachold 2022

³⁴ Østerud/Hønneland 2013

³⁵ Fernández-Montesinos 2023

³⁶ Taagholt/Hansen 2001

³⁷ Archik 2019

³⁸ Fernández-Montesinos 2023

³⁹ Østergaard et al. 2023

⁴⁰ Nackmayr 2015, Iceland 2020

⁴¹ Brimmer 2023

⁴² Fernández-Montesinos 2023

⁴³ O’Rourke 2024

China systematically establishes Arctic research stations. In 2004, China built in Norway an Arctic science station, the *Yellow River station* in Svalbard, and a satellite facility in Sweden, the *Esrang Space Center*, while Finland has a Chinese center for space research and data exchange, the *FMI Arctic Space Center* in Sodakylä in Northern Finland. In Iceland, China built the *Chinese Iceland Research Observatory* in Karholl⁴⁴. China's *BeiDou* satellite navigation system is developed as alternative to the US-owned GPS satellite system and tests were announced at its research station in Svalbard to improve *BeiDou*'s performance in the High North⁴⁵. In 2019, China launched its first polar-orbiting satellite⁴⁶.

China's *Huawei Marine* was engaged a Finnish project called *Arctic Connect* to put 13,800 km communication cables along the Northeast Passage from Europe to Asia. Experts were concerned that these cables could be used for intelligence gathering and maybe turned into an undersea surveillance system⁴⁷.

The perspective to have a growing Chinese presence in the Arctic and Greenland (which is geologically in North America) alerted the United States. A national strategy for the Arctic region was released by in October 2022⁴⁸; one month after the *US Department of Defense (DoD)* established the *DoD Arctic Strategy and Global Resilience Office*.

1.5.3 Cyber Threats

The communication lines in the Arctic and the cyber systems of Greenland which has an own internet domain '.gl' are highly vulnerable for attacks, i.e., by submarine sabotage acts which damaged the fiber-optic data cables serving Svalbard and those serving the Shetland and Faroe Islands.⁴⁹

Cyber attacks in 2022 in Greenland resulted in failures of the central administration and healthcare system; security breaches were detected and reported by the *Naalakkersuisut's Digitization Agency*. Also, a fake letter from the *Greenland Minister of Foreign Affairs* to a US senator was released in 2019 where a Greenland-US cooperation related to a future vote on independence was discussed. The aim of the letter was to create mistrust between Denmark, the United States and Greenland, i.e., to undermine regional stability⁵⁰.

2 The Geopolitics of Greenland

2.1 Brief History

The native inhabitants of Greenland, the Inuit, migrated from North America to Greenland from the year 1000 on and replaced an older population known as *Dorset* culture⁵¹. In Southwestern Greenland, Vikings coming from Iceland, led by Eric the Red from today's Norway, reached Greenland in 982 and settlements were present which diminished in the 16th century. The exact reason is unknown as there is no indication for a war or a pandemic; the most likely explanation is a temporary deterioration of the regional climate which urged the settlers to give up their settlements. In 1721, Greenland became a Danish colony⁵². Until the end of the Napoleonic wars in 1814, Norway was under Danish control.

⁴⁴ Fernández-Montesinos 2023

⁴⁵ Dams et al. 2020

⁴⁶ Fernández-Montesinos 2023

⁴⁷ Dams et al. 2020

⁴⁸ White House 2022

⁴⁹ Gomes 2022

⁵⁰ CFCS 2023

⁵¹ Nackmayr 2015

⁵² Greenland 2023

When Denmark sold the Virgin Islands in 1916 to US, it demanded in exchange the US acceptance of Danish sovereignty over Greenland which was granted⁵³. However, the US tried to buy Greenland repeatedly, in the late 1860ies⁵⁴, in 1946, in 1960⁵⁵ and in 2019⁵⁶. In 1930, Norwegian hunters occupied a land strip of Greenland with support of their government, but the Court in The Hague recognized the sole Danish sovereignty over Greenland in 1933⁵⁷. A border dispute with the Norwegian *Jan Mayen Island* west of Greenland was resolved 60 years later by the Court in The Hague in 1993⁵⁸.

When Germany occupied Denmark, the US army decided in agreement with Danish ambassador in the US to occupy Greenland in 1941 even before the war with Germany. Also, Iceland (which was linked to Denmark via the Danish monarchy) was occupied in 1940 by the British Army and then taken over by the US Army⁵⁹. In February and March 1941, Germany made reconnaissance flights over east Greenland which raised concerns about a possible invasion⁶⁰. The preventive occupation was strategically important for three reasons: it avoided a presence of German troops on the North American side of the Atlantic Ocean; these regions were important for military weather forecasting and the North Atlantic trade and transportation routes could be secured.

