



İKLİM DEĞİŞİKLİĞİNDEKİ GELİŞMELER, ULUSLARARASI İLİŞKİLERDE NE GİBİ DEĞİŞİKLİKLERE YOL AÇABİLİR?

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HOW RECENT DEVELOPMENTS IN CLIMATE CHANGE COULD RESULT IN SOME CHANGES IN INTERNATIONAL RELATIONS?

ÖZ 19. yüzyılda sanayi devrimin başlamasıyla birlikte iklim değişikliği de başlamış oldu. Doğal kaynakların yıllarca endüstride kullanılması iklimimizi önemli ölçüde değiştirdi. Son iklim değişiklikleri, ulusal güvenlik sorunlarına ve uluslararası çatışmaların artmasına neden oldu. Yıllar önce, iklim bilimciler ve araştırmacılar Kuzey Kutbu'ndaki ve Güney Kutbu'ndaki buzulların erimesi konusunda uyarılar yapmışlardı. Buzulların erimesi gibi iklimsel değişiklikler sonucunda yeni sınırlar ortaya çıkacak ve Kuzey Kutbu'ndaki keşfedilmemiş zengin doğal kaynaklara erişim sağlanacaktır. Genel olarak Arktik, 90 milyar varil petrol, 17 trilyon metreküp gaz, 44 milyar varil sıvılaştırılmış gaz rezervi ile dünyanın malzeme rezervlerinin 16%, 30% ve 26%'sını kendisinde bulunduruyor. Bu rakamlar, ülkeler arasında kutup bölgelerindeki kontrollerini genişletme mücadelesine ve stratejik ittifakların doğmasına yol açmaktadır. Hatta Çin, bölge zenginliğine yatırım yaparak Moskova'yla bir ortaklığa başlamıştır. Buna karşı Amerika Birleşik Devletleri, Kanada, Norveç, Danimarka ve İzlanda'yla bir araya gelmiştir. Özellikle Kuzey Kutbu'ndaki eriyen buzullar, Asya'dan Avrupa'ya yeni ve en kısa ticaret yolları açacaktır. Bu gelişmeler, ulaşım ve keşif konusunda yeni teknolojilerin gelişmesine öncülük etmekte, böylece büyük güçlerin bir kısmının yoğunlukla Kuzey Kutbu'na taşınmasına ve dünyanın önemli bir stratejik değişime tanıklık etmesine yol açmaktadır.

Anahtar Kelimeler: Buz Erimesi, Kuzey Kutbu ve Antarktika, Yeni Rotalar, İthalat, Ülke İlgi Alanları.

ABSTRACT Climate changes began in the 19th century with the advent of the industrial revolution. The usage of natural resources for years in the industry has significantly changed our climate. The governments expect the recent changes in the environment to lead to national security problems and increase the number of international conflicts. For many years, climatologists and researchers at the North and South Poles have already warned the public about the sharp melting of polar ice these changes will open new unexplored borders and access to precious natural resources in the Arctic. The Arctic contains 90 billion barrels of oil, 17 trillion cubic feet of gas, 44 billion barrels of liquefied gas, or 16%, 30% and 26% of the world's reserves of these materials. Respectively. These numbers ignite the struggle between countries to expand their control of these arid areas of the ice. Therefore, Russia invited China for partnership to form a strategic alliance to invest in the region's wealth. This alliance will strengthen Russia against any western counter-alliance especially the alliance of the United States, Canada, Norway, Denmark, and Iceland. The melting ice in the Arctic opens up the shortest trade routes from Asia to Europe, which develops transportations and technological methods in the North Pole. The world will witness a significant strategic shift, as these great powers will concentrate their efforts in the region.

Keywords: Ice Melting, Arctic and Antarctic, New Routes, Import, Country Interests.



INTRODUCTION

Climate changes is considered to be one of the most critical issues in modern times because it effects the weather pattern which causes food shortage and increases the sea level. Therefore, adapting to these impacts will be more difficult and costly in the future if the countries around the world don't take extreme measures. Bear in mind political figures and parliament's members do not have to be environmental experts to develop robust laws that can tackle climate change. Therefore, their understanding of the scientific aspect behind climate change is very crucial when evaluating proposals, preparing budgets, or even taking administrative measures that will affect their countries in the future.

In the twenty-first century, many experts believe that climate change, technological advances, and rising global demand for resources. The melting of Arctic and Antarctic sea ice to a record low in recent years has prompted many countries to turn their eyes to these regions. The Arctic is a semi-enclosed ocean, surrounded by land. However, Antarctic is almost a geographic opposite of the Arctic, because Antarctica is a landmass surrounded by a sea.¹

Nowadays, the Arctic considers the most crucial part of the Earth's system. This region is experiencing one of the fastest environmental, economic, and geopolitical changes in the world, and the Arctic region is spectacular and relatively unknown. It has an area of approximately 14 million km². This region is gaining a strategic dimension in that it is the shortest distance between the two superpowers, Russia and the United States, as well as for containing various sources, including oil, gas, and coal. The new interest in this region lies in the fact that scientists expect the ice to melt in the summer seasons during the next 25 years. Therefore, interested countries will access more efficiently the resources available in that region that extend along three roads, which is the northwest pass that crosses the Canadian Arctic Archipelago and the Alaska Coast. The Northeast way, which passes mostly through the Russian regional and internal waters, and finally the cross-pole route through the North Pole, which links Asia and Europe, as the constant search for natural resources and new sources pushes countries to reach the extreme borders of the world.²

