

Securing Threatened Maritime Corridors

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Abstract

The significance of safe and secure transportation has increased considering recent geopolitical shifts, including the Russian-Ukrainian war and the Israeli-Hamas conflict. The latter caused shipping companies to opt for more secure transportation routes despite the associated costs, and new routes avoiding high-risk areas have become more prominent. As part of the Belt and Road Initiative's (BRI) 21st Century Maritime Silk Road, which connects Europe and Asia via the Red Sea and Suez route, major shipping companies had to circumnavigate the Cape of Good Hope in response to the Houthis' attacks. The U.S. Operation "Prosperity Guardian" and "Operation Aspides" launched by the E.U. did not entirely deter Houthi strikes against commercial ships with links to Israel. The increased frequency of piracy attacks in the Indian Ocean is another risk posed to commercial ships after the disruption in the Red Sea because of an increase in the intensity of shipping off the coasts of Eastern Africa. The objective of the paper is the security risks associated with the 21st Century Maritime Silk Road and the potential security risks for the sea passages of the India-Middle East-Europe (IMEC) corridor are examined in this study. The study concludes that despite existing drawbacks such as capacity issues, there is potential for increased utilization of the Arctic Route and other multimodal transport corridors in the future for transporting goods from Asia to Europe.

Keywords: 21st Century Maritime Silk Road, Operation Prosperity Guardian, Operation Aspides, India-Middle East-Europe Corridor, Arctic Route, Multimodal Transport.

1. Introduction

Trading routes have had a crucial role throughout human history, and the seas have played a major role in them. One of the two frames of how people use the sea is transportation and communication, which are different from the acquisition and management of wealth and natural resources. The ocean has given us access to other regions of the world as well as fundamental necessities like food and the Sea Lines of Communications (SLOC). For these reasons, its sustainability and security are vitally important. Given that a third of all logistical costs are incurred in the transportation segment of the supply chain, transportation security and the security of corridors are crucial components that supply chain security must handle.

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Examining the security risks associated with maritime transportation, particularly considering the recent Israel-Hamas conflict and the rising number of attacks on commercial ships off Yemen that have forced shipping companies to choose the Gibraltar route over Suez at great financial risk, serves as an excellent illustration of the significance of the issue. Another illustration could be the increasing number of piracy attacks, particularly in the Indian Ocean, the Straits of Malacca, and Singapore.

Moreover, potential maritime terrorism acts against choke points or mega ports may have large-scale psychological, political, economic, social, environmental, and military effects besides their dire economic implications and cascading effects.

Finally, the recent increase in GPS jamming and spoofing negatively impacts shipping security as well. Reliable precision navigation is more crucial than ever due to the rise in the size and quantity of vessels at sea, as Automatic Identification System (AIS) spoofing scenarios have the potential to disrupt maritime traffic and impede a vessel's ability to travel safely. Since a potential cyberattack at a choke point would impact not only the targeted ship but also all commercial traffic in the area, consequently, it will affect the global maritime trade accordingly.

Given the aforementioned security risks, decision-makers are compelled to conduct a thorough risk assessment when selecting a transport corridor from among existing options or considering alternative modes of transport. This assessment may also involve exploring new corridors perceived to offer greater security. In this study, existing and potential maritime corridors are scrutinized from a security perspective in the following section. In section three, multimodal and railroad corridors are examined to determine whether they can replace existing or potential maritime corridors. In section four, the security risks of the corridors are compared, and findings are discussed in the conclusion part.

2. Existing and Potential Maritime Corridors and their Security Risks

2.1. 21st Century Maritime Silk Road

The historic Silk Road was one of the most significant roads in history given its influence and length exceeding ten thousand kilometers, which is evident that it has produced a unique value. In its prehistoric era, the Silk Road was an intricate network of trade routes that connected numerous civilizations and allowed for the interchange of goods, ideas, and cultures stretching from China to the Mediterranean. Its modern version was revived through China's ambitious Bridge and Road Initiative (BRI), launched by Chinese President Xi Jinping in 2013. In West Asia and the Global South, the Belt and Road Initiative (BRI) currently stands as the most influential geoeconomic project. Consequently, China has emerged as the foremost export and/or import partner for the majority of West Asian nations.

The Gulf of Aden, the Red Sea, and the Suez Canal are the shortest sea routes

for ships traveling from Asia to Europe within the context of 21st Century Maritime Silk Road (see Figure-1). This route is used to reach Western markets by 12% of global maritime trade, one-third of container transportation, 10% of the oil traffic, and 8% of the liquefied gas (LNG) trade. Currently, the most eminent risk is Houthi attacks (see Figure 2) against shipping passing from the Red Sea. Although the group claims to primarily target ships traveling to or from Israel, incidents of attacks on ships passing through the sea have occurred involving vessels with no apparent connections to Israel (Yiyun, 2023). Shipping companies either diverted ships from the Red Sea (see Figure-3,4-5) or halted shipments, which formerly caused shipping firms to reroute their vessels around Africa's Cape of Good Hope, which is more than 3,700 miles (6,000km) longer, and adding between 10 and 14 days to journey times (Bragagni Esq Obe & Xhaferraj, 2024). Moreover, shipping rates on Asia-Europe routes have increased by almost 300 percent (Crane, 2024).

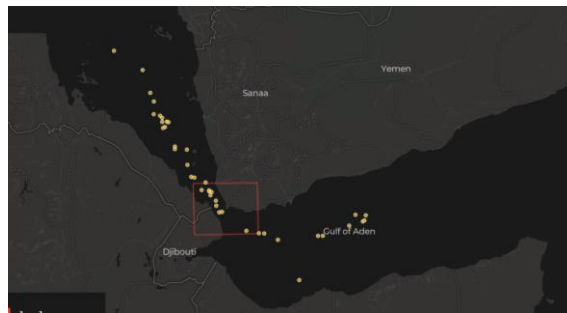


Figure 1: 21st century maritime silk route (Topchubashov, 2024)

Figure 2: Houthi attacks against commercial ships in the region (Aljazeera n.d.)