German military was present in east Greenland to build weather stations on *Sabine Island* in 1942, and on *Shannon Island* in 1943; both were destroyed by US military patrols. Iceland used the opportunity to declare itself a republic and to cut off the ties to Denmark in 1944.

Since that time, Greenland has a permanent US military presence and is factually part of the US defense perimeter. For this reason, US successfully resisted to Danish requests to leave Greenland after World War 2.

In the rising cold war, it was realized that in the era of long-range bombers and submarines and intercontinental missiles, the polar area between Northern Russia to Canada is very important. Denmark joined the NATO in 1949 and the agreements of 1941 were replaced by a new treaty in 1951. To counter Russia's massive military presence in Northern Russia, US used the *Thule Air Base* in Northern Greenland which is halfway between New York and Moscow⁶¹. After a crash of nuclear bomber in 1968 with hydrogen bombs near Thule, it was clarified that Greenland should not be used for nuclear purposes anymore⁶².

In 1953, the legal status of Greenland was changed in the Danish constitution from a colony to an integral part of Denmark.

In 1979, Greenland achieved the Home Rule, i.e., a self-government for certain administrative areas, but defense and security policy, most aspects of foreign policy, and monetary policy remained with Denmark⁶³. Together with Denmark, Greenland was an EU member from 1973 on. After a referendum, Greenland left the EU in 1985 mainly due to concerns about

⁵³ Taagholt/Hansen 2001

⁵⁴ Taagholt/Hansen 2001

⁵⁵ Paul 2021

⁵⁶ Archik 2019. Since the new 2009 self-determination rule, Denmark cannot not sell Greenland anymore, even if it would want to do so.

⁵⁷ Taagholt/Hansen 2001

⁵⁸ Østerud/Hønneland 2013

⁵⁹ Nackmayr 2015

⁶⁰ Taagholt/Hansen 2001

⁶¹ Fernández-Montesinos 2023

⁶² Taagholt/Hansen 2001

⁶³ Archik 2019

overfishing⁶⁴, but got the status of an *EU overseas country and territory (OCT)* which also means that the Greenlanders are still EU citizens⁶⁵. There are now special fishery agreements with EU states in place which are regularly updated.

The *Greenland Self-Government Act* was released by Denmark in 2009 with self-determination, control over law enforcement, the coast guard, and the legal system, and the official language was changed to Greenlandic⁶⁶ which belongs to the Eskimo-Aleut language family. Greenland took over foreign relations for the areas of its responsibility and sent representatives in Copenhagen, Brussels, Reykjavik, and Washington⁶⁷.

The *Constitutional Commission of Greenland* presented its *draft for a constitution for Greenland* in Nuuk on the 28th of April 2023 after seven years of preparation which is now under discussion⁶⁸.

2.2 Economy and Politics

Greenland's Gross Domestic Product of 2021 was 15,741 million Danish Kroner (DKK) with an exchange rate of USD 100 = DKK 676.81, with approximately 20% support from Denmark⁶⁹ which comprised 3,942.6 million DKK subsidies.⁷⁰

Over 40% are employed in the public sector, other relevant sectors are fishing, hunting, and agriculture. Greenland's main export products (90%) are codfish, halibut, mackerel, crab, and prawn, while most industrial goods must be imported⁷¹. Tourism and agriculture only represent very small portions of the Greenland's economy, but tourism is already growing. Visits of cruisers to Greenland increased by 90% from 2015 to 2018⁷².

The aim of Greenland is therefore to diversify the economy and to look for new income sources to reduce dependency from Denmark. From this perspective, the climate change with ice melting and global warming brings new opportunities to the Arctic and Greenland. Currently, many resources cannot be utilized as the mining or drilling would be too expensive or too complicated⁷³.

Greenland as largest Arctic land mass has large reserves of rare metals, uranium, gold, platinum, zinc, iron (Isua mine)⁷⁴, carbonite, graphite, olivine, uranium, oil, and gas⁷⁵.

Greenland now faces a strategic dilemma: the resource utilization could bring Greenland the necessary income to become independent or at least to diversify its economy which is largely dependent on fishing. On the other hand, the Greenlanders fear an uncontrolled influx of foreign workers⁷⁶ and the destruction of their environment and of the fishery⁷⁷.