THEORETICAL FRAMEWORK

Securitization is one of the essential concepts that security studies and international relations focus on after the Cold War. This concept and security theory were built by the Copenhagen School of Security Studies, especially Weaver and Barry Busan. After the end of the Cold War, this theory had a significant impact on security studies. Because it demonstrated the failure or limitations of traditional perceptions mainly in the realism perception because the state security is achieved through military force. If new threats emerge from within the state, military forces alone are no longer sufficient. The concept of securitization is used in international relations as the process of turning a case into a security issue by the responsible government agencies. In other words, it is politicizing the evidence and using exceptional meanings in the name of security. Politicians may securitize some issues regardless if they are a real threat to the state's security or not, under specific agendas. Therefore, many harmful issues not securitized simply because they

¹ Retrieved 21 December 2019, from https://www.rha.is/static/files/NRF/Publications/report_nrf_science_sessions_report.pdf.

² Retrieved December 21, 2019, from <https://nsidc.org/cryosphere/seaice/characteristics/difference.html>.

do not serve any agenda.³ Weaver is a pioneer of the Copenhagen School, he believes that the concept of securitization took from banking systems and transferred to international relations.

Theorists use the example of terrorism to signify the excellent security importance that this concept has in security discussions of countries, even though people are dying from car accidents more than dying from terrorist attacks.⁴ The Classical approaches to the security built on the real data of the threat use methods including the distribution of military capability, and polar force whether or not the problem that secured was real, it should be acceptable to the public to ensure its success. Government agencies can obtain government attention and resources if a case achieves public attention and awareness, and it is possible to legitimize the exceptional means of resolving this issue. These solutions may include declaring a state of emergency, martial law, mobilizing the army, or attacking another country. Thierry Braspining – Balzac says, "Security is a rule-based practice, its success does not necessarily depend on having a real threat to it, but by the discursive ability to give impetus to the progress of the public side of the case."⁵

The work presented by Weaver at the end of the 1980s on the rhetorical dimensions of security is the root of this theory, later developed by the participation of Professor Barry Buzan and the Copenhagen Institute for Security Studies team. They generalized the term securitization through structural studies in international relations, where the theory appears as a synthesis between structural theory and classical realism. Ole Weaver coined this term in 1993.⁶ In their Book "Security: A New Framework for Analysis" Barry Buzan, Ole Weaver, and Jaap de Wilde work with five political sectors in which a securitization may take place, Political, Military, Society, Economic, and environment. However, securitization could easily involve more than one of these sectors. Military forces securitize in the case of the 2003 invasion of Iraq, weapons of mass destruction were the main reason for the attack. However, another reason for the war was the violation of human rights in Saddam Hussein's time. Political specialists suggest that if an issue to be securitized it must reach the public interest. For the environmental aspect, the threat of climate change is another example of a case that is becoming increasingly securitized-security in this issue based on two components: social and natural risks. Natural threats include earthquakes, volcanos floods, and ice melting. Social risks include all human actions that harm the environment and its safety; some human activities have negative results, such as pollution, depletion of natural resources, which causes disruption in the natural system and the structure of the earth. The environmental or ecological issue is also classified among the most argument in contemporary global politics, considering that its threats do not belong to one country

³ Andrej Zwitter, Jaap de Wilde, "Prismatic Security: Expanding the Copenhagen School to the Local Level," all academic research, Pp. 1-26. Retrieved December 29, 2019, from http://citation.allacademic.com/meta/p_mla_apa_research_citation/4/1/3/4/6/pages413465/p413465-1.php.

⁴ Barry Buzan, Ole Weaver, Jaap de Wilde "Security: A New Framework for Analysis," Lynne Rienner Publisher, 1998, pp. 25-34 UK and America. Retrieved December 29, 2019, from https://books.google.com.cy/books?printsec=frontcover&vid=LCCN97021300&redir_esc=y#v=onepage&q&f=false.

⁵ Paul Roe, "Is securitization a 'negative' concept? Revisiting the normative debate over normal versus extraordinary politics," Security Dialogue, 8 June 2012, Vol. 43, 3, p. 263.

⁶ Michael C. Williams, "Words, Images, Enemies, Securitization and International Politics," Blackwell Publishing, International Studies Quarterly 2003 (47):512. The UK. Retrieved December 29, 2019, from <http://files.janjires.webnode.cz/200000015c8582c9526/Michael%20Williams%20%20Securitization%20and%20International%20Politics.pdf>.

by itself but affect all countries. This type of security is devoted to protecting the environment from human practices causing negative phenomena, such as Pollution, global warming, climate change.⁷

The Wells School of Critical Security Studies tries to increase the concept of security by adding subnational and supranational reference units. Both Ken Booth and Horkheimer see the necessity of expanding the concept of security to include threats that limit human freedom and emancipation, not only non-military threats to state security such as, poverty, and environmental degradation, the violation of human rights, and fundamental freedoms. Inequality, between and within states are threats that extend beyond the borders of the state and threaten humanity as a whole.⁸

Securitization, as a school of international relations, has been criticized for its lack of practical usefulness. Unlike other schools of international relations, such as liberalism or realism, which can provide a framework or basis for understanding how to conduct international diplomacy. Scientists criticized securitization for being a theory that is more akin to an interesting observation, rather than a method that can be used in practical ways by political actors. Critics argue that pointing out the irrationality of a successfully securitized issue does little to change its political dynamics because as long as an issue remains successfully securitized, political actors will still be compelled to deal with it in the ways that its securitization demands.⁹

