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A Warming Arctic in a Cold War

– consequences of climate change for
Norwegian security in the Arctic

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Summary

The heating of the Arctic occurs considerably faster than the global average heating. The security policy consequences of this will be dire, both on the global and regional Arctic level. This report analyses these trends and their consequences for Norwegian national security.

Compared to other regions, the Arctic region has received limited attention in global security discourse, while Arctic states – particularly Russia – have long considered it a vital geopolitical region. Prior to the Russian invasion of Ukraine in 2022, the Arctic was largely shielded from international tensions. During and after the Cold War, regional and local cooperation continued despite growing tensions. Both the mounting tensions and the erosion of Arctic Exceptionalism will be exacerbated by climate change.

Numerous actors with diverse agendas operate in the Arctic. At the institutional level, NATO and the EU have become increasingly active in Arctic questions during the past few years. All the Arctic states, bar Russia, are members of at least one of these organisations. The relationship between NATO, the EU, and their members on one side and Russia on the other has deteriorated, especially after the Russian invasion of Ukraine. These two groups share very few goals and ambitions for the Arctic region. When tensions between them increase, Arctic stability suffers.

Climate change in the Arctic affects military capabilities and operational patterns. Reduction in ground frost, lower soil bearing capacity, more extreme weather, less sea ice, and shorter winters will force armed forces to adapt their capabilities, operations, and exercises to new environments.

The Arctic security landscape deteriorates because of climate change. As resources and trade routes become available because of climate change, international great power rivalry will increasingly manifest in the Arctic region. This trend is further amplified by the diverging aims of Arctic actors.

Because of mounting international tensions, climate change, and regional Arctic trends, it is becoming more likely that Chinese revisionism, currently focused on Taiwan, the South China Sea, and the international order, will be brought into regional Arctic politics. China, a self-proclaimed 'near Arctic state', covets increased influence in a region in which they have established various research and commercial activities.

The trends described in this report emphasise an Arctic future defined by less security, both in terms of climate change and security policy. This is a cause for concern for a small state such as Norway, which is still an important Arctic actor due to its long coastline and sovereignty over the Svalbard archipelago. Mounting tensions in the region are thus detrimental for Norwegian national security. Climate change will aggravate these tensions, both in the Arctic and in regions near NATO allies. The latter could limit allied support. Consequently, climate change will have significant effects on Norwegian national security.

Sammendrag

Oppvarmingen av Arktis forekommer langt raskere enn den globale gjennomsnittlige oppvarmingen. Dette får alvorlige sikkerhetspolitiske konsekvenser både på globalt og regionalt arktisk nivå. Denne rapporten sammenstiller og analyserer disse følgene fra et norsk perspektiv.

Sammenlignet med andre regioner har Arktis fått begrenset oppmerksomhet i den globale sikkerhetsdiskursen, samtidig som arktiske land har ansett regionen som svært viktig. Inntil Russlands invasjon av Ukraina i 2022 var Arktis en region som i stor grad har vært skjernet for spenninger i internasjonale relasjoner. Under og etter den kalde krigen har det arktiske samarbeidet bestått på tross av tiltagende internasjonale spenninger. Både disse spenningene og den såkalte arktiske eksepsjonalismen påvirkes av klimaendringene.

Den arktiske regionen preges av en rekke aktører med ulike mål og ambisjoner. Organisasjoner som NATO og EU har blitt viktigere aktører i regionen i løpet av de siste årene. Flere av NATO og EUs medlemsland har lenge vært sentrale arktiske aktører. Forholdet mellom NATO, EU og deres medlemsland på én side og Russland og Kina på den andre siden har blitt stadig verre, spesielt etter Russlands invasjon av Ukraina. Disse statene deler i liten grad mål og ambisjoner i Arktis. Når spenningene mellom dem øker, trues den regionale stabiliteten i Arktis.

Klimaendringene i Arktis påvirker militære kapabiliteter og operasjoner. Mindre frossen mark med lavere bæreevne, mer ekstremvær, mindre havis og kortere vintre observeres i dag. Disse trendene forverres i fremtiden og vil endre måten militære kapabiliteter kan operere på i regionen. Oppvarmingen av Arktis fører også til at militære øvelser må tilpasses et arktisk klima i endring.

Det arktiske sikkerhetsbildet forverres av klimaendringene. Etter hvert som flere ressurser og handelsruter blir tilgjengelige som en følge av klimaendringene, vil den globale stormaktsrivaliseringen i større grad nå fram til Arktis. Denne konsekvensen forverres ytterligere av forskjellene i mål og ambisjoner hos de ulike arktiske aktørene.

Som et resultat av økte internasjonale spenninger, klimaendringer og regionale arktiske trender er det en voksende risiko for at kinesisk revisjonisme som i dag hovedsakelig rettes mot Taiwan, Sør-Kina-havet og den internasjonale ordenen, kan rettes mot Arktis. Kina, en selv-definert «nær-Arktisk stat», har store interesser i regionen og ønsker større innflytelse.

Trendene som er beskrevet i denne rapporten, tydeliggjør et mindre sikkert Arktis i fremtiden både klimatisk og sikkerhetspolitisk. Dette er en grunn til bekymring for en småstat som Norge, som likevel er en betydelig arktisk aktør på grunn av en lang kyststripe og besittelse av Svalbard. Ytterligere økte spenninger i Arktis er dermed negativt for norsk sikkerhet. Klimaendringene fører til økte spenninger i Arktis og i nærområdene til våre allierte i NATO. Sistnevnte kan føre til redusert alliert støtte til Norge. Klimaendringene får derfor betydelige konsekvenser for norsk sikkerhet.

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Preface

This report is a translation of FFI report 23/01594 originally written in Norwegian. The report was translated in order for the Norwegian Defence Research Establishment (FFI) to share its research on security in the Arctic with allies and partners.

Kjeller, 13 December 2023
Marius Nyquist Pedersen



1 Introduction

Arctic warming occurs up to three times faster than the global average warming (Rantanen *et al.*, 2022). This is faster than any other region in the world; the second fastest warming region is Antarctica (Siegert *et al.*, 2019). This report analyses both potential and probable security consequences of this warming from a Norwegian perspective.

The Arctic has historically received limited attention in the global security policy discourse (Gjørsvik *et al.*, 2020), but Arctic countries have regarded the region as central. This situation has changed, and the Arctic is now a higher priority on the international agenda. The Arctic is affected by climate change particularly through melting ice and higher sea temperatures, making resources and sea routes accessible and generating greater interest and presence in the region.

Politically, the Arctic has been a region that has largely been shielded from global challenges and trends (Gjørsvik *et al.*, 2020; Østhagen and Rottem, 2020). During and after the Cold War, regional cooperation persisted despite international tensions. The contemporary situation is entirely different. Tensions between Russia on one side and the United States, their allies, Europe, and the EU on the other side have escalated since Russia's annexation of Crimea in 2014. Relations have suffered significant damage since Russia's invasion of Ukraine in February 2022.

Climate change in the Arctic also has implications for the military aspect of security (Granlund *et al.*, 2022). More extreme weather on land and at sea, less frozen ground, shorter winters, and less sea ice affect operational concepts, logistics, and strategic thinking amongst the Arctic countries. This has significant consequences for the security landscape in the Arctic. The combination of climatic and political trends worsens the security policy situation in the Arctic and will become even more strained in the future.

1.1 Definitions, Terms, and Nomenclature

The Arctic is a term without a universally agreed-upon definition. The Arctic can be defined as the region north of the northern Polar Circle, at 66°30' N. However, this line has little geographical significance as it is not tied to terrain. One can also define the Arctic as the region where the highest temperature in the warmest month, July, is below 10°C, or the area north of the tree line (Dunbar *et al.*, 2023; Hisdal, 2019). A consensus definition of the Arctic has also been challenging due to the changing political, geopolitical, and economic interests of various actors over time. This report adopts the definition from The Arctic Monitoring and Assessment Program (AMAP) (Figure 1.1):

The region covered by AMAP is ... essentially the terrestrial and marine areas north of the Arctic Circle (66°32'N), and north of 62°N in Asia and 60°N in North America, modified to include the marine areas north of the Aleutian chain, Hudson Bay, and parts of the North Atlantic Ocean, including the Labrador Sea (Wilson *et al.*, 1998: p. 10).

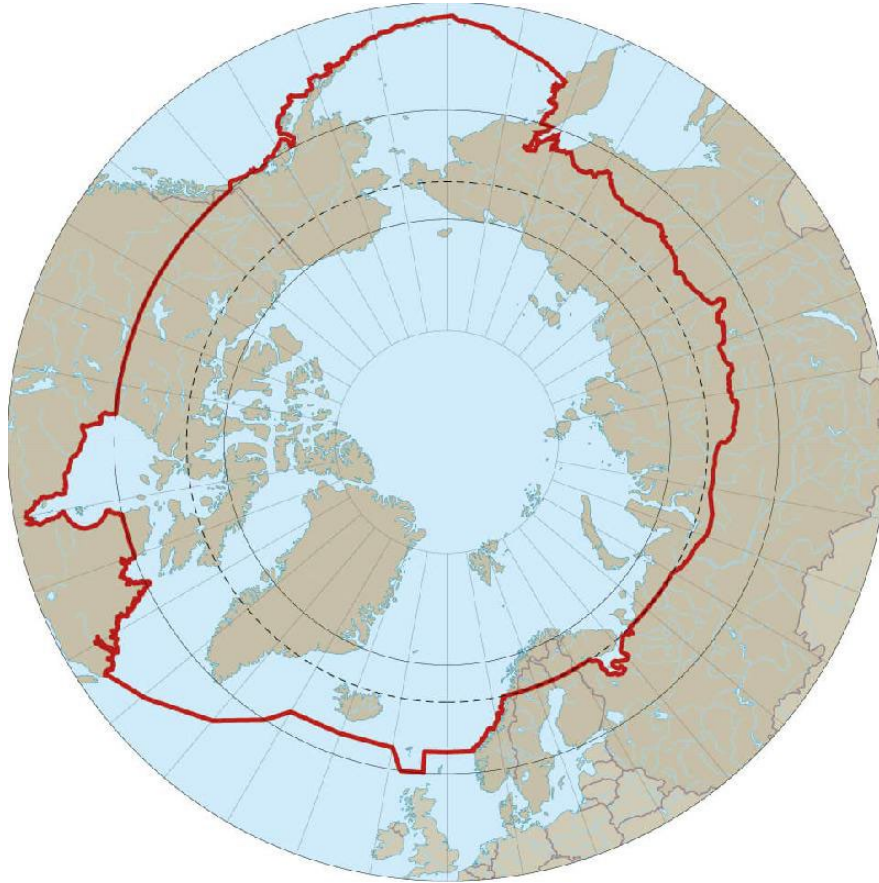


Figure 1.1 The map shows the definition of the Arctic region used by the Arctic Monitoring and Assessment Programme (AMAP). It was published in their report entitled “Snow, Water, Ice, and Permafrost in the Arctic SWIPA” (AMAP, 2017).

This report takes into account that Finland became a NATO member on 4 April 2023. On 10 July 2023, NATO's Secretary-General Jens Stoltenberg announced during a press conference that Turkey would approve Sweden's membership application (NTB, 2023).