⁶⁴ Greenland 2023. At that time, the EU was the *European Economic Community EEC*. The Faroe Islands, another autonomous island of Denmark north of Scotland, was never in the EU. Overfishing concerns were a key reason why Iceland did not want to join the EU, Dams et al. 2020

⁶⁵ Dams et al. 2020

⁶⁶ Greenland 2023

⁶⁷ Archik 2019

⁶⁸ Østergaard et al. 2023

⁶⁹ Hermann 2023

⁷⁰ Iceland 2020

⁷¹ Greenland 2023

⁷² Iceland 2020

⁷³ GeoBW 2021

⁷⁴ Leskien 2019

⁷⁵ Nackmayr 2015, Paul 2021, GeoBW 2021

⁷⁶ Certain Gulf States, e.g. the United Arab Emirates and Qatar have majorities of foreign workers, but typically in modern urban settings which allow control by sophisticated security concepts. In Greenland, there are almost no streets, no railways and huge distances which would make control measures difficult to impossible.

⁷⁷ Fernández-Montesinos 2023

This dilemma directly affected projects with China:

- China's *Shenghe Resources* wanted to mine an estimated 270,000 tons of uranium at Kvanefjeld⁷⁸ near Narsaq in Southern Greenland⁷⁹, but this was finally blocked due to environmental concerns⁸⁰
- China offered to take over an iron mine in Isua in Greenland north of the Nuuk capital (which was finally cancelled and would have required to locate 3.000 Chinese workers in Greenland)⁸¹.

Nevertheless, China is very active in Greenland: Chinese companies have shares in four large mining areas in Greenland and Chinese oil companies would be interested in licenses.⁸² In 2016, China wanted to acquire a former Greenlandic naval station, but this was blocked by Denmark⁸³. In 2018, China offered to upgrade two airports in Nuuk and Ilulissat which raised security concerns by the US and Denmark and could only be prevented by Danish payments to squeeze out the Chinese investors.⁸⁴

For other Arctic actors, China and Russia are also attractive trade partners, irrespective of Western concerns. Iceland was a founding member of the *Asian Infrastructure Investment Bank* to facilitate participation in the Chinese *Belt and Road Initiative*⁸⁵. The Faroe Islands intensify their relations to China and Russia is the largest export market for 30% of Faroese products⁸⁶.

2.3 The Independence Debate

The *Constitutional Commission of Greenland* presented its *draft for a constitution for Greenland* in Nuuk on the 28th of April 2023 after seven years of preparation which is now under discussion⁸⁷.

Currently, due to the financial support of Denmark, an independence seems to be financially impractical⁸⁸. Another argument is that Greenland's population may be too small to administer such a large territory, i.e., to act as independent state.

However, when looking on other small and microstates e.g., in the Pacific Ocean, these states were -despite all problems and their huge sea territories- able to maintain their statehood and their democracy since their independence in the 1970ies⁸⁹.

Another point is that Denmark could be replaced by another actor who would be willing to do the necessary investments. In particular, the United States could take over Denmark's subsidies and make a major strategic gain in North America. As stated by Østerud/Hønneland in 2013, the independence movement is a geopolitical move from North-Western Europe towards North America while Denmark is squeezed between indigenous demands and international pressure⁹⁰.

Not only Denmark, but the European Union would then not be Arctic actors anymore⁹¹. This would be a major setback for the European Union as global actor and for these reasons, the

⁷⁸ Iceland 2020

⁷⁹ Nackmayr 2015, Paul 2021

⁸⁰ Hosa 2023

⁸¹ Nackmayr 2015

⁸² Iceland 2020

⁸³ Fernández-Montesinos 2023

⁸⁴ Fernández-Montesinos 2023

⁸⁵ Iceland 2020

⁸⁶ Iceland 2020

⁸⁷ Østergaard et al. 2023

⁸⁸ Archik 2019

⁸⁹ For details refer to the open-access working paper 2024 The Geopolitics of Oceania - The Pacific Islands. <https://doi.org/10.48693/447>

⁹⁰ Østerud/Hønneland 2013

⁹¹ Paul 2021

European Union must generally show a much stronger engagement in Greenland and the Arctic to maintain its presence⁹².

In Greenland, a Free Association is discussed as possible solution⁹³.