RECENT DEVELOPMENTS IN ENVIRONMENTAL ISSUE

In the late 19th Century in Europe and the U.S.A, the organized environmentalism began as a reaction to the Industrial Revolution with its emphasis on unbridled economic expansion. In the 1960s, the global environmental crisis was recognized, coming from "the tragedy of commons," which is humans' selfish and overuse resources, such as land, seas. In the 1970s, a UN held a conference on this issue, 1980s green political parties had emerged. This matches with a required for a green theory to help in explanation and understanding of these political problems. By the 1990s, the green policy became part of international relations. It recognized the natural environment policies formed, especially of the enormous human actions that were changing our global climate and presenting security problems as well as ecological issues. Ecology goals to foster an ecologically sustainable society based on Environmentalism that identified environmentally harmful actions recommended more ecologically friendly ways of working. Also, conserve and save this environment for the next generations: nonviolence, the culture of peace and cooperation between states. Security should not depend on military strength. Social justice: food security, adequate healthcare, freshwater, education for everyone, equal income, and democratic participation. Emphasized grassroots actions over electoral politics. Respect religious, cultural, ethnic, racial, sexual, and spiritual diversity.¹⁰ Ecological thought concern of nature itself rather than the interests of humanity in nature. Green theory captures this orientation in political terms of value and agency (Godin 1992).

Green theory related to the traditional critical theory, in the sense, that environmental issues questioning the relations within ourselves and between ourselves and others, in the context of society and common

⁷ Barry Buzan, Ole Weaver, Jaap de Wilde "Security: A New Framework for Analysis," Lynne Rienner Publisher, 1998, Pp. 71- 74, UK and America.

⁸ Ken Booth, "Security after emancipation? Critical Theory, violence and resistance," Cambridge University Press, Vol. 37, No. 3, July 2011, pp. 1113-1135.

⁹ Paul Roe, "Is securitization a 'negative' concept? Revisiting the normative debate over normal versus extraordinary politics," Security Dialogue. 8 June 2012, p. 259.

¹⁰ Retrieved December 23, 2019, from <http://environment-ecology.com/what-is-sustainability/247-sustainability.html>.

decision-making. In turn, this has always raised the question of where are the limits of the political community. For environmental issues, which transcend limits, these questions take the shape of asking at what level of political community we should look for a solution. The answers are found for the green thinkers in the alternative ideas about political associations that based on our ecological relationships.¹¹ The USEPA¹² evaluated 2010, that for every 1,000 kilograms of Portland cement, approximately 1,100 kilograms of carbon dioxide would be produced. More than fifty percent of these emissions are a direct result of calcination. Companies released remainder as part of the fuel burned to produce very high temperatures used in the cement production activity. Scientists referees to concrete and brick as high-energy materials used in the public service commercial, and residential buildings sector. This sector accounts for about 32% of the final energy use and about 8.8 rigatonis of CO2 equivalent. In addition to poor administration of the food chain, which is the leading cause of food waste around the world, and is responsible for 7% of greenhouse gas emissions, according to the UNEP, a third of the food produced in the world is wasted. It is essential to consider the issue of food packaging, where plastic or polymers are often the primary material used in this process, and the food section represents one of the most significant parts of use for polyolefin, such as polyethylene and polypropylene. In a recent report focused on Canada and the US, it was found that if other available materials replaced plastics a single alternative package would require 80% of the increase demand for energy, and thus would result in 130% greater potential impact of global warming.¹³

POLAR GLOBALIZATION

The main problem of the arctic is its connection to the outside world. the Issues in international relations and geopolitics are related to the strategic importance of the Arctic region, competition for natural resources, and the severe impact of climate change. To the negative global climate change, we can also add the positive changes that the Circumpolar North has become more exciting and essential regions in world politics. The growing geostrategic importance of the area has led to scientific research on the cultural origin of circumpolar emigrants, which means that the North could become a model for good governance.¹⁴

Ice Melting in North and South Pole

Some similarities between the Arctic and Antarctica are related to their locations at the ends of the Earth's rotation axis. The low temperatures that characterize the polar regions of the world today are increasing due to the highly reflective property of ice and snow, which covers most of them during the whole year. These reflections go back to the atmosphere leaving behind its effect on snow melting and water evaporation, which contributes to the increase in the coolness of both poles. The Arctic and Antarctic regions occupy about 14 million square kilometers. The Arctic is by far an ice-covered basin, while Antarctica is an icy place. Their climates, geological development, growing plants and animals, and political status are entirely different.¹⁵

¹¹ Retrieved December 23, 2019, from <https://www.e-ir.info/2018/01/07/green-theory-in-international-relations>.

¹² USEPA, United States Environmental Protection Agency.