Multiple commercial ships are attacked or delayed along the vital maritime route that runs from the Suez Canal in Egypt via the Red Sea and Bab al-Mandab Strait, and as international shipping and trade were negatively impacted by the region's lack of security, a growing international response developed. In reaction to such

attacks, the United States and the United Kingdom began airstrikes against Houthi sites in Yemen on January 11, 2024, within the context of Operation Prosperity Guardian (U.S. Department of Defense, 2023), which is a multinational maritime security initiative primarily aimed at protecting commercial shipping in the Red Sea led by the U.S.

Another operation launched by the E.U. in March 2023 is Aspides, which aimed to play an active role in protecting the strategic interests of European states and to mitigate the negative effects of a disruption in one of the world's largest trade arteries (EU External Action, 2024). Both Operations are ongoing, but Houthis attacks as well (Hussain, 2024; Oral, 2023).

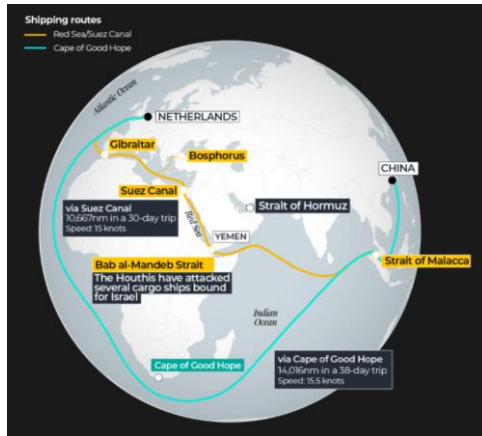


Figure 3: Red Sea/Suez Canal Route and Cape of Good Hope Comparison (Aljazeera, n.d.)





Figure 4-5: Change in the Shipping Routes between October 2023 and January 2024 (Source: Aljazeera n.d.)

Furthermore, the effect of the Houthi attacks increased piracy off the coasts of Somalia (Oyewole, 2024, Sputnik Africa, 2024). Since November 2023, suspected Somali pirates have attacked ships repeatedly, which has increased concerns about the possibility of resurgent piracy along the East Coast of Africa. Many observers suspect a collaboration between Somali pirates and the Houthis (Millward, 2023). According to UNCTAD (UNCTAD, 2024), the UN agency for trade and development, ship traffic in the Suez Canal fell by 42% in December 2023 and January 2024.

Since Houthi rebels' attacks on ships in the Red Sea in retaliation for the Israel-Hamas war disturbed maritime security, piracy off the coast of Somalia has intensified accordingly. After reaching a peak in 2011, Somali piracy gradually decreased to nil in 2015. From 2018 to November 2023, Somali pirates have largely remained hidden, except for 2017, when attacks were reported. However, with the onset of Houthi attacks on merchant shipping in the Red Sea, the numbers started to increase again. The table below depicts committed and attempted piracy incidents in the region between October 2023 and February 2024 (Table 1).

Table 1: Piracy Statistics in the Region between October 2023 and February 2024

Attack-Committed Attack Region	Malacca Strait (Committed/Attempted)	South China Sea (Committed/Attempted)	Indian Ocean (Committed/Attempted)	Arabian Sea (Committed/Attempted)	East Africa (Committed/Attempted)	Total
October-23						
TTW	6	-	-	-	-	8
Port Area	2	-	-	-	-	
November-23						
Port Area	4	4	1	-	-	9
December-23						
Int. Waters	-	-	-	1*	-	5
TTW	2	-	-	-	-	
Port Area	1	-	-	-	1	
January-24						
Int. Waters	-	-	1*	1**/2	-	10+5
TTW	4	-	-	-	-	
Port Area	2/2	-	2/1	-	-	
February-24						
TTW	2	-	-	-	-	9
Port Area	3	1	3	-	-	

* Hijacked

** Fired upon and Indian navy warship responded to the distress.

(Derived by the Author from IMO Piracy Reports)

The increase in piracy incidents in Q1 2024 off the coasts of Somalia compared to Q1 2023 is also verified by the Commercial Crime Services (ICC, 2024). Although most of the incidents in the Malacca Strait are petty thefts resulting in the theft of ships' spare parts, properties, store or crews' mobile phones with no or small injuries, there are serious incidents like hijacking Malta-flagged bulk carrier Ruen in the Arabian Sea and a fishing vessel in the Indian Ocean recently.

The risk region could be expanded to encompass approaches to the main container ports on Oman's southern coast as well as the Arabian Sea, which is effectively the northern end of the Indian Ocean, in addition to the Indian Ocean itself. Moreover, territorial disputes in the South China Sea have the potential to disrupt shipping if it worsens in the future.

Lastly, another increasing security risk is aggressive GPS spoofing that disrupts ships discovered in more than 20 Chinese coastal locations. Among them were the ports of Tianjin, Dalian, Qingdao, Quanzhou (Shiyucun), Fuzhou (Huilitou), and Shanghai (Goward, 2019).

2.2. India-Middle East-Europe Economic Corridor (IMEC)

The goal of the India-Middle East-Europe Economic Corridor (IMEC) initiative is to reshape international trade routes, encourage connectivity, and make it easier for clean energy and digital communications to develop and export. The projected IMEC corridor begins in India and travels to the United Arab Emirates (UAE) across the Arabian Sea. After that, it will travel across Europe, Israel, Jordan, and Saudi Arabia (see Figure 6). There are rail and sea components to this route, and it will also have cables to link telephone lines and power grids (Akbulut, 2023). In addition to the security risks in the Israeli port of Haifa, which is the hub of the corridor for transporting cargo from there to Piraeus in Greece, there are similar risks in the

maritime component stemming from tensions between Israel and Iran. Security concerns in the Persian Gulf between the U.S., and Iran are another risk factor which will potentially affect corridor's first sea leg.

The objectives of IMEC are to enhance the leadership of the U.S. and the E.U., expand global supply chain solutions founded on multilateral collaboration and prosperity throughout Eurasia, and offer useful infrastructure and economic advantages to the participating regions (Akademir, 2023). However, it is assessed that the project's primary objectives are to counterbalance China's influence, particularly in the Middle East, and to fortify U.S. ties with its allies in the emerging Cold War. Moreover, many reject the plan. The initiative, which avoids Türkiye, drew immediate criticism from President Tayyip Erdogan of Türkiye, who declared that "there is no corridor without Türkiye." Rather, Türkiye supports the "Iraq Development Road Project", a different route that would use ports in the United Arab Emirates, Qatar, and Iraq to link the Gulf to Türkiye and Europe.