The United States have a treaty with some island states, the *Compacts of Free Association*. This includes the Federated States of Micronesia FSM, the Republic of the Marshall Islands RMI and Palau. The United States is obligated to defend the *Freely Associated States (FAS)* against attack or threat of attack. The United States can veto against policies that affect the defense (“defense veto”), and block involvement of third countries (“right of strategic denial”).⁹⁴ The compact of 2003 provided continued US financial and program assistance to the RMI and FSM and was refreshed in 2023.

A Free Association with the *right of strategic denial* would allow the United States to block China and Russia in Greenland. While a Free Association could also be possible with other actors like Canada, Iceland or Norway, Denmark would be the easiest choice, but Denmark is not willing to discuss this solution as this would not be a real independence⁹⁵. However, this makes the relations between Denmark and Greenland highly vulnerable for more flexible actors.

While a Free Association would also create an additional burden as Greenland would then have to be present in international organizations such as the United Nations or Sports Organizations, this could also bring new opportunities. As a sovereign state, Greenland could create additional income from selling of rights, e.g., licenses for fishing, mining, communication, or transportation, but it could also expect financial and political incentives from other states who want Greenland to vote for their initiatives⁹⁶. If voting for other states, they may help Greenland with cheap credits and foreign aid as well⁹⁷. Greenland with its rich nature could also sell stamps or commemorative coins with attractive local motives.

3 Conclusions

The paper analyzed the geopolitics of the Arctic which is dominated by military and security aspects, the climate change with new shipping routes, significant resources, and by Greenland with its independence debate. The Greenland Self-Government Act was released by Denmark in 2009 with self-determination and the Constitutional Commission of Greenland presented its draft for a constitution for Greenland in Nuuk on the 28th of April 2023 as major step towards independence. Currently, the Greenlandic economy is heavily dependent from fishing and from Danish subsidies which cover around 20% of the state income. The utilization of its rich resources could bring Greenland the necessary income to become independent or at least to diversify its economy which is largely dependent on fishing. On the other hand, the Greenlanders fear an uncontrolled influx of foreign workers and the destruction of their environment and of the fishery. But Denmark could be replaced by another actor who would be willing to do the necessary investments. In particular, the United States could take over Denmark’s subsidies and make a major strategic gain in North America. In Greenland, a Free Association is discussed as possible solution, something which was successfully implemented by several Pacific Island States. Not only Denmark, but the European Union would then not be

⁹² Dams et al. 2020

⁹³ Østergaard et al. 2023, Hermann 2023. The Northern Marianas were presented as example in the discussion, but this was an error: The Northern Marianas chose a much closer relation to the US as Commonwealth, Lum 2023

⁹⁴ Lam/Vaughn 2017

⁹⁵ Østergaard et al. 2023, Hermann 2023. Canada would be attractive due to the good relations of Greenland with their Inuit province Nunavut.

⁹⁶ Vreeland 2019

⁹⁷ Vreeland 2019

an Arctic actor anymore. For these reasons, the European Union must generally show a much stronger engagement in Greenland and the Arctic to maintain its presence.