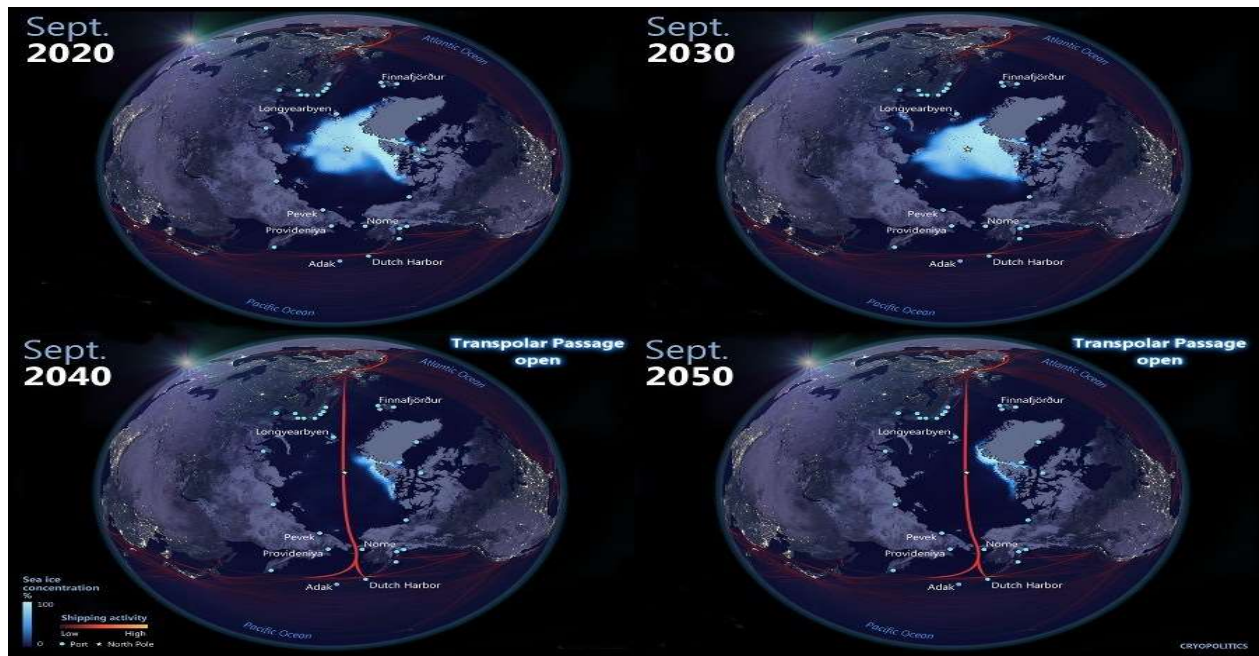
¹³ Geoffrey R. Mitchella, "Climate Change and Manufacturing," RESIM, Portugal, December 2016.

¹⁴ Retrieved December 24, 2019, from <https://www.tandfonline.com/doi/abs/10.1080/789610127>.

¹⁵ Retrieved December 24, 2019, from <https://carnegiemuseums.org/magazine-archive/1998/marapr/feat4.htm>.

The drastic melting rates of northern sea ice. Is one of the proofs for global warming, conversely, Antarctic sea ice has actually been increased milting in recent years. Between the 2012- 2014 Antarctic sea ice increase experienced its greatest growth, which explained according to the scientists due to weather fluctuations and erratic weather patterns at the Earth's poles. The scientists worry that it may be indicative of the trend already afflicting the sea ice in the north a long-term model of melting ice due to increased climate change and global warming.¹⁶ Because of both Pole's night is not having its usual impact on the Arctic ice, we may see a disastrous weather style in the coming years. Arctic climates affect the polar vortex that dictates the weather patterns for much of Asia, Europe, and North America.

Map No.1: Ice Melting in the Arctic



Source: Issued by Geopolitics – Eye on the Arctic, April 23, 2019

These Arctic transferring can spill cold air into these countries and create more frequents and powerful winter storms. Therefore, when Arctic ice is unable to harden and grow, we suffer through cruel and dangerous winters.¹⁷ The Arctic is a small land, and almost all the ice in the Arctic is floating on water. On the other hand, Antarctica is an enormous landmass that covering by ice created from snowfall called an ice-sheet. This affects in which way these regions respond to climate change and affect their importance. The scientists found out that the ocean levels would not rise when floating ice melts because the ice is

¹⁶Retrieved December 24, 2019, from <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/may/09/global-warming-is-melting-antarctic-ice-from-below>.

¹⁷ Retrieved December 24, 2019, from <http://www.gogreen.org/blog/sea-ice-melting-rapidly-at-both-north-and-south-poles>.



already floating in the water. Nevertheless, when land ice melts the liquid water flows into the ocean caused the water levels to rise. Therefore, at least from a sea-level perspective, land ice is more important than floating ice.¹⁸ Another difference between north and south is that Antarctica has a strong current that protects it from water elsewhere in the ocean. Due to global warming, both poles heat up very quickly and cause ice to melt in both regions. Experts believe that ice melts from above as it heats up from the air, sunlight, or the infrared energy of the atmosphere. However, studies have shown that most of the melting occurs from below. Moreover, in Antarctica, ice shelves come out of the water above the water. For example, if the ocean is tense, it can shift the lower part of the tray to cause it to thin out or fall out into the sea.¹⁹

ARCTIC COUNCIL

The Arctic Council is one of the intergovernmental forums created to preserve the environment of the Arctic region, and achieve sustainable social and economic development. This goal leads to cooperation between the Arctic states and local Arctic communities. The Ottawa Declaration includes eight Arctic countries, Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States. The declaration also includes the indigenous communities of the region: Inuit Circumpolar Conference, Saami Council, and Russian Association of Indigenous Minorities of the North, Aleut International Association, Gwich'in Council International, and Arctic Athabaskan Council. The Council also has permanent observer countries.²⁰ The official Arctic Soviet Secretariat began working in 2013 in Norway. For decision-making, they meet every two years. Foreign ministers usually attend these meetings, ministers for the affairs of the Nordic countries, and ministers of the environment. They review the results achieved in the process of cooperation. Analysis of the efforts and recommendations of the Arctic Council are the result of the Working Groups. Working groups are responsible for the implementation of projects established by ministers.²¹