At present, IMEC is only a Memorandum of Understanding (MoU) between a rather large group of countries, which is its main attraction. There are two corridors within the project. India and the Arabian Gulf are connected by one, and the Arabian Gulf is connected to Europe by a corridor to the north. The main project is building a railway to supplement current routes for the transfer of goods and services between nations, providing a dependable and affordable cross-border ship-to-rail transportation network (Yergin, 2023).



Figure 6: India-Middle East-Europe Economic Corridor (IMEC) (The Businessline, 2023)

The Arab Israeli normalization procedures, especially those involving Saudi Arabia and Israel, must make significant headway if the IMEC is to remain viable. The idea has garnered international attention with the goal of transporting products and services across the Middle East between Europe and Asia, but these procedures are currently locked due to the conflict between Hamas and Israel. It would be completely futile to discuss significant investments like IMEC, considering the

conflict in the Middle East.

Another risk area is the US-Iranian confrontation in the Persian Gulf (Bagheri Dolatabadi & Kamrava, 2024). The tension between the two puts the Strait of Hormuz security at risk. Both nations employ their resources to preserve influence due to the Strait's strategic importance. While Iran wants to use the Strait as a geopolitical tool because of its proximity to it there's also a big American presence across the Strait. For the U.S., the Strait of Hormuz is strategically and economically significant because this marine route is used to import some of the oil that the U.S. imports from Gulf nations.

2.3. Arctic Route

Every time there was an interruption to travel through Suez; the Cape Route was employed. However, there is another waterway that connects Asia and Europe: The Northern Sea Route (see Figure 7). If global warming continues at the expected rate, this route—which stretches from the Barents Sea, close to Russia's border with Norway, to the Bering Strait, which separates Siberia and Alaska—might be a better choice. However, it is currently confronted with numerous obstacles (Landry, 2024).

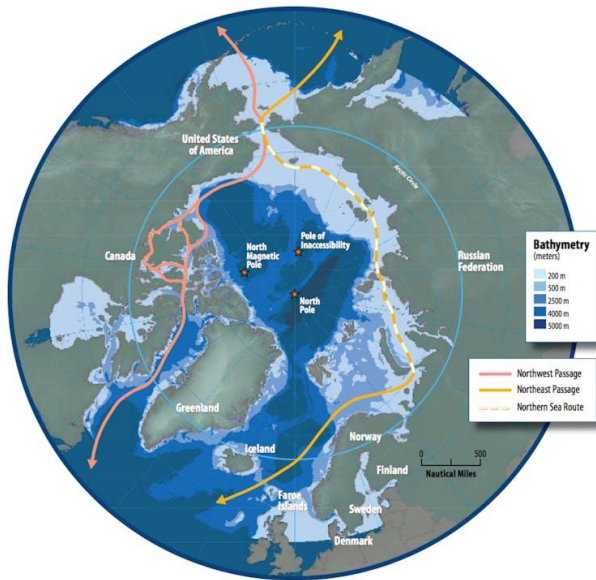


Figure 7: Arctic Route (The Conversation, 2024)

According to research (Borunda, 2020), by 2035, all the sea ice along the Siberian coast is expected to melt. Over the past 40 years, there has been a notable decrease in the thickness of sea ice, which was one of the primary obstacles to shipping in the Arctic, even though ice cover has not entirely disappeared.

The Northern Sea route is approximately 3,000 nautical miles shorter than the

Suez and 6,200 miles shorter than the Cape route for cargo transportation between Shanghai and Rotterdam. This would cut the current 32-day sailing time via Suez to just 18 days when traveling between eastern Asia and northern Europe. Additionally, Arctic navigation is done at very slow rates, typically less than 18 knots (about 21 mph). Therefore, a cargo ship using the Northern Sea route instead of the Suez route might consume 40% less fuel and produce up to 80% less emissions, depending on sailing speed and fuel type.

However, currently, Arctic navigation is very seasonal, limited to July through November, despite its benefits. Ships that are to navigate the Northern Sea Route must also be escorted by an icebreaker ship with nuclear propulsion. Moreover, there are capacity problems with the Northern Sea route as well. For trade between Asia and Europe, so-called "mega-vessels" with a capacity of about 20,000 containers are used. Because of the limitations based on sea ice depth, the Northern Sea route cannot handle mega-vessels. The number of ships in the Arctic is rising despite these obstacles. Cargo traffic on the Northern Sea route increased from 2.8 million tons to 10.7 million tons between 2013 and 2017, and this increased to 36.2 million tons in 2023.

The volume of goods passing through the Suez Canal and the volume of vessel traffic currently exceed the capacity of the Northern Sea route. However, depending on how quickly progress is made in combating global warming and creating a legal framework for shipping across the Arctic, it might prove to be a practical alternative in the future.

The largest container shipping firm in the world, Maersk of Denmark, began using this route in 2018 despite reluctance from Western shipping corporations. The route has grown more appealing and is no longer a barrier to maritime traffic. By around 2030, experts estimate that the Northern Sea Route will be prepared for maximum usage.

On the other hand, for Russia, the Arctic is vitally important (Abay, 2021) and restores Cold War-era sites above the Arctic Circle by building a new Northern Joint Strategic Command, militarizing more of its Arctic territory, and expanding its investment in weapons suitable for the region (UK Government, 2023). Especially after Finland and Sweden's NATO membership, Russia is expected to reinforce its military capabilities in the region.

Lastly, the Arctic's international maritime boundaries and boundaries of overlapping claims such as Lomonosov Ridge (Zafar, 2024) are another risk factor which may also impact shipping in the area. Lackenbauer and Sergunin claimed that protracted disagreements between Arctic littoral states could stimulate increasingly assertive resource and territorial claims, generating further militarization of the region (2022).

3. Other Multimodal and Railroad Corridors

There are several road, railroad, or multimodal corridors bypassing the Suez Route. In this section, these corridors will be examined, considering the latest developments in those regions.

3.1. Silk Road Economic Belt (SREB) - Middle Corridor

Railway transit was positively impacted by closures linked to maritime-related closures during the Covid-19 pandemic. The "Northern Corridor" was fully utilized for trade from China to Europe up to the conflict between Russia and Ukraine. However, because of post-war sanctions, the line's connection between Russia and Europe was severed. With its closing, the "Middle Corridor" gained prominence (see Figure 8).

