

Geopolitical Disruption in the Gulf and Its Effects on Global Oil and Gas Supply Chains: Evidence from the 2026 Strait of Hormuz Crisis.

AUTHOR

Abstract: *Geopolitical conflicts have several consequences, in various fields. These conflicts, often, have the power to reshape the worlds. In 2026, a conflict in the middle east, involving different nations has affected a few different sectors of the planet, including production and transportation. This region is responsible for a massive supply of oil & gas, as well as their respective supply chains.*

Keywords: *international supply chain; oil & gas; middle east conflict.*

Date of Submission: 24-09-2026

Date of Acceptance: 03-10-2026

I. Introduction

The vulnerability of global oil & gas supply chains could be directly affected by chokepoint disruption, especially in the Strait of Hormuz and related Gulf routes. On February 28th, 2026, a United States-Israel coordinated airstrike took place in several cities of Iran, including Tehran, Qom, Kermanshah, Isfahan and Karaj. The goals of the attack were the high roles of the Iranian Leadership, military official and the Supreme Leader. As Iran's state news agency confirmed the deaths of two high-level military leaders: Rear Admiral Ali Shamkhani, secretary of the Defense Council, and Major General Mohammad Pakpour, commander in chief of the Islamic Revolutionary Guards Corps. In addition to the killing of Iran's Supreme Leader Ayatollah Ali Khamenei. (Chutel & Richer - 2026)

Hours later of the airstrike, in an interview with Lebanon's Al Mayadeen, the Iranian Foreign Ministry spokesperson Esmail Baqaei stated that the Islamic Republic considers the assassination of its leader as a declaration of war against Iran, and they will defend their sovereignty and people with strength. Baqaei also warned in this interview the fact that the killing of Ayatollah Ali Khamenei could take on religious dimensions and spread tensions across the region. Furthermore, the Iranian armed forces would continue to target all military installations in the region that could be used by the United States and Israel to attack Iran, as he reiterated. (Islamic Republic News Agency - 2026)

After this series of attacks, the entire world was aware that the consequences would be massive for several industries. On March 4th, Iran closed the Strait of Hormuz, a major impact for the international supply chain of oil & gas (U. S. Congress - 2026). Through which logistical, price, and industrial transmission mechanisms did the 2026 Strait of Hormuz crisis disrupt global oil & gas supply chains? This article aims to answer this question via historical context and by how specific industries are directly affected by the prices of crude oil.

Previous research has extensively examined the effects of geopolitical conflicts in the Middle East on energy markets and international trade. Historical crises have generated substantial evidence regarding oil price volatility, supply disruptions, and maritime security. However, because the 2026 Strait of Hormuz crisis is still unfolding at the time of writing, empirical evidence on its effects remains limited. Most existing studies focus on interpreting current developments and forecasting possible outcomes rather than evaluating observed impacts on global oil and gas supply chains. This study contributes to the emerging literature by examining the transmission mechanisms through which the 2026 crisis has disrupted international oil and gas supply chains.

II. The Chokepoints in the Middle East

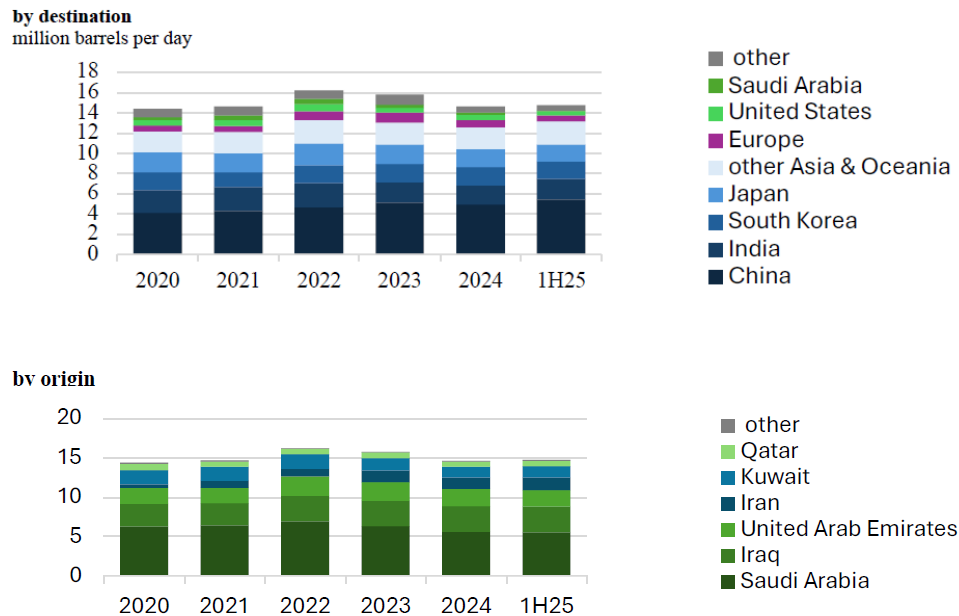
2.1 Maritime Chokepoints and Systematic Vulnerability

