Universitat Autònoma de Barcelona

Approach to the legal aspects of resource extraction in the Arctic region

LAW DEGREE

FINAL DISSERTATION

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DATE: 13/05/2021

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ABSTRACT

The Arctic is one of the few areas of our planet that has not been fully explored. There is a rich biodiversity in this area, but there are also natural resources that have not yet been explored.

This is of interest to states and large corporations, which are trying to increase their presence and influence in the area. One could compare the situation in the Arctic to the disputes and conquest of America in the 17th century by different nations.

On the one hand, there are the natural resources, on the other hand, there is the environment and the impact that extracting the resources could have. In addition, there are other interests, such as trade routes or military interests. This issue is little known but at the same time very important.

In this dissertation, the legal aspects of resource extraction will be discussed. It will explain what resources exist, which stakeholders are involved and why. It will also explain how oil and gas extraction works, the legal aspects taking into account international conventions and treaties, national laws, environmental impact.

Existing disputes will be described, and possible solutions will be offered in the conclusion.

Key Words: Arctic, Oil, Gas, Resources, States, Environmental, Law, Extraction, Licenses, Russia, Norway, United States, Exploration, Regulation, Countries.

OBJECTIVE OF THE DISSERTATION

The objective of this dissertation is to approach the legal aspects of resource extraction in the Arctic, specifically oil and gas. At the same time, it is intended to give the reader an understanding of the political and economic context surrounding this complicated situation.

The extraction of resources in the Arctic is an issue of capital importance but it is not having the repercussion it deserves. For decades there has been a latent interest on the part of many states to extract resources from the Arctic. The Arctic is an unexplored territory where abundant resources are believed to exist.

The rush for resources is giving rise to legal, political, and economic disputes between states. On the other hand, in addition to states there are large corporations that have economic interests and also NGOs that want to prevent damage to the ecosystem.

The political situation in the Arctic is complex, but at the same time so is the legal situation. First of all, because there are border disputes, which raises in the first place the question of which state is sovereign. Once sovereignty is clarified, the question of which law is applicable comes into play. Secondly, there are disputes related to the environment: Are national and/or international standards to protect the environment in the Arctic region being met? And thirdly, are the rights of the indigenous people living in the area respected?

Methodology

The methodology to achieve the objective is to first explain what resources exist in the Arctic. First, it will be shown how they are distributed. It is important to know this because not all countries have the same role in the Arctic, and the more resources a state has, the more investment it attracts and that makes it more influential.

Then it will be explained how resource extraction works. It is necessary to understand how it works because there are methods that are very harmful to the environment. In several media, for example, the extraction by the "fracking" method is criticized, to reflect on whether it is good or bad, it is necessary to know briefly how this method works and what it is based on. It should be taken into account that the Arctic has a unique ecosystem and biodiversity, and that a substantial alteration could put it at risk. It is why it is important to know and understand how the extraction works, because if a dangerous extraction method is advocated, the consequences can be devastating.

Subsequently, the interests of each State will be explained. This is fundamental because it will allow the reader to understand why, and to what extent, the Arctic is important for the countries. When the possibility of reaching an agreement will be mentioned later on, it will be necessary to take into account the interests of the Stakeholders.

Then the legal aspects will be explained. First, the applicable international law will be explained. It will be explained how borders and the application of UNCLOS apply, which international organizations exist, and which international agreements may have a direct or indirect implication in the Arctic.

Secondly, a brief explanation of national laws regarding resource extraction will be given. This explanation will focus on four points:

- A) To whom does the oil belong? That is, does the field belong to the state or to private individuals?
- B) What is the process to obtain a license?
- C) Are there regulations that protect the environment, and for what reasons can the license be lost?
- D) Is fracking legal?

Subsequently, the controversies and disputes that exist will be explained in more detail:

- Boundaries
- Environmental regulation
- Indigenous rights

Finally, the conclusion will discuss all the points mentioned above and explain a possible solution to try to improve the situation.

INTRODUCTION TO THE ARCTIC

The Arctic. Just pronouncing the name already makes us feel cold. This is a region with very interesting climatic conditions from a scientific point of view. Besides being one of the places with the lowest temperature of the planet, there are curious phenomena such as the polar night, a phenomenon in which sunlight remains hidden for more than 24 hours. The Arctic is also rich in biodiversity, with more than 21,000 species of animals that inhabit the area. [1]

But the Arctic is also rich in resources, and that is what this dissertation will focus on.

The Greeks and Romans had already reached the Arctic and even described some of the existing phenomena, such as the aurora borealis. However, the Arctic has been inhabited by indigenous tribes for millennia. One of the best-known tribes are the Inuit, although this tribe has only been in the Arctic for a few hundred years. [2]

In 1575, explorers such as John Davis began mapping routes that 'skirted' parts of the Arctic region (such as the island of Greenland).

In the late 19th century, Robert Peacy and Fridtjof Nansenn had a rivalry to see who could reach the Arctic first. It was Robert Peacy who was the first to arrive in 1909, although some sources believe that this is not true. Later, Soviet anthropologists such as Vladimir Bogoraz studied the Arctic in more depth.

During the second half of the 20th century, what is known as a "plundering" of resources began to take place. It started with fish, as fishing in the Arctic went unreported. Between 1950-2006, 950,000 tonnes were fished (in Russian, Canadian and Alaskan waters). Only 1 fish was reported out of 75 caught (12,700 tonnes). Although bans (or quotas) on the hunting of certain animals, such as whales or walruses (hunted for their ivory), have been introduced, there has never been effective enforcement of such measures[3].

In the 1980s-1990s, fossil fuel-type resources were known to exist. But, it was in 2008 that the US. Geological Survey published an estimate that Arctic territories contain 90 billion barrels of undiscovered oil and 1.67 trillion cubic feet of natural gas. It means 13 per cent and 30 per cent, respectively, of the world's untapped reserves, and is in addition to a possible 44 billion barrels of liquefied natural gas.[4]

[1] Safeguarding Arctic BIODIVERSITY. (n.d.). Retrieved January 1, 2021, from https://arctic-council.org/en/explore/topics/biodiversity/
[2] McCannon, J. (2012). *A history of the Arctic nature, exploration and exploitation*. London: Reaktion.
[3] McCannon, J. (2012). Pages 274-275
[4] McCannon, J. (2012). Page 281

Fortunately, there is the United Nations Convention on the Law of the Sea (UNCLOS), which is ratified by most states, and although the United States has not ratified it, it complies with most of its articles as a matter of customary international law.

In order to avoid conflict over resources, the Arctic Council was created by the Ottawa Declaration in 1996, representing the following countries: Canada, the United States, Norway, Denmark, Sweden, Finland, Iceland and Russia) and representatives from six minority rights groups (the Inuit Circumpolar Council, the Saami Council, Russia's raipon, the Aleut International Association, the Arctic Athabaskan Council and the Gwich'in Council International). In addition, there are a number of countries that are permanent observers.[5]

During the Cold War, Panarctic Oils was formed in Canada, which carried out oil exploration in various Arctic regions of Canada. The company ceased operations in 1996. The problems for resource extraction (in addition to the complications and dangers involved) were environmental measures and the rights of indigenous tribes.

Nowadays, problems related to natural resources and borders have not been solved.

Currently, there are more disputes than solutions.

The dispute over borders is as much about resources as it is about possible new trade routes through the Arctic. As has been said, the US Geological Survey predicted that 13% of undiscovered oil and 30% of undiscovered gas were in the Arctic.[6]

At the same time, growing awareness of the environment and biodiversity has led countries such as Norway[7] and the United States[8] to sue the government for extracting resources in the Arctic.

On the other hand, there are minorities who have lived on the land where oil exploration is taking place for years. In some cases, they may want to cooperate with the oil companies, in others not.

All this makes for a very complex chessboard. In this dissertation, light will be shed on the legal aspects related to natural resources, in particular oil and gas.

[5] Idem.
[6] Donald L. Gautier, Kenneth J. Bird, Ronald R. Charpentier, Arthur Grantz, David W. Houseknecht, Timothy R. Klett, Thomas E. Moore, Janet K. Pitman, Christopher J. Schenk, John H. Schuenemeyer, Kai Sørensen, Marilyn E. Tennyson, Zenon C. Valin, and Craig J. Wandrey. (2009). Assessment of undiscovered oil and gas in the arctic, Science 324 no. 5931, 1175–1179.
[7] Sutterud, T., & Ulven, E. (2017, November 14). Norway sued over Arctic oil exploration plans. *The Guardian*. Retrieved from https://www.theguardian.com/environment/2017/nov/14/norway-sued-over-arctic-oil-exploration-plans
[8] Groom, N. (2020, August 24). Environmental, tribal groups sue to block Alaska refuge drilling (1365145747 998489729 L. Adler, Ed.). *Reuters*. Retrieved from https://www.reuters.com/article/us-usa-alaska-lawsuit-idUSKBN25K2BR

ACCESS TO THE RESOURCES

Which resources there are?

Before talking about the legal aspects, it is necessary to know the facts. What resources are there in the Arctic? There are many resources in the Arctic: fish, minerals.... But this dissertation focuses mainly on gas and oil. To answer this question, two maps are attached. The first map corresponds to the year 2016 and the second map to the year 2019.

These maps show the evolution of prospecting over a time span of 3 years. An oil exploration usually lasts between 6 months and a year. During this period, various tests are carried out in the field to see if there is organic material in the subsoil. A geophysical and geochemical analysis is necessary, using techniques such as induced polarisation, test pits, electric currents... then maps are made of the area where oil is supposed to be present, which can take a few months. Subsequently, the excavation can be done in a few months.[9] Although there are cases such as in North Dakota, where the terrain is easier to work in than in the Arctic, where excavations have taken up to two years[10] Obviously, these data are only if the project has the necessary funding and resources. In addition, it is much more complicated to access, transport the necessary materials/equipment and work in the Arctic than in North Dakota. An example of this is Shell, which in 2015 stopped drilling for oil in the Arctic because it considered the costs too high for the results it obtained.[11] Then there is the transport and refining process. But that does not concern the aim of the dissertation.

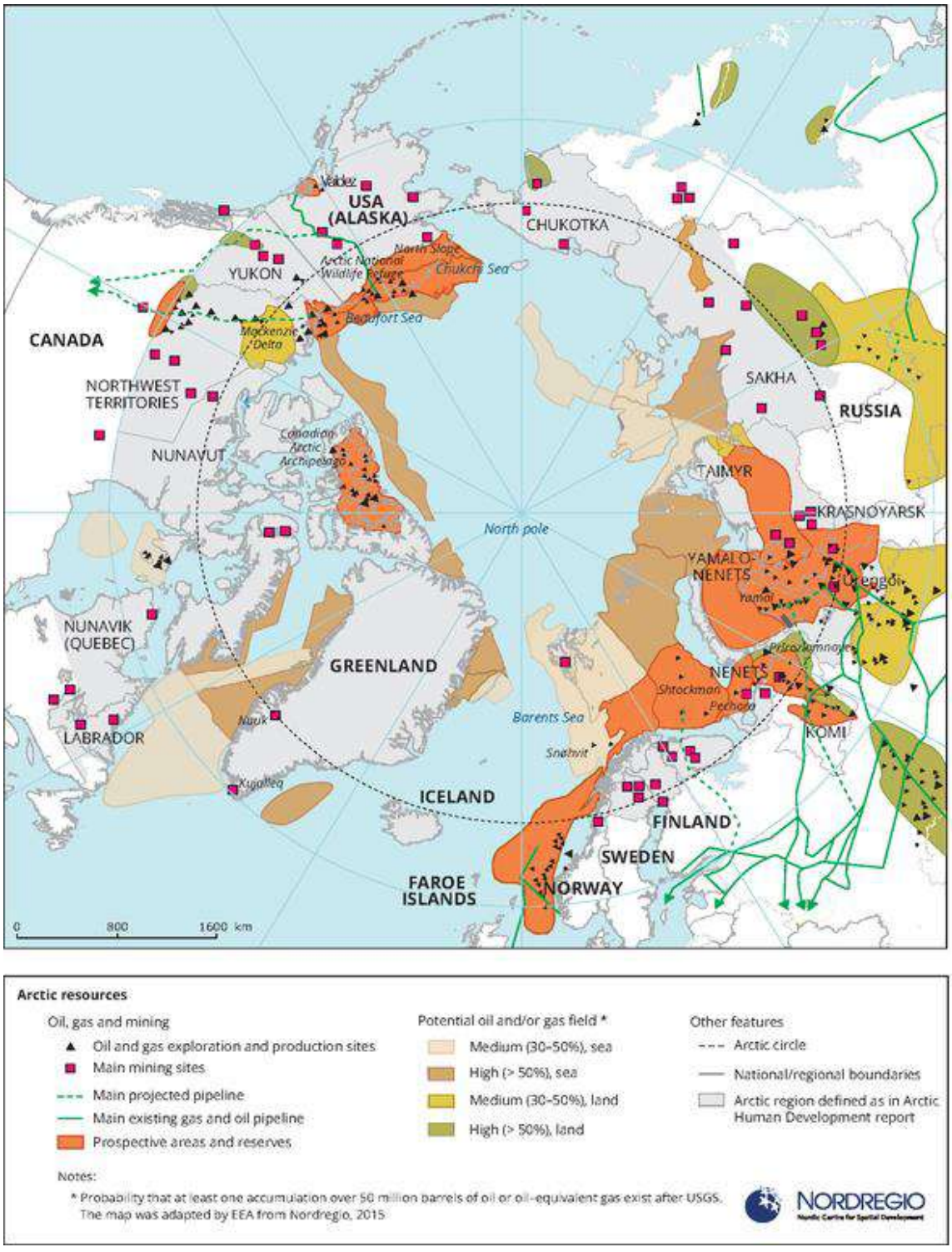
Considering this information, the evolution of oil exploration can be considered highly relevant.

As can be seen in the maps, in 2019 there are areas where exploration has been carried out, both on land and at sea (see the Northern Zone of Norway or the Krasnoyarsk region). It can be seen how there are areas where in 2016 it was thought that there would be more oil than there is, and due to the fact, that in this three-year period there has been exploration, excavations... it has been demonstrated that there was not so much oil and therefore now they are not marked, while it can also be seen how there are many more areas where there could potentially be oil. This is due to new oil exploration.

[9] Lioudis, N. (2020, February 11). How long does it take to drill and produce oil? Retrieved January 17, 2021, from https://www.investopedia.com/ask/answers/061115/how-long-does-it-take-oil-and-gas-producer-go-drilling-production.asp#pre-drilling-oil-activities
Lieskovsky, J., & Yan, R. (2019, September 10). U.S. energy Information administration - eia - independent statistics and analysis. Retrieved January 17, 2021, from https://www.eia.gov/todayinenergy/detail.php?id=41253

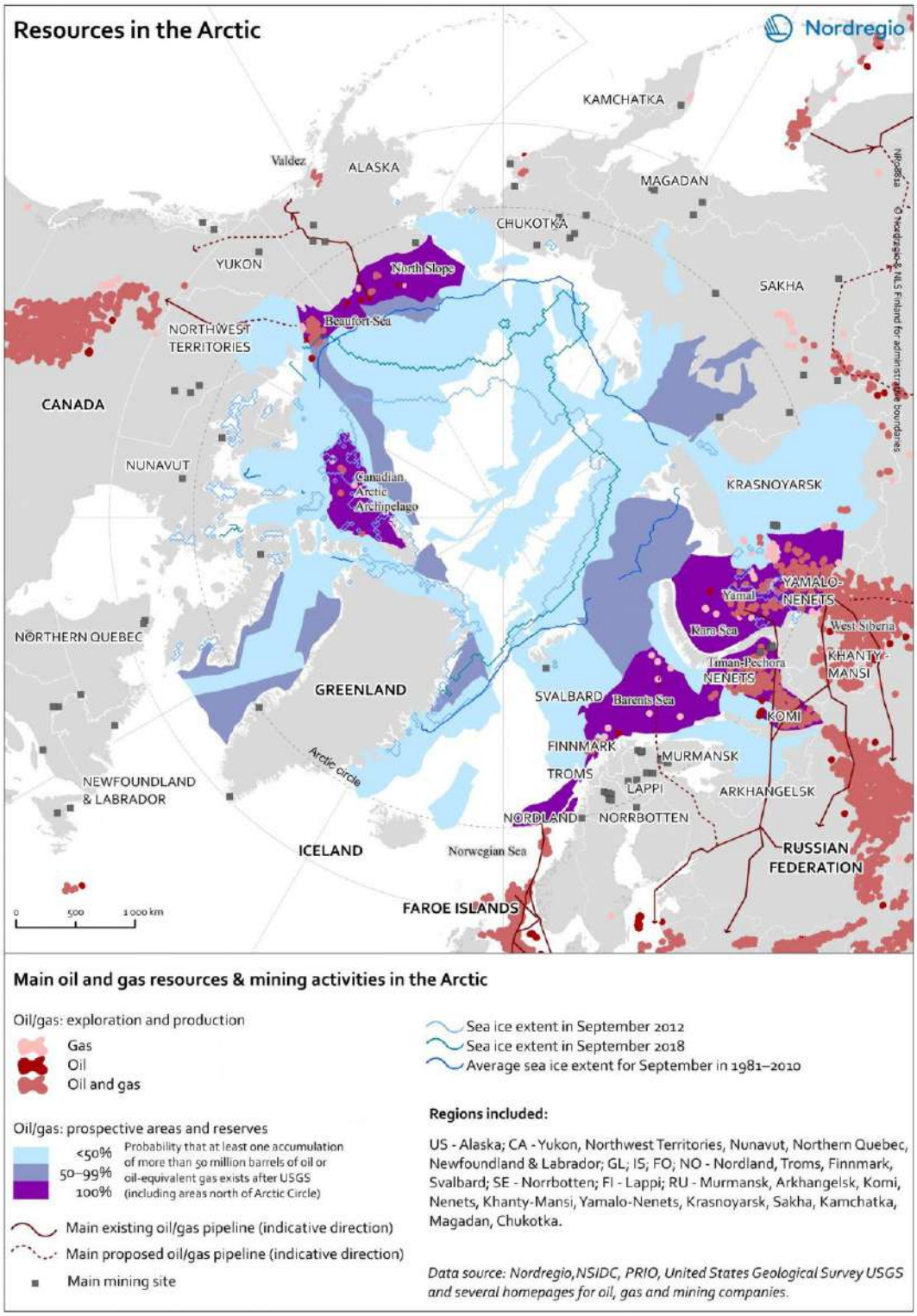
[11] Shell stops Arctic activity after 'disappointing' tests. (2015, September 28). *BBC*. Retrieved from https://www.bbc.com/news/business-34377434

MAP 2016



Source: https://nordregio.org/

MAP 2021

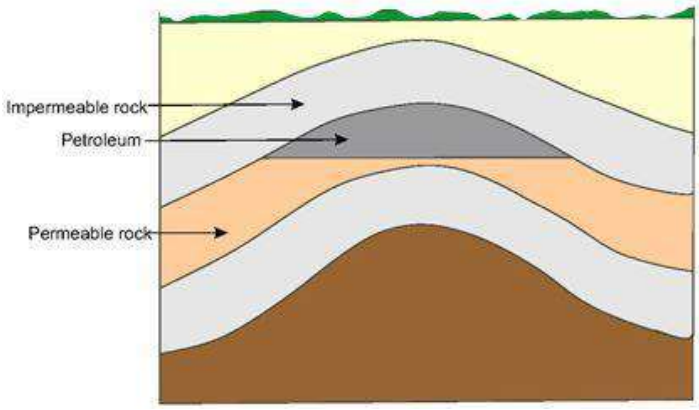


Source: https://nordregio.org/

How does oil and gas extraction work?[12]

Petroleum describes not only the mixture of hydrocarbons (as in crude oil, including gases and solids dissolved in the liquid) but also any free gas, known as natural gas, associated with it.