The Middle Corridor, which runs from China to Türkiye via Kazakhstan and the Caspian Sea, has garnered more attention despite the war's detrimental effects on numerous global markets when the Israeli-Palestinian conflict and the Ukrainian-Russian War had rendered the northern and southern sea corridors unsafe. A portion of the volumes that typically travel via Russia and the Northern Corridor have moved to the Middle Corridor.

The Baku-Tbilisi-Kars (BTK) Railway became operational in 2017, completing an important portion of the Middle Corridor now under maintenance for one year. The Marmaray Bosphorus Tube Crossing opened to freight trains in 2017 as well, offering a significant competitive advantage in terms of costs and transportation time. This allows for uninterrupted railway transportation between the Asian and European continents.

The line cuts transit times by weeks. Deliveries from Asia to Turkey via the South Caucasus take only 15 days, whereas it takes 40–60 days to ship cargo from Europe to Asia via the Suez Canal or around Africa, and more than 30 days to deliver cargo from China to Europe via the Northern Corridor. The BTK railway is a vital component of the Middle Corridor. Moreover, Kazakh oil was first transported through the Middle Corridor in 2023 (Mammadov, 2024). However, its capacity is limited compared to maritime transport.

As per the ninth article of the armistice signed by Azerbaijan and Armenia following Azerbaijan's victory in the 2020 Nagorno-Karabakh War, the corridor designated as the "Zangezur Corridor" or the "Nakhchivan Corridor" (see Figure 9-10) will connect Azerbaijan with the Nakhchivan Autonomous Republic, which is a part of the exclave. If this corridor is constructed as intended, it will result in the creation of a landlocked outer portion of Azerbaijan between Iran and Armenia, as well as a narrow border connection with Türkiye. By providing multiple trade routes from Asia-Pacific, the corridor will connect the Caspian Region, Central Asia, Armenia, and Azerbaijan, as well as provide a chance to develop the railway network

connecting Türkiye, Azerbaijan, Russia, Armenia, and Iran.

On November 26, 2023, the Turkish Ministry of Transport and Infrastructure announced that the tender for the 224-kilometer corridor had been conducted. This corridor will directly link Baku Port to Turkey, stretching from Kars to the Dilucu border crossing in the easternmost part of Iğdir province. The investment amount for this project has been determined. This announcement was made in the context of the developments surrounding this issue.



Figure 8: Middle Corridor (News Central Asia, 2023)



Figure 9 -10: Zangezur Corridor (TRTWorld, 2023)

3.2. Development Road Project

"Development Road" project aimed to connect Turkey's Habur border crossing to the Persian Gulf port of Faw in the Persian Gulf with a 1200-kilometer railway and highway and aims to strengthen commercial ties and economic development in the region. It is anticipated that the project will enable access to the Mersin port from the Turkish border. The project, which is defined as the New Silk Road, will affect a wide region from Europe to the Gulf countries and produce common benefits. It consists of railway and road lines that run from the port to the Turkish border via Diwaniyah, Najaf, Karbala, Baghdad, and Mosul (Anadolu

Agency, 2024).

It is anticipated that the freight train will be able to move 22 million tons of bulk goods yearly and 3.5 million containers by 2028. It will rise to 33 million tons of freight, 7.5 million containers ten years later, and 40 million tons of cargo by 2050. It is anticipated that the high-speed rail will initially hold 13.8 million people annually (Hasan, 2024).

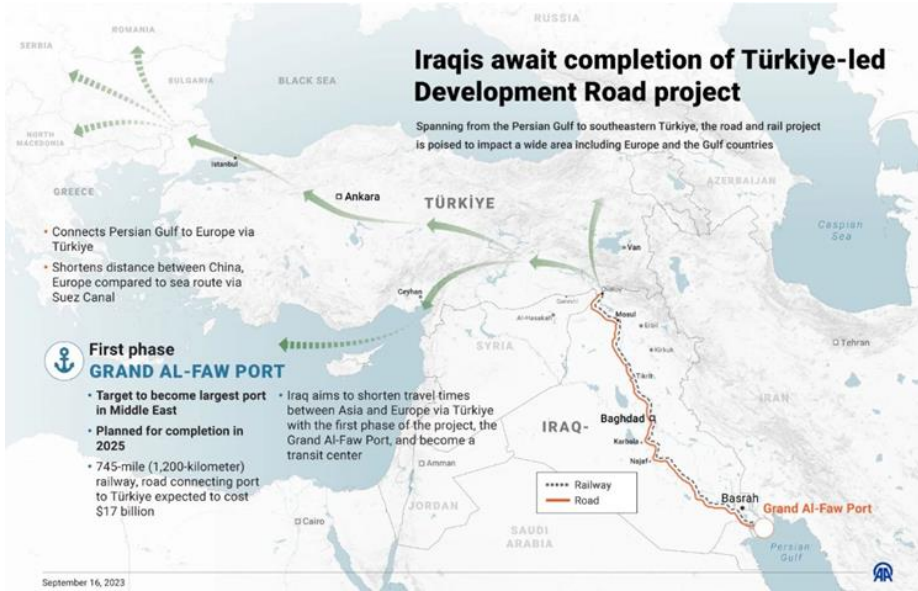


Figure 11: Development Road (Anadolu Agency, 2024)

The project's memorandum of understanding, which has been planned for some time, was signed on April 22, 2024, during Erdogan's visit to Baghdad. With the signing of the project, Turkey, Iraq, Qatar, and the United Arab Emirates are opening land, sea, and rail routes from the Gulf to Europe through Turkey and Iraq. Once it reaches Turkey, the railway, which will begin at the Big Fav Port in the north of the Persian Gulf, will branch out to Ceyhan Port and Istanbul. Thus, there will continue to be two distinct land and maritime routes to Europe. The \$17 billion project is anticipated to be finished in 2028 (Guller, 2024).

The Development Road Project, which will allow Europe to access the hinterland of the Persian Gulf via Türkiye. Alongside the project, a highway of one thousand 190 kilometers in length and a railway with a length of roughly one thousand 176 kilometers that can accommodate high-speed freight and passengers will be constructed. Additionally, a rise in exports is anticipated, particularly to the Middle East and Gulf Regions and Southeast Asian nations. The Development Road will not be an alternative to the Belt and Road, but its regional integration under the middle corridor.