Before the dive into how previous conflicts affected the International Supply Chain of Oil & Gas and, more importantly, the 2026 Gulf crisis, it must be settled the importance of the region to the studied industry.

The Middle East (ME) region of the world possesses the second and the third most important transit chokepoints of Oil in the world, which are the Strait of Hormuz and the Bab El-Mandab Strait. When considering the volume of crude oil and petroleum liquids transported through each chokepoint. (U.S. Energy Information Administration - 2026)

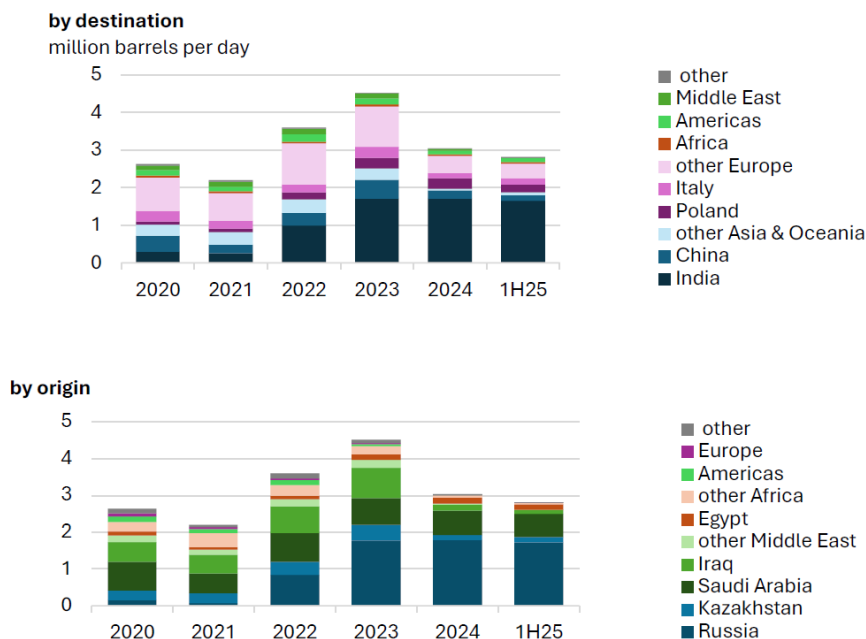
2.2 Strait of Hormuz: Oil, LNG, and Asian Dependence

The Strait of Hormuz is located between Oman and Iran, furthermore, gives access to United Arab Emirates, Bahrain, Qatar, among others to the Arabian Sea and the rest of the globe. As a path of portraying the importance of the Strait of Hormuz to the international supply chain of oil & gas, below are some of the nations that send and receive the most volume of crude oil and condensate through this body of water (U.S. Energy Information Administration - 2026):



2.3 Bab El-Mandab, Suez, and Red Sea Rerouting

Something similar happens in the Bab El-Mandab Strait. This strait is in the end of the path from the Suez Canal and the Red Sea, therefore this is where Europe and Asia are connected without having to go around the African Continent. A similar graph can also come as an output of the impact of this region to the international supply chain of oil & gas (U.S. Energy Information Administration - 2026):



The graphs expose the importance of both of these locations to the global transit of Oil & Gas. Moreover, the graphs reveal some interesting information about which nations use the most and with different ends.

2.4 Pipeline Alternatives and Their Capacity Limits

After understanding the importance of the Straits, the pipelines are another form of transportation of Oil & Gas that possess great participation in this Supply Chain.