Conventional natural gas and oil reservoirs are found in permeable rocks, trapped beneath impermeable rocks. These deposits can be extracted by drilling through the impermeable rock into the permeable rock. But gas and oil are also trapped in the spaces within the impermeable shale rock. More recently, oil and gas reserves are being extracted from shale, which is an impermeable rock but is porous in the sense that there are spaces (pores) within its structure in which liquids and gases can be trapped.

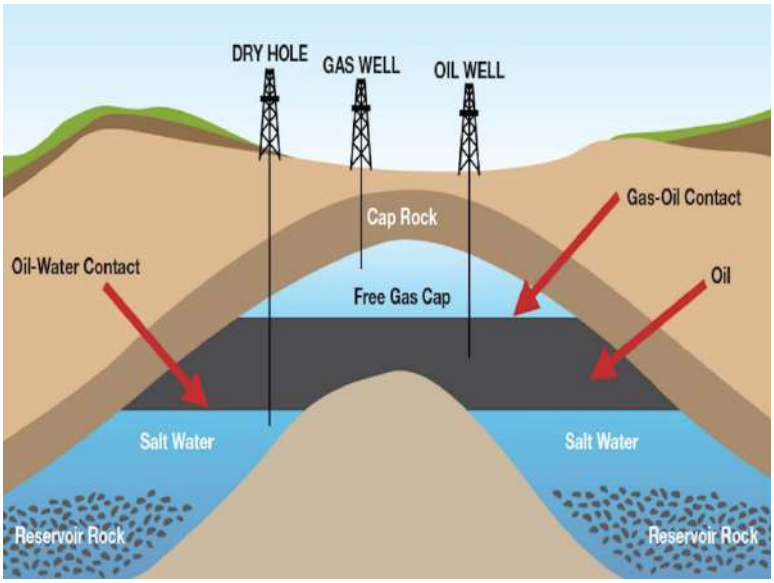


Source: https://www.essentialchemicalindustry.org/processes/extracting-oil-and-natural-gas-fracking.html

Because liquid oil and associated gas are trapped in large quantities in an area of permeable rock, it is possible to drill vertically into this rock and the oil and gas, under pressure, rise through a pipe to the surface. The gas separates from the oil and the crude oil is then said to be stabilized. The gas and oil are then transported by pipeline either overland to a refinery or to a ship (tanker). If transported by ship, the gas is liquefied before being pumped to the tanker. To make it easy for tankers to offload the gas and oil, refineries are built around the world near the coast.

In the refineries, gas and oil are separated by distillation into fractions with different boiling points which are then processed (cracking, isomerization, reforming and alkylation). Crude oil is not only composed of hydrocarbons. A variety of sulfur-containing compounds are also present and must be removed during refining. Organic sulfur compounds and hydrogen sulfide both must be removed, otherwise they will poison the catalyst needed in the manufacture of the synthesis gas that leads to many of the most important industrial compounds.

[12] Brief from: Lichtarowicz, M. (n.d.). Extracting crude oil and natural gas. Retrieved February 2, 2021, from https://www.essentialchemicalindustry.org/processes/extracting-oil-and-natural-gas-fracking.html Kraus, R. S. (2012). Petróleo: Prospección y perforación. In 1367784564 1000209151 J. M. Stellman (Ed.), *Enciclopedia de salud y seguridad en el trabajo*. Retrieved from https://www.insst.es/documents/94886/161971/Cap%C3%ADtulo+75.+Petr%C3%B3leo+prospecci%C3%B3n+y+perforaci%C3%B3n#:~:text=Prospecci%C3%B3n%20y%20producci%C3%B3n%20son%20los,los%20productos%20a%20la%20superficie



Source: https://www.valuethemarkets.com/2019/02/15/back-basics-valuethemarkets-guide-creation-production-petroleum/

Hydraulic fracturing process (also called fracking): The rock has to be fractured to get the gas or oil out. This involves drilling vertically 2 km or more below the surface before gradually turning horizontally and continuing to drill up to another 3 km. This allows a single surface site to accommodate the many small pockets of gas and oil.

Up to 10 million liters of hydraulic fracturing fluid is pumped into the well under these extremely high pressures. When the pressure is released, the oil and gas can escape. A wellhead is then installed to capture the released oil and gas. The drilling and hydraulic fracturing equipment is then removed.

A wide range of compounds, additives, are also added to the water that serve a variety of purposes, from limiting bacterial growth to preventing corrosion of the well casing, additives that reduce friction to allow fracturing fluids to be pumped along the pipeline. very quickly, oxygen scavengers and other stabilizers to prevent corrosion of metal pipes.

The flowback fluid contains water and contaminants, including additives, but also radioactive material and heavy metals, hydrocarbons and other toxins. In the United States, this wastewater is either stored in wells at the hydraulic fracturing site, injected into deep subway wells, or disposed of off-site at wastewater treatment facilities.

The U.S. government's Environmental Protection Agency (EPA) has highlighted some of the concerns that hydraulic fracturing is causing. (EPA) has highlighted some concerns that include:

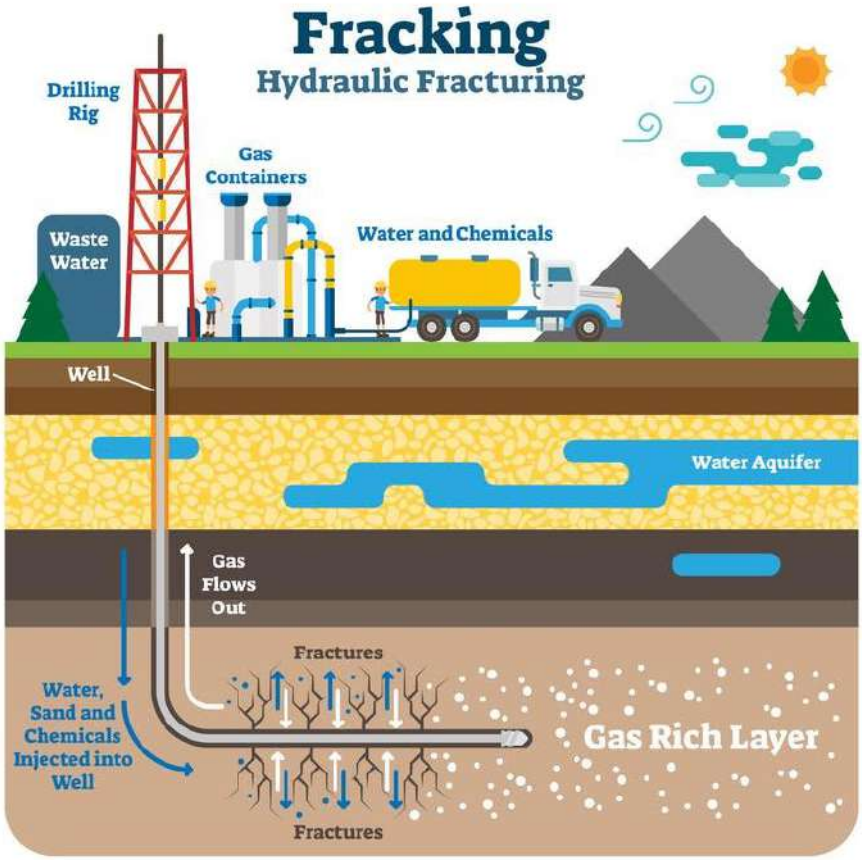
- Stress on surface and groundwater supplies due to the extraction of large volumes of water used in drilling and hydraulic fracturing.

- Contamination of subway sources of drinking water and surface water as a result of spills and faulty well construction.

- Adverse impacts from discharges to surface water or disposal in subway injection wells.

- Air pollution from the release of volatile organic compounds, hazardous air pollutants and greenhouse gases.

These concerns have been highlighted in recent years. As a result, some U.S. states (e.g., New York) do not allow the use of these products. (e.g., New York) have not given permission for fracking, while others are considering stricter regulations. There is also a study showing higher concentrations of hydrocarbons in the atmosphere near some hydraulic fracturing sites.



Source: https://theconversation.com/fracking-in-the-uk-was-doomed-a-decade-ago-tories-have-wasted-precious-time-on-a-fossil-fuel-fantasy-126639

Why is there so much interest in Arctic resources? Involved countries and companies.

It is obvious that natural resources are something that all states seek. But are the states that have territory in the Arctic extracting resources, and why is it important to each of them?

United States: For the US, the most important Arctic resource is oil. There are two reasons why the US wants to extract these resources.

The first reason is that oil consumption in the US is very high. The second reason is strategic. Some of the suppliers of oil (and crude oil) to the US are countries like Saudi Arabia and Russia[13], and there are CIA analysts who believe that the US should consume oil produced in North America.[14] In fact, before leaving the White House, Donald Trump allowed oil drilling in the Arctic National Wildlife Refuge.[15]

Finally, there is another aspect to consider. The US believes that the Arctic region is key and wants to counter the influence of China and Russia. One example is the report to Congress by the Department of Defence on Arctic strategy for 2019.[16]

China: China's main motivation is the need for crude oil[17]. China has been increasing transport at enormous rates both from a civilian point of view (the number of people owning cars in China has increased[18]) and from an industrial point of view, which has seen an increase in the number of trucks in China[19] (as industry increases, so does the transport of goods). [20]

[13] U.S. energy Information administration - eia - independent statistics and analysis. (2021, April 13). Retrieved from https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php

[14] Free Documentary (YouTube). (2021, January 15). *Oil and gas in the Arctic: ICE Race: Free documentary* [Video file] 17:20-22:32. Retrieved March 10, 2021, from https://youtu.be/mjmmWf8XNvg

[15] McGrath, M. (2021, January 6). Alaska: Trump opens wilderness up for oil drilling. *BBC*. Retrieved from https://www.bbc.com/news/science-environment-55561536

[16] Department of Defense of the United States. (2019). *Arctic Strategy* (Rep.). Retrieved https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF

[17] Free Documentary (YouTube). (2021, January 15). *Oil and gas in the Arctic: ICE Race*. 34:30-35:55

[18] https://home.kpmg/cn/en/home/news-media/press-releases/2020/06/china-sees-increased-demand-for-personal-vehicles-and-commitment-to-new-energy-vehicles.html In fact, due to the increase, they also look for new energy vehicles

[19] Wong, S. (2020, December 23). Amount of trucks in China from 2009 to 2019. Retrieved from https://www.statista.com/statistics/278424/amount-of-trucks-in-china/#:~:text=This%20statistic%20shows%20the%20amount,trucks%20were%20registered%20in%20China

[20] Causevic, A. (2012). *A Thirsty Dragon: Rising Chinese crude oil demand and prospects for multilateral energy security cooperation* (Rep. No. PRIF-Report No. 116). Retrieved https://www.files.ethz.ch/isn/156256/prif116.pdf

However, in 2018 China's Arctic white paper was published, detailing China's strategy and objectives. In short, China wants access to natural resources without interfering with the rights of other states and respecting environmental regulations. It also wants to create new trade routes.[21]

Although China has no territory in the Arctic, it is important to highlight it because it has a key role to play. In recent years it has reached various agreements with countries such as Russia and Iceland to increase its presence in the area. [22]

Norway: Norway's economy is heavily dependent on oil and gas exports (mainly gas), between them, they make up 40% of Norway's total exports in 2020.

Minister of energy and petroleum, Tina Bru said in 2020: "*It won't help if Norway discontinues production. It would just move to other countries, and then we are no further. This is a complex global problem that requires many solutions. So I honestly think we spend too much time on this debate here in Norway*"[23]. These words are important, and two things can be read into them. Firstly, one of the main competitors in the gas market and in the Arctic is Russia[24]. In fact, Norway has recently accused Russia and China of Espionage [25] and Russia has accused Norway of violating the Svalbard Treaty [26].

Secondly, it should be noted that oil and gas are found in underground pockets. The extent of these pockets is unknown, but if a pocket were between two countries, the country that starts extracting first would benefit the most. Norway has already said it will continue its oil exploration. It should be noted that there has recently been a legal dispute between the Norwegian government and Greenpeace, with the Norwegian government winning. Nevertheless, oil extraction is a controversial issue in Norway[27] .

[21] The State Council of the People's Republic of China. (2018, January 26). China's Arctic Policy. Retrieved from http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm

[22] Koh, S. (2020, May 12). China's strategic interest in the Arctic goes beyond economics. *DefenseNews*. https://www.defensenews.com/opinion/commentary/2020/05/11/chinas-strategic-interest-in-the-arctic-goes-beyond-economics/.

[23] Why Norway's government says ending oil industry 'won't help' cut global emissions. (2020, February 6). *TheLocal*. Retrieved from https://www.thelocal.no/20200206/why-norways-government-says-discontinuing-oil-production-wont-help-cut-global-emissions/

[24] Adomaitis, N. (2019, January 10). Norway ready to claim share of any Russian Arctic oil and gas finds. *Reuters*. Retrieved from https://www.reuters.com/article/us-norway-russia-oil-idUSKCN1P41VX

[25] Reuters. (2020, December 4). Russian, Chinese intelligence targeting Norwegian oil secrets -report. *Energyworld*. Retrieved from https://energy.economictimes.indiatimes.com/news/oil-and-gas/russian-chinese-intelligence-targeting-norwegian-oil-secrets-report/79560978

[26] Sutterud, T., & Ulven, E. (2020, August 26). Norway plans to drill for oil in untouched Arctic areas. *The Guardian*. Retrieved from https://www.theguardian.com/environment/2020/aug/26/norway-plans-to-drill-for-oil-in-untouched-arctic-areas-svalbard

[27] DW. (2020, December 22). Norway rejects Greenpeace appeal over Arctic oil Exploration: DW: 22.12.2020. Retrieved from https://www.dw.com/en/norway-rejects-greenpeace-appeal-over-arctic-oil-exploration/a-56015500

Russia: From the Russian point of view, there are three reasons why the Arctic and its resources are important[28]. Firstly, unlike the Americans, the Russians are primarily looking for gas extraction, and gas extraction is not only done by Russian companies, but also in partnership with European companies, such as the French company TOTAL SE [29]. In 2017, The 52% of the consumed energetic resources in Russia was gas[30]. Nowadays gas is becoming more and more a strategic resource and, for example, is helping in the energy transformation of various means of transport (ships, trucks, etc.)[31] [32].

Secondly, for decades Russia has been seeking to establish an Arctic trade route, which would benefit Russia economically. This route would be shorter than the current one for transporting goods from Asia to Europe (via the Suez Canal).[33]

Thirdly, there is a security motive. The north of Russia is one of its biggest borders, on the other side of the Arctic are the United States and Canada (NATO members)[34]. Already since the Cold War, the Arctic has been vital for Russia from a military point of view.[35]

In October 2020 Russia published its Arctic strategy[36]. It can be briefly summarized as follows: Russia wants to extract more gas[37], wants to protect the environment (they know that there are companies that have spilled oil and they want to find an effective way to stop that from happening). They also add that the area is strategically important for the country's security.[38]

[28] Bragintseva, M. (2020, December 16). Why Russia needs the Arctic. *Parlamentkaya Gazeta*. Retrieved from https://www.pnp.ru/social/pochemu-rossii-nuzhna-arktika.html
[29] Free Documentary (YouTube). (2021, January 15). *Oil and gas in the Arctic: ICE Race*.
[30] U.S. Energy Information Administration. (2017, October 31). U.S. energy Information administration - eia - independent statistics and analysis. Retrieved March 15, 2021, from https://www.eia.gov/international/analysis/country/RUS
[31] DNV. (n.d.). LNG as marine fuel. Retrieved March 15, 2021, from https://www.dnv.com/maritime/insights/topics/lng-as-marine-fuel/index.html
[32] Scarpellini, S. (2015). LNG: An alternative fuel for road freight transport in Europe. In 1369364845 1001248772 J. Osorio-Tejada (Ed.), *Sustainable Development* (Vol. 1, pp. 235-246). doi:10.2495/SD150211
[33] Russia Floats Arctic Shipping Route as 'Viable' Suez Canal Alternative. (2021, March 25). *TheMoscowTimes*. Retrieved from https://www.themoscowtimes.com/2021/03/25/russia-floats-arctic-shipping-route-as-viable-suez-canal-alternative-a73369
Elconfidencial (YouTube). (2019, August 16). *La Guerra del Ártico: La vía comercial Que enfrenta a China, Rusia y Estados Unidos* [Video file]. Retrieved from https://www.youtube.com/watch?v=fvugoM9-nuw
[34] Sprenger, S. (2021, April 12). Russian military buildup in the Arctic has northern NATO members uneasy. *DefenseNews*. Retrieved from Https://www.defensenews.com/smr/frozen-pathways/2021/04/12/russian-military-buildup-in-the-arctic-has-northern-nato-members-uneasy/
[35] Konyshev, V., & Sergunin, A. (2011). Why Russia needs the Arctic? *Politex (accessed by Cyberleninka)*. Retrieved from https://cyberleninka.ru/article/n/zachem-rossii-nuzhna-arktika
[36] The Strategy for the Development of the Arctic Zone of Russia and Ensuring National Security until 2035 was approved. (2020, October 26). Retrieved from http://kremlin.ru/acts/news/64274
[37] Griffin, R. (2020, October 27). Russia approves Arctic strategy up to 2035. Retrieved from https://www.spglobal.com/platts/en/market-insights/latest-news/coal/102720-russia-approves-arctic-strategy-up-to-2035
[38] Bragintseva, M. (2020, December 16).

Iceland: Iceland became interested in oil extraction and made some agreements with Chinese and Norwegian companies[39]. The problem is that the area Iceland has access to in the Arctic is not very large, and extraction was considered too expensive and risky[40]. So, the "Arctic adventure" ended in 2018 for Iceland.