The Arctic Council has assumed an altered role in the Arctic following the Russian invasion of Ukraine. In June 2022 the Arctic Council resumed work that did not involve Russia (Schreiber, 2022). In May 2023 Norway assumed the chairship of the Council, with the primary overarching goal of ensuring the survival of the Arctic Council (Government of Norway, 2023b). Although the Council's work since June 2022 has not included Russia, the Norwegian Ministry of Foreign Affairs has stated that it is essential to "discuss how cooperation with Russia should proceed in the long term" (Skoglund and Molde, 2023).

The European Union (EU) has several Arctic members. Additionally, Norway and Iceland are linked to the EU through both the European Economic Area (EEA) and the European Free Trade Area (EFTA). Due to the EU's significant role on the European continent, the Union plays a central role in all European climate politics. Furthermore, in 2021 the EU published its latest Arctic policy, focusing on a peaceful, sustainable, and prosperous Arctic. This policy includes the EU establishing an office in Greenland and allocating funds for a green transition in the Arctic (The European Union, 2021). This positions the EU as an emerging Arctic actor.

2 Structure of the Report

This report analyses how climate change affects Norwegian national security in the Arctic. To structure the analysis, the relevant factors are divided into three different levels (Figure 2.1). Furthermore, climate change occurs on both a global and a regional Arctic level.

International security is listed as a separate factor in Level 2 (Figure 2.1). One could argue that something as comprehensive as international security can be considered a framework for the analysis. This report will analyse how climate change affects security in the Arctic. Even though international security serves as a framework for the analysis, it is influenced by both climate change and Arctic actors. Due to this mutual relationship, international security will be analysed as a separate factor in the report.

Level 1 describes climate change. The first level is listed with two variables, both global and Arctic climate change, because regional climate changes in the Arctic can also impact global changes. Level 2 describes the Arctic actors. These are the actors present in the Arctic who observe climate change and make political decisions based on them. Level 3 describes the security landscape in the Arctic, which Norway must deal with. This is, in part, a result of the Arctic actors' relationship with climate change and their patterns of action in the region.

The analytical structure in Figure 2.1 contributes to the analysis of the report's issue in several ways. It accounts for relevant aspects of the issue: climate change, international and regional relations, actors, and the security landscape in the Arctic. Figure 2.1 illustrates how the security landscape in the Arctic is influenced by various factors and actors at different levels, both regionally and internationally. This happens both directly and indirectly, as the figure illustrates.

The report is structured according to the levels in Figure 2.1. Chapter 3 summarises the global and Arctic climate changes. Chapter 4 describes the theoretical foundation of the report. Chapter 5 accounts for the various actors in the Arctic. Chapter 6 analyses the various security policy consequences of climate change in the Arctic, considering the different actors. The factor of

international security is relevant in several contexts and will, therefore, be discussed in all chapters. Finally, Chapter 7 summarises the report’s key findings.

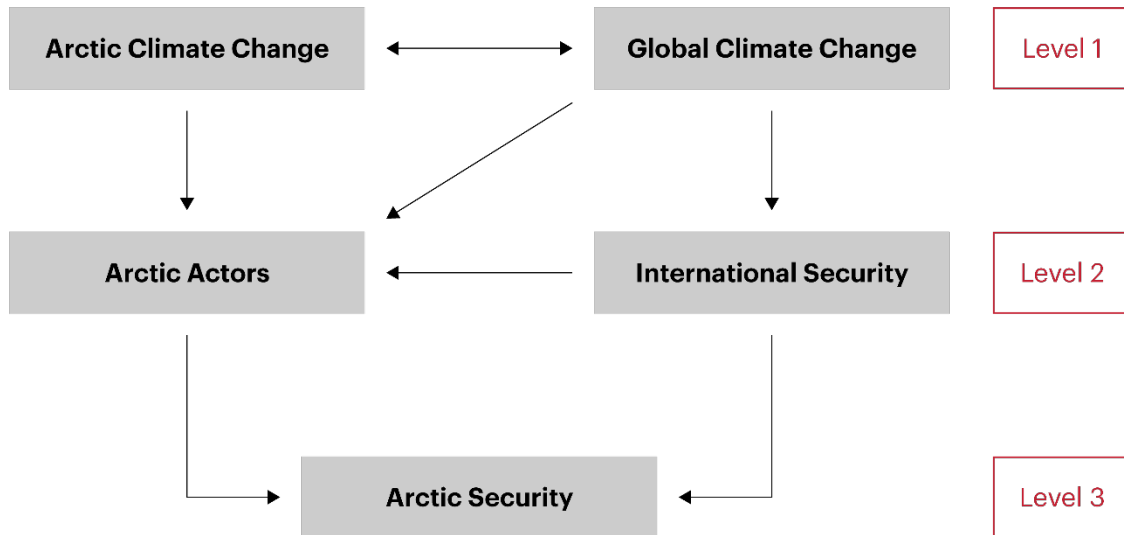


Figure 2.1 The diagram shows the three levels that comprise the structure of the analysis. Double-headed arrows indicate that the factors affect one another.

3 Climate Change

This chapter discusses the factors in Level 1 of figure 2.1: *global climate change* and *Arctic climate change*.

3.1 What is Climate Change?

The term *climate change* refers to alterations in temperature and weather patterns over time. Since the 1800s human activity has been the primary cause of these changes, primarily through the use of fossil fuels. The most significant greenhouse gases are carbon dioxide (CO₂) and methane (IPCC, 2022).

Both CO₂ and methane are greenhouse gases. Such gases absorb solar energy reflected from the Earth, trapping heat in the Earth’s atmosphere. This results in warming of the planet. The greater the quantity of such gases in the atmosphere, the stronger the warming becomes. Research shows that human-induced warming is dramatically high compared to the last 24 000 years (Osman *et*

al., 2021). This warming affects temperatures and weather patterns, leading to far-reaching consequences. These consequences are explained in subchapters 3.2 and 3.3.

3.2 Summary of Climate Change

The United Nations Intergovernmental Panel on Climate Change (IPCC) concludes that human activity causes warming of the atmosphere, the sea, and land. The global average temperature during the period 2011-2020 was 1.1°C higher than pre-industrial times. According to their analysis it is already unlikely that the Paris Agreement's goal of limiting global warming to a maximum of 1.5°C can be achieved unless global emissions are reduced by nearly 50 percent by 2030 (IPCC, 2023).

Ocean temperatures have increased by approximately 0.6°C in the last four decades (Copernicus, 2022). Compared to pre-industrial times the increase has been 1.2°C (Cheng *et al.*, 2020). Sea levels have risen between 15 and 25 centimetres since 1901 (IPCC, 2019). The IPCC estimates that sea levels will continue to rise by up to half a metre by 2100 under the low emission scenarios SSP-1.9 and SSP-2.6. Under moderate and high emission scenarios, SSP-4.5 and SSP-8.5, the increase could reach 0.76 and one metre, respectively (IPCC, 2022).

Climate change intensifies the strength and frequency of heatwaves, with temperatures and temperature extremes rising both on land and at sea. Droughts will occur more frequently, increasing the risk of wildfires. Floods and inundations will also become more common. Extreme weather events will therefore become both more frequent and more severe (IPCC, 2022).

The climate-related consequences of climate change threaten food and water security. Drought, floods, and extreme weather reduce food security, increasing the risk of hunger crises. Climate change will also harm future soil quality. The ocean is becoming more acidic, which will reduce populations of various marine species (AMAP, 2018). These negative consequences will be most noticeable in Africa, Asia, Central and South America, and the Arctic (IPCC, 2022).

Increased occurrences of flooding, heavy rainfall, drought, wildfires, heatwaves, and reduced food and water security increase the scale of forced migration. The IPCC estimates that between 3.3 and 3.6 billion people live in areas especially vulnerable to climate change (IPCC, 2023). This is a considerable population that may need to leave uninhabitable areas and migrate in the future. Such climate-induced mass migration can place significant pressure on recipient countries.

Climate change affects global economic conditions. Natural disasters cause enormous damage to production capacity, infrastructure, and people. For example, Germany estimates that the floods in the summer of 2021 caused damages worth approximately 33 billion Euros (Trenczek *et al.*, 2022). The re-insurance company Swiss Re estimates that climate events in 2021 caused \$112 billion in damages (Swiss Re Group, 2021a). They also estimate that global GDP will decrease by 4 percent by 2050 if we achieve the goals of the Paris Agreement, but by between 11 and 18 percent if we do not (Swiss Re Group, 2021b). Climate change thus affects the global economy in several ways, leading to extensive security policy consequences in all regions.

The UN projects a global population of 9.7 billion people by 2050 (The United Nations, 2022). A population decline is expected in Europe while the African population is expected to double by 2050 (UNDESA, 2019a, 2019b). The UN estimates that developing countries will make up 87 percent of the global population by 2050. The combination of demographic changes and climate change will result in more people living in climate-vulnerable areas in the future. Climate change disproportionately impacts developing countries today, and these countries will experience the most significant population growth in the coming decades. At the same time these countries are experience rapid urbanisation, which will increase the risk of the spread of infectious diseases. This risk is further exacerbated by the impact of climate change on the future disease landscape.

Global migration has increased in recent decades as a result of technological, economic, political, and infrastructural developments (Beadle *et al.*, 2019: p. 36). Rapid changes in technology and international politics make it difficult to predict migration trends in the future. However, climate change worsens migration drivers, making it likely that migration will increase in the future.

There are several known migration drivers: low economic development, low wages, poor healthcare, limited educational opportunities, and conflict (Beadle *et al.*, 2019; Castelli, 2018). Climate change is expected to exacerbate these drivers. More frequent extreme weather events will provoke more migration. Such migration mainly occurs *within* states, a trend expected to persist (National Intelligence Council, 2021: p. 36). The food and water scarcity resulting from climate change will also drive migration, as more people will have to compete for fewer resources.

Population growth can also lead to increased migration. In the long term population growth can lead to economic growth, but in the short term it can have the opposite effect: increased parental burdens and job opportunities in the country do not reflect the rising population (Headey and Hodge, 2009; National Intelligence Council, 2021). This difference between short-term and long-term effects of population growth can lead to increased migration in the short and medium term.

Migration flows put pressure on and destabilise host countries. The IPCC estimates that a significant portion of the global population already lives in areas particularly vulnerable to climate change. This proportion will increase significantly in the coming decades as climate change becomes increasingly noticeable. In other words, climate change contributes to significant demographic security challenges.

3.3 Climate Change in the Arctic

The Arctic is warming at a rate three to four times faster than the global average warming (Meredith *et al.*, 2019; Norwegian Polar Institute, 2018; Rantanen *et al.*, 2022; The Arctic Council, 2021). Despite some variation in the estimates, researchers agree that climate change is more pronounced in the Arctic than any other region. This has implications for the regional security landscape and military operations, both on land, at sea, and in the air.

In the period from 2011 to 2020, Arctic sea ice has reached its lowest extent since at least 1850. The IPCC projects an ice-free Arctic in September¹ by 2050 in all emission scenarios. Calculations performed by Docquier and Koenigk (2021) suggest that an ice-free Arctic could occur as early as 2035 if emissions continue to rise. Ice contributes to a higher *albedo effect*. According to this effect, surfaces reflect solar energy back into the atmosphere. Brighter surfaces like ice reflect more solar energy, while darker surfaces like the sea absorb it (Budyko, 1969). When the ice melts and more open sea is exposed, solar energy that would otherwise be reflected instead increases sea temperature (Deser *et al.*, 2000).