The main challenge facing the project is the existence of worries regarding regional security. Nonetheless, major progress has been made in the initiative's implementation thanks to the recent shuttle diplomacy between Turkey and Iraq and the adoption of decisive measures. The decision made by Iraq to declare the PKK terrorist group a banned organization as a consequence of high-level diplomatic negotiations is a significant step towards allaying worries about regional security.

3.3. Islamabad-Tehran-Istanbul (ITI) Freight Train Project

The 2009 "Islamabad-Tehran-Istanbul Freight Train Project" that connected Pakistan, Iran, and Turkey (see Figure 12) was abandoned in 2011 (Fayaz, 2021). After a ten-year break, rail freight service on the Islamabad-Tehran-Istanbul line was restored with the first train after departing from Pakistan-Islamabad Margalla station on December 21, 2021, by traveling 5,981 kilometers over 12 days and 21 hours to arrive in Ankara and on December 29, 2021, the second freight train departed from Azakhel Dry Port in the Pakistani Peshawar Region and by traveling a total of 6,437 kilometers, arrived in Kocaeli-Köseköy. Railway freight movement between Türkiye and Pakistan has resumed, resulting in a reduction of 30-35 days of transportation time by sea to 12-14 days, with corresponding savings in time and expense. However, from then on, very limited development has been observed.

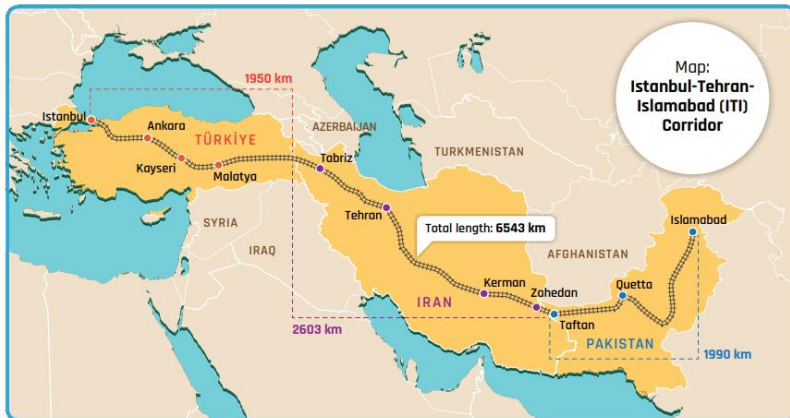


Figure 12: Islamabad-Tehran-Istanbul Freight Train Project (Iranian Studies, 2021)

3.4. International North-South Transport Corridor (INSTC)

Another major transportation project that spans more than 7,200 kilometers is the International North-South Transport Corridor (INSTC), which demonstrates the tenacity and will to increase global interconnection in Eurasian trade. The INSTC was created, among other places, to enable effective cargo transit between Russia, India, Iran, and Azerbaijan (Sidhu, 2023). INSTC is a multimodal transportation network that connects Russia to India and the Persian Gulf, is one of the main economic routes between Iran and Russia. However, Moscow and Tehran are restricted in their ability

to access international financial markets and engage in international trade by the international sanctions placed on them. In order to get over the sanctions, both nations want to strengthen their economic connections with nearby nations in Western and Central Asia. Iran and Russia have been concentrating on enhancing their cooperative transportation infrastructure and commercial relations.



Figure 13: International North-South Transport Corridor (INSTC) (Center for Eurasian Studies)

Along with road and rail lines, the corridor comprises seaports on the Persian Gulf and in the Caspian region. Due to the ease and speed with which merchandise may travel between the two countries, the rail link connecting Iran and Russia will be economically advantageous to both countries. With the completion of the Rasht-Astara railway, a vital part of the corridor, railways are anticipated to play a significant role in the development of the INSTC. However, the INSTC has not yet reached full operationalization.

3.5. China-Pakistan Economic Corridor (CPEC)

The Belt and Road Initiative's China-Pakistan Economic Corridor (CPEC) (see Figure 14) is a crucial component. This all-inclusive set of infrastructure projects includes building highways, railroads, pipelines, energy projects, industrial and economic zones, and Gwadar Port development (Anwar Ali & Rizwan, 2024) and envisions linking China to the Arabian Sea via Pakistan's coast. The ultimate objective is to establish an alternate route for trade with the Gulf states, particularly for exports of oil to China (Elmali, 2023).

CPEC presents a strategic alternative for China's dependency on the Malacca Strait, a vital sea route crucial for a significant portion of its trade. China can diversify its trading routes and cut transportation expenses by developing a direct land link from

Gwadar Port to the Arabian Sea. With its deep-water port on the Arabian Sea, Gwadar Port is a key element of the CPEC. The port facilitates maritime trade routes and shortens the time it takes for Chinese commodities to reach international markets by offering critical access to the Indian Ocean. A key element of the CPEC, Gwadar Port is situated in the southwestern region of Balochistan and is anticipated to grow into an important transshipment center. However, Balochistan has had insurgencies and separatist movements, which could hamper the implementation and success of CPEC, in terms of the threat of terrorism and separatist activities.

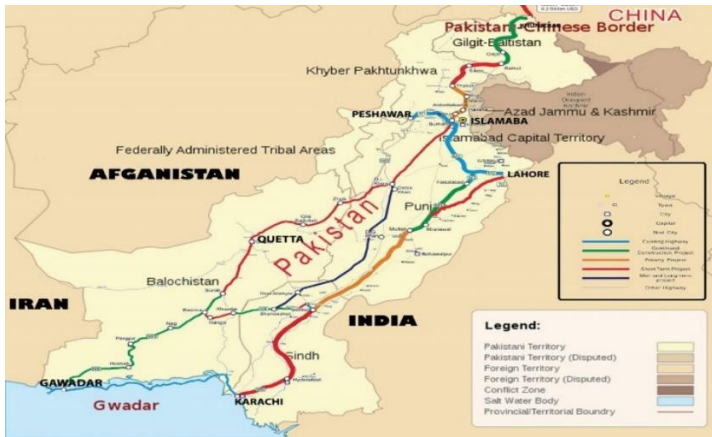


Figure 14: China-Pakistan Economic Corridor (CPEC) (Kashif Insight, 2021)

4. Comparison of Corridors in Terms of Security Aspects

21st Century Maritime Silk Road has its security concerns, first and foremost conflicts in the Middle East, which were, in a way, bypassed by the Cape of Good Hope route. Another risk factor is the increasing number of piracy and its potential to enlarge in the Indian Ocean. Although there are increasing piracy incidents in the Malacca Strait, it is not as detrimental as in the Indian Ocean and the Arabian Sea because of its modus operandi. The last risk factor is the increasing number of GPS spoofing, which affect shipping in the region. Finally, territorial disputes in the South China Sea have been the last risk concerning this corridor.