Recently there have been exercises in response to a possible oil spill at sea. The exercises took place in the sea north of Iceland.[41]

Greenland: Denmark, through the 2009 self-government agreement, handed over powers over resource exploitation to Greenland[42]. It also handed over the shares in *Nunaoil* [43], a company involved in resource extraction[44]. For Greenland, the extraction of oil or gas is important, as the country wants to diversify its economy and not only depend on fishing[45]. Greenland is currently trying to find fossil resources and opening new areas for exploration.[46] Currently Greenland is working in new strategy (2021-2030) for the Arctic region.[47]

[39] Stumbling Block: China-Iceland Oil Exploration Reaches an Impasse. (2018, January 24). *OverTheCircle*. Retrieved from https://overthecircle.com/2018/01/24/stumbling-block-china-iceland-oil-exploration-reaches-an-impasse/

[40] Oil exploration in Icelandic waters comes to an end: Too expensive and too risky. (2018, January 23). *IcelandMagazine*. Retrieved from https://icelandmag.is/article/oil-exploration-icelandic-waters-comes-end-too-expensive-and-too-risky

[41] Sevunts, L. (2021, April 13). Canadian coast guard takes part in International Arctic Exercise. Retrieved from https://www.rcinet.ca/en/2021/04/13/canadian-coast-guard-takes-part-in-international-arctic-exercise/

[42] *Act on Greenland Self-Government* (2008) Retrieved from: https://naalakkersuisut.gl/~/media/Nanoq/Files/Attached%20Files/Engelske-tekster/Act%20on%20Greenland.pdf

[43] Greenland takes a step towards independence. (2009, June 21). *Radio France Internationele*. Retrieved from http://www1.rfi.fr/actufr/articles/114/article_82046.asp

[44] Website of the company: https://nunaoil.gl/en/

[45] Economy and industry in Greenland. (n.d.). Retrieved April 15, 2021, from https://naalakkersuisut.gl/en/About-government-of-greenland/About-Greenland/Economy-and-Industry-in-Greenland

[46] Veazey, M. V. (2020, November 5). Greenland Opens Offshore Areas for Drilling. *Ringzone*. Retrieved from https://www.rigzone.com/news/greenland_opens_offshore_areas_for_drilling-05-nov-2020-163772-article/

[47] Ministry of Foreign Affairs of Denmark. (n.d.). The Arctic. Retrieved April 15, 2021, from https://um.dk/en/foreign-policy/the-arctic/

Canada: Canada in 2016 froze all operating licenses for 5 years. That is, companies that had a license cannot drill or extract resources. This is because Prime Minister Justin Truedau believes that there are too many risks and that an oil leak could have catastrophic consequences for the environment. [48] The population in Canada is divided, some want the oil to be extracted, others do not. [49] [50]

On the one hand it wants to protect the environment, but on the other hand it knows that if it does not act in some way it could lose the resources of the Arctic or its influence in the area.[51]

[48] Sevunts, L. (2017, February 12). Trudeau: Arctic offshore drilling too dangerous. *The Barents Observer.* Retrieved from https://thebarentsobserver.com/en/industry-and-energy/2021/03/moscow-protests-norwegian-exploration-svalbard-waters

[49] WWF-Canada. (2019, October 10). Solid majority of Canadians Oppose offshore oil and gas drilling in Canada's ARCTIC. Retrieved from https://www.globenewswire.com/news-release/2019/10/10/1928210/0/en/Solid-majority-of-Canadians-oppose-offshore-oil-and-gas-drilling-in-Canada-s-Arctic.html

[50] Kyle, K. (2019, December 18). Feds return $430M to oil and gas companies ahead of Arctic offshore exploration ban. *CBC*. Retrieved from https://www.cbc.ca/news/canada/north/beaufort-sea-moratorium-deposits-nwt-1.5399157

[51] Huebert, R. (2014, January). Canada, the Arctic Council, Greenpeace, and ARCTIC OIL drilling: Complicating an already complicated picture. Retrieved from https://www.cgai.ca/canada_the_arctic_council_greenpeace

Canada 'falling behind' because of Arctic oil drilling moratorium: CAPP. (2019, March 14). *CBC.* Retrieved from https://www.cbc.ca/news/canada/calgary/capp-arctic-moratorium-falling-behind-1.5057214

European Union[52]: Although some member states of the European Economic Area (Norway and Iceland) have a presence in the Arctic, The European Union has no territory in the Arctic. Must be said some of the European countries' corporations are involved in resource extraction (For example TOTAL SE)[53]. In 2017, the parliament called in a resolution for a ban on drilling in the Arctic ice waters.[54] In 2020, a report requested by the European Parliament Committee on Foreign Affairs was published, stating that "*As the EU continues to play an important role as a consumer of Arctic hydrocarbons, it can use its market relevance and leadership in sustainable development to ensure that oil and gas activities conform to the highest environmental standards. At the same time, it needs to understand that its sanctions will result in Russia looking for partners for their Arctic projects elsewhere. In addition, the EU's position vis-à-vis Arctic oil and gas should find a way to balance calls for divestment away from hydrocarbons with its reliance on deliveries from Arctic Norway and Russia. It should continue to be open and frank about its dependence and use it to make sure that the drilling for oil and gas follows strict environmental rules*". [55] The European Union imports mainly from Russia. On a commercial level, it may have an important role to play.[56] Must be said that there are projects like the "*Nord Stream 2*" and that Germany every time is purchasing more Russian gas. The reason is that Gas is considered the less polluting energy of the polluting energy.[57]

[52] *A Balanced Arctic Policy for the EU* (Rep.). (2020, July). doi:10.2861/441435. Retrieved from https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/603498/EXPO_IDA(2020)603498_EN.pdf
[53] TOTAL SE. (n.d.). Yamal lng: The gas that came in from the cold. Retrieved April 17, 2021, from https://www.total.com/energy-expertise/projects/oil-gas/lng/yamal-lng-cold-environment-gas
[54] Prokofyeva, Y. (2020, December 1). Feedback from: Surfrider Foundation Europe. Retrieved from https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12683-Politica-de-la-UE-para-el-Artico-actualizacion/F1292860_es
[55] *A Balanced Arctic Policy for the EU* (Rep.). (2020, July).
[56] Eurostat. (n.d.). From where do we import energy and how dependent are we? Retrieved April 17, 2021, from https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html
[57] VisualPolitik (YouTube). (2021, April 04). *PUTIN, MERKEL, BIDEN y EL gasoducto de La DISCORDIA - VisualPolitik* [Video file]. Retrieved from https://www.youtube.com/watch?v=END2rIFzTFs

Some of the companies participating are listed in the table below[58]. The companies listed in the table below are companies that extract Arctic oil, gas or minerals and have committed to indigenous rights.

TABLE 1. Ranking Arctic extractive companies on indigenous rights

Rank	Company		Average
1	Teck Alaska Incorp.	US	3.75
2	Total E&P	NO	3.70
3	MMG Resources	CA	3.60
4	Arctic Slope Regional Corp.	US	3.55
5	Statoil	NO	3.40
6	Doyon	US	3.30
7	Baffinland	CA	3.00
8	Kinross Gold	RU	3.00
9	Polymetal Int.	RU	3.00
10	Imperial Oil	CA	2.95
11	ENI	US	2.76–2.94
	Exxon Mobil Alaska	US	
	Gazprom	RU	
12	Agnico Eagle Mines	FI	2.51–2.75
	ALROSA	RU	
	Bashneft	RU	
	ConocoPhillips Alaska	US	
	Repsol	US	
13	Alyeska Pipeline Service Co.	US	2.26–2.50
	Boliden	SE	
	First Quantum Minerals	FI	
	Gold Fields Netherlands	FI	
	Hilcorp Alaska	US	
	Novatek	RU	
	Rosneft	RU	
	Severneft-Urengoy	RU	
14	Anadarko Petroleum	US	2.01–2.25
	Anglo-Am., Sakatti Mining	FI	
	Dragon Mining	FI	
	Eurasian Minerals	SE	
	LKAB	SE	
	Lukoil	RU	
	NANA Regional Corp.	US	
	RN-Shelf-Arktica	RU	
15	Achimgaz	RU	1.76–2.00
	Almazy Anabara	RU	
	BP	US	
	Petoro	NO	
16	Arctic Gold	NO	1.51–1.75
	Elkem	NO	
	GDF SUEZ E&P	NO	
	Ironbank Zinc	DK	
	Nenetskaya Neftyanaya Komp.	RU	
	Nordic Mining	NO	
	Northern Radiance	RU	
	Northgas	RU	
	Nuna Minerals	DK	
	Omya Hustadmarmor	NO	
	Severstal	RU	
	Sibelco Nordic	NO	
	Vorkutaugol	RU	

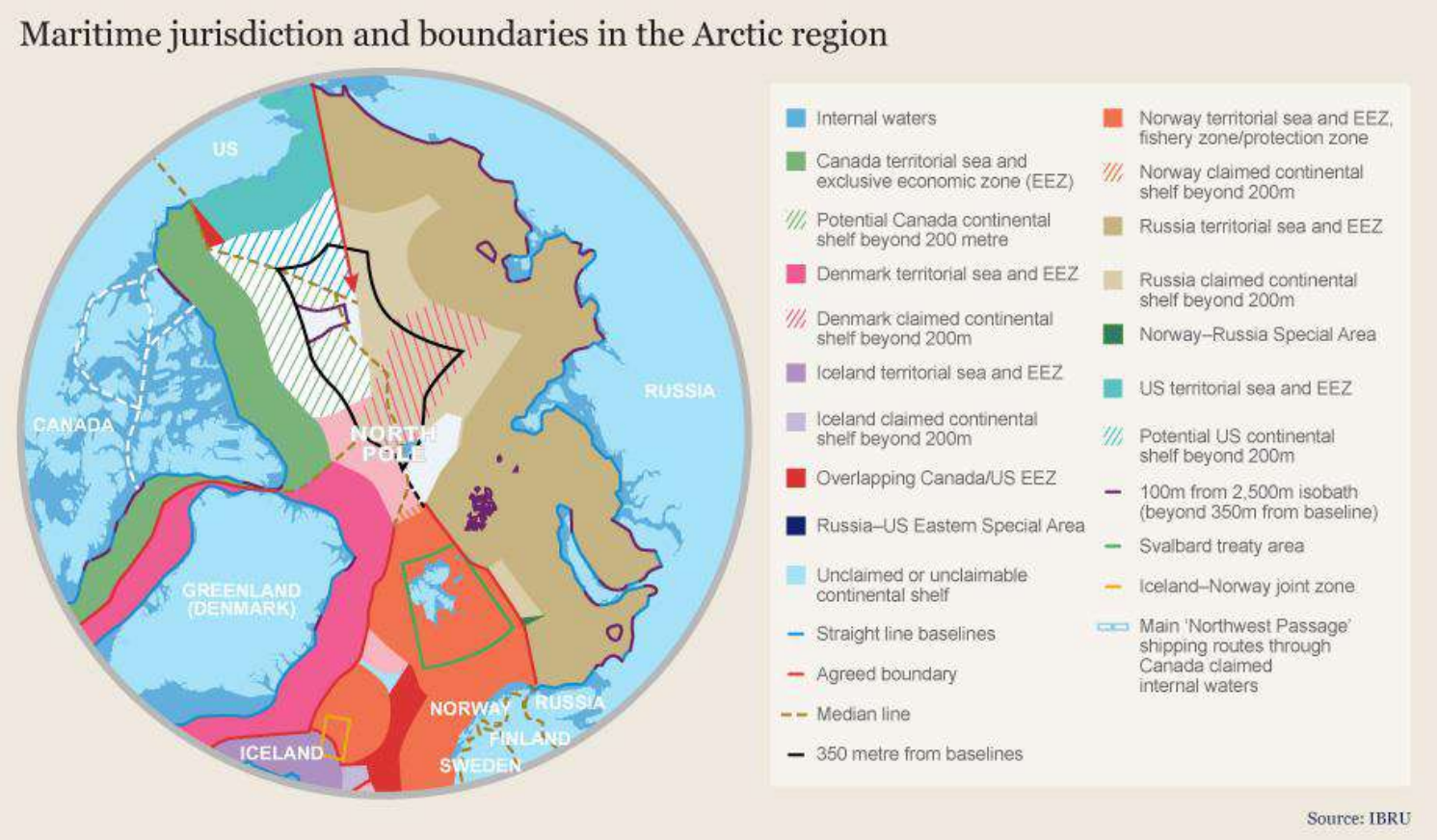
Rank	Company		Average
17	Arctic Marine Engineering-Geol. Exp.	RU	1.26–1.50
	Aurion Resources	FI	
	Auryn Resources	CA	
	Avalon Minerals	SE	
	CGRG	DK	
	Dalmorneftegeophysica	RU	
	ERIELL	RU	
	Geo Mining	NO	
	Hudson Resources	DK	
	Kandalashka Al. Smelter (RUSAL)	RU	
	Kovdorsky GOK	RU	
	Magnus Minerals	FI	
	Malmbjerget Molybdenum	DK	
	Norge Mineral Resources	NO	
	Norilsk Nickel	RU	
	Nortec Minerals	FI	
	Northern Cross	CA	
	Northern Iron	NO	
	Northern Shield Resources	DK	
	Novourengoyskaya Burovaya Komp.	RU	
	Nussir	NO	
	PhosAgro	RU	
	Platina Resources	DK	
	Skaland Graphite	NO	
	SK Rusvietpetro	RU	
	The QUARTZ	NO	
	YaregaRuda	RU	
18	Arktikmorneftegazrazvedka	RU	1.00–1.25
	Beowulf Mining	SE	
	Brooks Range Petroleum	US	
	Caelus Energy	US	
	Commander Resources	CA	
	Kommedra	RU	
	Lovozero GOK	RU	
	North-Western Phosphorus Co.	RU	
	Norwegian Rose	NO	
	Shahta Intaugol	RU	
	Taranis Resources	FI	
	Tertiary Minerals	FI	
	Usibelli Coal Mine	US	
	Yamalzoloto	RU	

[58] Overland, Indra. (2016). Ranking Oil, Gas and Mining Companies on Indigenous Rights in the Arctic. Indra Overland – member of the Norwegian Institute of International Affairs.

LEGAL BACKGROUND

Maritime Jurisdicction and Boundaries

Maritime Jurisdicction and Boundaries according to UNCLOS[59]



Before explaining the legal context, it is necessary to know which state has sovereignty over the territory. According to Hans Kelsen, "*sovereignty was the competence of the state to make the final and binding decision in both internal and external affairs*"[60]. Public international law, through *The United Nations Convention on the Law of the Sea* (UNCLOS), delimits the sovereign rights of States in the Sea. Once it is known which state is sovereign over the territory, the jurisdiction and therefore the applicable law can be analyzed.

[59] Maritime jurisdiction and boundaries in the Arctic region - graphic. (2015, August 24). Retrieved from https://www.thenationalnews.com/world/maritime-jurisdiction-and-boundaries-in-the-arctic-region-graphic-1.34929

[60] H. Kelsen (1920) Das Problem der Souveränität und die Theorie des Völkerrechts, Beitrag zu einer Reinen Rechtslehre, Mohr Siebeck, Tübingen.

Article 3 of The UNCLOS grants sovereign rights to waters located 12 nautical miles from the coast. On the other hand, according to Article 57 of UNCLOS the economic zone can be a maximum of 200 miles from the baselines from which the breadth of the territorial sea is measured. However, in its article 76 it talks about continental shelves and limits the sovereign rights to a maximum of 350 nautical miles.[61]

What are the differences between the distances according to UNCLOS?

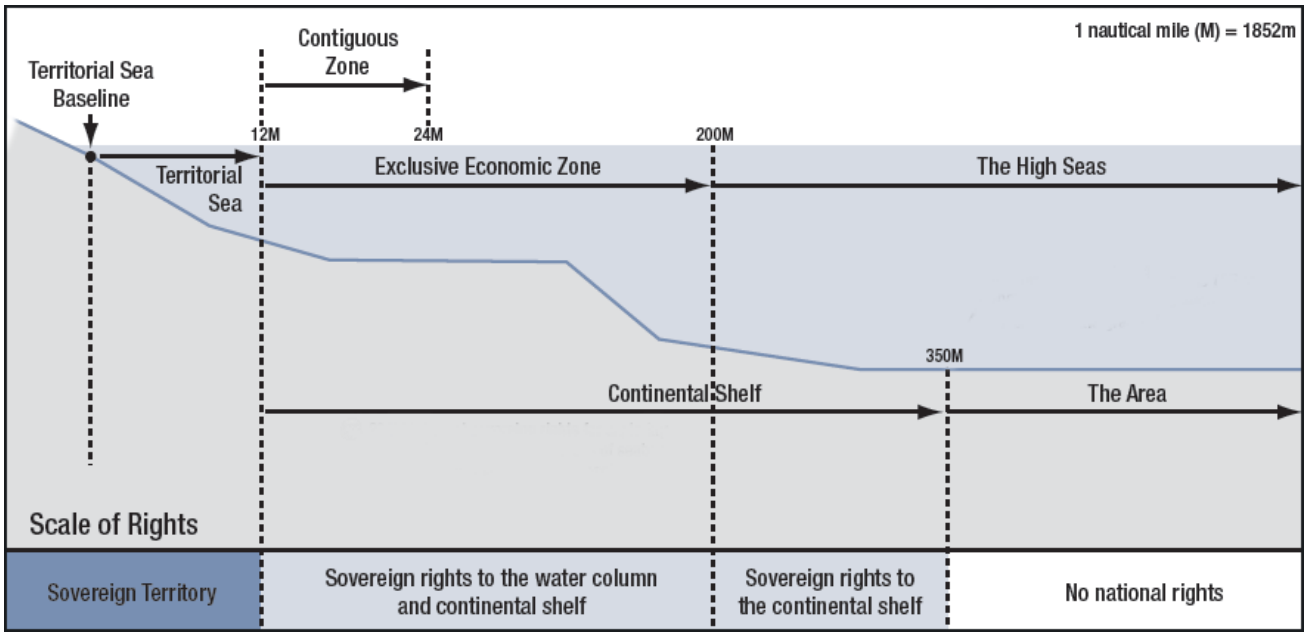
12 miles From the Territorial Sea Baseline, the state has sovereign rights over those waters and continental shelf.

After calculating the 12 miles. At the point where they end. There are two distances to consider.

In an area not exceeding 200 miles is the "Exclusive Economic Zone". Here the state has rights in the resources that exist, both in the water and in the subsoil. In addition, it has sovereign rights over maritime research, the establishment of artificial islands, installations, protection of the maritime environment... among others. It has the power to arrest vessels in this zone.

Within no more than 350 miles, i.e. a maximum of 150 miles beyond the Exclusive Economic Zone. The state only has the right to the continental shelf, i.e. the seabed. Article 81 of UNCLOS allows the state to drill on the continental shelf for any purpose. Among them, the extraction of oil.

Overview of the UNCLOS coastal waters



Source: http://www.vliz.be/projects/marinegeneticresources/united-nations-convention-law-sea.html

[61] UNCLOS retrieved from https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

The United States has signed but not ratified UNCLOS[62], but in its national legislation it has been applied on several occasions, it is considered international customary law. [63]

There is currently no detailed boundary in the Arctic[64]. In the "Agreement on Cooperation in Aeronautical and Maritime Search and Rescue in the Arctic", "borders" are drawn in the Arctic to delimit who should carry out search and rescue operations, but the same treaty, in article 3.2, states that at no time do these "borders" contain sovereignty rights or jurisdiction and that they are not considered real borders between states. [65]. There is currently an important debate on this issue, which this dissertation will address later.

Organizations, International Law and International Treaties [66]

Organizations

There are organizations related to the situation in the Arctic. The main one is the Arctic Council. Then there is the "*Arctic Circle*" which is a non-profit organization.

Then there are organizations like OPEC (*Organization of the Petroleum Exporting Countries*) or the WTO (*World Trade Organization*) that could be involved indirectly[67] (by how the discovery and extraction of more resources affects the price of oil).

In the case of the WTO, there have been disputes as to whether it can enter into regulating cases related to natural resources. In 2006 there was the "US - Softwood Lumber IV" case in which a dispute over the price of exported lumber was resolved. The WTO cannot regulate unextracted resources and its rules are not meant to regulate trade in natural resources, but there have been exceptions.[68]

Within the WTO is the GATT (*General Agreement on Tariffs and Trade*), which regulates tariffs, and this has more implications for oil and resources (for example, it regulates the

[62] Drawbaugh, K. (2007, October 31). U.S. Senate panel backs Law of the Sea treaty. *Reuters*. Retrieved from https://www.reuters.com/article/latestCrisis/idUSN31335584

[63] Smith, Angelle C. "*Note: Frozen Assets: Ownership of Arctic Mineral Rights Must be Resolved to Prevent the Really Cold War* ." George Washington International Law Review. Vol. 41, No. 3 (2011): pages 651-680. Retrieved from: https://www.unclosdebate.org/evidence/1904/us-courts-have-already-recognized-unclos-reflecting-customary-international-law-united

[64] Østhagen, A. (2017, December 19). Establishing Maritime Boundaries in Arctic Waters. Retrieved from https://www.thearcticinstitute.org/establishing-maritime-boundaries-arctic-waters/

[65] Arctic Council. (2011). AGREEMENT on cooperation on aeronautical and MARITIME search and rescue in the arctic. Retrieved from https://oaarchive.arctic-council.org/handle/11374/531

[66] Arcticportal. (n.d.). International agreements. Retrieved April 19, 2021, from https://arcticportal.org/arctic-governance/international-agreements

[67] Jiménez-Guerra, A. (2001). The World Trade Organization and oil. Oxford Institute for Energy Studies. Retrived from https://www.oxfordenergy.org/wpcms/wp-content/uploads/2010/11/SP12-TheWorldTradeOrganizationandOil-AJimenezGuerra-2001.pdf

Lars Lindholt & Solveig Glomsrød, (2011). "The role of the Arctic in future global petroleum supply," Discussion Papers 645, Statistics Norway, Research Department. Retrieved from: https://www.ssb.no/a/publikasjoner/pdf/DP/dp645.pdf

[68] World trade organization. (2010). World Trade Report 2010 (Natural resources, international cooperation and trade regulation). Retrieved from https://www.wto.org/english/res_e/publications_e/wtr10_e.htm

pipeline transit, although it does not regulate pipeline construction). Except for Russia, all other Arctic states are party to GATT. Negotiations on the WTO's involvement in natural resources have been ongoing since 2000. The negotiations are complex. Currently, it is considered that from a legal perspective the WTO has no competence, but this position is controversial because, due to political, economic and security interests, it has been debated. [69] On the environment, the WTO allows states to regulate to protect the environment in trade but does not have any binding rules.