Arctic sea temperatures are rising as a consequence of climate change. The reduction in sea ice mentioned above amplifies the increase. As water warms its volume increases, leading to a rise in sea level. Additionally, sea volume is affected by salinity. When the Arctic ice melts, it reduces the salinity of the sea. This reduces the density of water, which also contributes to a sea-level rise.

Arctic climate change has consequences on land as well as at sea. Thawing frozen ground that is thawing has negative effects (Schuur *et al.*, 2022). The carrying capacity of the soil is reduced, affecting the military's ability to train and exercise, both independently and with allies. In the worst case, this may necessitate a re-evaluation of the military's land operational concepts as the ground lacks sufficient carrying capacity for the military's vehicles for an increasing part of the year. The Norwegian Defence Research Establishment's (FFI) input to the 2021 Norwegian Defence Commission specifically highlights the increased use of simulators for training as a contribution to solving this issue (Granlund *et al.*, 2022).

The ground is warming even faster than the air in the Arctic, causing permafrost to melt. Thawing permafrost can release both dangerous microorganisms and CO₂ that have been stored in the permafrost. However, the most dramatic consequence of thawing permafrost is the release of large amounts of methane, which worsens regional and global warming further (UN News, 2022).

The extent and frequency of forest fires will increase, and the ground will become more vulnerable to rainfall, leading to more mudslides (Teufel and Sushama, 2019). The heatwave in Siberia in 2020 was characterised by extensive forest fires, even north of the Arctic Circle. A report by the United Nations Environmental Programme (UNEP) has subsequently stated that such Arctic wildfires would have been impossible without human contributions to climate change (UNEP, 2022). Climate change also causes an increase in the frequency of lightning strikes in the Arctic, further increasing the risk of forest fires (Chao-Fong, 2022).

During the Arctic snow season in 2021-2022, there was more snow accumulation than usual, but it melted faster. Shorter winters are a trend that has been observed for a long time (World Meteorological Organization, 2022). This affects the Arctic environment and how Arctic actors can operate in the region, both in civilian and military contexts.

¹ September is the month during which the ice is at its lowest extent after the summer months. Conversely, the ice is at its highest extent in March after the winter months.

3.4 Climate Change as a Threat Multiplier

The consequences of climate change discussed in subsections 3.2 and 3.3 impact existing security threats. For this reason, climate change is often referred to as a *threat multiplier*. A threat multiplier amplifies existing causes of security threats, instability, and conflict (Goodman and Baudu, 2023; Ide, 2023). Goodman and Baudu (2023: pp. 5-6) argue that the designation of climate change as a threat multiplier makes three important contributions:

- It demonstrates that threats do not solely arise from climate change itself, but also how they affect other factors.
- It highlights the impact of climate change on armed forces.
- It contributes to strengthening the political will to address the issue by recognising that climate change is also a challenge to national security.

4 Theoretical Foundation

This chapter outlines four theories that form an important part of the foundation of the analyses in this report: i) weaponised migration, ii) the democratic peace theory, iii) securitisation theory, and iv) power transition theory.

4.1 Weaponised Migration

Weaponisation of migration seeks to use the destabilising potential in a high number of migrants in a short time period to provoke desired political change in a target state (Bachmann and Paphiti, 2021).

The most common form of weaponised migration is *coercive*, where the aim is to threaten with or facilitate a migration flow to provoke political change in an adversary (Greenhill, 2008: p. 8). Usually such political change is expected to occur after an exacerbation of polarisation in the target state as a result of the migration wave (Greenhill, 2010; Olson, 1965). Four types of actors weaponise migration: powerful states (such as Russia), proxy states (such as Belarus), weak states (such as Ukraine), and non-state actors (such as militias) (Fakhry *et al.*, 2022a). Russia has already used this strategy against Norway and Finland, and Belarus notably used this strategy against the EU by opening its borders to Poland and Latvia.

Many states commit to various international standards, particularly regarding human rights, often based on their values, such as France's motto "equality, liberty, fraternity." How these states handle a migration wave can reveal a gap between their declared commitments and their practices, leading to strong criticism (Greenhill, 2008: 132). This is referred to as a *hypocrisy cost*.

In Europe, a population decline of 2.6 percent is expected by 2040, whereas in Africa, a significant population growth of approximately 25 percent is projected during the same period (UNDESA, 2019a, 2019b). Developing countries in South Africa and South Asia will account for the majority of global population growth while urbanising rapidly. The UN estimates that developing countries will encompass as much as 87 percent of the global population by 2050. Consequently, they will struggle to develop sufficient infrastructure to handle these changes (National Intelligence Council, 2021). While this growth presents long-term opportunities, in the short and medium term, it is likely to lead to increased migration from developing countries to industrialised nations.

Weaponised migration may become a more attractive strategy as climate change leads to increased migration. Developing countries, especially in Africa, will experience more of the security policy consequences of climate change earlier and more intensely than other regions: population growth, urbanisation, economic challenges, and higher levels of conflict (Eckstein *et al.*, 2021: p. 15). Migration flows provide opportunistic states with more opportunities to exert pressure. Therefore weaponisation of migration becomes a low-cost strategy that can be employed by states with few other strategic advantages (Fakhry *et al.*, 2022b). Due to the influence of climate change on migration drivers, the global community, especially the West, must prepare for more frequent use of weaponised migration (Wright, 2023).

Both the use of weaponised migration and any countermeasures against it pose significant ethical dilemmas. On the one hand, national security must be safeguarded regardless of the nature of the threat. On the other hand, humanitarian aspects of migration must be taken into consideration. Both the EU's handling of the migrant wave in 2015 and Poland's management of migration in the winter of 2021/2022 were strongly criticised by several organisations, including Human Rights Watch and Amnesty International (Amnesty International, 2022; Human Rights Watch, 2021). These events illustrate the ethical dilemmas in the use and handling of weaponised migration well.

4.2 The Democratic Peace Theory

According to the Democratic Peace Theory, democracies do not fight other democracies. This occurs because democracies tend to pursue more peaceful foreign policies, because democracies tend to be friendlier towards other democracies, or because an international system containing more democracies tends to be more peaceful.

There are two main explanations for the democratic peace. One argues that democratic systems make war an unattractive political decision for both elected officials and the general public. The costs associated with war are high and affect most voters (Russett, 1993, 2009). The other explanation suggests that shared liberal values reduce the occurrence of wars (Elman, 1997). Liberal democratic values make peaceful conflict resolution more attractive and increase trust in a counterpart.

According to the organisation *Freedom House*², freedom and liberal rights have declined for the 17th consecutive year (Freedom House, 2023). While changes in international politics make the future security landscape uncertain, climate change threatens people's livelihoods in all countries around the world. Democracy and liberal values have been an important safeguard against conflict in the face of changes in the framework of international politics. With the weakened international standing of democracy, climate change may have an even stronger impact as a security threat.

Hanusch (2017) demonstrates that the degree of democracy positively influences climate policy in established democracies. The stronger a democratic regime becomes the more effective climate policies become. This conclusion does not apply to young or emerging democracies. There is, therefore, no basis for claiming that democracy leads to better climate policy regardless of how well-established the democratic form of government is. In light of this, the reduction in the number of democracies worldwide can be interpreted as a warning sign. Young democracies have the opportunity to become well-established democracies, strengthening the conditions for sound climate policy. When they instead revert to autocratic governance this opportunity is lost.

Although established democracies generally pursue better climate policies than non-democracies, there is considerable variation. No country achieves the "very high" category in the ranking by the organisation *Germanwatch*³. Democracies such as Germany, the United Kingdom, and the Scandinavian countries all score "high." Simultaneously, well-established democracies like the United States⁴ and Canada score "very low." This is the same ranking as China and Russia (Burck *et al.*, 2023). Democracy does not automatically guarantee better climate policy in a country.

4.3 The Securitisation Theory

The Securitisation Theory describes a process in which actors, primarily state actors, argue for the transformation of a phenomenon into a security threat, thereby permitting extraordinary measures to address that threat.

² Freedom House is an American foundation researching democracy, political freedom, and human rights.

³ Greenwatch is a German non-governmental organisation working on trade, environment, and global north-south relations. Their ranking, the *Climate Change Performance Index*, is published annually.

⁴ The democratic ranking of the US has weakened over time. Since 2016 the US has been considered a *flawed democracy*.

The securitisation theory was introduced by Buzan *et al.* (1998). The process consists of two main parts: a securitisation attempt where a phenomenon is presented as a threat, and approval from an "audience" (Greaves and Pomerants, 2017). In a democracy the "audience" is typically the public and their elected representatives (Wertman and Kaunert, 2022). Other actors, such as the media, can also play this role (Salter and Mutlu, 2013).

Securitisation theory is based on an understanding of the concept of security as context-dependent, rather than the material focus of traditional security-thinking on power distribution, military capabilities, and the polarity of the world order (Greaves and Pomerants, 2017). If there is a sufficiently strong will to define a phenomenon as a security threat, it can *de facto* become a security threat, regardless of formal definitions. In the field of international political sociology, it is argued that securitisation does not necessarily occur through securitisation attempts by a powerful individual, but through bureaucratic processes and decisions (Bigo, 2008: p. 126).

Climate change has not undergone a complete securitisation process (Warner and Boas, 2019). Several unsuccessful attempts have been made from various quarters. The threat of climate change has neither an enemy nor a "hero" – such as armed forces, police, or ICT experts – to combat the threat. Therefore, the public often gets the impression that the threat is so comprehensive and acute that there is no solution (Warner and Boas, 2019). Bigo (2002) describes this as "unsecuritisation." The public feels helpless and is more comfortable ignoring the problem.

The securitisation process becomes challenging when the threat is a potential event in an uncertain future (Corry, 2012). Baldwin *et al.* (2014) point out that the debate is characterised by *futurology*, meaning the future is central. This makes it difficult to securitise climate change today. In this context, Warner and Boas (2019) identify another important factor, namely that the public is rarely a monolith. Different socio-political groups have different views on climate change and its consequences, resulting in varying susceptibility to securitisation. At the same time, one must separate theory from reality. From a purely theoretical perspective, it can be concluded that the securitisation of climate change has failed. In reality, the securitisation process is ongoing but time-consuming (Thomas, 2013).

4.4 The Power Transition Theory

The Power Transition Theory argues that power balance increases the risk of war, while power imbalances reduce states' incentives to use armed force to challenge a reigning hegemon (Organski, 1958).

Today the theory of power transition is often linked to the competition between the United States and China (e.g. Kim and Gates, 2015; Lemke and Tammen, 2003; Zhao, 2022). States that approach the power level of the reigning hegemon will want to challenge the hegemon's position. After a possible victory, power is transferred from the old to the new hegemon. In a historical

perspective, hegemony has been achieved by various countries at different times (Wittkopf, 1997). The interwar period is considered a rare period in which no one achieved hegemonic power. After World War II, the world's first superpowers emerged – the United States and the Soviet Union. Today, the United States remains the sole superpower.

Tammen *et al.* (2017) link the Power Transition Theory to the Democratic Peace Theory and argue that democratic peace can be seen as a product of the absence of incentives to challenge the incumbent hegemon. Democratic countries that are satisfied with the status quo have established an international system based on liberal democratic values, trade, and rules. Democratic countries do not go to war with each other because they are part of and benefit from this system. Lemke and Reed (1996) show this empirically: Mutual satisfaction with the status quo has a greater preventive effect against war than mutual democracy.