When comparing BRI and IMEC (Raja, 2023; Siddiq, 2023), which emerged as an alternative to China's Belt and Road Initiative (BRI) - and still in its embryonic state - from a security perspective, one risk element influencing the possibilities of IMEC is the current escalation in Gaza and the occupied territories. There is a legitimate fear that the fighting could spread throughout the entire region, given the recent drone and missile attacks from Iran to Israel. Like IMEC, CPEC may be at risk from the potential escalation of the Israeli-Palestinian conflict, although neither party's resolve is likely to be affected (Elmali, 2023).

The Arctic route seems more secure compared to other sea corridors as there

is no piracy nor war-warlike conditions, but there is a potential for disputes arising from the territorial disputes and Arctic Nations' claims on Exclusive Economic Zone (EEZ) delimitations besides Russia's militarization.

SREB's security risks include conflicts in the passing countries, like the uprising in Kazakhstan in 2022. It seems more secure compared to 21st Century Maritime Silk Road as it has no risk of piracy, but there may still be security risks concerning the conflicts between Armenia and Azerbaijan and Iran's concerns about the Zangezur Corridor, which they think it will lessen their impact in the region.

India views the China-Pakistan Economic Corridor (CPEC) of the Belt and Road Initiative (BRI) as a threat to its sovereignty and sees INSTC as the strategic response to counterbalance the CPEC (Khobragade & Nim, 2022). For CPEC, the weak link in the equation is Balochistan, where transportation networks cross through and have security issues because of the presence of Tehrik-i-Taliban Pakistan and Baluchi rebels. (Rashid, 2021). Since the success of the CPEC depends on the stability of Balochistan, it plays a crucial strategic role in the project's fulfilment (Elmali, 2023).

Investors and nations hoping to gain from the Development Road may be deterred by Iraq's insecurity and instability as well as its limited capacity to finance and carry out such a massive project involving the Development Road Corridor (Hasan, 2024) Kurdish groups might threaten the project's security or even stop work from happening in regions close to the Kurdish Regional Government, which would make the Development Road a cause of instability in a region that is already unstable. The PKK, which has been involved in a protracted battle with the Turkish government and has a significant presence in Syria across the border, may likewise pose a threat to transportation on the Development Road should it be finished. But latest developments between Türkiye and Iraq seems to overcome this situation.

Comparison of maritime and railroad corridors can be seen below figure (Figure 15)

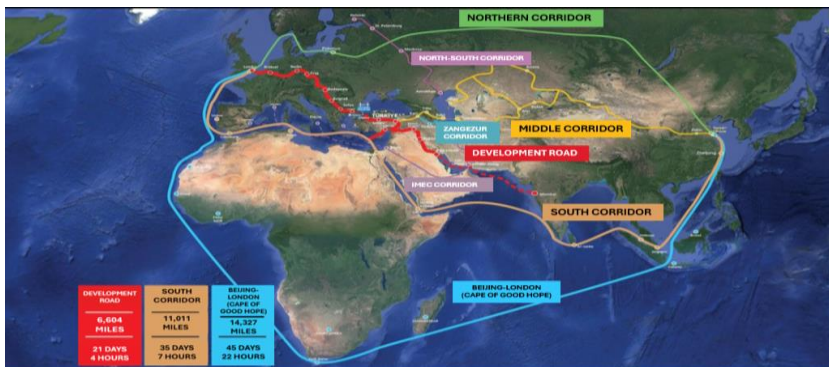


Figure 15: Comparison of Maritime and Railroad Corridors (Republic of Türkiye, Ministry of Transportation, and Infrastructure)

5. Conclusions

It is very important to recognize the critical role that strategic connectivity plays in promoting economic development and enabling trade. Therefore, diversity must be implemented. Reliance solely on sea routes increases vulnerability to penalties, naval blockades, and piracy.

From a broader standpoint, the fact that a faction involved in the Yemeni civil war is causing disruptions to global trade, raising the cost of logistics, impacting supply chains, and delaying the delivery of goods illustrates the vulnerability of trade corridors and connectivity which is only one facet of it, as evidenced by various test archives.

Therefore, the shortest route is not always the most secure one; physical conditions or infrastructure investments only represent the upper portion of the glacier when considered in the context of networking, and a route must take into account historical, social, economic, and environmental factors in addition to commercial ones in order to be sustainable.

IMEC corridor, which was originally intended to cross through Israel, may be completely or partially cancelled as a result of the escalating Hamas-Israeli war and Israel's complete isolation in the area. Because these routes historically require safe roadways to pass through. Furthermore, IMEC does not provide a substantial threat to the BRI, especially when considering the wider context of the Palestinian conflict.

Countries will have to prioritize routes that reduce economic uncertainty in the upcoming time and assess all connectivity factors as well as any new routes that are developed under this framework. Working together on counterterrorism and cross-border security issues with international partners, including neighboring nations, is of vital importance.

One important advantage may also come from the cooperation that some of the current corridors will establish amongst one another. The BRI Project, for instance, may be distinguished by its robust and wide infrastructure through the Middle Corridor, and the Development Road Project can bolster this network by providing access to energy resources. This allows for the formation of a robust East-West commercial artery by combining the Middle Corridor with the Development Road.

Through the Persian Gulf and CPEC, Chinese commodities arriving via Gwadar Port in Pakistan will reach Europe more quickly and affordably, and Türkiye may benefit from the fusion that will be accomplished through the Middle Corridor merger and the integration of the Central Asian nations.

The ease with which energy resources can be transported from Turkmenistan and Kazakhstan to Europe through Azerbaijan will erode Iran's dominant position on energy transit routes. Iran's geopolitical and geostrategic significance will, therefore, be diminished on a regional and global scale as a result of the Zangezur Corridor's

commissioning (Gençoğlu, 2024).