Also, there are organizations dedicated to arctic research. Such as the Arctic Institute [70] or the Forum of Arctic Research Operators. [71]

Arctic Council [72]: It is an intergovernmental organization. It is formed by different member states that have territory in the Arctic (Canada, The Kingdom of Denmark, Finland, Iceland, Norway, The Russian Federation, Sweden, The United States). In addition, there are approved states, considered as observer states, which do not have territory in the Arctic (France, Germany, Italy, Japan, Netherlands, People's republic of China, Poland, India, Republic of Korea, Singapore, Spain, Switzerland, United Kingdom).

In addition, international organizations representing indigenous interests (Aleut International Association, Arctic Athabaskan Council, Gwich'in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North, Saami Council) also participate on a permanent basis. Then there are observer organizations. [73]

The Arctic Council began to take shape in 1991 when the Arctic countries signed the Arctic Environmental Protection Strategy, a non-binding agreement[74]. It was officially created in 1996 with the Ottawa Declaration[75]. Establishing this organization as a space for cooperation and coordination between states with Arctic territories and with the aim of protecting the environment and the rights of indigenous communities.

[69] Leal-Arcas, R., & Abu Gosh, E. (2014). *Energy Trade as a Special Sector in the WTO: Unique Features, Unprecedented Challenges and Unresolved Issues* (Rep. No. Legal Studies Research Paper No. 176/2014). Retrived from: https://www.ourenergypolicy.org/wp-content/uploads/2014/06/london.pdf
Lee, J. (2017, December 10). The Arctic Threat to the Price of Oil. *Bloomberg*. Retrieved from https://www.bloomberg.com/opinion/articles/2017-12-10/the-arctic-threat-to-oil-s-grand-bargain
[70] See https://www.thearcticinstitute.org/
[71] See https://faro-arctic.org/
[72] See https://arctic-council.org/en/
[73] Information retrieved from https://arctic-council.org/en/
[74] Nowland, L. (2001). *IUCN Environmental Policy and Law Paper No. 44* (Rep. No. Arctic Legal Regime for Environmental Protection). Retrieved from https://portals.iucn.org/library/efiles/documents/EPLP-044.pdf
[75]Axworthy, T. (2010, March 29). Axworthy: Canada bypasses key players in arctic meeting. Retrieved April 18, 2021, from https://www.thestar.com/news/canada/2010/03/29/axworthy_canada_bypasses_key_players_in_arctic_meeting.html

The organization meets every two years. The next meeting will be held at the end of May 2021. [76] In May 2021 will start the Russia chairmanship until 2023. [77] Must be said that the Arctic Circle is a soft law organization, and its agreements are not bidding. In 3 occasions, states decided to create bidding agreements with the auspice of the Arctic Council. [78] Those agreements are:

- *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic* (signed 2011)
- *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic* (signed 2013)
- *Agreement on Enhancing International Arctic Scientific Cooperation* (signed 2017)

However, the organization makes Working Groups, Programs and Action Plans. For example:

The six Arctic Council working groups [79]:

- Arctic Monitoring and Assessment Programme
- Conservation of Arctic Flora & Fauna
- Emergency Prevention, Preparedness & Response
- Protection of the Arctic Marine Environment
- Sustainable Development Working Group
- Arctic Contaminants Action Program

The work of Working Groups covers a wide range of subjects, from climate change to emergency response. Each Working Group has a:

Mandate, Chair, Management Board or Steering Committee, and a Secretariat.

They are usually comprised of representatives of national governments, of national governmental agencies which are members of the arctic council. Observer states and observer organizations have the possibility to attend working group meetings and participate in specific projects. In addition, usually guests or experts are invited to attend the meetings.

An example of a program is the *Arctic Climate Impact Assessment* [80] or the *Circumpolar Biodiversity Monitoring Program.* [81]

[76] Meeting scheduled on 20 May 2021 according to https://arctic-council.org/en/events/ministerial-meeting/
[77] Bykova, A. (2021, March 12). Russian Arctic Council Chairmanship: "Will Welcome More Active Engagement of the Observer States". *High North News*. Retrieved from https://www.highnorthnews.com/en/russian-arctic-council-chairmanship-will-welcome-more-active-engagement-observer-states
[78] Agreements retrieved from https://arctic-council.org/en/explore/work/cooperation/
[79] Working groups retrieved from https://arctic-council.org/en/about/working-groups/
[80] Arctic climate impact assessment. (n.d.). Retrieved April 19, 2021, from https://acia.amap.no/
[81] Conservation of Artic Flora and Fauna. (n.d). Retrieved April 19, 2021, from https://www.caff.is/monitoring

In 2009, guidelines were published on how to proceed with oil and gas in the Arctic (from exploration to decommissioning).[82]

These guidelines are mainly based on protecting biodiversity, the environment, indigenous people and establishing guidelines on how to proceed (e.g. how to manage waste from extraction).

The objectives of these guidelines are as follows:

"Offshore oil and gas activities in the Arctic should be planned and conducted so as to avoid:

- adverse effects on air and water quality that exceed national or applicable international standards or regulations;
- changes in the atmospheric, terrestrial (including aquatic), glacial or marine environments that exceed national or applicable international standards or regulations;
- detrimental changes in the distribution, abundance or productivity of species or populations of species;
- further jeopardy to endangered or threatened species or populations of such species;
- degradation of, or substantial risk to, areas of biological, cultural, scientific, historic, aesthetic or wilderness significance;
- adverse effects on livelihoods, societies, cultures and traditional lifestyles for northern and indigenous peoples; and
- adverse effects to subsistence hunting, fishing and gathering.

It also establishes a series of principles requiring states to comply with precepts 15 and 16 of the Rio Declaration[83] (act prudently and that in case of environmental damage, the polluter should pay) and to act taking into account the principles of sustainable development (development that meets the needs of the present without compromising the ability of future generations to meet their own needs[84]), in addition to protecting biodiversity, using the best technology and techniques to protect the environment, maintaining an extraction rate that minimizes negative environmental and social impacts... among other things.

[82] Arctic Council. (2009, April 29). *Arctic Offshore Oil and Gas Guidelines.* (Rep.). Retrieved from https://oaarchive.arctic-council.org/bitstream/handle/11374/63/Arctic-Guidelines-2009-13th-Mar2009.pdf?sequence=1&isAllowed=y

[83] *Report Of The United Nations Conference On Environment And Development* (Rep. No. A/CONF.151/26). (1992, June). Retrieved from https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf

[84] Rachel Emas, (January 2015) The concept of sustainable development: Definition and defining principles. Retrieved from: https://sustainabledevelopment.un.org/content/documents/5839GSDR%202015_SD_concept_definiton_rev.pdf

Arctic Circle: It is a non-profit organization[85] based in Iceland. It was established in 2013. It is not an international organization comparable to the Arctic Circle. It is more of a network of people who hold forums, assemblies and conferences where arctic issues are discussed. It is created by the former president of Iceland Ólafur Ragnar Grímsson.

On their website they describe themselves as: "*The Arctic Circle is the largest network of international dialogue and cooperation on the future of the Arctic. It is an open democratic platform with participation from governments, organizations, corporations, universities, think tanks, environmental associations, indigenous communities, concerned citizens, and others interested in the development of the Arctic and its consequences for the future of the globe. It is a nonprofit and nonpartisan organization*." [86]

International Treaties, Conventions and Agreements

The following will explain which treaties must be taken into account when extracting resources in the Arctic. There are two types of treaties, firstly those of a political nature (UNCLOS, Svalbard and the Artic Search and Rescue Agreement) that delimit territorial limits and secondly those related to the environment.

The environmental treaties that will be explained are those that are directly or indirectly related to the extraction of oil, gas, and their refining. From water pollution to treaties that talk about CO2 emissions.

There are treaties that have been excluded because they have little or no relation to oil and gas extraction. For example, there are treaties related to fisheries or the protection of polar bears, but their content is not linked to the subject of the dissertation.

The order in which the environmental treaties are listed is by date of ratification.

UNCLOS – United Nations Convention on the Law of the Sea[87]

It is a convention dated 1982. In the past there was the principle of "Freedom of the Sea" in which each state did as it saw fit. It was from the 18th century onwards that they began to regulate what could be done on the water and to which state it belonged. [88]

UNCLOS was originally published in 1958, but has been amended several times, the final version being the 1982 version.

[85] Medred, C. (2016, September 27). New Arctic Circle group forms to address needs of changing north. *Anchorage Daily News*. Retrieved from https://www.adn.com/arctic/article/arctic-circle-assembly-hopes-address-needs-changing-north/2013/04/15/
[86] The organization explains itself on its website (http://www.arcticcircle.org/about/about/)
[87] See footnote 61.
[88] Akashi, K. (1998). Cornelius van Bynkershoek: His role in the history of international law. The Hague: Kluwer Law International.

An agreement on the seabed was reached in 1994. The *International Seabed Authority* was created. Because of this, the United States withdrew, as it considers this authority to be contrary to its interests.[89]

The *International Seabed Authority* is dedicated to regulating the extraction of resources from the seabed in international waters and those marine areas where no state has sovereignty. Its objective is to protect the marine environment. Although, there is "The Enterprise", it is the commercial arm of the Authority, empowered to conduct its own mining, initially through joint ventures with other entities.[90] This organization can also resolve disputes related to the seabed. [91]

The role of this organization could be very complicated if the Arctic melts because it would make easier the access to the resources. The competences of this organization are only the exploration and extraction of resources outside the sovereignty of all states. At the moment there are territorial disputes in the Arctic and one of them does not recognize its authority (USA), but, no state has the adequate technology to extract oil from the frozen zone, so, due to the lack of technology it has not yet been in a complex situation. [92]

As has been said above, except for the United States, all Arctic countries have accepted the authority of this organization. This treaty is fundamental. The territorial claims of the states, and thus the Arctic resources, are based on this treaty.

It is very important to know the economic space that each state has in order to know up to which area it can extract oil and gas.

The importance of this treaty will be further discussed in the "disputes and controversies" section.

Svalbard Treaty

The Svalbard Treaty[93] was signed in 1920 and entered into force in 1925. This treaty grants Norway sovereignty over the island (legislatively and administratively) but considers that the contracting parties of the treaty should have equal access to commercial activities (mainly coal mining in the area). [94]

Russia and Norway have had a long-standing dispute over the island's resources. During Soviet times it was over fishing. Now Norway has decided to explore for oil. As Norway is the sovereign

[89] Dee, L. (2016, July 22). The marooned law of the sea treaty. Retrieved April 20, 2021, from https://adst.org/2016/07/the-marooned-law-sea-treaty/
[90] Nautilus minerals Propose joint venture with the enterprise. (n.d.). Retrieved April 20, 2021, from https://www.isa.org.jm/news/nautilus-minerals-propose-joint-venture-enterprise
[91] Information retrieved from the following file https://www.peacepalacelibrary.nl/ebooks/files/ISA_ENG2111111.pdf This file has been retrieved from https://www.peacepalacelibrary.nl/.
[92] Todorov, A. (2019). Future work of the International Seabed Authority in the context OF the Arctic governance. *Arctic and North, 34*, 90-109. doi:10.17238/issn2221-2698.2019.34.90
[93] Svalbard Treaty retrieved from https://www.jus.uio.no/english/services/library/treaties/01/1-11/svalbard-treaty.xml
[94] Rossi, C. (2016). A Unique International Problem: The Svalbard Treaty, Equal Enjoyment, and Terra Nullius: Lessons of Territorial Temptation from History, 15 WASH. U. GLOBAL STUD. L. REV. 93. Retrieved from https://openscholarship.wustl.edu/law_globalstudies/vol15/iss1/7

state, it must protect the environment, which could give it the right to veto oil exploration by other countries.[95]

Russia and Norway have accused each other of breaching the treaty and in 2020 Norway made a clarification of the treaty[96]. But this issue will be discussed later.

Source: https://www.worldmap1.com/svalbard-map.asp

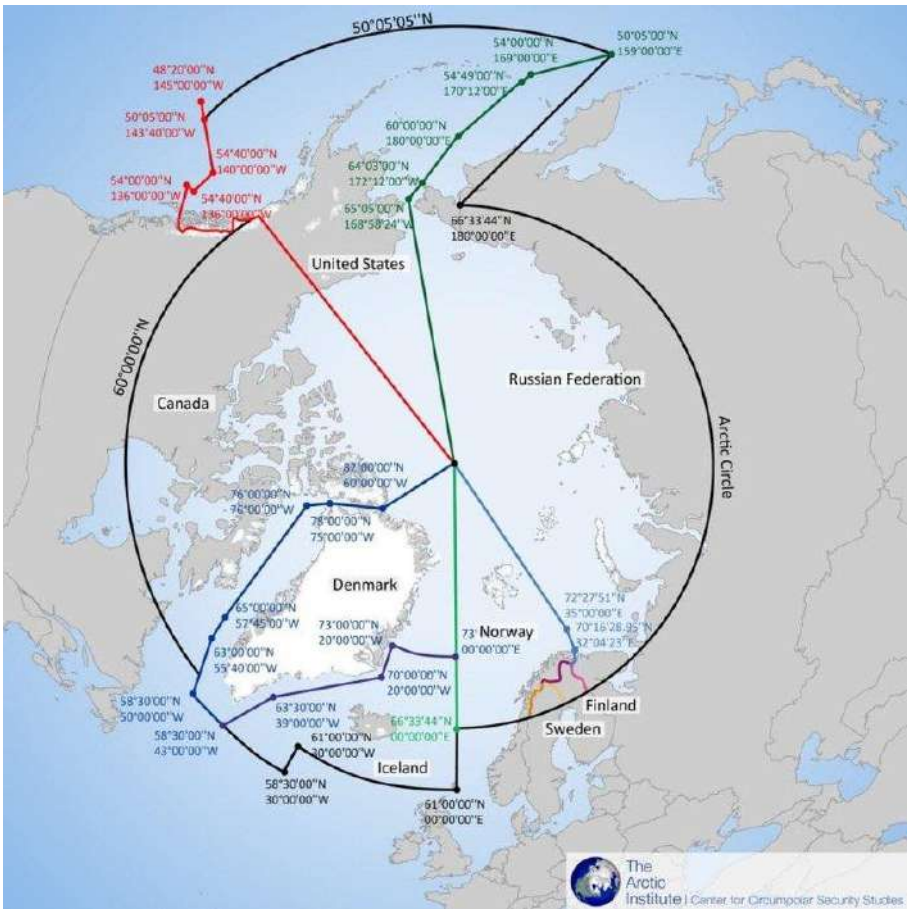
[95] Sutterud, T., & Ulven, E. (2020, August 26).
Staalesen, A. (2019, September 3). Why Russia is taking another look at Svalbard oil-drilling samples from 1975. *ArcticToday*. Retrieved from https://www.arctictoday.com/why-russia-is-taking-another-look-at-svalbard-oil-drilling-samples-from-1975/

[96] The Maritime Executive. (2020, February 17). Norway clarifies Svalbard treaty After Russian complaint. Retrieved from https://www.maritime-executive.com/article/norway-clarifies-svalbard-treaty-after-russian-complaint

Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic.

Also known as the Arctic Search and Rescue Agreement. This treaty was signed in 2011 between states with Arctic territory. This treaty establishes cooperation obligations and creates imaginary borders within which each state has the duty to conduct rescue efforts.[97] These borders are simply for rescue tasks, as indicated in Article 3. They will not be borders related to sovereignty. This treaty is one of the few binding treaties of the Arctic Council. The sources of this treaty are various works of the Arctic Council Emergency Prevention. In addition, national bodies such as the Murmansk Marine Rescue Coordination Centre participated in its elaboration.[98]

The borders are as follows:



Source: https://www.researchgate.net/figure/Areas-of-search-and-rescue-jurisdiction-in-the-Agreement-on-Cooperation-on-Aeronautical_fig4_301232736

[97] *Agreement On Cooperation On Aeronautical And Maritime Search And Rescue In The Arctic*. Retrieved From https://oaarchive.arctic-council.org/bitstream/handle/11374/531/EDOCS-1910-v1-ACMMDK07_Nuuk_2011_Arctic_SAR_Agreement_unsigned_EN.PDF?sequence=8&isAllowed=y

[98] Are Sydnes, Maria Sydnes, and Yngve Antonsen, (2017). International cooperation on search and rescue in the arctic, Arctic Review on Law and Politics 8. Retrieved from: https://core.ac.uk/download/pdf/228446983.pdf

London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter [99]

This convention has been ratified by all Arctic member states. The convention entered into force in 1975. The aim of this convention is to prevent waste from ending up in the sea in order to protect the marine environment. Among the wastes mentioned in the convention are those from oil extraction. [100]

Recently, the effectiveness of the convention has been called into question, because some contracting parties have violated it.[101]

Although the Arctic Council does not consider this treaty relevant to the Arctic. It should be noted that this treaty aims to ensure that parties dispose of waste in the water, so it could also be applicable to the Arctic.

The Convention on Long-range Transboundary Air Pollution, Geneva[102]

This convention was signed in 1979 and signatories include the Arctic states. It is important because it established mechanisms to cooperate and reduce air pollution. It has also served as a source of law for many environmental protection regulations. The convention refers to dispute settlement, but not to possible sanctions.

It should be noted that in many cases oil or gas is burned, in fact, this is the method used in case of a spill[103]. This causes serious damage to the environment, and flaring increases air pollution that can affect more than one state.[104]

[99] Convention on the prevention of marine pollution by dumping of wastes and other matter. (n.d.). Retrieved April 22, 2021, from https://www.imo.org/en/OurWork/Environment/Pages/London-Convention-Protocol.aspx
[100] *Convention On The Prevention Of Marine Pollution By Dumping Of Wastes And Other Matter*. Retrieved from https://www.epa.gov/sites/production/files/2015-10/documents/lc1972.pdf
[101] Stokke, O. S. (1997). *Northwest Russia and the Dumping ofRadioactive Waste: The London Convention Implemented* (Rep. No. Report No. 3/1997). Retrieved from https://www.osti.gov/etdeweb/servlets/purl/316578
[102] Convention retrieved from https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-1&chapter=27&clang=_en
[103] Itopf. (n.d.). In-situ burning. Retrieved April 22, 2021, from https://www.itopf.org/knowledge-resources/documents-guides/response-techniques/in-situ-burning/
[104] Oil and natural gas pollution. (n.d.). Retrieved April 22, 2021, from https://ballotpedia.org/Oil_and_natural_gas_pollution#

Convention on Environmental Impact Assessment in a Transboundary Context [105]

This convention entered into force in 1991. It has not been ratified by Russia, the United States or Iceland.

This convention establishes the obligation to plan how an action will affect the environment. This planning must be done at the beginning of the project. In addition, if a project is likely to have an environmental impact that may affect more states, it must be notified and consulted. It adds the possibility to make an analysis after the project has been carried out.

Among the list of activities covered by the convention is oil extraction.

In case of dispute, the competent body is the International Court of Justice.