Climate change affects the two central factors in the Power Transition Theory: power and state satisfaction. Power can be difficult to measure, but typically involves military capabilities, economics, and demography (Rodin, 2022). Climate change has significant implications for all these factors. Economic growth is weakened, demographic compositions change, and military and civil infrastructure is threatened. This means that reigning hegemons may face greater challenges in maintaining their hegemony. Today, the United States is considered a global hegemon – this discussion revolves around how climate change affects one global hegemon, as well as smaller regional hegemons.

Climate change can also open new areas for resource extraction and trade, which may necessitate negotiations. In such a situation it may become more difficult for a hegemon to maintain the support of other states for the *status quo* (Rodin, 2022). The impact of climate change on the economy and infrastructure, in conjunction with demographic trends, forces both great powers and other states to prioritise their own spending. Particularly welfare and healthcare services will consume increasingly greater economic and material resources, which may reduce spending on defence. Therefore, climate change can decrease states' satisfaction with the *status quo* and the reigning hegemon while also weakening their ability to challenge the hegemon.

5 Actors in the Arctic

This chapter discusses Level 2 of figure 2.1. The actors are divided into two main groups. In addition, the Arctic Council is discussed.

5.1 NATO, the EU, and the US

5.1.1 Norway

Norway launched its overarching security policy goal for the Arctic in 2010: low tensions in the Northern areas (Østhagen, 2021; Ålander, 2023). The mantra "High North, Low Tension" was used in English. This security policy goal has guided Norwegian policy for over a decade, but Russia's invasion of Ukraine in 2022 reduced regional cooperation to a minimum (Ålander, 2023).

Norway's latest Arctic strategy was launched in 2021 in *White Paper No. 9*⁵, "People, Opportunities, and Norwegian Interests in the North,"⁶ with four concrete objectives: peace, stability, and predictability; international cooperation and the rule of law; comprehensive and ecosystem-based management; increased job and value creation; closer collaboration between businesses and knowledge institutions; and a good quality of life and welfare (Meld. St. 9, 2021). The political strategy places significant emphasis on development, the economy, sustainability, and cooperation, but it also includes a military perspective. Since 2007, Norway and Iceland have argued for an increase in the number of NATO forces in the North due to Russia's increased military presence in the Arctic (Lackenbauer and Ryan, 2020).

Wilhelmsen and Hjermmann (2022) document a change in Norway's attitude towards the Arctic over the past eleven years. Until around 2012, the Norwegian-Russian relationship was strongly influenced by Arctic exceptionalism. Despite growing global tensions, both countries worked to maintain the good regional relationship that had existed during the Cold War. Since 2012, the relationship between Norway and Russia has deteriorated. Russia's annexation of Crimea in 2014 altered Russia's relationship with the West, which also affected Norway's view of Russia as an Arctic actor. Regional cooperation continued, but Russia was seen as a potential rule-breaker (Wilhelmsen and Hjermmann, 2022).

5.1.2 Denmark

Denmark is an Arctic state by virtue of its autonomous territories, Greenland and the Faroe Islands. Only the former territory is located within the Arctic Circle, but the Faroe Islands are still considered important in Denmark's Arctic strategy (Østhagen, 2020). Denmark's Arctic challenge

⁵ In Norwegian, White Papers are referred to at *Stortingsmeldinger*.

⁶ Norwegian title: Meld. St. 9 (2021) Folk, muligheter og norske interesser i nord.

is unique, as the kingdom itself is small and belongs to the European continent. The kingdom's Arctic territories are vast in size and quite distant.

Russia planting a Russian flag on the Arctic seabed in 2007 marked a contemporary watershed in Danish Arctic policy. The event led to a re-evaluation of Denmark's role in the Arctic by both the Ministry of Foreign Affairs and the Ministry of Defence (Rahbek-Clemmensen, 2016). In contrast to Norway, which has prioritised the Arctic since 2005, the Arctic became one of three focus areas in Denmark's new foreign policy. Denmark's approach to the Arctic in the period from 2011 to 2020 was fourfold: peace and security, international cooperation, climate, environment, and nature, and sustainability (Serova *et al.*, 2020). These areas remain central to Denmark's Arctic strategy, but the backdrop has undergone significant changes.

The Danish government published a new foreign and security policy strategy in May 2023. It highlights the Arctic as a central strategic area for Denmark and cites great power rivalry, Russia's military build-up in the region, and increased unpredictability following the invasion of Ukraine as key reasons for this emphasis. Based on this, Denmark aims to work to ensure that international tensions do not lead to a confrontation in the Arctic. China is described as a political challenge in the region rather than a direct security threat (Government of Denmark, 2023).

Denmark believes that Finnish and Swedish NATO membership enhances security in the Arctic and has the ambition to meet NATO's two percent spending target by 2030. This is considered a necessity to deter Russia in the east and in the Arctic (Government of Denmark, 2023).

5.1.3 Iceland

Iceland published an Arctic strategy in 2011, focusing on the same areas as other Arctic countries: security, international cooperation, human impact on climate, social development, and economic growth. Additionally, Iceland promoted itself as a platform for dialogue in the Arctic (Serova *et al.*, 2020).

In October 2021, Iceland's government released a new strategic document for the Arctic (Government of Iceland, 2021), based on 19 key areas. The Icelandic government emphasises Iceland's role in the Arctic, the importance of the Arctic Council and the Law of the Sea Convention, climate change, sustainable resource utilisation, security, business, relations with neighbouring countries in the region, and indigenous rights (Government of Iceland, 2021).

Like Norway, Iceland is a member of NATO, EFTA, and the EEA, but not the EU. However, the country is closely connected to EU policies. Iceland is an important NATO member in the Arctic. NATO has been responsible for defence and sovereignty assertion in Iceland's airspace since 2008 (The Arctic Institute, 2023).

5.1.4 The US

Through the state of Alaska, the USA is an Arctic state (Congressional Research Service, 2021). However, the United States' Arctic interest has long been very limited, and the country became known as a "reluctant Arctic actor" (Huebert, 2009; Nilsson, 2018; Østhagen, 2011). Since the publication of the Arctic Policy Directive in 2009, the US prioritisation of the Arctic has varied. The 2009 directive stated that the USA is an Arctic state with interests in the region and presented concrete policy measures. This continued regularly throughout President Obama's tenure (2009-2017). The Trump administration published a strategic document in 2017 in which the Arctic is mentioned only once, emphasising the importance of openness and freedom in the Arctic (The White House, 2017: p. 40). Since 2017 both American interest and presence in the Arctic have increased (Wegge, 2019). The Biden administration published an Interim National Security Strategic Guidance Document in March 2021 that does not mention the Arctic (Congressional Research Service, 2021). On a broader level, the U.S. national security strategy identifies great power competition with Russia and China as the most critical global security trend (Pincus, 2020). While the Arctic is not mentioned specifically, the security strategy addresses Arctic challenges.

In 2022, the USA published the National Strategy for the Arctic Region, marking an American return to the region. The USA seeks a peaceful, stable, and cooperative Arctic region. The US Arctic strategy for the next decade consists of four goals: security, climate change, and environmental policy, sustainable economic development, and international cooperation for Arctic development (National Strategy for the Arctic Region, 2022). Nilsson (2018: p. 104) demonstrates that American policy in the Arctic since the acquisition of Alaska in 1867 has been consistently economically motivated, with resource access as the primary motivation. This is a priority that is continued in the National Strategy for the Arctic Region. The strategy also promotes various other policy areas, such as climate change (Coninx, 2022; Nilsson, 2018).

5.1.5 Canada

Until 2023, Canada's perception of threats in the Arctic was not described in a single document; it had to be inferred from various public documents on foreign, security, and defence policy (Lackenbauer and Sergunin, 2022). The Arctic Strategy from 2019 emphasises economic development, infrastructure, sustainability, and Canada's indigenous population (Government of Canada, 2019a). The Canadian government's press release regarding the strategy summarises Canada's ambitions for the Arctic as follows: "Our vision for the Arctic is a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant Northern communities, and healthy and productive ecosystems" (Government of Canada, 2019b).

In 2022, the Senate Committee on National Security, Defence, and Veterans Affairs in the Canadian Senate began working on an unclassified threat assessment of the Arctic. The threat assessment was presented in June 2023 and concludes that Canada is militarily vulnerable, economically underdeveloped, and threatened by climate change in the Arctic. Furthermore, there

is a need for significant increases in investments in infrastructure and defence forces in the region (Senate National Security Defence and Veterans Affairs committee, 2023).

5.1.6 NATO

The Arctic has long received little attention from NATO due to the region's robust peaceful relations (Coffey and Kochis, 2021). Four factors suggest that the Arctic has become a much more important region for NATO: Finland has become a member of NATO, Sweden will soon become a member of NATO, NATO Secretary-General Jens Stoltenberg visited the Canadian part of the Arctic for the first time in 2022, and the Arctic region was mentioned for the first time in NATO's strategic concept in 2022 (Baudu, 2022; NATO, 2022). Stoltenberg also described the Arctic as a peaceful region increasingly marked by global tensions. Due to increased Russian and Chinese activity in the region, NATO has increased its activities and presence in the north, especially through exercises (Stoltenberg, 2022).

Like the EU, NATO is also a relevant Arctic actor by virtue of its Arctic members: the USA, Canada, Norway, Iceland, and Denmark. Finland was granted NATO membership in April 2023, while Sweden received support from all members in July 2023. With this, Russia becomes the only member of the Arctic Council that is not a NATO member. In addition, Norway's current role as "NATO in the north" will change. Collective security, both in general and specifically in the Nordic region, is increasingly defined by the NATO alliance. This affects the security landscape in the Arctic and the interpretations of the Arctic states.

5.1.7 The European Union

In 2021, the EU published its new Arctic policy (The European Union, 2021). It emphasises that peaceful, secure, stable, and sustainable conditions in the Arctic are important for both the region and the world. The strategy points out that the primary responsibility for the Arctic territory lies with the Arctic states, but several challenges in the area are transboundary (Den europeiske union, 2021). As part of the strategy, an EU office was established in Greenland, and EU funds were earmarked for the green transition in the Arctic (The EU Commission, 2021). Sweden, Finland, and Denmark are both EU members and members of the Arctic Council. Norway and Iceland have close ties to the EU through the EEA agreement and EFTA. Thus, the EU can be viewed as a relevant Arctic actor due to its role as an international organisation and its several Arctic member states and partners.

The European Commission announced its Green Deal in 2019 with the goal of achieving a climate-neutral EU by 2050, economic growth independent of resource consumption, and inclusivity (The EU Commission, 2019). Early in 2020, the plan received support in the European Parliament (European Interest, 2020). In connection with the Green Deal, the Commission introduced the Fit for 55 package in 2021, aiming to reduce the EU's greenhouse gas emissions by 55 percent by 2030 (The European Council, 2023). The announcement, launch, and implementation of the EU's climate plan influence the EU's Arctic engagement and climate policies for European countries both inside and outside the EU. The further development of the

plan will be crucial for the climate and security landscape in the Arctic, both towards the 2030 milestone in Fit for 55 and the 2050 milestone in the Green Deal.

