Assessing Greenland's Resources

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3 Main Points

1. Explores Greenland's vast mineral resources 2. Greenland is oil and mineral rich making it attractive to relevant states in the arctic region 3. Greenland is, and will continue, to be relevant because of the points made above.

About the Authors

-Michael Waltz, Donald Trump's National Security Advisor, 8 January 2025

Denmark, a territory under the sovereign control of Denmark, has recently attracted the attention of President Trump, who claims to want the

island “one way or another.” It is not the first time the United States has expressed interest in acquiring the landmass.

A chief reason behind this territorial ambition is said to be the vast reserves of minerals and other resources held by the autonomous Danish region, although its strategic position in the far north also offers significant advantages for Arctic geopolitics and commerce. This article will explore some of the natural resources in Greenland and its surrounding waters, and their implications for international security.

Extraction of rare earth minerals is currently dominated by China, which controls about 70% of today’s total rare earth production (and an even higher percent of rare earth mining). The processing of these minerals is monopolized by China, which currently manages 99% of the world’s rare earth processing as well.

U.S. government data on the total quantity of rare earth minerals suggest that China holds about half of the world’s reserves—although much of these are not extractable with modern technology. Most of Greenland’s reserves, in particular, would be very difficult to access and extract for decades, until climatic and industrial trends evolve. Opening large-scale mining operations and scaling up to meet global demand also requires many years of development and preparation. Greenland ranks eighth among states for rare earth reserves, and the United States seventh.

Greenland recently inked a ten-year deal with a Finnish corporation to export molybdenum from its eastern coast, enough to supply the EU with 25% of this element. Molybdenum is used in the production of high-strength steel, and in various electrical components.

Tungsten deposits lie in several coastal regions in Greenland, particularly on its eastern coast. Its applications include automobiles, electronics, and weapons. Greenland notably sits on the world’s sixth largest known reserves of uranium as well, although most of their deposits are currently forbidden to exploit.

Nickel can be found in many locations across Greenland. Most nickel is used in the production of stainless steel, and so the element offers a wide range of potential uses. Indonesia currently extracts the largest quantity of nickel, by a wide margin.

Graphite demand is expected to soar in the near future, driven by production of batteries and blast furnaces. Greenland sits on massive reserves of high-quality graphite, and increased mining of this mineral could deprive China of some of its leverage over the global market (China produces almost 80% of the world’s graphite today).

Glaciers also cover 80% of Greenland’s landmass. The massive ice sheet accounts for 10% of Earth’s fresh water, a precious commodity in a rapidly warming world. However, capturing such immense quantities of meltwater would also be a logistical challenge.

Yet the Greenlandic territory is an asset in and of itself because it sits on the shortest direct route between Europe and North America. As such,

it represents a direct threat to U.S. interests both in terms of long-range nuclear capabilities, new military routes, and increased espionage capacities as the region becomes warmer. The United States is already active in the region with the presence of the Pitiffuk Air Force Base, which supports missile warning systems, space surveillance operations and missile defence capabilities.

Building upon this, the change in climate will inevitably lead to the emergence of potentially faster trade routes due to shorter periods of frozen seas in the region and the melting of ice sheets. Indeed experts estimate that the end of multiyear ice in the Arctic region can lead to increased access to the Northern Sea Route, cutting by up to 50% the travel distance previously necessary. All trends seem to point to this, as between 2013 and 2023, the number of ships going along the North Pole Area has gone up by 37%.

Furthermore, there is another aspect which cannot be neglected when looking at Greenland's resources: oil. In 2008, the USGS estimated the oil and gas resources of the Greenlandic area to be around 7 billion barrels of oil and 138.000 billion cubic feet of natural gas. In a world facing decreasing stores of fossil fuels, such resources would be key to asserting and maintaining regional control and industrial production capabilities. Moreover, it is important to note that this number may potentially pale in comparison to newly discovered oil fields in the region when the permafrost recedes.

The U.S. is certainly not the only one to have noticed this trend. Countries such as China have demonstrated increasing interest in Greenland's mineral wealth and infrastructure. In 2017, a Chinese state-owned company attempted to invest in three airports in Greenland, a move that raised alarm among Denmark and its NATO allies, leading to Danish intervention to block the investment. Additionally, Chinese mining companies, such as Shenghe Resources, have sought stakes in Greenland's rare earth projects, which would further solidify China's near-monopoly on these critical minerals. China's Arctic ambitions align with its broader Belt and Road Initiative, and it has declared itself a "near-Arctic state," underscoring its long-term strategic interest in the region.

Russia, too, demonstrates strong interest in the Arctic. Their 2021 military exercises in the Arctic included simulated attacks on NATO assets, reinforcing concerns about their long-term strategic objectives. Moscow has also laid claim to vast portions of the Arctic seabed under the United Nations Convention on the Law of the Sea (UNCLOS), arguing that its continental shelf extends into the North Pole region. Denmark has also submitted a claim to the same area, setting the stage for future legal and geopolitical disputes. As global powers compete for influence in Greenland and the broader Arctic, the island's role in international security will only grow.

As such, one can conclude that Greenland is, and especially will be, of paramount regional and global interest. To quote arctic expert Dwayne Menezes, one of the "Arctic Century's" defining features will

be “Greenland’s meteoric rise, sustained prominence and ubiquitous influence”.