4 References

- Archick, K. (2019): CRS INSIGHT IN11161. Greenland, Denmark, and U.S. Relations. Congressional Research Service CRS August 30, 2019
- Brimmer, E.D. (2023): Hearing on “Strategic Competition in the Arctic Before the Subcommittee on Transportation and Maritime Security. United States House of Representatives 1st Session, 118th Congress Published by Council on Foreign Relations 18 July 2023
- CFCS (2023): Threat assessment: The cyber threat against Greenland. 1st edition March 2023 of the Danish Center for Cybersikkerhed
- CLCS (2023): Recommendations of Commission on the Limits of the Continental Shelf in Regard to the Partial Revised Submission made by the Russian Federation in Respect of the Arctic Ocean of 3 August 2015 with Addenda Submitted on 31 March 2021. Recommendations prepared by the Subcommission established for the consideration of the Submission made by the Russian Federation - Approved by the Subcommission on 20 October 2022, Approved by the Commission, with amendments, on 6 February 2023.
- Däumer, M. (2021): Die Arktis im Strategischen Konzept der NATO. SIRIUS 2021; 5(4): 377–385. <https://doi.org/10.1515/sirius-2021-4006>
- Dams, T., van Schaik, L., Stoetman, A. (2020): Presence before power. China’s Arctic strategy in Iceland and Greenland Clingendael Report June 2020
- Fernández-Montesinos, F.A. (2023): Arctic geopolitics after the Ukrainian war. Analysis Paper 34/2023 10/05/2023 IEEE (Instituto Espanol de Estudios Estrategicos)
- GeoBW (2021): Auswirkungen des Klimawandels in der Arktis. Wirtschaft, Infrastruktur und Sicherheitspolitik - Geopolitische Information 1/2021 Geoinformationsdienst der Bundeswehr
- Gomes, T.R. (2022): The transformation of Arctic geopolitics and its implications for the North Atlantic. Atlantic Centre Policy Brief Issue 14 November 2022 of the Ministry of Defense of Portugal
- Greenland (2023): Greenland in Figures 2023 20th edition Editorial deadline: May 2023 stat@stat.gl Edited by Naduk Kleemann, Statistics Greenland, Nuuk
- Hermann, R. (2023): Grönland macht einen Schritt Richtung Unabhängigkeit. Neue Zürcher Zeitung 01 May 2023
- Hosa, J. (2023): Feeling the Chill: Navigating Arctic Governance amid Russia’s war on Ukraine. European Council of Foreign relations Policy Brief May 2023
- Iceland (2020): Greenland and Iceland - Excerpt from a Report of the Greenland Committee Appointed by the Minister for Foreign Affairs and International Development Co-operation. The Ministry for Foreign Affairs December 2020
- Kunoy, B. (2023): Recommendations on the Russian Federation’s Proposed Outer Continental Shelf in the Arctic Area EJIL: Talk! Blog of the European Journal of International Law, March 3, 2023
- Leskien, S. (2019): Das Wirtschaftspotential der Arktis im Überblick. Deutsches Arktisbüro am Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung Stand: November 2019
- Lockwood, N.J. (2013): International Vote Buying Harvard International Law Journal, Vol. 54, page 97-156. Volume 54, Number 1, Winter 2013

- Lum, T. (2023): The Compacts of Free Association. Updated October 18, 2023 Congressional Research Service CRS IF12194
- Lum, T., Vaughn, B. (2017): The Pacific Islands: Policy Issues. February 2, 2017 Congressional Research Service CRS R44753
- Nackmayr, J. (2015): Die Arktis - Testfeld für eine neue, globale geopolitische Architektur unter besonderer Berücksichtigung von China. Österreichische Militärische Zeitschrift ÖMZ online. Dezember 2015
- Nuttall, M. (2021): Greenland and the geopolitics of critical minerals. CellPress Journal One Earth, One Earth 4, December 17, 2021
- O'Rourke, R. et al. (2024): Changes in the Arctic: Background and Issues for Congress. Updated January 18, 2024 Congressional Research Service Report R41153
- Østergaard, M.U., Nielsen, R.L., Gad, U.P. (2023): Free Association in a Greenlandic Context. Seminar paper, Ilisimatusarfik and DIIS, Nuuk, 24 May 2023. Nasiffik Working Paper, No 2 (May 2023)
- Østerud, Ø., Hønneland, G. (2013): Geopolitics and International Governance in the Arctic. Arctic Review on Law and Politics, vol. 5, 2/2014 pp. 156–176. ISSN 1891-6252. Received April 2013, accepted September 2013
- Paul, M. (2021): Grönlands Projekt Unabhängigkeit. Ambitionen und Aussichten nach 300 Jahren Zugehörigkeit zum Königreich Dänemark SPW Nr.2 Januar 2021
- Rachold, V. (2022): Helmholtz-Zentrum für Polar- und Meeresforschung Deutsches Arktisbüro am Alfred-Wegener-Institut - German Arctic Office Oktober 2022
- Saalbach, K. (2024): open-access working paper The Geopolitics of Oceania - The Pacific Islands. <https://doi.org/10.48693/447>
- Sakamoto, S. (2023): Historic Waters and Rights. Revisited: UNCLOS and Beyond? PowerPoint presentation, Professor of Doshisha University. Last access 06 Sep 2023
- Strandsbjerg, J. (2010): Cartography and Geopolitics in the Arctic Region. DIIS Working Paper 2010:20
- Taagholt, J., Hansen, J.C. (2001): Greenland: Security Perspectives. Trans. Daniel Lufkin. Fairbanks, Alaska: Arctic Research Consortium of the United States
- Vreeland, J.R. (2019): Corrupting International Organizations. Woodrow Wilson School and Department of Politics, Princeton University, Annu. Rev. Political Sci. 2019. 22:205–22
- Wenger, M. (2022): Wie sehen Grönland und Antarktika ohne Eis aus? Polar Journal 13 July 2022
- White House (2022): National Security Strategy, October 2022