5.1.8 The Arctic Council

Canada, Denmark, Finland, Iceland, Norway, the Soviet Union, Sweden, and the USA adopted the Arctic Environmental Protection Strategy in 1991. In 1996, these same countries (with Russia replacing the Soviet Union) decided to expand the agreement to encompass cultural, economic, and social development in the Arctic through the Ottawa Declaration (Lundbo, 2023; Ottawa Declaration, 1996). This led to the establishment of the Arctic Council. The composition of great powers, NATO members, and permanent members of the Security Council in the Arctic may appear challenging, but they are all members or observers in the Arctic Council, an institution contributing to dialogue and diplomacy in the region (Charron, 2022).

Climate change has become increasingly evident in the Arctic, and geopolitical interest in the region has grown (Barry *et al.*, 2020). In recent years, council members have also increasingly focused on Arctic geopolitics, including more frequent discussions about boundaries in the Arctic (Barry *et al.*, 2020; Serova *et al.*, 2020). Every six months, members and observers gather for a Senior Arctic Officials meeting (SAO meeting). During these meetings, a non-binding declaration is developed. The Ottawa Declaration specifies that the Council should not address issues related to military security (Ottawa Declaration, 1996). The USA has expressed that this should change (Dams *et al.*, 2020).

Just a few days after Russia's invasion of Ukraine in 2022, Canada, Denmark, Norway, Iceland, Finland, Sweden, and the USA announced that they would not participate in Arctic Council meetings during Russia's chairmanship. In June 2022, these countries announced that they would resume cooperation in selected projects that did not involve Russia (Schreiber, 2022).

The Arctic Council is based on soft power, focusing on culture and politics to persuade, rather than hard power, with an emphasis on military and economic power to enforce agreement. An Arctic Council based on soft power has played a significant role in maintaining a peaceful Arctic. When it comes to security policy in the Arctic, the Arctic Council since February 2022 has demonstrated a much more limited role.

5.2 Russia and China

5.2.1 Russia

After the dissolution of the Soviet Union, Russia initially considered the Arctic to be a region of low importance until a revitalisation occurred in the early 2000s (Boulègue, 2019). Both during and after the Cold War, Russia emphasised the importance of peaceful conditions in the Arctic while building up military forces on the Kola Peninsula (Sergunin and Konyshchev, 2015; Urban,

2021). As a result, Russia now has significantly more developed Arctic infrastructure than the USA and NATO countries in the region (Trebukh *et al.*, 2020).

Russia's Arctic strategy of 2020 describes a conflict potential in the Arctic that necessitates Russian militarisation as a preparedness measure (Lavikainen, 2021). However, the size of land-based forces has been reduced to about one-fifth of their original size at the beginning of the war in Ukraine, as 80 percent of land forces were sent to the conflict (Kuczyński, 2023). Rebuilding these forces will take a long time. Airborne and maritime forces are not as weakened, and the number of combat aircraft in the Kola region has not been significantly reduced, while the capabilities of the Northern Fleet remain intact (Kuczyński, 2023; Solvang, 2023).

Russia's Northern Fleet includes several of Russia's strategic weapons. Russian defence and security thinking largely considers Russia to be surrounded by NATO and Western-oriented countries (Boulègue, 2017; Milano, 1998). Russia has modernised base structures and infrastructure in the Arctic, tested new weapon systems, simulated missile attacks on neighbouring countries, and launched various influence operations to spread disinformation (Wither, 2021: pp. 650-51). Analysts and researchers agree that Russia is not able to cope with the overall economic pressure from its Arctic ambitions related to security, economy, environment, and society (Kluge and Paul, 2020; Sergunin, 2019).

In the 1990s, Russia was considered absent from the Arctic, especially when compared to the Soviet Union's involvement during the Cold War and Russia's engagement from the 2000s. Cooperation in the 2000s was marked by regional pragmatism that was largely unaffected by external factors. While pragmatism and regional cooperation persisted, Russia began expressing concerns about NATO's possible entry into the Arctic in 2012. This – self-defence – became a significant rationale for Russian military build-up in the region. Since 2014, Russia has increasingly characterised Norway as a NATO and US vassal in the north (Wilhelmsen and Gjerde, 2018). Following Russia's invasion of Ukraine and the subsequent sanctions against Russia, this rhetoric has intensified.

The Russian Arctic zone is especially important to Russia: 95 percent of Russian natural gas production and 70 percent of oil production come from the region. In addition, Russian geologists have discovered oil and gas deposits at about 200 locations. Russia extracts significant mineral resources in the region, and around 80 percent of untapped oil and gas resources are located within Russian territory (Blakkisrud, 2018). This makes the Arctic a strategically vital region, particularly for Russia, due to its rich resources.

Approximately one-third of all Russian fish is caught in the Arctic. Russia aims to increase this share by 2030, especially as rising sea temperatures lure new fish species northward (Rumer *et al.*, 2021). Russia has significant economic interests in the Arctic. In both 2015 and 2021, Russia expanded its claims on territory in the Arctic. The extended claim in 2021 overlaps with both Danish and Canadian claims (Commission on the Limits of the Continental Shelf, 2021).

Russia's current military doctrine was approved in 2021. The doctrine is based on the concept of "active defence," which involves limited demonstration or use of force to deter opponents (Kofman *et al.*, 2021), including hybrid means over an extended period. The Arctic is one of five strategic areas in the Russian doctrine. Unlike previous doctrines, the 2021 doctrine suggests that the threshold for the use of nuclear weapons has been lowered. This is a significant point in the Arctic context, as several strategic weapon categories are stationed on the Kola Peninsula. According to the doctrine, territorial claims against Russia, the expansion of hostile alliances, troop build-up on land or at sea near Russia, and the disregard of Russian security interests are considered important external threats (The Arms Control Association, 2021).

Russia also launched a new maritime doctrine in 2022, with major ambitions for the Arctic. It describes the need to strengthen military preparedness in the Northern Fleet, acquire more advanced weapons, and enhance control over foreign military activity in the Arctic (Davis and Vest, 2022). Boulègue (2022) summarises this part of the doctrine as an increase in military exercises, more weapon tests, and an increased number of grey zone activities like cable cutting. Furthermore, the development of civil-military cooperation in the Arctic is important in the doctrine (Davis and Vest, 2022). This includes, for example, using civilian vessels for military purposes and equipping civilian icebreakers with weapons (Boulègue, 2022). The doctrine specifically mentions oil resources located in the Russian zone and the growing great power rivalry in the Arctic as the reasons for the doctrine's Arctic focus (Vázquez, 2023).

Almost 50 percent of the Arctic coastline is Russian territory. The Arctic ice provides valuable cover for this coastline. Melting ice in the Arctic is a concern for Russia, given the strategic implications of losing this natural protection (Boulègue, 2017). The ice has also provided essential cover for Russian submarines with strategic weapons. The effects of climate change in the Arctic are of great interest to Russia, as their strategic submarines are stationed on the Kola Peninsula.

The Arctic ice has given Russia significant economic power in the Arctic. The United Nations Convention on the Law of the Sea (UNCLOS) grants countries with Arctic coasts enhanced sovereignty over trade routes along these coastlines. Article 234 of the convention gives countries the right to regulate maritime traffic along these trade routes as long as the area is ice-covered for most of the year (UNCLOS, 1982). For years, Russia has used the convention, especially Article 234, to promote its own economic and geopolitical interests. An example is that Russia requires that all vessels passing through the Northern Sea Route (marked in green in Figure 5.1) be directed by Russians, pay a toll, and provide advance notice of their voyage along the route (Lynch *et al.*, 2022). If climate change leads to the route becoming ice-free for much of the year, Russia's *de jure* power in the Arctic will be reduced.

Taken together, these effects on the Arctic coast represent a strategically double-edged sword for Russia. The sea route provides Russia with significant economic power, while climate change increases Russian strategic vulnerability. Russia views the Arctic as a vital exit to the world's oceans, especially the Atlantic Ocean (Rumer *et al.*, 2021). This results in very high Russian interest in the Arctic.

The short-lived uprising by the Russian private military organisation Wagner Group on June 23, 2023, has had important consequences for Russia's future, according to several analysts. Putin's strength as a leader has been weakened, and his regime has begun to show cracks (Bailey *et al.*, 2023). The incident suggests that Russia's patterns of action could become far more unpredictable given the country's more turbulent domestic situation, which could make Russia more unpredictable in the Arctic.

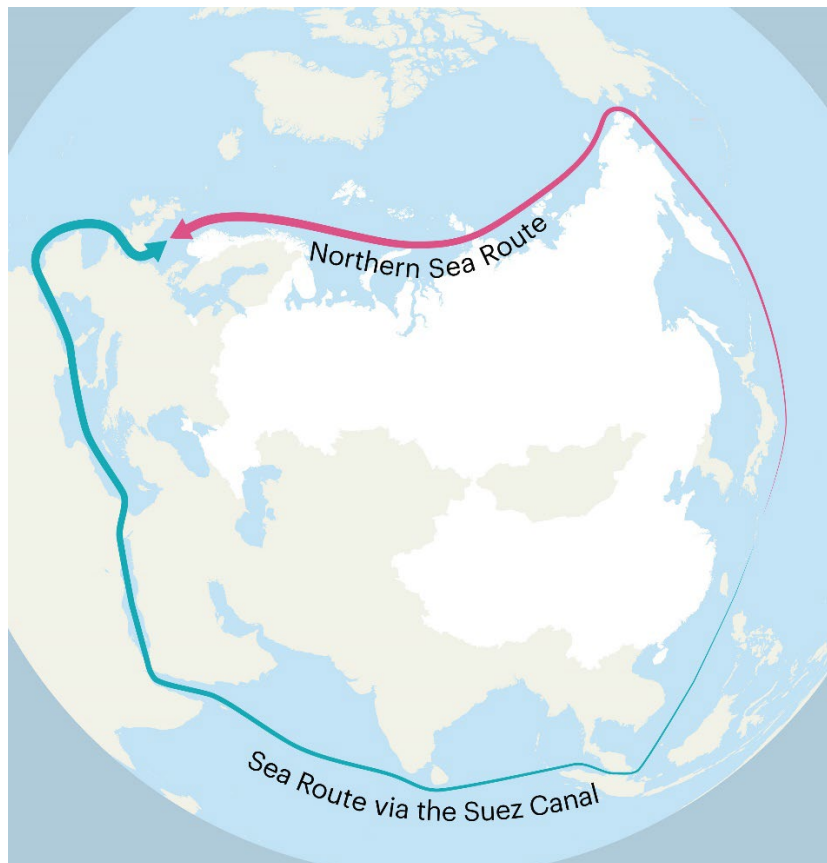


Figure 5.1 The Northern Sea Route is a considerably faster alternative to the sea route through the Suez Canal. The map was retrieved from the final report of the Norwegian Defence Commission of 2021 (Norwegian Defence Commission of 2021, 2023).

5.2.2 China

China has defined itself as a "near-Arctic" state with interests in the region and sees itself as a significant Arctic actor (Kossa, 2020). In 2013, China obtained observer status in the Arctic Council after several years of effort. This should be viewed in the context of China's global great power ambitions (Sun, 2014). Russia is China's closest partner in the Arctic, but it was still Russia

that expressed the most opposition to China's observer status. In particular, the Russian military was sceptical of Chinese interest in the Arctic (Pincus, 2020).