POLITICAL REAL-LIFE ISSUES

The Arctic region encompasses the seas and land north of latitude 66.33°N., The Arctic Ocean is the smallest oceans in the world but is transforming due to its melting ice. Russia, Canada, the US, Denmark, Norway, Sweden, Finland, and Iceland, the eight countries claiming Arctic territory are technologically advanced countries and with a relatively high standard of living, and have different systems of the central administration. They have often cooperated well in the past, but the developments in the melting ice issue consider a new challenge to these countries, because it opens previously frozen maritime routes, and allows easier access to mineral resources. However, meaningfully exploiting Arctic shipping and resources will require substantially more investment in infrastructure.²² The USA has vital strategic interests in the Arctic, especially if we consider the Russian and growing Chinese presence in the region. Arctic ice melting pushed the USA to spend \$746 M. on a ship to be ready in 2024 as the first military icebreaker. Moreover, it considered to be the key to their nation's presence in the Polar Regions, besides, to adopt a new Arctic

¹⁸ Retrieved December 24, 2019, from <https://www.dw.com/en/why-is-the-arctic-melting-faster-than-the-antarctic/a-38678700>.

¹⁹ Retrieved December 24, 2019, from <https://nsidc.org/cryosphere/seaice/characteristics/difference.html>.

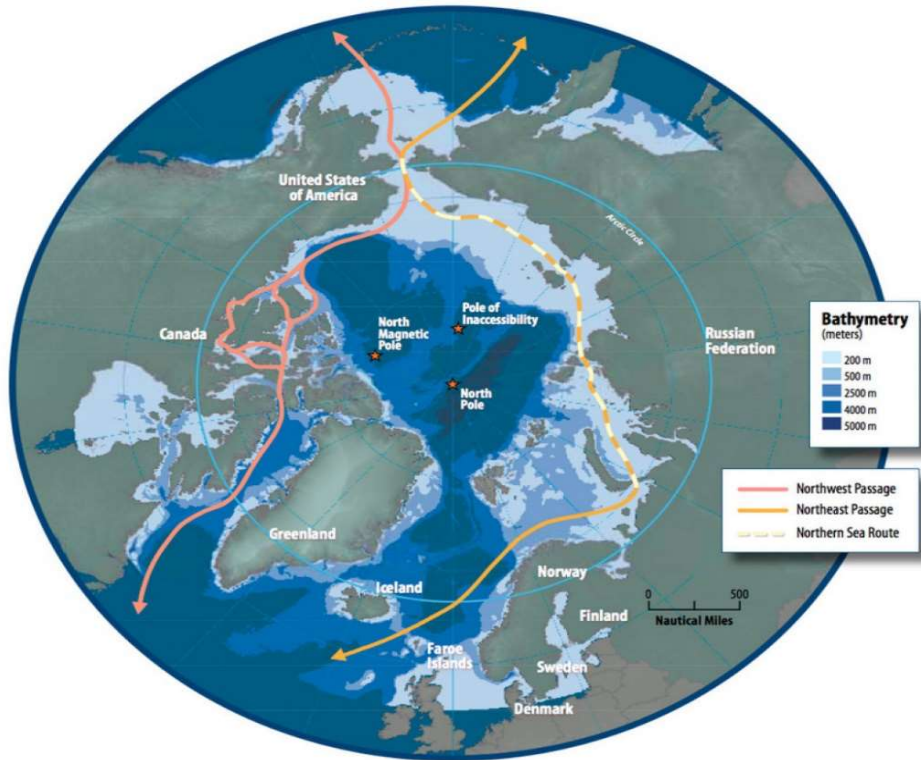
²⁰ Retrieved December 30, 2019, from <https://www.arctic-council.org/en/about-us>.

²¹ Retrieved December 30, 2019, from <https://www.belfercenter.org/ArcticStrategicPlan>.

²² US Policy Towards the Arctic: Adapting to a Changing Environment. Retrieved December 26, 2019, from <https://icds.ee/us-policy-towards-the-arctic-adapting-to-a-changing-environment/>.

strategy focusing on finding the best way to defend the US international interest, and support stability and security in the Arctic. America became an Arctic nation upon the purchase of Alaska from Russia in 1867, so the distance between the two countries is only 85 kilometers at the narrowest point of the Bering Strait.²³ Despite the USA is one of the nations which not acceded to the treaty on the Law of the Sea, it subscribes to most of UNCLOS's²⁴.

Map No.2: New Arctic Shipping Routes



Source: Issued by the Moscow Times-News, Aug. 26, 2019.

The USA considers the Northwest Passage in the North Pole is an international strait with free navigation rights. On the other hand, Canada confirms that it is an inland waterway over, which it maintains exclusive jurisdiction. Also, the Kremlin claims the parts of the Northern Sea Route above Siberia are internal Russian waters.

