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Melting away our troubles: The benefits of a warming Arctic

**Interpretation [29]**

 Melting Arctic sea ice will allow the development of more efficient maritime transport routes that will benefit not only the shipping industry but also the local and global economies.

**Analysis [420]**

 The melting of the Arctic sea ice will allow the opening of the new sea routes, connecting previously difficult to reach places with each other. Climate change has renewed interest in these previously unimaginable shipping passageways (Lasserre, 2014, page 145). Of particular interest to China, one of the world’s largest exporter of goods, is the Northern Sea Route (NSR), which would shorten the journey between Europe and Asia by approximately 40% (Hong, 2012, page 51). A shorter route between Europe and Asia will yield many benefits, not only to the transportation industry but also to the global economy.

 The NSR will reduce the time needed to ship goods (Hong, 2012, page 51). As a result, cargo can get to market more quickly, and ships can make more trips between economic hubs (Zhao et al., 2016, page 59). The shorter transportation route will reduce the amount of fuel needed to transport goods. In addition to the financial savings this will bring to the companies, the reduction of fuel used has the potential to mitigate climate change, as less carbon emissions are being released compared to the longer shipping routes utilized before the NSR (Hong, 2012, page 52). Companies will also no longer have to through politically unstable areas, such as the Suez Canal, (Lasserre, 2014, page 144) and the Gulf of Aden (Hong, 2012, page 52). This will not only increase the safety of the crew and cargo, but also reduce insurance costs (Lasserre, 2014, page 150). The financial savings and the safety benefits will allow the maritime transportation industry increased stability and security into the next century.

 Local economies along the NSR will benefit as well. Infrastructure, such as ports, ship mechanics, and other support industries, will be required to make these routes operational, resulting in the creation of jobs and economic stimulus (Beveridge et al., 2016, page 412). The ports that are built in the Arctic will also be able to charge fees for use, as well as additional fees for ice breaking, for example, allowing money to flow into local economies (Zhao et al., 2016, page 56). The money generated could fund the development of these previously isolated regions.

 The global economy is dependent on the affordable movement of goods, which, is most commonly done through oceanic shipping. As such, any improvement to this industry will have a ripple effect worldwide in many sectors of the economy (Beveridge et al., 2016, page 405). Thus, the development of the Arctic sea routes is essential in ensuring global economic growth.

**Evaluation [35]**

 Beveridge et al. (2016) and Hong (2012) focus on Asian viewpoints of the shipping industry. This one-track perspective limits the dialogue around the issue and excludes other potentially relevant perspectives, such as those from environmentalists.

**Inference [27]**

 While the melting of the Arctic benefits global trade, it could negatively affect the marine ecosystem because of the implementation of shipping routes into previously unexploited environments.

**Explanation [38]**

Melting Arctic sea ice will allow the development of previously unrealized marine transport passages, benefiting the shipping industry, local populations, and the global economy. It is unclear the ecological effects this expansion will have on the Arctic ecosystem.

**Bibliography**

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