In 2018 China published its first Arctic White Paper, describing the country's relationship with, views on, and strategy in the Arctic. China aims to play an active role in the Arctic based on respect for the UN Charter and UNCLOS, contribute to the development of international rules in the Arctic, and safeguard the interests of all countries in the region (The State Council Information Office of the PRC, 2018). This can be seen as China believing that the existing legal framework should be respected but also developed over time (Xinmin, 2019). China seeks to contribute to this based on four areas: respect, cooperation, "win-win," and sustainability (The State Council Information Office of the PRC, 2018).

Towards the end of the 2000s, China caused concern through what was perceived in the West as a Chinese desire to internationalise the Arctic (Lackenbauer *et al.*, 2022). This resulted in a significant change in China's Arctic policy: they would respect the regional rules set by the Arctic states (Lackenbauer and Ryan, 2020). This is evident in China's efforts to build bilateral relationships in the Arctic. However, China's activities in the Arctic have raised concerns among some of the Arctic countries. The Norwegian Intelligence Service warned in its unclassified threat assessment from 2021 that Chinese installations in the Arctic could be used for both non-military and military purposes (The Norwegian Intelligence Service, 2021: pp. 77).

China's willingness to cooperate on the terms of the Arctic states is not based on charity. Due to the significant natural resource deposits on the Arctic seabed, China has heavily invested in icebreakers, research, and mining in the Arctic (Wegge, 2019; Østhagen and Rottem, 2020). Additionally, the melting Arctic ice opens valuable trade opportunities for China. The route through the Arctic is much shorter than other trade routes between China and its trading partners.

5.3 Summary

The members of the Arctic Council (excluding Russia), the EU, and NATO prioritise the sustainable development of the Arctic in accordance with the Arctic strategies of the states. Russia, on the other hand, apparently prioritises further exploitation of natural resources in the Arctic. China seeks access to resources and faster trade routes (Serova *et al.*, 2020). This appears to conflict with the other countries' focus on sustainability.

The United States aims to reduce Russian and Chinese influence in the Arctic, but these two countries are unlikely to give up their own ambitions in the region (Raikov, 2022). This may turn the great powers' influence in the Arctic into a so-called "indivisible good," or a zero-sum game - what one actor wins, another must lose. The rival interests of great powers, both in and outside the Arctic, increase both the level of conflict and the risk of unwanted incidents.

In addition to the different goals and ambitions of Arctic actors within the Arctic itself, international relations have also played a much more significant role in the region, especially

since Russia's invasion of Ukraine. The Arctic actors, especially Russia/Soviet Union and the USA, have had their own goals in the Arctic since 1945, but these goals have been able to coexist with Arctic exceptionalism. At present, the situation is entirely different. International tensions and the increasing great power rivalry weaken the regional conditions that, until 2022, ensured that actors and their sometimes-conflicting goals could coexist in a peaceful and stable Arctic.

6 Consequences for Norwegian Security Policy

This chapter analyses the impact of climate change (Level 1 in Figure 2.1) on the security landscape in the Arctic (Level 3 in Figure 2.1) through the factors in Level 2. The chapter is structured according to nine key areas where the impact is significant.

The Arctic region has long been exempt from tensions in world politics (Gjørv and Hodgson, 2019; Østhagen and Rottem, 2020). In 1987, Gorbachev gave his famous speech referring to the Arctic as a "zone of peace." In 2013, Norway used the slogan "high north, low tension," and in 2014, Russia referred to the Arctic as a "territory of dialogue" (Gorbachev, 1987; Tass, 2014; Thune, 2013). This has changed since Russia's invasion of Ukraine in 2022. The invasion and the subsequent Western sanctions have put Russia in a challenging economic situation. This makes the country's business interests in the Arctic, mainly in natural resources and tourism, more important. In addition to this, the Russian Northern Fleet, which houses Russia's strategic weapons on the Kola Peninsula, is located in the Arctic. Russia has built up these forces, especially on the Kola Peninsula (Sergunin and Konyshov, 2015; Urban, 2021). However, the size of conventional forces has been significantly reduced as a result of the war in Ukraine. Russia has also tested new weapon systems, simulated missile attacks on neighbouring countries, and conducted a range of influence and disinformation operations.

Global insecurity and instability exacerbate the security situation in the Arctic compared to the relatively good inter-state relations that have characterised the region in recent decades (Gjørv and Hodgson, 2019; Wegge, 2019). This uncertainty and instability are worsened by climate change. If the international order further deteriorates, it is more likely that conditions in the Arctic will become even colder. Rottem (2010), Østhagen and Rottem (2020), and Urban (2021) argue that the risk of escalation is very low since the Arctic today is characterised by locally peaceful conditions even though multilateral relations are tense (Rottem, 2010; Urban, 2021; Østhagen and Rottem, 2020).

There is little evidence to suggest that an armed conflict over Arctic territories, resources, or other factors in the Arctic region will break out. Rather, the security risk in the Arctic is influenced by whether international tensions "leak" into the region and to what extent this happens, as pointed

out by Østhagen (2021). Even though climate change in the Arctic has unique features, it is not solely an Arctic phenomenon; it is a global phenomenon that plays a regional role in the Arctic.

6.1 Resources in the Ocean and on the Ocean Floor

Less sea ice and higher ocean temperatures render considerable natural resources more accessible.

It is estimated that approximately one-fourth of the world's undiscovered oil resources are located in the Arctic (Gautier *et al.*, 2009). Additionally, there is a high occurrence of various minerals and other resources in the region. It is estimated that about 80 percent of these resources are within Russian territory. Reduced Arctic ice also opens new trade routes. Due to these changes, there is already an increased interest among Arctic countries to assert sovereignty in the region.

It is important to note that some of the above-mentioned resources are being extracted today. This is not cost-effective. Therefore, the situation does not imply that Arctic nations will move into the Arctic to assert sovereignty over newly discovered resources. The impact on the Arctic security landscape comes in the form of increased interest from several Arctic countries, as well as China, which may lead to heightened competition in the region.

6.2 Russia and China

6.2.1 Russian Military Capabilities

Russia has three overarching military objectives in the Arctic: protecting the second-strike capability of the submarines stationed on the Kola Peninsula, the ability to operate in the North Atlantic in the event of an armed conflict with NATO, and the economic development in Russia's Arctic territory (Rumer *et al.*, 2021). Climate change negatively affects Russia's military capabilities in the Arctic in two significant ways according to Russian strategic documents. These include i) damage to infrastructure, a significant threat to Russia's extensive network of bases in the Arctic (Presidential Executive Office, 2021), and ii) natural disasters as a threat to Russian maritime activity (Davis and Vest, 2022).

The Arctic ice serves as an important buffer that obstructs maritime traffic between North America and Russia. Furthermore, the ice provides valuable cover for submarine operations. In the 1980s, the Arctic Ocean was described as "a beautiful place to hide a submarine" by the American Chief of Naval Operations James Watkins (Polmar and Whitman, 2016: p. 157). The ice provides effective concealment: it is difficult for both surface vessels and airborne craft to employ their systems against submarines, and movements in the ice generate useful background noise that masks the submarines' activities (Pedersen, 2019). As the ice melts, it introduces

freshwater into the sea, reducing seawater salinity. Melting ice also reduces the albedo effect (see Chapter 3), increasing sea temperatures. This affects sound waves because salinity and temperature impact seawater density (Mackenzie, 1998). Arctic ice melting affects the cover that submarines can obtain from both the ice and the sea itself in the future.

6.2.2 The Maritime Delimitation Treaty

Norway and Russia signed the *Maritime Delimitation Treaty* in 2010. The treaty formally establishes the maritime border between Norway and Russia in the Barents Sea and regulates fisheries cooperation and exploitation of trans-border petroleum resources.

Norway and the Soviet Union (and Russia after 1991) have been trying to reach an agreement on a division line for the continental shelf since 1957. This goal was not achieved until the parties signed the division line agreement in 2010 (Government of Norway, 2014).

Russia has long had an ambivalent relationship with international agreements, rules, and conventions that they perceive as contrary to the Russian worldview. Russia bases its understanding of international law on the UN Charter and Security Council resolutions, rejecting the rules-based world order they see as a Western tool. In this manner, Russia leaves room to disregard commitments to human rights and democracy (Remler, 2020).

In July 2022, members of the Russian Duma stated that they wanted to consider scrapping the division line agreement (NTB, 2022). In the same month, Julie Wilhelmsen of NUPI stated that this should not be interpreted as an empty threat given Russia's pattern of actions over several years (Borg, 2022). According to her, Russia increasingly views Norway as part of the hostile West, especially after the introduction of several sanctions following Russia's invasion of Ukraine (Løf, 2022). Additionally, Russia accused Norway of building up its military presence on Svalbard in October 2022. The situation in the Arctic is highly tense.

Due to the vast reserves of untapped natural resources on Russian territory, it is uncertain what Russia stands to gain by scrapping the division line agreement and thereby risking significantly increased tension among Arctic nations. The fact that such ideas are being discussed in the Duma, however, is a warning sign that suggests Russia could become more unpredictable in the Arctic.

6.2.3 UNCLOS and Arctic Sea Routes

UNCLOS Article 234 gives Arctic littoral states considerable authority over Arctic trade routes that are ice-covered most of the year. This means that the economic and geopolitical power of Russia will likely weaken as the Arctic sea ice melts.

Today, several major shipping companies and transport firms choose to sail the longer routes through the Suez Canal or the Panama Canal due to lower costs (Brown University, 2022). If Russia's economic control over the Northern Sea Route weakens, international interest in the much shorter route between the Atlantic and the Pacific regions will increase significantly. Russia regards this trade route as Russian waters (Melino and Conley, 2020), but the future consequences of climate change in the region may challenge this perception. This, in combination with the growing interest of the international community in the trade route, could lead to increased conflict risk in the region.

6.2.4 Weaponised Migration against Norway

Climate change increases the risk of weaponisation of migration against Norway.

Norway has largely been shielded from the use of weaponised migration until the refugee influx over the Norwegian-Russian border at Storskog and the Finnish-Russian border in the winter of 2015. Over 5,000 refugees crossed the border into Norway, putting immense pressure on the capacity of the police, the Finnmark region, and the Norwegian Directorate of Immigration. It is prohibited to cross the border on foot, so the migrants came on bicycles, which were sold to them in Russia (Kruse, 2022). Former Prime Minister Erna Solberg stated in 2021 that they viewed the event as a test from Putin (ABC Nyheter, 2021).

When Russia employed weaponisation of migrants in 2015, Norway was not the primary target of the strategy. A significantly higher number of refugees and migrants crossed the border into Finland. The result was that Finland signed an agreement to restore bilateral cooperation with Russia. In this way, Russia weaponised migration against Finland to sow division between the country and the rest of the EU (Taylor, 2015). Weaponised migration can be used against Norway in a similar manner to create division between Norway and its allies.

Norwegian society is relatively homogenous, and Norway is perceived as a country that, in most cases, fulfils its international commitments, including normative ones. This initially makes

Norwegian society less susceptible to the use or threats of weaponised migration. However, this is a phenomenon to which Norway should pay much more attention.

Like several other security threats to Norway, the threat of weaponised migration is mainly indirect in Norway's case. Norway does not share borders with states that have large migrant populations they leverage. However, weaponising migration is a useful strategy for states with few other strategic advantages (Fakhry *et al.*, 2022b), and the examples from Norway, Finland, and Poland show that geographic distance no longer protects states from weaponisation of migration. As Russia becomes increasingly pressured due to the war in Ukraine, a strategy such as weaponised migration may appear increasingly attractive, even if it involves transporting migrants northwards.