Considering the increase in the traffic and overloading of African ports and facilities in the Cape of Good Hope, nearly 50% of the decrease due to Houthi attacks in the Suez Channel, Iran and U.S. seizures of tankers in the Hormuz Strait, and China action in the South China Sea and piracy in the Malacca Strait, Gibraltar option comes to the forefront.

Finally, although there are currently some drawbacks, like the capacity problem, there may be an increase in the use of the Arctic Route and other multimodal transport corridors in the future to transport goods from Asia to Europe.

References

- Abrar, M. K. (2024). Maps of major projects of China Pakistan Economic Corridor (CPEC). *Kashif Insight*. Retrieved from <https://www.kashifinsight.com/2021/04/maps-of-major-projects-of-china.html>
- Akademir, S. (2024). The G20's IMEC initiative: An alternative trade corridor to China's Belt and Road Initiative. *Apcoworldwide*. Retrieved from <https://apcoworldwide.com/blog/the-g20s-imec-initiative-an-alternative-trade-corridor-to-chinas-belt-and-road-initiative/>
- Akbayırlı, K., & Balci, G. (2024). Red Sea shipping disruptions could be avoided in the future by using the Arctic – but it could spell trouble for fragile ecosystems. *The Conversation*. Retrieved from <https://theconversation.com/red-sea-shipping-disruptions-could-be-avoided-in-the-future-by-using-the-arctic-but-it-could-spell-trouble-for-fragile-ecosystems-221058>
- Akbulut, G. (2024). Connecting continents: The proposed IMEC – India, Middle East and European Economic Corridor. *DPE*. Retrieved from <https://foreignpolicy.org.tr/connecting-continents-the-proposed-imec-india-middle-east-and-european-economic-corridor/>
- Alaca, M., & Karaalp, H. (2024). Türkiye-Iraq development road project: Enhancing regional connectivity, trade. *AA*. Retrieved from <https://www.aa.com.tr/en/middle-east/turkiye-iraq-development-road-project-enhancing-regional-connectivity-trade/2993555>
- Ali, A., & Rizwan, M. (2024). From Silk Road to China-Pakistan Economic Corridor (CPEC): A comprehensive analysis of economic, geopolitical, socio-cultural and environmental landscapes of Pakistan. *Annals of Social Sciences and Perspective*, 5(1), 9-29.

- Ahmad, S., Ahmad, A., Shair, W., & Bhatti, M. A. A. (2022). Unlocking Pakistan's Youth Potential: A Comprehensive Analysis of Youth Development Indices and Strategic Alignment with the UN Sustainable Development Goals. *Journal of Professional Research in Social Sciences*, 9(2), 80-95.
- Aljazeera. (2024). Mapping the Red Sea attacks. *Aljazeera*. Retrieved from <https://interactive.aljazeera.com/aje/2024/mapping-red-sea-shipping-attacks/>
- Bagheri Dolatabadi, A., & Kamrava, M. (2024). Iran's changing naval strategy in the Persian Gulf: Motives and features. *British Journal of Middle Eastern Studies*, 51(1), 131-148.
- Bhatti, M. A. A., & Nazir, M. U. (2024). The Impact of Project Process Management on Sustainable Project Success in the Construction Sector: The Moderating Role of Risk Management Practices. *Bulletin of Business and Economics (BBE)*, 13(2), 1065-1072.
- Bragagni Esq Obe, M., & Xhaferraj, L. (2024). Red Sea route disruption and supply chain.
- Borunda, A. (2024). Arctic summer sea ice could disappear as early as 2035. *National Geographic*. Retrieved from <https://www.nationalgeographic.com/science/article/arctic-summer-sea-ice-could-be-gone-by-2035>
- Elmali, B. (2024). Unrest in the Middle East is bad for both CPEC and IMEC. *The Diplomat*. Retrieved from <https://thediplomat.com/2023/11/unrest-in-the-middle-east-is-bad-for-both-cpec-and-imec/> (Accessed on April 28, 2024)
- European Union External Action. (2024). EUNAVFOR Operation Aspides. *EEAS*. Retrieved from https://www.eeas.europa.eu/eeas/eunavfor-operation-aspides_en
- Fayaz, A. (2024). The revival of the Islamabad-Tehran-Istanbul (ITI) road transport corridor. *Paradigm Shift*. Retrieved from <https://www.paradigmshift.com.pk/islamabad-tehran-istanbul-road-transport-corridor/>
- Gençoğlu, C. (2024). The geopolitical importance of the Zangezur Corridor: The future of the Organization of Turkic States. *Center for Diplomatic Affairs and Political Studies*. Retrieved from <https://en.dipam.org/the-geopolitical-importance-of-the-zangezur-corridor-the-future-of-the-organization-of-turkic-states/>
- Goward, D. (2024). Patterns of GPS spoofing at Chinese ports. *The Maritime Executive*. Retrieved from <https://www.maritime-executive.com/index.php/editorials/patterns-of-gps-spoofing-at-chinese-ports>