United Nations Framework Convention on Climate Change

This convention was adopted in 1992.[106] It is one of the "three Rio Conventions".[107] Mainly this convention emphasizes that there is a problem regarding the emission of gases into the atmosphere and the greenhouse effect. The idea is to prevent the emission of greenhouse gases to a level that avoids dangerous human interference with the climate system. The convention considers that it is the developed countries that must take the lead in making the change and proposes to provide funds to improve the situation with regard to the environmental impact in developing countries. All countries that are part of the Arctic Council have signed this convention. Russia only signed the Annex I.

Convention on Biological Diversity [108]

The Convention on Biological Diversity is a multilateral treaty in which the main objectives are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Its overall objective is to promote measures leading to a sustainable future. It was signed between 1992 and 1993.

This convention was produced during the Rio Summit, where some agreements were reached. The US is not a party of the Rio Summit.

Some of Rio Declaration principles are as follows[109]:

- People are entitled to a healthy and productive life in harmony with nature.
- Development today must not threaten the needs of present and future generations.

[105] *Convention on Environmental Impact Assessment in a Transboundary Context*. Retrieved from http://library.arcticportal.org/1870/1/ECE.MP.EIA.21_Convention_on_Environmental_Impact_Assessment.pdf
[106] *United Nations Framework Convention On Climate Change*. Retrieved from https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
[107] The Rio Conventions. (2013, December 12). Retrieved April 22, 2021, from https://www.cbd.int/rio/
[108] *Convention on biological diversity*. Retrieved from http://library.arcticportal.org/1872/1/cbd-en.pdf
[109] The Rio Declaration on environment and Development: Sustainable Environment online. (2018, September 28). Retrieved from https://www.sustainable-environment.org.uk/Action/Rio_Declaration.php

- Nations have the right to exploit their own resources, but without causing environmental damage beyond their borders.
- Environmental protection shall constitute an integral part of the development process.
- Eradicating poverty and reducing disparities in living standards in different parts of the world are essential if we are to achieve sustainable development whilst meeting the needs of the majority of the people.
- Environmental issues are best handled with the participation of all concerned citizens.
- The polluter should, in principle, bear the cost of pollution.
- Sustainable development requires better scientific understanding of the problems. Nations should share knowledge and technologies to achieve the goal of sustainability.

Kyoto Protocol to the United Nations Frameworks Convention on Climate Change [110]

The Kyoto Protocol entered into force in 2005 despite being approved in 1997. This protocol is binding for the states that ratify it. Only Norway and Iceland, among the Arctic countries, have fully ratified the protocol. [111]

This protocol has created the objective of reducing emissions in industrialized countries. In 2013, the Doha amendment was proposed to revise the commitments that had previously been made.[112]

Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic [113]

This treaty, ratified by the Arctic nations, obliges them to have an oil-related incident response plan. They also cooperate and share information in the event of a problem. It was signed in 2013 in Kiruna.

There are some treaties or conventions that have not been mentioned. This is due to their low relevance to resource extraction. As a brief summary, states and companies must comply with these standards, which basically regulate waste management, environmental pollution and the protection of biodiversity.

After outlining the most important treaties regarding oil and gas extraction in the Arctic, the next page will provide an overview of all the treaties in the Arctic and which countries have ratified them.

[110] What is the Kyoto Protocol? (n.d.). Retrieved April 23, 2021, from https://unfccc.int/kyoto_protocol

[111] Status of ratification can be checked in the following website https://unfccc.int/process/the-kyoto-protocol/status-of-ratification

[112] Doha amendment to enter INTO Force: NEWS: SDG Knowledge Hub: IISD. (2020, October 8). Retrieved from https://sdg.iisd.org/news/doha-amendment-enters-into-force/

[113] *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic*. Retrieved from https://oaarchive.arctic-council.org/bitstream/handle/11374/529/EDOCS-2068-v1-ACMMSE08_KIRUNA_2013_agreement_on_oil_pollution_preparedness_and_response_signedAppendices_Original_130510.PDF?sequence=6&isAllowed=y

International Treaties Overview

	Kingdom of Denmark									
	CANADA	DENMARK	FAROE ISLANDS	GREENLAND	FINLAND	ICELAND	NORWAY	SWEDEN	RUSSIAN FEDERATION	U.S.
MAIN INTERNATIONAL TREATIES RELEVANT FOR THE ARCTIC										
International Convention for the Regulation of Whaling (1946)	denounced [4]	1957	v	v	1983	2002 [2a]	1960 [1]	1979	1948	1947
UN Convention on the Law of the Sea *UNCLOS* (1982)	2003	2004	v	v	1996	1985	1996	1996	1997	X
UN Fish Stocks Convention	1999	2003	v	v	2003	1997	1996	2003	1997	1996
IMO - International Code for Ships Operating in Polar Water *Polar Code* (2015)	Mandatory under revision to the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL). Adopted in November 2014 , to enter into force 1.01.2017									
UN International Covenant on Civil and Political Rights *ICCPR* (1966)	1976 [1]	1972 [1]	v	v	1975 [1]	1979 [1]	1972 [1]	1971 [1]	1973 [1]	1992 [1]
UN International Covenant on Economic, Social and Cultural Rights *ICESCR* (1966)	1976 [1]	1972 [1]	v	v	1975	1979	1972 [1]	1971 [1]	1973 [1]	1977 *
UN International Convention on the Elimination of All Forms of Racial Discrimination (1965)	1970 [1]	1971 [1]	v	v	1970 [1]	1967 [1]	1970 [1]	1971 [1]	1969 [1]	1994 [1]
ILO C169 Indigenous and Tribal Peoples Convention *ILO Convention No. 169* or *C169* (1989)	X	1996	v	v	X	X	1990	X	X	X
Convention on International Trade in Endangered Species of Wild Fauna and Flora *CITES* (1973)	1975	1977 [1b]	c	v	1976	2000 [1]	1976	1974	1976	1975
UN Convention on Biological Diversity *CBD* (1992)	1992 [1]	1993	v	v	1994	1994	1993	1993	1995	1993 *
Agreement on the Conservation of Polar Bears, Oslo (1973)	1973	1973	v	v	X	X	1973	X	1973	1973
Convention on Long-range Transboundary Air Pollution, Geneva (1979)	1981	1982	v	v	1981	1983	1981	1981	1980	1981
Convention on Environmental Impact Assessment in a Transboundary Context *Espoo convention*, Espoo (FI)(1991)	1998	1997	v	v	1995	1991 *	1993	1992	1991 *	1991 *
UN Framework Convention on Climate Change *UNFCCC* (1992)	1992 [1]	1993	v	v	1994	1993	1993	1993	1994	1992
Kyoto Protocol to the United Nations Framework Convention on Climate Change *Kyoto Protocol* (1997)	denounced [5]	2002	d	v	2002	2002	2002	2002	2004	1998 *
UN Stockholm Convention on Persistent Organic Pollutants (2001)	2001	2003	v	e	2002	2002	2002	2002	2011 [1]	2001 *
UNEP Minimata Convention on Mercury (2013) [6]	2013 *	2013 *	v *	v *	2013 *	X	2013 *	2013 *	2013 *	2013
International Convention for the Control and Management of Ships' Ballast Water and Sediments (2004) [7]	2010	2012	d	e	2005 *	X	2007	2009 [1]	2012	X
Svalbard Treaty (1920)	1923	1923 [3]	v	v	1925	1994	1924 [3]	1924 [3]	1935	1924 [3]
AGREEMENTS UNDER THE AUSPICES OF THE ARCTIC COUNCIL										
Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic *SAR* or *Arctic Search and Rescue Agreement* (2011)	2011	2011	v	v	2011	2011	2011	2011	2011	2011
Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (2013)	2013	2013	v	v	2013	2013	2013	2013	2013	2013

LEGEND

type of Agreement

- Flora & Fauna
- Climate Change / Environment
- Sea / Shipping / Fishing
- Civil / Political / Social rights
- Sovereignity
- Arctic Council Specific

- x Not party to the treaty
- v The Danish Constitution stipulates that the foreign and security interests for all parts of the Kingdom of Denmark are the responsibility of the Danish government. Unless stated otherwise, the treaties in this table apply to the Kingdom of Denmark, that is to say, also to Faroe and Greenland via Denmark
- a (adherence with reservation to Paragraph 10 (e))
- b (with reservation about Faroe Islands)
- c Does not apply to Faroe Islands until further notice
- d with territorial exclusion of the Faroe Islands
- e with territorial exclusion of Greenland
- * Signed, but not ratified

1 Party with reservations
2 Party with reservations and objections
3 Original signatory, 1920
4 (ratified 1949, denounced 1981)
5 (ratified 1998, denounced 2011)
6 this convention is not yet in force (it will enter into force 90 days after it has been ratified by 50 nations). Data updated to February 2016
7 this convention is not yet in force (it will enter into force 12 months after ratification by 30 States, representing 35 per cent of world merchant shipping tonnage) Data updated to February 2016

ARCTIC PORTAL

Source: https://arcticportal.org/arctic-governance/international-agreements

National oil and gas legislation

After knowing international law, it is important to know national law. In many Arctic areas, due to UNCLOS, there is exclusive sovereignty and jurisdiction by one state and therefore its laws apply. As legislation can be very broad, a summary of national legislation on how petroleum ownership, licensing and environmental protection works will be given.

United States: In the United States, oil drilling and extraction is regulated differently in each state[114]. Even local governments play a role in regulation. Federal regulations[115] mainly regulates water and air quality and worker safety, as well as exploration and production on Native American lands, federal lands and the outer continental shelf[116]. The government owns a limited amount of land and regulates oil and gas extraction through agencies like the Department of Interior. [117] In Alaska, the land owned by the state is regulated and managed by the Bureau of Land Management.[118]

The United States has access to Arctic resources through the State of Alaska. Oil and gas is regulated under the "*Alaska Statutes Title 31: Alaska Oil and Gas Conservation Act"* and the *Alaska Administrative Code*.[119]

According to the Alaska Oil and Gas Conservation Act, there is created as an independent quasi-judicial agency of the state the Alaska Oil and Gas Conservation Commission[120]. This commission has the power to issue licenses to drill in the ground (both for oil and gas and for storage)[121]. The Commission has jurisdiction over the entire territory of Alaska, whether it belongs to the state or to the government.[122]

In 2017, the Alaska Oil and Gas Production Act was passed[123]. This law allowed exploration, leasing, development, development, production, and transportation of oil and gas to and from the Coastal Plain of Alaska. It also enabled drilling in places that were previously prohibited, such as the Arctic National Wildlife Refuge. However, the law considers that the environment and the rights of local people must be respected (section 7). There is a protocol whereby decisions must be consulted with various bodies, including administrative and private bodies, such as the Arctic

[114] Lowe, J. S. (2014). *Oil and gas law in a nutshell*. St. Paul (MN): West Academic Publishing.
[115] Laws applied to all states
[116] In the case United States v. California, 332 U.S. 19 (1947), the US Supreme Court said that the Continental Shelf shall be regulated by the Federal Government. Retrieved from https://supreme.justia.com/cases/federal/us/332/19/
[117] https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/usa
[118] Website of the Bureau of Land Management https://www.blm.gov/alaska
[119] Website where appear the regulations regarding oil in Alaska https://www.commerce.alaska.gov/web/aogcc/StatutesandRegulations.aspx
[120] AK Stat § 31.05.040 (through 27th Leg Sess 2012)
[121] AK Stat § 31.05.090 (through 27th Leg Sess 2012)
[122] AK Stat § 31.05.027 (through 27th Leg Sess 2012)
[123] *Alaska Oil and Gas Production Act.* Retrieved from https://www.congress.gov/bill/115th-congress/senate-bill/49/text

Slope Regional Corporation. The Arctic Slope Regional Corporation is a company that manages native lands for the benefit of the natives.[124]

From an environmental perspective, the relevant authorization from the government/state/local government or state agencies (depending on the activity to be undertaken and where) is required. Federal laws set minimum environmental standards that must be respected, but states may place further restrictions.[125] There are two laws that must be respected: the *National Environmental Policy Act* and the *Clean Water Act* [126].

Some of the measures to protect the environment are: Prohibition of discharging waste into water (or into a treatment plant) if there is no permit to do so. A permit may be required depending on the emissions to be emitted, there are requirements for the transport and storage of oil and gas, these requirements ensure proper waste management. Failure to comply with the regulations may lead to revocation of the permit, financial and criminal penalties.[127]

Fracking is permitted in the United States and in the State of Alaska.[128] And this method has different exemptions regarding the environmental regulations. If the extraction is done with fracking, it will not be necessary to comply with the provisions of the *National Environmental Policy Act* and the *Clean Water Act.* [129]

The rules to be followed to proceed with this technique in Alaska are as follows[130]:

- Prior approval from the state government for well drilling
- Surface casing for wells to prevent the release of fluid
- Periodic mandatory well integrity tests
- The reporting and disclosure of the types of fluids used in fracking and at what volume and a description of each chemical additive used in fracking
- The maximum amount of surface and injecting pressure used during the process
- Mandatory unannounced inspections by the Alaska Oil and Gas Conservation Commission
- All other information considered necessary for the regulation of fracking for safety and environmental protection.

In 1984, the *Arctic Research and Policy Act* was passed, creating the *United States Arctic Research Commission*. This agency is mainly responsible for research tasks, but within this research it also carries out research on Arctic resources.[131]

[124] Websiteof the Arctic Slope Regional Corporation https://www.asrc.com/about/history/
[125] Morgan, Lewis & Bockius LLP. (2019, March 19). Oil and gas environmental protection laws in the USA. Retrieved April 24, 2021, from https://www.lexology.com/library/detail.aspx?g=a67dfe09-ed67-4a11-bd28-719c76d8c2cf
[126] Both Acts can be found in the following website https://ceq.doe.gov/laws-regulations/laws.html
[127] Morgan, Lewis & Bockius LLP. (2019, March 19).
[128] Alaska Statutes Title 31. Oil and Gas § 31.05.030.
[129] SKGPlanet. (n.d.). Are there regulations for fracking technology? Retrieved April 24, 2021, from https://sgkplanet.com/en/are-there-regulations-for-fracking-technology/
[130] Fracking in Alaska. (n.d.). Retrieved April 24, 2021, from https://ballotpedia.org/Fracking_in_Alaska
[131] *Artic Research and Policy Act*. Retrieved from https://www.nsf.gov/geo/opp/arctic/iarpc/arc_res_pol_act.jsp

Norway[132]: The main law in Norway is the *Act 29 November 1996 No. 72 relating to petroleum activities*. In this Act[133] it is stated that the petroleum and the subsoil belong to the Norwegian State, and that the management of petroleum must be done for the long-term benefit of the Norwegian people. It is the state that may grant a license for oil exploration, but the state does not need licenses and permits.

Licenses may be granted to natural or legal persons and allow exploration in a defined area and are granted for a period of 3 years. Drilling requires a separate license (there are separate licenses for each phase, from exploration to decommissioning). Licenses may be conditional on specific work being carried out in the area in which the license has been granted.

The obligatory work commitment of the production license may include geological and/or geophysical activities and exploration drilling. [134]

The duration of the drilling license is 10 years, which may be extended. Before licensing an area, a social, economic, and environmental impact assessment must be carried out.

From the seventh section onwards, the environmental impact is regulated.

"*Pollution damage means damage or loss caused by pollution as a consequence of effluence or discharge of petroleum from a facility, including a well, and costs of reasonable measures to avert or limit such damage or such loss, as well as damage or loss as a consequence of such measures. Damage or loss incurred by fishermen as a consequence of reduced possibilities for fishing is also included in pollution damage. Ships used for stationary drilling are regarded as a facility. Ships used for storage of petroleum in conjunction with production facilities are regarded as part of the facility. The same applies to ships for transport of petroleum during the time when loading from the facility takes place.*" [135]

The law holds the licensee liable irrespective of whether or not there is fault. The law exempts from liability persons who have attempted to save lives or reduce harm and third parties hired by the licensee.

The *Pollution Control Act* [136] regulates environmental impact. In addition, it establishes regulations regarding safety at work. If damage to the environment occurs or the provisions of Act 29 November 1996 No. 72 relating to petroleum activities are not followed (e.g. in the

[132] Kvale Advokatfirma. (2020, November 17). A general introduction to oil and gas law in Norway. Retrieved from https://www.lexology.com/library/detail.aspx?g=48fbc767-62de-4f84-9510-d26572687f03
Simonsen Vogt Wiig AS. (2021, February 5). Oil & Gas Regulation 2021: Norway: ICLG. Retrieved from https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/norway
[133] *Act 29 November 1996 No. 72 relating to petroleum activities.* Retrieved from https://www.npd.no/en/regulations/acts/act-29-november-1996-no2.-72-relating-to-petroleum-activities/
[134] Norskpetroleum. (2021, February 09). The petroleum act and the licensing system. Retrieved from https://www.norskpetroleum.no/en/framework/the-petroleum-act-and-the-licensing-system/
[135] Section 7-1, *Act 29 November 1996 No. 72 relating to petroleum activities*
[136] *Pollution Control Act.* Retrieved from https://www.regjeringen.no/en/dokumenter/pollution-control-act/id171893/

application for licenses, decommissioning processes...). Penalties may include suspension, revocation of the license, criminal charges, and compensation.[137]

There are other laws affecting the oil and gas sector, but they are not relevant to the dissertation[138]:

- the Petroleum Regulations No. 653 of 27 June 1997 (the Petroleum Regulations);
- the Resource Management Regulations No. 749 of 18 June 2001;
- the Regulations Relating to the Use of Facilities by Others No. 1625 of 20 December 2005; and
- the Regulations Relating to the Stipulation of Tariffs, etc. No. 1724 for Certain Facilities of 20 December 2002 (the Tariff Regulations).
- the Regulations on Petroleum Taxation No. 316 of 30 April 1993;
- the Regulations Relating to Consent to the Transfer of Licence and Ownership Interests According to the Petroleum Taxation Act Section 10 of 1 July 2009 No. 956;
- the Regulations Relating to Taxation on Rental of Moveable Production Facilities No. 819 of 18 August 1998; and
- the Regulations for Determining the Norm Price No. 5 of 25 June 1976 (the Norm Price Regulations) in Domestic oil and gas legislation

"Fracking" is not illegal in Norway, but it could be used with an administrative permission. Must be said that is not something that has been done in Norway.[139] However, Norwegian company Equinor, has invested overseas in companies that use this method, and the public opinion was against it[140]

[137] Advokatfirmaet Simonsen Vogt Wiig AS. (2018, June 07). Oil and gas environmental protection laws in Norway. Retrieved from https://www.lexology.com/library/detail.aspx?g=171e6c62-e670-49e4-9a9a-9ddff616e251

[138] Kvale Advokatfirma. (2020, November 17)

[139] Advokatfirmaet Simonsen Vogt Wiig AS. (2018, June 07). Oil and gas exploration and production laws in Norway. Retrieved from https://www.lexology.com/library/detail.aspx?g=b6bf6ae7-eff1-47eb-b4b7-3a09fa55e2ef

[140] The Norwegian oil disaster. (2019, November 25). *VartLand*. Retrieved from https://www.vl.no/nyheter/klima/2019/11/25/den-norske-oljekatastrofen/

Russia [141]**:** In Russia there are several laws related with the oil sector. Some of them have direct and indirect relation on the oil extraction. The regulations that have some relation with petroleum activities in Russia are the following ones [142]:

- "The Constitution of the Russian Federation. It sets forth the principal rules on ownership rights to natural resources.
- The Federal Law on Subsoil (the Subsoil Law). This is the core law governing a vast range of rules covering the geological study, allocation, development and protection of natural resources.
- The Federal Law on Gas Supply in the Russian Federation (the Gas Supply Law). This law primarily governs natural gas development, transportation, and sales.
- The Federal Law on Natural Monopolies. This law in part governs transportation of oil and gas via trunk pipelines.
- The Federal Law on the Continental Shelf of the Russian Federation. This law contains specific rules on the development of natural resources on the continental shelf.
- The Federal Law on Production Sharing Agreements. This sets forth the regime for the development of natural resources via production sharing agreements.
- The Federal Law on Export of Gas.
- The Codes of the Russian Federation, including the Civil Code, Land Code, Water Code, Forest Code, Tax Code, Code on Administrative Violations and Criminal Code.
- The Federal Law on Environmental Protection.
- The Federal Law on Ecological Expertise.
- The Supreme Council Regulations on the Procedure of Enactment of the Provisions on the Procedure of Licensing of the Subsoil Use of 1992 (the Subsoil Use Licensing Regulations).
- The Federal Law on Exclusive Economic Zone of the Russian Federation.
- The Federal Law on Sanitary and Epidemiological Welfare of Population.
- The Federal Law on Protection of Atmospheric Air.
- The Federal Law on Internal Waters, Territorial Sea and Contiguous Zone.
- The Federal Law on the Zones of Territorial Development in the Russian Federation.
- The Federal Law on Foreign Investments in Strategic Companies.
- Order of the President on the Doctrine of the Energy Safety of the Russian Federation.
- Order of the Federal Government of the Russian Federation on the 2035 Energy Strategy."