The Arctic Ocean does not have that attention from the countries around the world, even though it covers an area that approximately half the size of the US, but this summer, President Donald Trump negotiated purchases Greenland from Denmark. Greenland is the world's largest island and an autonomous Danish dependent territory with its parliament and limited self-governing. The island population estimated at 57,000. It depends financially on Denmark's contributions, which covers 66% of the island's budget revenue; the rest comes from the fishing industry. Potential oil, gas, and rare earth mineral reserves have

²³ Retrieved December 26, 2019, from <https://www.the-american-interest.com/2019/09/19/the-arctic-is-american/>.

²⁴ United Nations Convention on the Law of the Sea, an international treaty, which was adopted and signed in 1982.

In 2007, Russian explorers planted a titanium white, blue and red tricolor flag on the seabed below the North Pole. In addition to spent billions of dollars on building new military bases, and upgrading another on islands and peninsulas along the route in 2013, deploying advanced radar and missile defense systems to sites, which gives Moscow almost complete coverage of the entire coastline and adjacent waters. By 2035, The Russian Arctic fleet will include at least 13 icebreakers, including nine nuclear-powered vessels. The world's only fleet of nuclear icebreakers. Experts estimate that during ice-free months, eastward shipment from Europe to China through the NSR²⁷ is estimated to be around 40 percent faster, and it saves 20 days bypassing the Suez or Panama Canals. Besides, hundreds of thousands of dollars of fuel costs and potentially cutting carbon.²⁸

Thus, Russia, as the leading country in the Arctic, informs everyone that: If you want to sail through the Arctic and travel from Asia faster or have designs on the oil and gas assets beneath the sea, you will be under Russian oversight, this is the Russian national transport artery. This has piqued the interest of both the Pentagon and the State Department for the United States. The non-military concern is the Russians will create a transpolar logistical monopoly to deliver liquefied natural gas, goods, and commodities to Asia and Europe that would allow Moscow to exclude or gouged competitors. The military concern is that Russia is boosting its military presence along the sea route, while China lurks nearby.²⁹

Map No.4: China New "Silk Road"



Source: Issued by the Economist July 3, 2019

²⁷ Northern Sea Route is officially managed and administered shipping route along the northern Arctic coast of Russia.

²⁸ Retrieved December 26, 2019, from <https://erj.ersjournals.com/content/50/4/1701145>.

²⁹ Retrieved December 26, 2019, from <http://government.ru/docs/11967/>.

China together with Russia has invested about \$90 billion in the Arctic to build icebreakers and exclusive cargo ships. China has a stake in Russian liquefied natural gas plant in Yamal. Also, China invested in four mines in Greenland, and one in Canada. In 2009, China opened a polar research institute in Europe and finance scientific expeditions to the Arctic. In 2014, it became an observer of the Arctic Council. Enhancing its influence, China announced its strategy to develop ways for both trade and control, dubbing it the “Polar Silk Road”³⁰ Such influence of China in the Arctic worried the U.S. and other countries, and in 2017, Denmark rejected China's bid to purchase an abandoned naval base in Greenland. In spring 2018 Canada rejected China's bid for \$1.14 billion to buy the largest Canadian construction company. Thus, the Arctic states want to prevent the influence of China in the Arctic. However, not only China from Asian countries is interested in the Arctic. Besides, South Korea, Japan, and other Asian countries consider the NSR the shortest shipping route linking Asia and Europe and one of great commercial potential.

Table No.1: Old Canals and New Route from Asia to America and Europe, Comparison of the main sea routes.³¹

From Asia to Europe		
Canal / Route	Distance / Miles	Days
Suez Canal	12500 M	30 – 45
Magellan Canal	12300 M	42 – 56
Cape Route	13.330 M	107-115
Panama Canal	9478 M	35
Northern Sea Route	7300 M	10 – 15

The EU's member states will also have economic benefits of the Arctic routes, which are easily accessible as these countries have the most prominent merchant fleet in the world. Canada, Denmark, Norway, Russia, and the United States regard parts of the Arctic seas as national waters or internal waters, which cause a lot of dispute regarding what is the journey's international-seaways, and the rights to passage across them. Meanwhile, Denmark and Canada claim Hans Island, an isolated spot of land in the center of Nares Strait, because of its location in the middle of a strait.³²

³⁰Retrieved December 26, 2019, from <https://icds.ee/us-policy-towards-the-arctic-adapting-to-a-changing-environment/>.

³¹ Retrieved January 14, 2019, from ports.com.

³² Retrieved December 21, 2019, from <https://www.ft.com/content/2fa82760-5c4a-11e9-939a-341f5ada9d40>.

Not only these countries interested in the Arctic. Other powerful countries want to participate in global discoveries. In recent years, Turkey has become one of these countries. After several Antarctic expeditions, Turkish scientists and researchers charted a course toward the Arctic Ocean. The first Turkish scientific expedition to the Arctic took place in June this year with a team led by the Pole Research Center of Istanbul Technical University. During the journey, scientists worked mainly on the effects of climate change on the ecosystem and environmental pollution. Thus, Turkey shows us its interest in global climate change and ensures its physical presence in both Polar Regions as a stable country.³³

In 2019, the Russian oil products exported to India reached 1.3 million tons, and coal supplies exceeded 3 million tons. BG Group plc, Great British Oil and Gas Company consider India one of the largest and fastest-growing LNG markets.³⁴ India is interested to get Russian LNG from the Arctic to fulfill its growing energy demand. Looking to participate with Russia in its new project in the Arctic (Arctic LNG 2) which set to become operational in 2022-23, and future project, (Arctic LNG 3) which will open wide opportunities for it to the resources in the arctic, according to Russian Energy Minister Alexander Novak. Besides, India eyeing Russian coal to decreases dependence on the USA and Europe. The cooperation between the two countries will ultimately allow India to become the first non-Arctic country to extract resources in the Arctic.