Although Norway's geographical location provides good protection against weaponised migration, many of Norway's allies are highly vulnerable to this strategy. As a result, this strategy risks making Norway's neighbourhood more unstable, which harms Norwegian security. A rules-based world order in which major powers can make fewer transgressions against smaller states is central to Norwegian security policy, and increased division in the EU and NATO challenges this foundation.

Both climate change itself and the increase in conflicts due to climate change will lead to larger and more frequent migration flows. This provides opportunistic states with more opportunities to exploit and manipulate migration and refugee flows to achieve political goals. The entire border of Europe and NATO could come under increased pressure, creating a less stable and predictable environment for Norway. Norway's peripheral location shields us in such a scenario from either direct or indirect security threats.

6.2.5 Chinese Presence in the Arctic

China has acted with respect for the Arctic states' established norms and rules. Increased Chinese interest and presence is expected in the future, which may result in Chinese revisionism being applied to the Arctic region.

The new opportunities related to resources in the Arctic are of particular interest to Russia and China (Østhagen and Rottem, 2020). Chinese presence in the Arctic remains limited, and the enormous interest in trade routes that some analysts predicted has not materialised (Bekkevold and Hilde, 2023). However, China has heavily invested in icebreakers, research, and mining in the Arctic and has also defined itself as a "near-Arctic" state (Wegge, 2019). The country fought long to achieve observer status in the Arctic Council, something Russia was long against.

Kossa (2020: p. 38) argues that China's interest and engagement in the Arctic will increase in the future. The country's economic growth has made it almost inevitable that even distant regions like

the Arctic receive attention in Chinese foreign policy. Kossa emphasises both existing Chinese activities in resource extraction and research, as well as factors like the Arctic's impact on Chinese weather, energy, and access to overseas markets. The latter factors will have future significance for China as it increases its interest. Therefore, it is expected that in the future China will increasingly refer to the Arctic as an international issue and not just a regional one. From the Chinese perspective, this implies that Arctic governance must become more globally inclusive.

China has not participated in the increasing militarisation of the Arctic, and it is not an Arctic state in the same way as the members of the Arctic Council. Nevertheless, China is an important Russian partner that opposes the prevailing liberal, rule-based international order. Until now, China has been a "benign actor" whose strategy has been to respect norms and rules established by the Arctic states. In the future, China's dissatisfaction with the international status quo may affect their acceptance of the regional status quo in the Arctic, as Chinese attitudes toward issues such as Taiwan and the South China Sea are imported to the Arctic (Byers and Covey, 2019).

The possibility of increased Chinese discontent with the Arctic status quo and less respect for established norms and rules does not by any means imply a real risk of China using armed force in the Arctic.

6.3 The Svalbard Treaty

The Svalbard Treaty has long been a contentious document. In the future climate change may further increase dissatisfaction with the Treaty.

According to international law, the territorial waters around Svalbard extend to 12 nautical miles. In 1977, Norway established a controversial fishery protection zone around Svalbard, extending up to 200 nautical miles (Regulation No. 6 on fishery protection zone around Svalbard, 1977). Russia (and previously the Soviet Union), the United Kingdom, the Netherlands, Spain, and Iceland, among others, have expressed disagreement over whether the treaty permits the fishing protection zone (Jensen, 2020). Norway has justified the fishing protection zone on the grounds that the area around Svalbard is part of the Norwegian continental shelf. Documentation supporting this claim was submitted to the UN Commission on the Limits of the Continental Shelf, which expressed support for Norway's interpretation in 2009 (Norwegian Ministry of Foreign Affairs, 2014).

The ban on military activities on Svalbard is an important part of the treaty. In October 2022, Russia accused Norway of "building up its military presence on Svalbard" (Johansen and Olsen, 2022). The press release specifically referred to two issues: a routine visit by the frigate KNM Thor Heyerdahl and a visit by a Norwegian coast guard vessel in the waters near Barentsburg.

Climate change is making a range of attractive resources in the Arctic accessible. Some of these resources are already available today, but their exploitation is highly cost ineffective. In some cases, exploiting those results in losses. Melting ice is changing this situation. Simultaneously, ice melting is opening new trade routes, whose status as international or national waters is debated. Rising sea temperatures are opening more opportunities for fishing. The location of Svalbard makes the archipelago an attractive target in connection with these issues.

Norway is facing international resistance to its interpretation of the Svalbard Treaty, both from Russia and NATO allies. One can expect that discussions and different interpretations of the treaty articles will increase as climate change effects in the Arctic become more evident. Increased international tension with Russia has clear negative security consequences. Increased disagreements with our allies can create divisions within NATO and the EU, which may weaken the response to more revisionist attitudes from Russia and China.

6.4 Norwegian Military Capabilities

Norway must prepare for a rapidly changing Arctic operational environment. This will affect the Norwegian Armed Forces' ability to exercise and conduct operations, both alone and alongside allied forces.

In the Arctic, warming occurs up to three times faster than the global average warming (Rantanen *et al.*, 2022). This affects how Norway and its allies can operate and conduct exercises in the Arctic. This issue is especially crucial for Norway, as a long and thinly populated country with few transport axes from north to south. This makes the coastline central. However, Finnish, and possibly Swedish, NATO membership opens more usable road axes between north and south.

In Norway's northern regions, ground bearing capacity is a crucial factor for military activities. When winters become shorter and temperatures rise, the ground experiences less frost and is replaced by mud and clay for more extended periods of the year. Areas that were previously accessible to military vehicles may become inaccessible. Under such circumstances, it may be necessary to ensure that the weight of military vehicles is low enough to maintain ground bearing capacity. Frequent weather changes require soldiers to change their clothing more often. If this is not done, the body's ability to handle temperature changes weakens (Granlund *et al.*, 2022).

The consequences of climate change for military capabilities discussed in this report are, of course, not exhaustive. However, they show how Norway must prepare its military forces for a changing Arctic. The consequences of climate change affect not only Norway but all Arctic states. These states must adapt to a rapidly changing Arctic. The importance of allied support may be limited if allied forces are not well adapted to the climate.

With climate change, extreme weather becomes more frequent, affecting factors like wave height and the strength of sea winds. This can create challenges at sea in Arctic maritime areas. Arctic maritime areas are the most important areas for Norway to assert its sovereignty in the north. Additionally, sea and weather conditions reduce Norway's ability to provide host nation support and receive allied support along the coast.

The increased interest in the Arctic by major powers and other countries can also result in an increased workload at sea for Norway. With greater presence of other countries, asserting Norwegian sovereignty becomes more critical. Furthermore, increased fishing activity raises the risk of accidents, increasing the number of search and rescue (SAR) missions. In Norway's case, this mainly takes place at sea and falls under the responsibilities of the Navy and the Coast Guard. In such a scenario, the primary challenge would not be the capabilities at sea, but rather their capacity. More missions and sailing days will require increased capacity within existing capabilities.

6.5 Securitisation of the Arctic Region

Climate change contributes to the securitisation of the Arctic region and a weakening of *Arctic exceptionalism*.

Arctic exceptionalism is fading, allowing for the securitisation of the Arctic. Since 2000, Russia's Arctic strategies have undergone a significant shift. Previously, they emphasised the economic development of the region. In recent years, Russian Arctic documents have highlighted national security as a prerequisite for Russian success in the Arctic (Buchanan, 2020; Mehdiyeva, 2018). Wilhelmson and Hjermand (2022) demonstrate that Russian rhetoric regarding NATO and its member countries has become tenser, especially since 2014. Furthermore, their analysis shows that this rhetoric is also used in the Arctic region. Russian securitisation of the Arctic is also evident in the development of military infrastructure in the region: new bases have been constructed, and older bases have been reopened (Kjellén, 2022).

Securitisation is also increasingly shaping American Arctic policy (Zandee *et al.*, 2020). Examples of this include the reactivation of the US 2nd Fleet to participate in exercises in the Arctic and the passage of the *National Defense Authorization Act* in 2019, which mandates the Pentagon to build a strategic port in the Arctic (National Defense Authorization Act for Fiscal Year 2020, 2019; Faram, 2019).

Climate change acts as a threat multiplier in relation to the reasons for securitising the Arctic. More navigable seas, reduced ice, and easier access to coveted resources increase interest and presence in the Arctic. This amplifies the need for armed forces in the region among Arctic actors to protect resources, ships, and territory.

6.6 Securitisation of Climate Change in Norway

The extent of climate change will likely force Norway further in the securitisation process, towards declaring climate change as a security threat.

A survey conducted by the EU and King's College London shows that 61 percent of Norwegians believe that climate change is caused by humans, and 36 percent believe that climate change will harm them now or within the next ten years (PERTIA, 2022). At the same time, a survey from the Norwegian Citizen Panel indicates that Norwegians do not have particularly strong feelings about climate change. According to the survey, 47 percent feel "some hope," and 39 percent feel "some guilt" (Gregersen, 2022). Norway does not experience climate change to the same extent as many other countries. Furthermore, several countries are already experiencing the effects of climate change. This factor can influence Norwegians' opinions regarding the threat potential of climate change. As a result of these factors, climate change in Norway has not undergone a process of securitisation; there is apparently no public support for this view.

While the Norwegian population is divided in its views on climate change, the Solberg government (2013-2021) issued a climate plan for 2021-2030 in 2021, in which Norwegian greenhouse gas emissions are to be reduced by up to 55 percent by 2030 (Meld. St. 13, 2021). Therefore, Norway's approach to climate change appears to be characterised by the view of securitisation as a process driven by bureaucrats and officials rather than elected officials who have received or are attempting to obtain extraordinary powers.

Climate change is characterised today as a threat multiplier due to its indirect impact on known conflict factors. The extent of this indirect influence is currently limited, but the various scenarios presented by different climate scientists paint a bleak picture of the future; the effects will become more pronounced over time. The Arctic is warming up to three times faster than the global average, meaning that the security policy consequences of climate change, albeit indirectly, are of relevance to Norway. Whether these trends might accelerate a Norwegian securitisation of climate change is, therefore, a pertinent question.

Traditional security thinking mainly focuses on avoiding war or winning wars (Lippmann, 1943; Wolfers, 1952). The security landscape is undeniably more complex today, and climate change complicates it further. This shifts the security discourse ever closer to a more comprehensive approach to the concept.

Criticism of the conservative nature of security thinking is not new: scholars have argued that fields such as economics, climate, the environment, human rights, and energy should also be included in security thinking, in addition to the military aspect (e.g. Brown, 1977; Kolodziej, 1992; Myers, 1989; Ullmann, 1983).

Even if a securitisation process is not carried out in the Norwegian context, climate change can impact Norwegian security thinking by intensifying the rhetoric. As more countries increasingly view climate change as a security threat and multiplier, Norwegian security thinking also shifts in the same direction. Climate change and the deteriorating security situation in the Arctic are particularly relevant to Norway. Therefore, it is also likely that climate change in the Arctic could lead to a shift in Norwegian security thinking beyond the designation of a threat multiplier to a definition of climate change as a distinct, comprehensive security threat. Due to public division, this change will be made in line with the understanding of securitisation as a process carried out by bureaucrats and elected officials rather than the original securitisation theory as presented by Buzan *et al.* (1998).

6.7 Power Transition and the Arctic

Contemporary Chinese behaviour in the Arctic is based on respect for established norms and rules in the region. Chinese revisionism may be imported into the Arctic as a part of a more aggressive Chinese foreign policy.