[141] Morozova, N., & Vinson & Elkins LLP. (2020, November 17). A general introduction to oil and gas law in Russia. Retrieved from https://www.lexology.com/library/detail.aspx?g=0845c4f0-ade9-4af5-8302-4489beb2e3a4
Lewis & Bockius LLP, Hines, J., Josefson, J., Marchenko, A., & Rotar, A. (2021, April 1). Practical law. Retrieved from https://content.next.westlaw.com/Document/Id4af1a861cb511e38578f7ccc38dcbee/View/FullText.html?transitionType=Default&contextData=%28sc.Default%29&firstPage=true

[142] Kurmaev, R., & Malinin, V. (2021, February 5). Oil & Gas Regulation 2021: Russia: Iclg. Retrieved from https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/russia

According to Article 72 of the Russian Constitution[143], the subsoil (i.e. oil fields) belong jointly to the state and the regions. According to *Federal Law on Subsoil* [144] individuals, by means of licenses, can own the oil once extracted and sell it. However, they will not be the owners of the field.

The Federal Agency of Subsoil Use (*Rosnedra*), among many of its powers, is responsible for distributing licenses. It also has the power to suspend or terminate existing licenses.[145]

There are three types of licenses in Russia.

Exploration licenses[146]: These are granted for a period of 5 years. They can be used for oil exploration and drilling, and in some regions of Russia they can be granted for a period of 10 years. With this license it is not possible to extract oil, and in case of discovery of oil resources it is possible to obtain a license for extraction without a tender/auction.[147]

Production licenses[148]: These licenses are obtained by public tender/auction or can be obtained directly if an exploration license was previously held and oil resources were discovered. They are granted for sites already explored and in which there is a record of existing reserves. The term can be as long as its required for a full exploitation of the reservoir.

Combined license[149]: They are awarded by tender / auction. They are granted with respect to deposits that are known to exist but that require further exploration. The time for which the concession is granted is determined by the time required for exploration and extraction.

According to *The Law of the Russian Federation on Subsoil* [150]. The license shall contain the following information: the purpose of the subsoil use; the borders of the land plot granted for subsoil use; the deadlines; the production volume; and the payments for subsoil use. The license may be withdrawn if the licensee violates the law, there is a threat to the lives of those who work or live in the area, if the licensee extracts less of the agreed volume, if a natural disaster occurs, if the licensee does not report the data as required by the *Law of the Russian Federation on Subsoil*, if the licensee decides to resign or if the licensee has been liquidated (for example, the company becomes extinct).[151]

In addition, the *Law of the Russian Federation On Subsoil* requires safe conditions for workers (for example, monitoring the area to prevent exposure to toxic gases) and prohibits pollution in

[143] Russian constitution retrieved from http://www.constitution.ru/en/10003000-01.htm
[144] *FEDERAL LAW OF THE RUSSIAN FEDERATION of February 21, 1992 No. 2395-1*. Retrieved from https://cis-legislation.com/document.fwx?rgn=1494
[145] Website of the The Federal Agency of Subsoil Use http://government.ru/en/department/53/
[146] Kozyrenko, N. (n.d.). Licences: Oil & gas in Russia. Retrieved April 24, 2021, from https://cms.law/en/rus/publication/doing-business-in-russia-2020/oil-gas/licences
[147] Lewis & Bockius LLP, Hines, J., Josefson, J., Marchenko, A., & Rotar, A. (2021, April 1)
[148] *Russian Oil and Gas Sector Regulatory Regime: Legislative Overview* (Rep.). (2017, October). Retrieved https://www.kslaw.com/attachments/000/006/245/original/Russian_Oil__Gas_Legislative_Overview.pdf?1535466606
[149] Idem.
[150] *FEDERAL LAW OF THE RUSSIAN FEDERATION of February 21, 1992 No. 2395-1*
[151] Morozova, N. (2020, November 17). The oil and gas Law Review: Russia. Retrieved from https://thelawreviews.co.uk/title/the-oil-and-gas-law-review/russia

subsoil. Therefore, products and waste produced during processing (sludge, dust, wastewater and others) should be reported. This data must contain the quantification and where and how it has been stored. [152]

Environmental impact

"Russian environmental legislation applies in full to oil and gas development. It establishes a pay-to-pollute regime administered generally by the Federal Service for Environmental, Technological and Nuclear Surveillance, which issues pollution discharge (harmful emissions) permits. Oil and gas production projects require both an environmental impact assessment by an independent environmental expert and a prior favourable environmental opinion issued by the competent public authorities. The purpose of this evaluation is to: (1) verify that the project ensures protection of the environment and the rational use and restoration of natural resources; and (2) assess the short-term and long-term environmental, economic and demographic impact of the subsoil use.

Further, subsoil licences are granted on the condition that the licence holder undertakes to comply with Russian environmental standards and norms (these include air, water and soil pollution limits, waste management requirements, animal protection, human health, and so on). Once a subsoil licence is issued, the licence holder's compliance with licensing requirements is supervised by the Federal Agency for Subsoil Use." [153]

In June 2020, a new law was passed to prevent and eliminate the spills of oil and oil products on land in Russia. It is required that oil-related projects have a reaction plan and that the operator has a fund set aside to pay damages for possible damages. In the event of an oil spill, the authorities must be notified. After the rescue and rescue operations, the operator must rehabilitate the soil.[154] Currently Russia has a serious problem with oil spills. [155]

In case of non-compliance with environmental regulations, there may be penalties ranging from economic sanctions, suspension or revocation of the license and some actions may constitute a

[152] *FEDERAL LAW OF THE RUSSIAN FEDERATION of February 21, 1992 No. 2395-1.* Articles 23-24.
[153] Morozova, N. (2020, November 17)
[154] TheArctic. (2020, June 30). Russia changes oil spill response rules. Retrieved from https://arctic.ru/resources/20200630/950593.html
[155] Alykova, Y., & Uzhvak, P. (2020, October 15). Oil accidents happen every half hour: A study of the real extent of environmental pollution. Retrieved from https://istories.media/investigations/2020/10/15/neftyanie-avarii-sluchayutsya-kazhdie-polchasa-issledovanie-realnikh-masshtabov-zagryaznenii-prirodi/

crime. In addition to the already mentioned laws, sanctions are also found in the he Federal Law on Environmental Protection[156] and the Russian Criminal Code.[157]

In 2019, President Putin rejected to use fracking because it is against Russian and environmental interests.[158]

Greenland [159]:

Petroleum extraction is mainly regulated in the *Mineral Resources Act of 2010*[160]. This Act has been amended several times. In Greenland, the land belongs to the government. This means that it is the government that must authorize licenses. In Greenland, the government can authorize several licenses on the same geographical area. In the case of finding oil, it will be "first come, first served". [161] In some parts of the country, licenses cannot be obtained, due to environmental or military reasons.

Greenlandic law distinguishes between exploration and exploitation licenses.

"There are 3 types of exploration licenses:

- *Prospecting license*
  - *For standard areas North, East and West Greenland*
  - *Non-exclusive, and no exploration commitments*
  - *Granted for 5 years*
  - *Not renewable*

[156] Federal Law No. 7-FZ on environmental protection. Retrieved from https://www.ecolex.org/details/legislation/federal-law-no-7-fz-on-environmental-protection-lex-faoc052751/

[157] Criminal Code of the Russian Federation. Retrieved from https://www.wipo.int/edocs/lexdocs/laws/en/ru/ru080en.pdf

[158] Rapoza, K. (2019, November 20). Putin: 'we'll Never frack'. Retrieved from https://www.forbes.com/sites/kenrapoza/2019/11/20/putin-well-never-frack/

[159] Federspiel, G., & Meyer, M. (2019, October 25). In a nutshell: Oil and gas law in Greenland. Retrieved from https://www.lexology.com/library/detail.aspx?g=a79813d9-4733-400f-9e5f-2f524319a083

Meyer, M., & Federspiel, G. (2020, November 17). A general introduction to oil and gas law in Greenland. Retrieved from https://www.lexology.com/library/detail.aspx?g=e15c92f9-78d4-4e7c-bd6e-b5ec4a8fa287

Weihe, J., Hemmer, P., & Kassis, R. (2019, June 11). Q&A: Oil regulation in Greenland. Retrieved from https://www.lexology.com/library/detail.aspx?g=031d5823-d3bb-4019-b913-40a7127f514a

[160] *Mineral Resources Act*. Retrieved from https://govmin.gl/exploration-prospecting/get-an-exploration-licence/mineral-resources-act/

[161] The source is a file obtained from the Mineral Resources Authority of Greenland https://govmin.gl/wp-content/uploads/2020/08/Flere-efterforskningstilladelser-p%C3%A5-samme-omr%C3%A5de_ENG.pdf

- *Exploration license*
  - *Specified areas min. 5 km2*
  - *Exclusive, with exploration commitments*
  - *Granted for 5 years*
  - *Renewable*

- *Special exploration license*
  - *In North and East for areas >1000 km2*
  - *Exclusive, with reduced exploration commitments*
  - *Granted for 3 years*
  - *Not renewable*" [162]

Subsequently, there are exploitation licenses. To obtain one of these licenses, an application must be made. The social, environmental, and beneficial impact on the country and the area will then be assessed[163]. The Greenlandic government publishes the active licenses, and they can be consulted by any individual. [164]

"According to the Mineral Resources Act and the Model License, the MLSA may, under certain circumstances, revoke a license. A license may for instance be revoked in the following cases:

- *if a licensee fails to fulfil the set-out exploration commitments.*
- *if a licensee otherwise breaches the terms of the license or the provisions laid down pursuant to the Mineral Resources Act;*
- *if a licensee fraudulently misrepresents facts to the MLSA;*
- *if the operator is not qualified to be the operator for the activities performed under the licence or does not meet the conditions, terms and requirements and approval as operator; or*
- *if one or more of the licensees suspend their payments, request the opening of negotiations for a compulsory composition, are declared bankrupt, go into liquidation or are in a similar situation."*[165]

In terms of environmental regulations, in addition to preparing a plan and assessing impacts prior to obtaining the license, the license must comply with the agreed-upon agreement. Failure to do so may result in fines or criminal charges. In case of damage to the environment, must be

[162] Mineral Resources Authority. (n.d.). How to get a licence. Retrieved April 25, 2021, from https://govmin.gl/exploration-prospecting/get-an-exploration-licence/how-to-get-a-licence/
[163] Mineral Resources Authority. (n.d.). How to get an exploitation licence. Retrieved April 25, 2021, from https://govmin.gl/exploitation/get-an-exploitation-licence/how-to-get-an-exploitation-licence/
[164] Mineral Resources Authority. (n.d.). Exploitation licence. Retrieved April 25, 2021, from https://govmin.gl/exploitation/get-an-exploitation-licence/exploitation-licence-%c2%a716/
[165] Weihe, J., Hemmer, P., & Kassis, R. (2019, June 11).

acted diligently, notify the authorities and act to minimize the impact. If during the activity the environment is damaged or polluted, the licensee must compensate those affected regardless of whether it was a voluntary or involuntary act. To ensure that the licensee has funds, it is mandatory that the licensee has contracted insurance to cover these potential damages. These provisions are contained in the Mineral Resources Act.[166]

There is the possibility of Fracking under a permit. According to the Greenland Drilling Guidelines of the Greenland Bureau of Minerals and Petroleum of Greenland published in 2011. It states [167]: "*The well test, perforating, hydraulic fracturing, acidizing or other chemical treatment of the well may only take place when special safety precautions, relevant for the operation, are observed. The well test is not to take place when safety is adversely affected by weather and wind conditions."*

Canada [168]: According to the section 109 of the *Constitution Act 1867*, most of Canada's oil and gas belongs to the provinces of Ontario, Quebec, Nova Scotia, and New Brunswick.[169] The provinces have the right to manage onshore gas, but offshore gas belongs to the federal government. A case like the United States[170].

In some areas, onshore resources belong to indigenous people. In the *Constitution Act 1982* [171] section 35 talks about "aboriginal" rights. In the case *Tsilhqot'in Nation v British Columbia, 2014 SCC 44* [172] the Canadian Supreme Court expressed that a province cannot unilaterally extract resources (in this case was wood) from the lands habited by aborigines.

There are approximately 78 regulations affecting the oil extraction process[173] (federal laws, state laws, laws affecting workers, safety laws...), however, there are two main laws regulating oil and gas:

- *Canada Oil and Gas Operations Act*
- *Canada Oil and Gas Land Regulations*

[166] Idem.
[167] BMP. (2011, May). *Drilling Guidelines* (Rep.). Retrieved https://naalakkersuisut.gl/~/media/Nanoq/Files/eamra/110502_Drilling_Guidelines.pdf
[168] Perry, C., Langen, D., D'Avignon, J., & Reed, K. (2020, November 24). Oil and gas in canada: Updated to 2020. Retrieved from https://www.lexology.com/library/detail.aspx?g=d560b525-d0ae-4abe-8c53-5c3ac316fc07
Stikeman Elliott LLP. (2020, November). *Oil and Gas Activity in Canada* (Rep.). Retrieved from https://www.stikeman.com/en-ca/kh/guides/oil-and-gas-activity-in-canada
[169] *THE CONSTITUTION ACTS, 1867 to 1982*. Retrieved from https://laws-lois.justice.gc.ca/eng/const/
[170] See Footnote 116. *United States v. California, 332 U.S.*
[171] *THE CONSTITUTION ACTS, 1867 to 1982. Part I*
[172] *Supreme Corurt Judgement Tsilhqot'in Nation v. British Columbia, 26/06/2014 SCC44*. Retrieved from https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/14246/index.do
[173] List of Canadian Regulations regarding petroleum activities. Retrieved from https://www.nrcan.gc.ca/acts-regulations/65

The main difference is that one regulates offshore operations and the other regulates inshore operations.

There are state agencies that issue regulations. For example, the National Energy Board, also known as the Canada Energy Regulator, regulates, among other things, oil pipelines. Another example is the Impact Assessment Agency.[174]

The Canada Energy Regulator has the power according to the Canada Oil and Gas Operations Act to issue licenses and authorizations. Offshore licenses and authorizations are issued and renewed annually. The authorizations are subject to different requirements, among them that the company has the financial capacity to assume possible damages. In addition, an environmental study must be carried out. Licenses can be revoked for various reasons, including non-payment, non-compliance with a requirement or violation of a regulation. An insurance is required in order to get any license or authorization.[175]

For Inshore cases, there are 3 instruments: Licenses, Exploration Agreements and Permits. In addition, there is the possibility of leasing. In the case of offshore it is more complicated to lease.

Exploration licenses are requested to the Canada Energy Regulator. It will be done in collaboration with the Chief or Oil Conservation Engineer and the plans will be given to him at the end. It is not possible to dig with this license to more than 304 meters if there is not a specific permit to do so.

Exploration Agreements are agreements between the government and individuals for the exploration of an area. It is done through a process similar to a bidding process. Although this process can be avoided under certain exceptions (mainly if the agreement is with Petro-Canada).

Permit. A license must be obtained beforehand. With this permit it is possible to prospect for gas and oil. In addition, the resources stipulated in the permit may be extracted. The amount will be determined with the opinion of the Oil Conservation Engineer. In addition, it is necessary to have a permit from the landowner (it may be that the owner of the permit and the landowner are different persons). These permits are issued for a term of 3 years normally. Permits are renewable and with the authorization of the ministry can be leased. [176]

Different regulations exist with regard to environmental protection. Each province has its own regulations. [177]

[174] Milliken, C., & Kerr, K. (2021, February 5). Oil & Gas Regulation 2021: Canada: ICLG. Retrieved from https://iclg.com/practice-areas/oil-and-gas-laws-and-regulations/canada
[175] Manning, L., & Tamura-O'Connor, B. (2020, August 1). Oil and gas regulation in Canada: Overview. Retrieved from https://uk.practicallaw.thomsonreuters.com/3-633-1728?transitionType=Default&contextData=%28sc.Default%29&firstPage=true#co_anchor_a857220
[176] *Canada Oil and Gas Land Regulations*. Retrieved from https://laws-lois.justice.gc.ca/eng/Regulations/C.R.C.,_c._1518/index.html
[177] Oil and natural gas regulations and monitoring: Bill c-69. (n.d.). Retrieved April 26, 2021, from https://www.capp.ca/environment/regulation-and-monitoring/

Currently in Canada, some provinces such as Ottawa have imposed a tax on carbon dioxide emissions. In 2021 the Supreme Court of Canada said that this tax is constitutional.[178] Canadian legislation often advocates imposing precautionary measures and pollution taxes.[179]

Fracking is legal in Canada. Some provinces such as Nova Scotia have put a moratorium on fracking, so it is temporarily not allowed. [180]

The Canadian Environmental Protection Act regulates the disposal of waste resulting from oil and gas operations. Also worth mentioning[181]:

- Fisheries Act.
- Antarctic Environmental Protection Act.
- Arctic Waters Pollution Prevention Act.

According to the Arctic Waters Pollution Prevention Act, if the Arctic is polluted, the offender can be fined and charged with a criminal offence.[182]

After looking at the legislation, from a business point of view it is interesting to analyze what is more convenient. On the one hand, in the United States an individual can own the oil well, while in other states such as Russia only the oil is owned.

As for the licenses, in some places like Canada they must be renewed every 3 years, so, maybe a company may not be so interested in the investment for fear of losing the license 3 years later.