India's interests in the Russian supplies come in the time that India shift from common projects with it's neighboring country Pakistan, where it refused to sign an agreement with Iran and Pakistan about the gas pipeline which will connect the three countries, and that will escalate the tension between these countries.³⁵

ANTARCTIC TREATY 1959

There are just a few places in the world where the environment is fully protected and where scientific research has priority. There is also a whole continent in the South Pole, which has not yet well studied by man. The Arctic continent includes a single pole with constant snow and ice, also surrounded by floating ice. The last 100 years of research in Antarctica has allowed scientists to achieve more with the advent of new technologies. In the middle of the century, the territorial position was not coordinated, since this situation threatened further scientific research. The Antarctic Treaty was signed in Washington on December 1, 1959 by the twelve states. Australia, Argentina, Belgium, Norway, France, Chile, New Zealand, Japan, South Africa, UK, USA, and USSR.³⁶ IGY³⁷ Was recognized as the primary experimental year of Antarctica. Currently, only 12 national countries operate in Antarctica, nine of which put forward their territorial claims, but agreed that their political and legal differences would not be related to the research program.³⁸

³³ Retrieved December 21, 2019, from <https://www.dailysabah.com/science/2019/08/08/turkish-scientists-set-course-for-north-pole>.

³⁴ Retrieved January 18, 2020 from <https://www.alittihad.ae/article/33718/2013/>.

³⁵ Retrieved January 18, 2020, from <https://www.rt.com/business/478326-india-russia-arctic-reserves/>.

³⁶ Retrieved December 21, 2019, from <https://www.bas.ac.uk/about/antarctica/the-antarctic-treaty/the-antarctic-treaty-explained/>.

³⁷ IGY, The International Geophysical Year, is an international scientific project that lasted from July 1, 1957, to December 31, 1958. It marked the end of a long period during the Cold War when scientific interchange between East and West had been severely interrupted.

³⁸ Retrieved December 21, 2019, from <https://www.jstor.org/stable/755968?seq=1>.



Some relevant provisions of the Treaty:

- 1- To use Antarctica for peaceful aims only.
- 2- Freedom of scientific investigation in Antarctica.
- 3- Scientific observations and results from this region shall be exchanged and available freely among the seven countries signatories of the Treaty.
- 4- The US and Russia maintain a “basis of claim” Other countries do not have any claims.
- 5- No new claims or enlargement of existing claims to territorial sovereignty in Antarctica asserted while the present Treaty is valid.
- 6- All stations and installations within Antarctica shall be open at all times to inspection to promote the objectives, and ensure the observance of the provisions of the Treaty.

PARIS AGREEMENT 2016

The Paris Agreement first opens a convention where it brings all countries into a common interest in climate change and its consequences. The purpose of this conference is to warn of the threat of climate change and focus on keeping the temperature below two degrees Celsius. It also requires all parties to regularly report on their emissions and their efforts. The Paris Agreement entered into force on November 4, 2016, with the participation of 55 countries, which account for 55% of all global emissions. Also, every five years, an assessment will be carried out on achieving the goal.³⁹

But unfortunately, the new United States President Donald Trump, announced in 2017 that the US would cease its participation in the Paris Agreement, as the president believes that this agreement will undermine the US economy and put the country at a disadvantage. By Article 28 of the Paris Agreement, a state cannot withdraw from the agreement until three years from the date of its entry into force. In this regard, the US administration in 2019, notified of its intentions to leave, which will enter into force after 12 months it's meant the US official exit will be on November 4, 2020.⁴⁰

THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

This agenda, and the 17 Sustainable Development Goals (SDGs), is a global action plan to solve the poverty problem, protect the planet, and ensure welfare for all people, this plan based on a multi-partnership. Sustainable Development aims are integrated and indivisible, based on the three dimensions of sustainable development: social, economic, and environmental.

All countries after the adoption of General Assembly resolution 70/1 by unanimous, committed to implementing Agenda 2030 and the SDGs under their national development priorities to end poverty and hunger, and to fight against inequalities within and between nations. To build peaceful and just societies, to protect human rights and encourage gender equality, to the empowerment of women and girls. Moreover, to guarantee the protection of the planet and its natural resources for the next generations. One of the most essential to the agenda is the commitment of States to leave no one behind. Although a lot of countries in the Arab world have made some progress in bridging the gender gap in education, huge gaps remain in influence, power, and control over resources between gender, women remain disproportionately affected due to inequality.

³⁹ Retrieved December 21, 2019, from <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

⁴⁰ Retrieved December 21, 2019, from <https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know>.



ASSESSMENTS

Progressive climate changes these days affects our ecology, agriculture, leads to the melting of eternal ice, and many other aspects. However, one of the most critical aspects of the fight against these changes in our forests. In this way, a meeting of the Forestry Congress in Durban, South Africa, in 2015. The conference set forth its vision of how forests and forestry should look in 2050.

First, fundamentally changed future forests to ensure food security. Second, sustainably managed forests should be critical solutions to combat climate change optimizing their ability to absorb and store carbon. Besides, providing other environmental services. Also, Congress underlined that forests are critical to achieving the 17 Sustainable Development Goals (SDGs) in a message to the United Nations Sustainable Development Summit. According to the new UN report, the population of the planet will exceed 11 billion by 2050. It requires all countries of the world to work together to find a solution. The final decision leads to the fact that growth and production must have a limit.