If China challenges U.S. global hegemony, it undoubtedly results in increased tensions between Sino-Russian cooperation and the other Arctic states. Such tensions increase the risk that individual events, which in isolation may not have significant consequences, in aggregate can lead to unforeseen and undesirable security outcomes.

When trust in the status quo decreases, ambitious states have more incentives to challenge it (Lemke and Reed, 1996; Tammen *et al.*, 2017). During a state visit to Moscow in March 2023, Chinese President Xi Jinping stated that China and Russia were bringing about changes the likes of which have not been seen in 1,000 years (Frachon, 2023). China continually expresses distrust of the prevailing world order, a desire to change it, and a willingness to do so. At the same time, China has shown respect for regional norms and rules in the Arctic. As the willingness to challenge U.S. hegemony increases and the willingness to respect the existing world order diminishes, the risk of Chinese revisionism entering the Arctic also increases. This significantly complicates the security landscape in the region.

In the Arctic as well, mutual satisfaction with the status quo can disappear or, at the very least, be greatly reduced. It can also be argued that it has already been eradicated; the traditional Western Arctic countries have stated goals in the Arctic that are shared to a very small extent by Russia and China. In addition, there is disagreement about the status of Arctic trade routes in international law. The absence of mutual satisfaction with the prevailing status quo in the Arctic can therefore threaten the future security and political stability in the region.

6.8 The Arctic Council

The ability of the Arctic Council to promote peaceful relations and dialogue in the Arctic is weakening, which may increase the likelihood of conflict.

The members of the Arctic Council have strengthened their focus on Arctic geopolitics, while other members have suspended all cooperation with Russia in the Council. The Arctic Council is not intended to discuss military matters. As security, defence, and geopolitical issues become increasingly important in the Arctic, there is an increased risk of side-lining the Arctic Council.

The Arctic region is characterised by growing militarisation. Nonetheless, a forum like the Arctic Council, built on soft power, plays a crucial role in maintaining low tensions and security. If a forum like the Arctic Council, which facilitates dialogue, diplomacy, and cooperation, does not include all Arctic actors, as it currently does not include Russia *de facto*, the ability to promote peaceful relations in the Arctic diminishes. In a situation where tensions are rising both internationally and, in the Arctic, the absence of dialogue and cooperation with Russia through a non-military forum like the Arctic Council weakens security in the region.

On 11 May 2023 Norway assumed the chairship of the Arctic Council for the period 2023-2025. During a press conference, Foreign Minister Anniken Huitfeldt stated that an important issue going forward is establishing Russia's role in the Arctic Council, but the complex relationship with the country persists due to the conflict in Ukraine (Government of Norway, 2023a). Norway's four thematic priorities for the period are: ocean areas, climate and the environment, sustainable economic development, and people in the north (Government of Norway, 2023b). However, the impact of climate policy in the Arctic depends on Russia's engagement, given their extensive Arctic territory. Climate policy in the Arctic without Russia is limited. How the seven other members of the Arctic Council choose to engage with Russia in the future will have few consequences for climate, the environment, and security in the Arctic.

Through a combination of climate change, globalisation, and the risk of power transition, the Arctic region has become closely linked to developments in international politics. This makes it more challenging for the Arctic Council to maintain its position as an important institution and forum in the Arctic (Kopra, 2020). International organisations contribute to peaceful norms and intergovernmental relations, as well as forums for conflict resolution (Watts *et al.*, 2017). As international relations increasingly escalate tensions, including in the Arctic, the Arctic Council's ability to promote peaceful relations and dialogue is weakened, which can increase the risk of conflict.

6.9 Climate Change and Article 5 of the North Atlantic Treaty

The consequences of climate change may weaken Norwegian allies' willingness and ability to provide allied support in the Arctic.

NATO is a cornerstone of Norwegian defence and security policy. The activation of Article 5 of the NATO treaty to secure allied support is a central goal for Norway in the event of an armed conflict. This is frequently discussed in Norwegian defence and security discourse, but there is widespread misunderstanding of the content of Article 5. Article 5 establishes the principle that an attack on one member country is an attack on all member countries. Article 6 then establishes criteria for targets of attack falling under Article 5. Article 5 of the NATO treaty states:

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area (The North Atlantic Treaty, 1949).

Two aspects of the article's wording are important. Firstly, the article and the treaty consistently use the term "armed attack." Article 6 specifies that an armed attack can trigger Article 5 when it is directed against the territory of a party or the forces, vessels, or aircraft of a party "when in or over these territories or any other area in Europe in which occupation forces of any of the Parties were stationed on the date when the Treaty entered into force, or the Mediterranean Sea or the North Atlantic area north of the Tropic of Cancer" (The North Atlantic Treaty, 1949). Beyond this, the treaty does not define criteria for an armed attack.

Secondly, the phrasing of the commitments of member countries in Article 5 may pose challenges for Norway. Article 5 obligates member countries to "assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary" (The North Atlantic Treaty, 1949). The form and extent of the support is not specified.

Several trends suggest that the allied support that can be provided to Norway in the future may be limited. Climate-related trends, in conjunction with economic and demographic trends, paint a future scenario in which less peripheral NATO and EU members face several challenges more directly than Norway. Climate change, along with migration trends, is creating larger refugee flows than today. States in the Mediterranean and south-eastern Europe are experiencing the challenges of these trends directly due to their proximity to migration routes across the Mediterranean and the Strait of Gibraltar, as well as through Turkey. Handling refugee and

migrant flows and the resulting security challenges can place demands on resources that may reduce the ability to provide allied support. Additionally, climate change itself can cause physical damage and risk exacerbating the health situation.

These factors can divert economic resources that might have otherwise gone to defence. If a country is threatened by the consequences of climate change, both the will and ability to provide allied support can be reduced. Climate change may negatively impact Norway's security situation in the Arctic, as our allies are forced to redirect their focus and resources to other areas. This could result in reduced and delayed allied support if needed.

7 Summary

Describing climate change as a threat multiplier may become insufficient. The impact of climate change on various aspects of national and international security is becoming stronger and more extensive. This means that climate change should be more clearly defined as an independent security threat and a threat multiplier. It is unlikely that the impact of climate change on existing security threats and conflict factors will disappear. Climate change affects all sectors of society, governments, businesses, and individuals. Therefore, it is necessary to acknowledge that climate change is not just a phenomenon that, at a higher level, affects already known security threats as a threat multiplier. When climate change affects so many known threats and conflict factors, climate change should be considered an independent security threat.

Climate change may reduce or delay allied support through NATO. Article 5 of the North Atlantic Treaty states that NATO members are committed to providing support to an attacked member: An attack on one member should be regarded as an attack on all members. Climate change affects all NATO allies but in different ways. When NATO allies face challenges in their own immediate areas, it can weaken their willingness to provide extensive and rapid support to Norway in an Article 5 scenario.

Arctic exceptionalism is weakening, and the Arctic is becoming securitised. The security situation in the Arctic is becoming more tense and unpredictable, increasing the risk of escalation and conflict at Norway's borders. Arctic exceptionalism, which has largely protected the Arctic from global tensions, both during and after the Cold War, has been weakened, among other things, due to increased access to resources such as fish and minerals and increased activity in the Arctic. This makes the region much more vulnerable to significant climate-related trends globally and regionally.

Climate change may make Russia more aggressive regarding the Northern Sea Route. The Northern Sea Route, a part of the Northeast Passage, is an important topic of discussion. Russia

considers it to be domestic waters, while parts of the international community consider the route to be in international waters. The Law of the Sea Convention gives Russia significant economic power over the Northern Sea Route. The convention specifies that this economic power is based on the route being covered by ice "most of the year." Climate change may make the Northern Sea Route ice-free for longer parts of the year. As a result, Russia may no longer have extended power over the route according to the Law of the Sea Convention. It is highly uncertain to what extent Russia would accept losing such power in a central revenue area.

The consequences of climate change can make Norway more exposed to weaponised migration. The migration flow across the Norwegian-Russian border at Storskog in the winter of 2015 had never happened before or since in Norwegian Arctic history. The weaponised migration strategy was also used against Finland. Other and larger countries have been targets of weaponised migration on several occasions, but there have been few incentives to use this strategy against Norway. This could change because climate change will lead to many climate refugees. Erna Solberg acknowledged that the Norwegian government saw the incident at Storskog as a test by Putin. At that time, Russia achieved its goal of strengthening bilateral relations with Finland. Tensions in the Arctic have increased significantly since February 2022, and this increases the risk that Russia will feel the need to direct hybrid strategies such as weaponised migration against individual NATO countries. In this context, Norway becomes a logical target.

Climate change will make operations and exercises more difficult to conduct. The rapid warming of the Arctic is causing various changes in climate and the environment. The carrying capacity of the ground is reduced, extreme weather events become more frequent and severe, and sea ice is melting. This affects how the Norwegian Armed Forces can conduct operations and exercises, both independently and with allies, and how Norway can receive allied support and provide host nation support.

Climate change may make China more revisionist in the Arctic. Until today, China has been an Arctic actor that has respected the norms and rules established by the Arctic states. As international political relations increasingly affect regional conditions in the Arctic, and as the effects of climate change are observed to a greater extent, China may become less satisfied with the status quo. At the same time, the power gap between China and especially the USA is shrinking. This can increase China's willingness to challenge the *status quo*, both in the East Asian region and in the Arctic.

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The Norwegian Defence Research Establishment (FFI) was founded 11th of April 1946. It is organised as an administrative agency subordinate to the Ministry of Defence.

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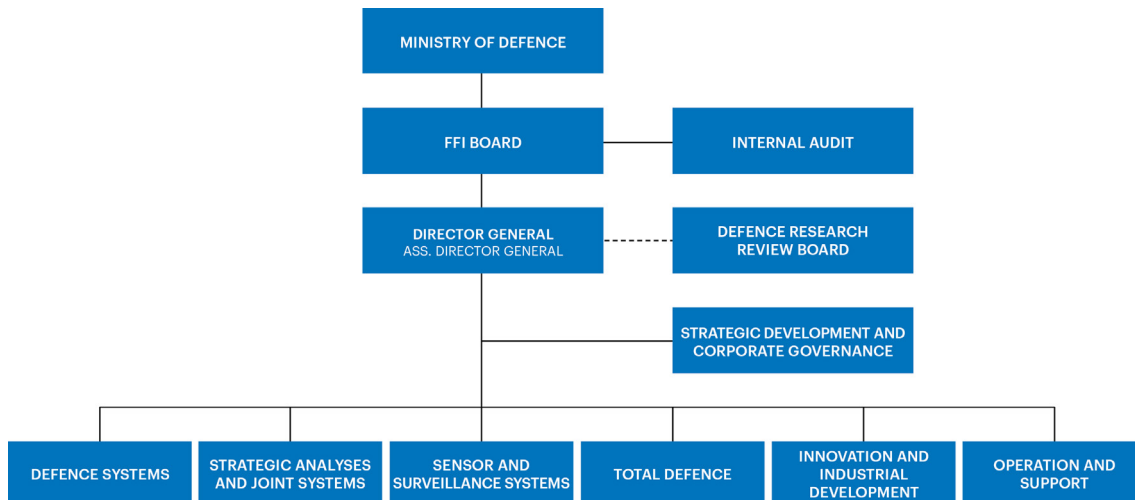
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