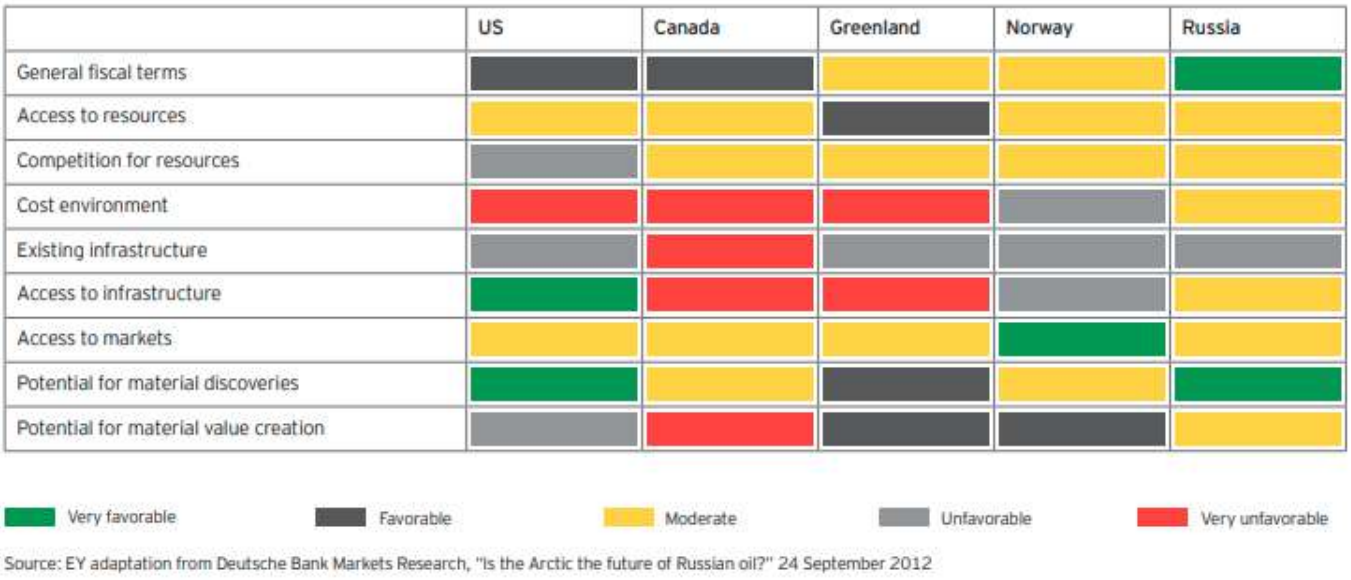
As for environmental regulations, here it will depend on how a company values the environment. The United States and Canada allow the practice of "fracking", which is harmful to the environment and biodiversity.

Finally, other elements such as taxes and the price of the license should be considered, but these elements may vary according to the individual (a large company may be offered more facilities and/or have better tax advisors than a small company).

It should not be forgotten that not all states have the same amount of resources nor are they in the same area. For example, in the case of Iceland, exploration was stopped because it was too dangerous and not beneficial.

[178] *Supreme Court of Canada judgement, References re Greenhouse Gas Pollution Pricing Act , 2021 SCC 11*. Retrieved from https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/18781/index.do
[179] Manning, L., & Tamura-O'Connor, B. (2020, August 1).
[180] Minkow, D. (2017, April 6). What You Need to Know About Fracking In Canada. *The Narwhal*. Retrieved from https://thenarwhal.ca/what-is-fracking-in-canada/
[181] Manning, L., & Tamura-O'Connor, B. (2020, August 1).
[182] *Arctic Waters Pollution Prevention Act*. Retrieved from https://laws-lois.justice.gc.ca/eng/acts/a-12/index.html l

Finally, it is appropriate to accompany this section with an overview of how attractive it was to invest in the oil sector in 2012 in each of these regions.



Source: https://www.safety4sea.com/wp-content/uploads/2014/09/pdf/EY-Arctic_oil_and_gas.pdf

If this table is analyzed, it can be seen that the country with the best conditions is Russia. This table has reflected the reality, from 1993 to 2011 the number of "joint stock companies", i.e. companies in which foreign investment participates tripled reaching almost 2000. [183]

In the decade of 2010-2020 ambitious projects have been initiated, such as "Yamal LNG" or "Neft-Shell"[184]. Some of the companies involved are the following:

Technip Energies (France); TOTAL SE (France); Dunlop Oil &Marine (UK); Emerson Electric (USA); Belorusneft (Belarus); and Shell (Nehterlands), China Development Bank (China); and the Export– Import Bank of China (China).

There is currently a platform (*Yamal Oil and Gas*) discussing plans in the area of the Yamal peninsula, in which many foreign companies participate, including some of those mentioned

[183] Liudmila Zalkind and Ekaterina Toropushina. (2014). Participation of the state in the economic development of russias arctic: privatization (historical aspect), Economic and social changes: facts, trends, forecast. Retrieved from https://www.researchgate.net/publication/284357272_Participation_of_the_state_in_the_economic_development_of_Russia's_Arctic_privatization_historical_aspect

[184] Gazpromneft. (2020, December 02). Gazprom NEFT and Shell establish joint venture to develop Major Hydrocarbon cluster on the Gydan Peninsula. Retrieved from https://www.gazprom-neft.com/press-center/news/gazprom_neft_and_shell_establish_joint_venture_to_develop_major_hydrocarbon_cluster_on_the_gydan_pen/

Yamal LNG. (n.d.). About the project (Yamal LNG). Retrieved April 26, 2021, from http://yamallng.ru/en/project/about/

above.[185] There are other corporations that are working in the Arctic but not with the Yamal platform. Many of them appear in the table of the *page 19*.

Must be said that cooperation between Russia and China in the Arctic region is very important. Cooperation began in 2009. Although from 2014 cooperation in terms of resource extraction declined due to the sanctions imposed against Russia. Cooperation for other Arctic-related matters is still latent (such as the implementation of a new trade route). [186]

Finally, there is something that has not been said. How do those corporations finance those projects?[187] Currently there are banks loaning money to those corporations. Two of the Banks that are most heavily financing the exploration and drill in the Arctic are; ING(Netherlands); and BNP Paribas (France). [188]

[185] Participants can be found in the following website https://yamaloilandgas.com/en/participants/
[186] Sørensen, C., & Klimenko, E. (2017, June). *EMERGING CHINESE– RUSSIAN COOPERATION IN THE ARCTIC* (Rep. No. SIPRI Policy Paper 46). Retrieved https://www.sipri.org/sites/default/files/2017-06/emerging-chinese-russian-cooperation-arctic.pdf
[187] The role of banks and other financial institutions is important and interesting. But since they are not directly involved in oil extraction (they are indirectly involved), there is not much mention of them in this dissertation.
[188] Banks and Arctic oil and gas. (n.d.). Retrieved May 6, 2021, from https://www.banktrack.org/campaign/banks_and_arctic_oil_and_gas

Disputes and controversies

The main dispute is over resources, and there are two subsequent disputes as a result of this. The environmental dispute and the dispute with the indigenous people.

Resources

As mentioned above, according to the UNCLOS agreement, depending on the extent of the exclusive economic zone and jurisdiction, the state will have access to the resources of that area. The most important dispute originates from the Lomonosov Submarine Ridge. [189]

Source: https://ir-ia.com/IRIA-Russia%E2%80%99s-New-Arctic-Military-Bases.html

Russia's argument is supported by scientific evidences [190]. Russia's argument consist is that the Lomonosov Submarine Ridge is an extension of the Eurasian continent, and that, according to

[189] Henriques, M. (2020, July 23). The rush to claim an undersea mountain range. *BBC*. Retrieved from https://www.bbc.com/future/article/20200722-the-rush-to-claim-an-undersea-mountain-range

[190] V.A. Poselov, G.P. Avetisov, V.V. Butsenko, S.M. Zholondz, V.D. Kaminsky, and S.P. Pavlov. (2012). The lomonosov ridge as a natural extension of the eurasian continental margin into the arctic

Article 76 of UNCLOS[191], the article thar regulates the limits of the continental shelf, it should be Russian territory and the UNCLOS boundaries should be considered from this submarine ridge.

On the other hand, Canada and Denmark disagree. As the Lomonosov Submarine Ridge enters their territory, they intend to use UNCLOS to increase their territorial limits. Canadian scientists think that it is an extension of Ellesmere Island in the Canadian territory of Nunavut, meanwhile Danish scientists try to prove that Lomonosov Submarine Ridge is an extension of the land of Greenland.[192] [193]

While scientists from different nations try to prove that the Lomonosov Ridge belongs to them, there are scientists who believe that the Lomonosov Ridge is not an extension of any territory and that it was formed in the Arctic by sediments over many years. [194]

Currently, only Russian scientists have provided solid evidence. In the previously cited article, it is explained that according to the investigations conducted, The Lomonosov Ridge is a continental-crust block of a craton and separated from the containment millions of years ago due to seismic movements.

The underlying importance of this issue is well explained in a publication of the BBC, where it says:

"*The Lomonosov Ridge is central to each of the submissions Russia, Denmark and Canada have made to the UN Commission on the Limits of the Continental Shelf. As long as there are seafloor features no less than 2,500m from the surface extending as a continental feature from a country's established shelf, it can act as a spine for extending their territory. When three countries use the same spine of submerged land, it results in several areas of overlap. That includes a 54,850 square nautical mile area around the North Pole all three countries lay claim to*."[195] In this same publication, it is said that the US may will have a claim on the Lomonosov Ridge in the future.

It is interesting to state that according to some Russian historians, Alaska is not lawfully an American territory, and it must belong to Russia. This statement is based on the fact that, according to these authors, there were irregularities and that it was not a sale, but a lease. Russia

basin, Russian Geology and Geophysics 53 no. 12. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S1068797112002234

[191] UNCLOS retrieved from https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

[192] BBC. (2004, October 5). Denmark hopes to claim North Pole. *BBC*. Retrieved from http://news.bbc.co.uk/2/hi/europe/3716178.stm

[193] Denmark and Greenland will today file a submission regarding the continental shelf north of Greenland. (2014, December 5). *Geological Survey of Denmark and Greenland*. Retrieved from https://eng.geus.dk/about/news/news-archive/2014/dec/denmark-and-greenland-will-today-file-a-submission-regarding-the-continental-shelf-north-of-greenland

[194] C. Knudsen, J. R. Hopper, P. R. Bierman, M. Bjerager, T. Funck, P. F. Green, J. R. Ineson, P. Japsen, C. Marcussen, S. C. Sherlock, and T. B. Thomsen. (2018). Samples from the lomonosov ridge place new constraints on the geological evolution of the arctic ocean, Geological Society, London, Special Publications 460, no. 1, 397–418. Retrieved from https://sp.lyellcollection.org/content/460/1/397.abstract

[195] Henriques, M. (2020, July 23).

has not made any formal claim in Alaska.[196] And in 2019, the US wanted to purchase Greenland[197]. Despite these facts, I consider it highly unlikely that the borders will change.

Must be said that in 2008, the Ilulissat Declaration was signed. In it the signatory states (United States, Canada, Russia, Norway, and Denmark) pledged to cooperate and considered that it was not necessary to establish a special legal regime for the Arctic. They also undertook to cooperate in scientific matters and to prevent damage to the marine environment. But this statement was more related to the establishment of trade routes and the freedom of navigation than to address the issue about the borders.[198]

This dispute is still open in April 2021. In my opinion, it will be very complicated to solve this dispute as there are scientific, legal, political, and strategic components. [199]

I consider it necessary to emphasize that Russia has made efforts to engage in dialogue with other countries. The Russian arguments seem to be the stronger and they are waiting for the UN makes a move. In 2019, in the Barents Observer was said "*The UN Commission on the Limits of the Continental Shelf (CLCS) has reportedly endorsed key parts of the country's positions*."[200]

Must be said that the dispute between those countries also mention the Mendeleev Ridge, but the main dispute is about the Lomonosov one.

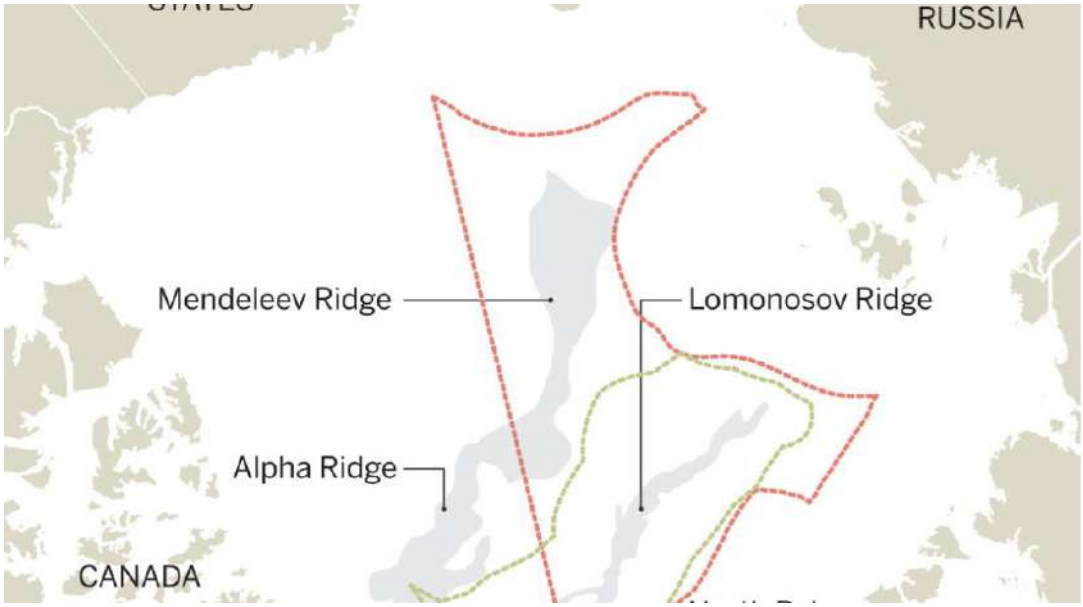
[196] Belyakov Dmitry Alexandrovich Classification and Legal Characteristics of the Alaska Alienation Treaty // Science.Society. State. 2017. №1 (17). Retrieved from https://cyberleninka.ru/article/n/klassifikatsiya-i-pravovaya-harakteristika-dogovora-ob-otchuzhdenii-alyaski
Mironov, I.B (2007). The fatal deal: how Alaska was sold / I.B. Mironov. - Moscú: Algorithm.
Petrov A.Yu (2017.). Cession of Alaska: Discussion Questions of the Russian-American Deal of 150 years ago // New Historical Herald. №2 (52). Retrieved from https://cyberleninka.ru/article/n/ustupka-alyaski-diskussionnye-voprosy-rossiysko-amerikanskoy-sdelki-150-letney-davnosti

[197] Finnegan, C. (2020, April 23). After Trump tried to buy Greenland, US gives island $12M for economic development. *ABCnews*. Retrieved from https://abcnews.go.com/Politics/trump-buy-greenland-us-island-12m-economic-development/story?id=70305163

[198] *Ilulissat declaration* retrieved from https://arcticportal.org/images/stories/pdf/Ilulissat-declaration.pdf

[199] Greenland election: Opposition win casts doubt on mine. (2021, April 7). *BBC*. Retrieved from https://www.bbc.com/news/world-europe-56643429
Fedoyesev, L. (2012, April 12). Russia Claims Continental Shelf in Arctic Ocean. *TheMoscowTimes*. Retrieved from https://www.themoscowtimes.com/2021/04/12/russia-claims-continental-shelf-in-arctic-ocean-a73566

[200] Stalessen, A. (2019, November 28). Russia is winning support for its claims on arctic Shelf, says chief negotiator. Retrieved from https://thebarentsobserver.com/en/arctic/2019/11/russia-winning-support-its-claims-arctic-shelf-says-chief-negotiator



Source: https://lucaslaursen.com/russian-claim-heats-up-battle-to-control-arctic-sea-floor/

An example of how such disputes can be resolved through dialogue is the pact between Russia and Norway over the *Barent Sea* in 2010, in which they agreed on territorial limitations. [201]

Although, there is an open dispute between Norway and Russia. This dispute is related to the Svalbard treaty.[202] At no time has Russia questioned the sovereignty of the island. [203]

The dispute is based on the fact that the Svalbard agreement obliges Norway to treat citizens and companies wishing to conduct business on the island equally. Although Norway has the power to prohibit activities due to possible damage to the environment, the real dispute is on the continental shelf.

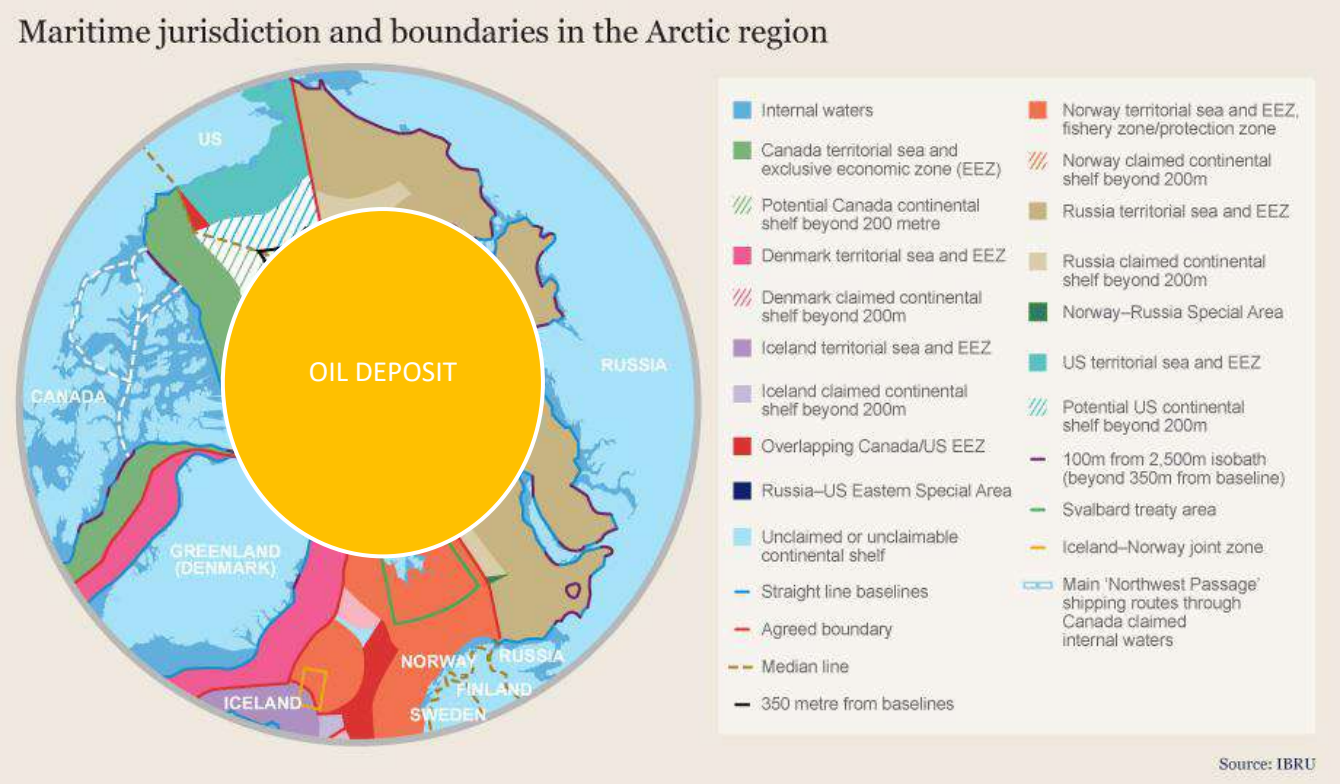
Russia considers that the Svalbard treaty also extends to the continental shelf, so Russian companies should have equal access to the continental shelf with Norwegian companies. Norway, on the other hand, considers that the treaty refers only to the island and its coastal waters, but not to the continental shelf.

As has been said before, the interpretation that Norway is doing of the Svalbard treaty has been very criticized. "*Basically, Norway recognizes its sovereign rights over Svalbard stemming from the Treaty of Paris and the UNCLOS, but it does not recognize the limitations on those sovereign rights stemming from the same legally binding texts. Such creeping jurisdiction by Norway over Svalbard waters results into a creeping expropriation by Norway of EU vessels' valid licences to catch the highly-profitable*

[201] Jensen, Ø. (2011). Current legal developments the barents sea. *The International Journal of Marine and Coastal Law, 26*(1), 151-168. doi:10.1163/157180811x541422
[202] Staalesen, A. (2020, February 9). Amid jubilant celebration At Svalbard, Norway sends strong signal it will not accept encroachment on sovereignty. Retrieved from https://thebarentsobserver.com/en/arctic/2020/02/amid-jubilant-celebration-svalbard-norway-sends-strong-signal-it-will-not-accept
[203] Adomaitis, N. (2020, February 21). Norway rejects Moscow's claim it Violated Svalbard Treaty. Retrieved from https://www.reuters.com/article/us-russia-norway-svalbard-idUSKBN20F1T5

snow-crabs in those waters. So, Norwegian vessels are the only ones who can actually profit off this valuable resource."[204]

Another problem could be the transboundary oil reservoirs. Oil reservoirs are subway and can be located between several boundaries. As an example, there is this map of the borders in the Arctic. The yellow sphere is a supposed oil reservoir, to which all states would have access from their territorial coast. How would this situation be regulated?