Assessment of climate change and rising temperatures throughout the planet led to the melting of ice in the Arctic and the Antarctic. Ice loss increases Arctic warming that absorbs more energy from the sun. Also, increasing with open water can increase snowfall over northern land areas. Especially climate change in the Arctic leads to ice melting, which opens up to access its precious resource and will open the North Sea route to trade are a strategic opportunity for both China and Russia. Consequently, the American president has repeatedly attempted to buy Greenland are not absurd. It is rather an indication of American intentions to gain a strategic foothold in the Arctic, which will allow America to benefit from the polar sea routes that will appear quickly when the Arctic ice sheet begins to shrink. However, Greenland's rejection of this offer would make America relatively late in the region. Russia and China announced their intention to start building the vital infrastructure needed to support this new road, which will connect Northeast Asia with northern Europe via Siberia. Even though this alliance between the two countries may seem fragile, it could be the trigger for a clash between the superpowers. China knows that in the time of struggle, the US Navy may quickly close the Strait of Malacca, which would suffocate its economy. America will not let this alliance to continue pressing its national interest. These new trade routes lead to further international conflict, and it will turn the area to geopolitical games, which we could call a new period of the Cold War between superpowers.

RECOMMENDATIONS

If there is a single reason for events that will profoundly affect all people in all parts of the globe in the coming decades, it will be climate change, and the consequences of this change will affect each of us, old or young, rich or poor. Perhaps not at the same time or with the same intensity, but it will eventually catch us all. There is no doubt that a radical and effective solution requires concordance and cooperation at the level of several countries; in reality, each of us can do something, no matter how small. Natural climate solutions are one of the most promising ways to mitigate climate change. They have the potential to reduce carbon dioxide emissions by an estimated 11.3 billion tons annually, such as preserving, revitalizing, and improving land management to increase carbon storage or avoid greenhouse gas emissions in natural areas around the world. Protect border forests considered one of the most important of these solutions.

- 1- Attention to reforestation agricultural reform solution, as the food sector from the field to the dining tables, is a significant contributor to climate change through direct, and indirect emissions, and its often negative impacts on soil health and deforestation.
- 2- Support innovation and entrepreneurship as it can help in the process of change.
- 3- Use of environmentally friendly methods to protect the nature from pollution, and changes in the construction industry that have begun to turn into more efficient products, such as covered wood that helps reduce carbon pollution.
- 4- Financing options for natural climate solutions must be significantly increased.

According to the Durban Declaration, 11 September 2015, which held in South Africa, the sustainably managed forests hold vast potential to play a decisive role in ending hunger, improving livelihoods, and combating climate change. The gathering in this meeting set out the vision calls that the forests to be "fundamental" for food security and improved livelihoods. Of how forests and forestry should look in 2050. Also, the forests and trees must be integrated with agriculture to address the causes of deforestation and struggle over land. Finally, according to this declaration, the sustainably managed forests should be a permanent solution to prevent climate change. And in his message to the UNSDS, the congress underline forests are critical to achieving the 17 Sustainable Development Goals (SDGs), which is part of the 2030 development Agenda.⁴¹ The central issue in this Agenda is the commitment of countries to "not to leave anyone" and "reaching the most underdeveloped" first. Besides, the declaration advocates gender equality and the empowerment of women and girls.⁴²

CONCLUSION

The aftermath of Climate change such as rising temperature, sea-level rise, changes in precipitation, will lead to more frequent and extreme events. The consequences of that will affect continents differently. For example affecting water and food security that can lead to mass migrations in some parts, and other parts of the world that can cause raise economic, health, and national security issues. But most importantly, climate change has led to melting ice in the Arctic, which paves an easy way for its natural resources. Various countries, especially those that control parts of the Arctic, such as Russia, America, Canada, Denmark, Norway, and Iceland, have shown uneven interest in the issue of environmental pollution in general, and human activity in the Arctic in particular. These countries exchanged accusations in this context, but the economic and strategic ambitions in the region overwhal is above any other considerations.

As in any other part of the world, without dialogue and agreement on the general benefits of economic cooperation among countries, a solution to the problem cannot be found. The fact that the great powers possessed destructive weapons, which made them able to exterminate humanity, made war an unrealistic possibility. Instead, they used indirect wars and trade wars. Arctic conflicts will mean that everyone will have to wait before benefiting from the development of this area. However, Russia and China can develop their projects in the area or cooperate and with other friendly countries. In this case, given that direct military confrontation is impossible without tragic consequences, the United States will have to agree on

⁴¹ Retrieved January 10, 2020, from <https://www.unwomen.org/en/digital-library/publications/2018/2/gender-equality-in-the-2030-agenda-for-sustainable-development-2018>.

⁴² Retrieved January 10, 2020, from <http://www.fao.org/news/story/en/item/328500/icode/>.



this issue. Ice melting in the north pole may result in a new challenge between the countries, especially the USA and Russia, which make the Arctic zone a new Cold War between the great powers.

All the developed and developing countries should be aware of the real danger which will happen in the coming years for the whole planet if they did not soon put practical real efforts to solve the climate change problem. As the 2030 Agenda recommended that all countries are obligated not to leave anyone behind, all the countries around the world are in the same circle.

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