- Güller, M. A. (2024). Ortadoğu'da koridor mücadelesi. *CGTN Turk*. Retrieved from <https://cgtnturk.com/ortadoguda-koridor-mucadelesi/>
- Hannan Hussain. (2024). Why the new European Union naval mission won't stop attacks in the Red Sea. *TRTWorld*. Retrieved from <https://www.trtworld.com/opinion/why-the-new-european-union-naval-mission-wont-stop-attacks-in-the-red-sea-17072363>
- Hasan, H. (2024). Iraq's development road: Geopolitics, rentierism, and border connectivity. *Carnegie Middle East Center*. Retrieved from <https://carnegie-mec.org/2024/03/11/iraq-s-development-road-geopolitics-rentierism-and-border-connectivity-pub-91939>
- ICC Commercial Services. (2024). New report highlights continued threat of Somali piracy. *ICC-CCS*. Retrieved from <https://www.icc-ccs.org/index.php/1348-new-report-highlights-continued-threat-of-somali-piracy>
- IMO. (2024). Piracy reports. *IMO*. Retrieved from <https://www.imo.org/en/OurWork/Security/Pages/Piracy-Reports-Default.aspx>
- Jim Crane. (2024). Houthi Red Sea attacks have global economic repercussions. *Arab Center Washington DC*. Retrieved from <https://arabcenterdc.org/resource/houthi-red-sea-attacks-have-global-economic-repercussions/>
- Khobragade, V., & Nim, A. K. (2022). International North-South Transport Corridor: Mapping vulnerabilities and possibilities for India. *World Affairs: The Journal of International Issues*, 26(3), 40-53.
- Lackenbauer, P. W., & Sergunin, A. (2022). Canada's and Russia's security and defense strategies in the Arctic: A comparative analysis. *Arctic Review on Law and Politics*, 13.
- Landry, J. (2024). Red Sea shipping disruptions could be avoided in the future by using the Arctic—but it could spell trouble for fragile ecosystems. *The Conversation*. Retrieved from <https://theconversation.com/red-sea-shipping-disruptions-could-be-avoided-in-the-future-by-using-the-arctic-but-it-could-spell-trouble-for-fragile-ecosystems-221058>
- Mammadov, S. (2024). The Middle Corridor set to halve cargo transit time between Asia and Europe. *Intellinews*. Retrieved from <https://www.intellinews.com/the-middle-corridor-set-to-halve-cargo-transit-time-between-asia-and-europe-310368/>
- Millward, D. (2024). Bulk carrier hijacked by Somali pirates as experts fear a Houthi alliance. *The Telegraph*. Retrieved from <https://www.telegraph.co.uk/world-news/2023/12/17/bulk-carrier-hijacked-by-somali-pirates-houthi-alliance/>

- News Central Asia. (2024). Freight volumes from China to Europe on the Middle Corridor surge by over 80%, says IRU. *News Central Asia*. Retrieved from <https://www.newscentralasia.net/2023/11/01/freight-volumes-from-china-to-europe-on-the-middle-corridor-surge-by-over-80-says-iru/>
- Oral, F. (2024). Will Operation Welfare Guard stop Houthi attacks? *ANKASAM*. Retrieved from <https://www.ankasam.org/refah-muhafizi-harekati-husi-saldirilarini-durdurur-mu/?lang=en>
- Oyewole, S. (2024). Houthi attacks brought back Somali pirates. *Asia Times*. Retrieved from <https://asiatimes.com/2024/02/houthi-attacks-brought-back-somali-pirates/>
- Raja, S. H. (2024). Comparative analysis of the BRI and the IMEC. *International Relations: Basic Concepts & Global Issues*.
- Rafaqat, M. ., Azad, F. ., Ahmad, S. ., Aijaz, K. ., Ikram, S. H. ., Bashir, U. ., Bhatti, M. A. A. ., & Saeed, S. . (2024). Impact of Governance and Strategy Performance on Employer Branding. *Research Journal for Societal Issues*, 6(2), 852–867.
- Rashid, Y. (2021). ITI corridor and its importance for the regional trade. *Center for Iranian Studies*. Retrieved from https://iramcenter.org/en/iti-corridor-and-its-importance-for-the-regional-trade_en-653
- Republic of Türkiye Ministry of Transport and Infrastructure. (2024). Kalkınma Yolu için kritik görüşme. *UAB*. Retrieved from <https://www.uab.gov.tr/haberler/kalkinma-yolu-icin-kritik-gorusme>
- Sidhu, A. (2024). Backgrounder: International North-South Transport Corridor (INSTC). *The Geopolitical Monitor*. Retrieved from <https://www.geopoliticalmonitor.com/backgrounder-international-north-south-transport-corridor-instc/>
- Singh, R. (2024). A corridor of immense promise. *Businessline*. Retrieved from <https://www.thehindubusinessline.com/opinion/a-corridor-of-immense-promise/article67296263.ece>
- Sputnik Africa. (2024). Piracy off Somalia's coast spikes amid Houthis' attacks in Red Sea. *Sputnik Africa*. Retrieved from <https://en.sputniknews.africa/20240127/piracy-off-somalias-coast-spikes-amid-houthis-attacks-in-red-sea-reports-say-1064806995.html?ysclid=lupd4hpj736794190> (Accessed on April 30, 2024)
- TRTWorld. (2024). The Zangezur Corridor: Linking Türkiye and Azerbaijan through Armenia. *YouTube*. Retrieved from <https://www.youtube.com/watch?v=Ph4d9X5VW94>

- UK Government. (2024). Looking North: The UK and the Arctic the United Kingdom's Arctic policy framework. *UK Government*. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1135186/looking-north-the-uk-and-the-arctic-the-uks-arctic-policy-framework.pdf
- Unver, D. (2024). International North-South Transit Corridor (INSTC). *Center for Eurasian Studies Blog No: 2023 / 37*. Retrieved from <https://avim.org.tr/Blog/INTERNATIONAL-NORTH-SOUTH-TRANSIT-CORRIDOR-INSTC-06-07-2023>
- UNCTAD. (2024). Red Sea, Black Sea, and Panama Canal: UNCTAD raises alarm on global trade disruptions. *UN Trade&Development*. Retrieved from <https://unctad.org/news/red-sea-black-sea-and-panama-canal-unctad-raises-alarm-global-trade-disruptions>
- U.S. Department of Defense. (2024). Statement from Secretary of Defense Lloyd J. Austin III on ensuring freedom of navigation in the Red Sea. *U.S. Department of Defense*. Retrieved from <https://www.defense.gov/>
- Yergin, H. (2023). Analysis of the dynamics of the trade corridors, the conflict between Gaza and Israel, and the role of Turkey as an alternative route in the contemporary world. *Socrates Journal of Interdisciplinary Social Studies*, 9(36), 1-14.
- Yiyun, Z. (2023). Exploring the economic significance of Arctic routes in the supply chain field by contrasting with traditional routes. *Advances in Economics, Management and Political Sciences*, 49(1), 157-165.
- Yunis Sharifli. (2024). Pandemic, China and the future of the Belt Road Initiative. *Topchubashov Center*. Retrieved from <https://www.top-center.org/en/tehlil/3021/pandemiya-cin-ve-kemer-ve-yol-tesebbusunun-geleceyi>
- Zafar, J. (2024). Russian strategy in Arctic: The case of Lomonosov Ridge. *Center for Diplomatic Affairs and Political Studies*. Retrieved from <https://en.dipam.org/russian-strategy-in-arctic-the-case-of-lomonosov-ridge/>