There is no treaty in international law that regulates this situation. In fact, UNCLOS does not mention it. Normally, when there is a deposit between two states, they follow the "good neighbor" principle and try to cooperate. An example is the fields between the United States and Mexico.[205]

According to some academic articles (i.e the ones mentioned in the footnote 204), for the arctic situation the most feasible would be a joint venture or exploration between two or more states.

[204] Di Bella, D. R. (2020, June 16). Norway's inconsistent interpretation of the 1920 Treaty of Paris. Retrieved from http://opiniojuris.org/2020/06/16/norways-inconsistent-interpretation-of-the-1920-treaty-of-paris/

[205] Reynolds, Thomas A. (1995) "Delimitation, Exploitation, And Allocation Of Transboundary Oil & Gas Deposits Between Nation-States," *ILSA Journal of International & Comparative Law*: Vol. 1 : Iss. 1 , Article 7. Available at: https://nsuworks.nova.edu/ilsajournal/vol1/iss1/7

This has been done in some places in the North Sea and Southeast Asia.[206] It is also said that there could be a customary duty of international law that could force the different stakeholders to cooperate.[207]

This controversy has not yet occurred, but I consider it vital to mention it because it is possible that this dispute may arise in the near future.

But, from my point of view there are two problems, the first problem is that due to the situation, it is complex for countries to agree. There are many actors involved in this situation. From European, American, Russian, Chinese companies... in addition to the governments of the states.

Secondly, a shared field would be like "a drink in which two or more agents have a straw". They would most likely not split the drink but try to drink as much as possible. This may be detrimental to the environment.

The case of the Continental Shelf in the Persian Gulf could be an example for how to deal with this situation. That oil reservoir belongs to countries like Iran, Saudi Arabia, Bahrain, Oman, Qatar and Iraq. Must be said that the relationship between those countries is not the best one. But they reached an agreement.[208]

[206] Nigel Bankes (2016) The Regime for Transboundary Hydrocarbon Deposits in the Maritime Delimitation Treaties and Other Related Agreements of Arctic Coastal States, Ocean Development & International Law, 47:2, 141-164, DOI: 10.1080/00908320.2016.1159087
Carayannis, E., Ilinova, A. & Chanysheva, A. (2020) Russian Arctic Offshore Oil and Gas Projects: Methodological Framework for Evaluating Their Prospects. *J Knowl Econ* **11,** 1403–1429. https://doi.org/10.1007/s13132-019-00602-7

[207] Rodin, D. V. (2011). *Offshore transboundary petroleum deposits: Cooperation as a customary obligation* (Unpublished doctoral dissertation). University of Tromsø. Retrieved from https://munin.uit.no/bitstream/handle/10037/3894/thesis.pdf?sequence=2&isAllowed=y

[208] Cherepovitsyn, A. E., Ilinova, A. A., & Smirnova, N. V. (2017). *KEY STAKEHOLDERS IN THE DEVELOPMENT OF TRANSBOUNDARY HYDROCARBON DEPOSITS: THE INTERACTION POTENTIAL AND THE DEGREE OF INFLUENCE* (Unpublished doctoral dissertation). Saint Petersburg Mining University. Retrieved 2017, from https://www.abacademies.org/articles/Key-stakeholders-in-the-development-of-transboundary-hydrocarbon-deposits-1939-6104-SI-16-2-130.pdf

Indigenous peoples [209]

In 2007, the United Nations Declaration on the Rights of Indigenous Peoples was issued. As it is a declaration, it is not binding for all states. For example, Canada and the United States initially rejected it, but later accepted it without make it bidding[210]. In its article 10, it was stated that indigenous peoples' lands could not be expropriated. [211]

The problem is that due to the situation in the Arctic, the lives of many people with indigenous culture are affected. For example, in the United States, the construction of oil rigs in the Alaskan Sea is affecting the people living in the area[212]. For example, Oil platforms emit noise so loud that it affects fishing. [213]

In the case of Russia, it should be noted that an agreement was reached with the natives of the Sakhalin Islands that was beneficial for both the natives and the oil companies.[214] However, in other parts of Russia, some indigenous people complain about the pollution that oil spills cause and that it is harming them.[215]

In Canada, although as mentioned in the introduction there were agreements, there are still claims by the natives, who demand to benefit from the fact that the pipelines cross their lands.[216]

[209] Fjellheim, Rune S. and Henriksen, John B.(2006), "Oil and Gas Exploitation on Arctic Indigenous Peoples' Territories Human Rights, International Law and Corporate Social Responsibility". Aboriginal Policy Research Consortium International (APRCi). 193. https://ir.lib.uwo.ca/aprci/193

[210] Office of Press and Public Diplomacy. (2013, September 13). Explanation of vote by Robert Hagen, U.S. Advisor, on the Declaration on the Rights of Indigenous Peoples, to the UN General Assembly, September 13, 2007. Retrieved from https://archive.ph/20070612010029/http://www.un.int/usa/press_releases/20070913_204.html
Factbox: What is the Declaration on the rights of INDIGENOUS PEOPLES? (2013, September 13). Retrieved May 1, 2021, from https://web.archive.org/web/20121102195634/http://www.canada.com/nationalpost/news/story.html?id=eec0b550-e95a-492b-8801-6ede20a2d35e

[211] *United Nations Declaration on the Rights of Indigenous Peoples.* Retrieved from https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html

[212] Cultural Survival. (n.d.). Alaska natives MOUNT resistance to Latest ANWR DRILLING LEGISLATION. Retrieved May 2, 2021, from https://www.culturalsurvival.org/news/alaska-natives-mount-resistance-latest-anwr-drilling-legislation

[213] Free Documentary (YouTube). (2021, January 15). *Oil and gas in the Arctic*

[214] Maria Tysiachniouk, Laura A. Henry, Machiel Lamers, Jan P.M. van Tatenhove. (2018) Oil and indigenous people in sub-Arctic Russia: Rethinking equity and governance in benefit sharing agreements, Energy Research & Social Science, Volume 37, Pages 140-152, ISSN 2214-6296, https://doi.org/10.1016/j.erss.2017.09.004. Retrieved from https://www.sciencedirect.com/science/article/pii/S2214629617302700

[215] IWGIA. (2020, June 23). Russian oil spill exposes history of indigenous peoples'rights violations. Retrieved from https://www.iwgia.org/en/news/3790-russian-oil-spill-exposes-history-of-indigenous-peoples%E2%80%99-right-violations.html

[216] Nickle, R. (2020, November 30). Canadian indigenous deal with KXL oil pipeline took years, aims to unlock long-term wealth. *Reuters.* Retrieved from https://www.reuters.com/article/tc-energy-keystone-idUSKBN28A1I7

Environmental Disputes

There is currently a melting of ice in the Arctic. According to scientific studies, this is mainly due to human causes. Specifically to the emission of greenhouse gases (carbon dioxide, methane, and nitrous oxide among others). [217] [218]

More and more people are becoming aware of the damage to the environment. So much so that in Norway there is an open case against the government for drilling in the Arctic. It is known as "*The People vs. Arctic Oil*". In this lawsuit they are trying to have the oil extraction licenses granted in the Arctic territory invalidated.[219] [220]

In the United States, the Federal Court rejected oil drilling in certain environmentally protected areas of Alaska [221]. Former President Donald Trump gave the order to authorize tenders before he left the White House, but the Federal Court overturned the order.

If oil drilling begins *en masse*, it could be lethal for biodiversity [222]. In 2018 there was a case in the US (*LCV v Trump*)[223] because the president wanted to reverse protections put in place by the previous president, Barack Obama. Obama put a moratorium on oil and gas licensing to protect the fragile biodiversity in these areas. In April 2021, the *Ninth Circuit Court of Appeals* said that Obama's measures should be upheld to protect the environment. [224]

Russia currently has a big problem with oil spills, it has been calculated that there is an oil spill each 30 minutes[225]. An oil spill is something very harmful for the environment. In 2020 one of the biggest oil spills occurred, and the company that caused it was ordered to pay 2 billion US dollars for the environmental damage.[226] The problem is that not all pipelines are working

[217] Luton, J. (2016, June 9). Study links 2015 melting Greenland ice to faster Arctic warming. *UGA Today*. Retrieved from https://news.uga.edu/study-2015-melting-greenland-ice-faster-arctic-warming-0616/

[218] Tedesco, M., Mote, T., Fettweis, X., Hanna, E., Jeyaratnam, J., Booth, J. F., Datta, R., & Briggs, K. (2016). Arctic cut-off high drives the poleward shift of a new Greenland melting record. *Nature communications*, *7*, 11723. https://doi.org/10.1038/ncomms11723

[219] Greenpeace International. (2020, April 20). Norwegian climate lawsuit accepted by Supreme Court. Retrieved from https://www.greenpeace.org/international/press-release/30098/norwegian-climate-lawsuit-accepted-by-supreme-court/

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[221] *Ctr. for Biological Diversity v. Zinke*, 313 F. Supp. 3d 976 (D. Alaska 2018). Retrieved from https://casetext.com/case/ctr-for-biological-diversity-v-zinke-3

[222] WWF. (2021, April 14). How would offshore oil and gas drilling in the Arctic IMPACT WILDLIFE? Retrieved from https://www.worldwildlife.org/stories/how-would-offshore-oil-and-gas-drilling-in-the-arctic-impact-wildlife

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[224] https://earthjustice.org/news/press/2021/ninth-circuit-court-confirms-obama-era-protections-for-arctic-atlantic-oceans

[225] Alykova, Y., & Uzhvak, P. (2020, October 15).

[226] Sakirko, E. (2021, February 12). Remember the norilsk oil spill? Well, the polluters will pay. Retrieved from https://www.greenpeace.org/international/story/46429/remember-the-norilsk-oil-spill-well-the-polluters-will-pay/

properly or are not all of the best possible quality. In the new Arctic strategy, Russia has reaffirmed its commitment to the environment. [227]

Another problem is the use of the *Fracking* method, it has been proved that its harmful for the environment. [228] Countries like the US are using it. In the case that it would be used in the arctic, it could have a terrible impact.

Another problem is that sometimes those licenses are not very transparent. For example, in 2016 WWF law suited Canada because the license that was given to the company Shell did not explain when it would finish. [229]

In Russia one of the main companies that is extracting gas is Yamal LNG, this company is owned partially by TOTAL SE, a French company.[230] Other European companies such as REPSOL or SHELL were involved in the drilling, those two companies have stopped to participate because the price of the oil dropped.[231] In the case of Russia, the data of the companies that are extracting oil is easy to find.

[227] Kondratenko, T. (2021, March 29). Why Russia has so many oil leaks. Retrieved from https://www.dw.com/en/russia-oil-spills-far-north/a-56916148
Pedrick, J., & Trier, A. (2021, April 15). Listen: US Gasoline markets continue to Feel effects of TEXAS FREEZE. Retrieved from https://www.spglobal.com/platts/en/market-insights/podcasts/oil/041521-us-gasoline-markets-texas-freeze-rvo-soybeans

[228] Mullen, J. (n.d.). The truth about fracking and the environment. Retrieved May 2, 2021, from https://www.wilderness.org/articles/article/truth-about-fracking-and-environment#
[229] Crowley, P. (2016, April 16). WWF lawsuit challenges Shell Oil permits in Canadian Arctic. Retrieved from https://wwf.ca/stories/wwf-lawsuit-challenges-shell-oil-permits/
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[231] Shell ditches Russian Arctic oil joint project. (2020, April 13). *Https://www.reuters.com/article/shell-russia-oil-idUSL5N2C13DV*.
Repsol se RETIRA de un PROYECTO conjunto en el Ártico ruso. (2020, May 22). Retrieved from https://www.reuters.com/article/rusia-gazpromneft-repsol-idESKBN22Y2DJ

CONCLUSION

To address the conclusion, first an assessment of the situation in the Arctic and the applicable regulations will be made. This will be followed by an assessment of the problems and controversies in the Arctic. Finally, a proposal will be made to try to improve the situation.

Situation

From my point of view, the political and economic interest in the Arctic is enormous. At the same time, I am surprised that so little is said about the situation. As explained earlier, there are a number of countries that consider it essential to maintain a presence in the Arctic. One of the countries that has a stronger Arctic strategy in perspective with its situation is China. Despite not having a border, it has been trying to gain influence in the area through agreements with other states (Iceland or Russia). As for corporations, in addition to state-owned companies, there are large corporations such as Total SE, Shell, Exon and banks that are investing.

The situation in the Arctic is complicated, as there are many interests, and we are currently waiting to see how they will be resolved.

Regulations

As far as international legislation is concerned, it is necessary to distinguish between political treaties and environmental treaties.

Political treaties such as UNCLOS are very important, but the problem is that environmental treaties are not always respected. At the time of the *Kyoto convention*, many states started to buy and sell emissions. During this dissertation there has been pointed other examples, such as *The London Convention on the Prevention of Marine Pollution*. Another example is the fishing in the Arctic, it was pointed in the introduction, nevertheless, I believe that it is important to point it again because it proves that there has been a lack of environmental compliance since 70 years ago. The intention of environmental treaties is very good, and in my opinion, they should be respected, but being pragmatic, they are not always respected. In fact, a common pattern is environmental problems. In the case of Russia there are oil leaks, in Canada and the United States fracking is allowed, Norway has had legal proceedings against Greenpeace for drilling in the Arctic.

As for national legislations, I think each one has negative and positive aspects. From a business perspective, there are countries like Russia, the United States and Norway that I would consider "attractive" for investment. Because of the process in which licenses are offered and the duration of these licenses. Greenland is probably the least attractive, as the exclusive license has an expiration of 5 years and is not renewable. The other licenses operate on a "first come, first eat" basis and this can result in an exploration not bringing in any revenue despite the existence of oil.

As for the environmental situation, I personally believe that the "fracking" method is very harmful to the environment, however, a company that its main interests are the profits can see it as a viable option.

Must be said that there are oil and banking corporations, like BNP Paribas that are also funding in research on climate in the Arctic region. As they say in their website, is a strategy of their Corporate Social Responsibility department. [232]

Disputes and controversies

To start talking about the disputes and controversies, first of all we must talk about UNCLOS.

At present there is a dispute over the Lomonosov submarine mountain range. Russia submitted its arguments and investigations to the UN Commission on the Limits of the Continental Shelf. At the moment it has not made any pronouncement, but the different countries are waiting to see what decision it will take.

In my opinion, Russia is right. It is the only one of the countries that has provided scientific evidence that the Lomosnosv Ridge belongs to them. Personally, I found the explanations given by the Russian scientists very convincing. Besides, the Russians started to explore the area in the 17th-18th century, the "terra nulius" principle could be applied. This principle indicates that if a land has no owner, the state that finds it can legally occupy it. In other contexts, this principle is currently being debated.

If the Commission agrees with Russia, Russia will have hegemony in the Arctic area. If, on the other hand, the Commission does not agree with Russia, the dispute will be prolonged.

In the event that the commission rules against it, I think the best thing to do would be to seek an agreement. Years ago, they agreed to create imaginary borders for rescue operations, and Russia and Norway reached a bilateral agreement on the Barents Sea. Personally, I think that if the UN Commission on the Limits of the Continental Shelf does not agree with any country, the countries will be forced to reach an agreement. Must be said that, in my opinion, there should also be a new interpretation of the Svalbard Treaty. Personally, I disagree with the Norwegian interpretation. I strongly believe that there should be some impartial interpretation. Otherwise, I think that sooner or later this issue will end in the International Court of Justice. Like, the conflict between Kenya and Somalia about maritime borders.

Personally, I see a parallelism between the disputes in the Arctic and the disputes in the South China Sea. I believe that resolving the Arctic disputes could set a precedent that could help resolve the South China Sea conflict. Even if the conditions are different, diplomatically, politically, and legislatively, countries would have a precedent that they could use to know how best to proceed.

In my opinion, the problem that worries me most is the environmental one. Currently, and I am not only talking about the Arctic, many states and corporations ignore or reject the impact of their actions on the environment. I think, in the case of the Arctic, it is extremely sensitive. The Arctic is home to a unique biodiversity. In addition, the melting of ice is accelerating, and this is causing the sea level to rise. If the sea level rises too much, it can have terrible consequences for many coastal cities.

[232] BNP Paribas supports scientific research on climate in Arctic regions. (2021, March 19). Retrieved May 7, 2021, from https://group.bnpparibas/en/news/bnp-paribas-supports-scientific-research-climate-arctic-regions

Damage to the environment not only affects wildlife, but also humans. Currently, there are countries like Russia or Canada that are becoming aware of the environmental situation. Canada put a moratorium on the extraction of resources in the Arctic and Russia has decided to increase environmental measures, and there is jurisprudence in which those who have violated the environment have been punished.

In the case of the United States, Donald Trump tried to allow resource extraction from Alaska before leaving the White House.

At the same time, there is a second problem. As I said, it is complicated to know where an oil field begins and where it ends. So, two states can be extracting from it and not know it. Currently there is no agreement in the area and there is no law on how to proceed. There are simply some principles of international law that are probably not even customary.

The problem is that if there is no agreement, states will rush to extract resources. If they rush, it is easier that there could be accidents, which would be negative for the environment.

In the movie "There will be blood", based on resource extraction, the main character uses the phrase "I drank your milkshake". To refer to the fact that he extracted oil that was on someone else's land. I am concerned about the consequences if countries and companies decide to "drink each other milkshake". Not only environmental, there could also be economic consequences in terms of price.

Even if Russia gets the Arctic, this problem would persist, for example, a so-called field could start on the land of Canada (not even on the coast) and go all the way to Russia's territorial waters.

It could even be that countries finding a deposit near Russia would try to extract as much as possible.

As for the indigenous population, I think the best thing would be for them to participate in the extraction activities or in the licensing process. I think it is not fair that their way of life is completely altered because of extractions. At the same time, I think that classify all of them as “Indigenous peoples” is not something good. I think each group has its own needs. In order to address this problem, it should be done individually. I think there is not a “global solution” for the problems regarding the indigenous peoples.

Honestly, I believe that the states must do more to protect the environment. That is why I make the following proposal.

Proposal

It is necessary to remember that with the Ilulissat declaration it was said that a specific regulation for the Arctic was not necessary. In my opinion it is. I think the Arctic Council is a good body to promote cooperation, but binding agreements must be made. In my opinion, at least two agreements should be made. One in relation to resources and one in relation to the environment. But, my proposal is to make them in one.

The treaty in relation to resources should be for how to proceed in the event that an oil field is so large that it is under the territorial waters of two or more states. As previously commented, this is

something that has already happened in different places in the world. From places where relations are more "relaxed", such as between the USA and Mexico, to more hostile places such as the Persian Gulf where Iran and Saudi Arabia are located.

Secondly, an agreement should be made to protect the environment. Sanctions should be toughened in case of environmental pollution and environmental plans should be made before and during extraction. In addition, I would propose an agreement that, if a company pollutes voluntarily or through a mistake caused by lack of diligence, its licenses should be revoked in all Arctic states.

In my opinion, the two treaties could be unified. In many cases, the companies operating in the Arctic countries are the same. For example, Shell has operated in Canada and Russia. Different companies from European Union countries and China have collaborated with the different countries in the Arctic, especially because of the increase in demand for gas. Therefore, I believe that an agreement could be reached in which the countries would designate a series of companies and extract the oil, sharing the profits. In addition, implementing a series of measures to protect the environment and biodiversity.

In summary, it is necessary to reach an agreement to protect the environment and avoid possible disputes in the medium and long term.

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