Firstly, the Abqaiq Yanbu NGL pipeline stretches from Saudi Arabia's eastern oil fields, along the Persian Gulf, across the Arabian Peninsula to Yanbu' on its western Red Sea coast. The pipeline cuts across Saudi Arabia, from the dunes of Dahna and the cliffs of the Tuwaiq Escarpment all the way to the lava fields south of Medina and the rugged mountains of the Hijaz. The two pipelines provide fuel and raw materials for the industrial city of Yanbu', which is located 300 kilometres north of Jeddah, one of the main cities in all the Middle East. (Saudi Aramco – n.d.)

Key to point out that the Abqaiq Yanbu NGL pipeline is a heritage of the Trans-Arabian Pipeline, or simply Tapline. The operations of this previous pipeline began in 1950, as the world's largest oil pipeline system. The tapline carried billions of barrels of crude oil from Abqaiq on the Persian Gulf to the Mediterranean port of Sidon in Lebanon. One of the main goals of this project was to take energy to Europe in the aftermaths of World War II, playing a significant role in all of the reconstruction efforts, moreover, the Tapline supported the development of northern Saudi Arabia and the growth of Saudi Aramco. (Gray - 2021)

Secondly, the Abu Dhabi crude oil pipeline, also known as ADCOP or as Habshan-Fujairah Pipeline, is one of the main components of the 2012 Emirati infrastructure investments (Arabian Business - 2009). The ADCOP was built to enhance United Arab Emirates (UAE)'s commitment to security in the ME region and to help ensure a better stability in the global energy market. The ADCOP Pipeline stretches about 380 kilometers from the Habshan oil fields located in the countrysides of the Emirate of Abu Dhabi all the way to the Emirate of Fujairah on the Gulf of Oman, which bypasses the high-risk zone of the Strait of Hormuz (UAE Embassy - 2026).

Finally, the Suez to the Mediterranean (SUMED) pipeline is an alternate route to the Suez Canal. The idea for this construction was initially raised in the 1960s, prior to the 1967 War, the 6-day war. The closure of the Suez Canal following the war, impacted the pipeline to offer a less expensive route for Gulf oil. Nonetheless, the pipeline was only inaugurated in 1977, following three other wars and debilitating negotiations between Egypt and foreign institutions. Recently, the SUMED, alongside the Suez Canal, have become one of the major global transportation routes for crude oil, transforming Egypt into one of the main actors in the oil market. (Podeh - 2004)

III. Historical context

The 2026 Gulf crisis should be interpreted as part of a longer pattern of geopolitical disruptions affecting energy transport routes. The Persian Gulf has repeatedly functioned as a focal point of geopolitical and energy-security crises, particularly since the 1970s. Therefore, no conflict before this period will be taken into consideration in this paper. Because before this date, the causes and the consequences diverge from the original topic. All of the events studied are going to look specifically to their impact on the international supply chain of oil & gas, it is not the aim of this study to turn itself into a history research paper.

The first conflict to be analysed is the Yom Kippur War in 1973. By then, 36% of the world's oil was being supplied by ME countries (Schumacher - 1985). A war that lasted a whole month between Israel and a coalition of Arab States led by Egypt and Syria. The international supply chain of Oil & Gas was highly impacted by the war due to an embargo that triggered refinery shortage as well as shipping delays to the United States and Europe. In which, impacted on a cut of 4.5 million barrels per day (bpd) and a price elevation of the barrel. One of the motives for the embargo was the president of the United States, Richard M. Nixon, to ignore warnings by the Arabian countries for the United States not to be biased towards Israel (Oil & Gas Journal- 2005). Therefore, the Arabian countries were worried of the United States being biased towards Israel even in 1973, similarly to occurrences of 2026. Furthermore, to expose how armed conflicts can affect the transportation of the International Supply Chain of Oil & Gas.

In 1979, the Islamic Revolution in Iran also impacted the Oil & Gas industry. This disruption event reshaped how the Iranian country is established, changing all of the parts of the government and some of the culture. In combination with the revolution, Iranian oil output declined by around 4.8 million bpd, which was 7% of the world's production in 1979 (Graefe – n.d.). Nonetheless, this supply disruption prompted a fear for further disruptions and generate a spurred widespread speculative hoarding (Time - 2026). The Islamic

Revolution turns explicit how domestic instabilities, especially in the ME, can affect other countries in the International Supply Chain of Oil & Gas.

During the 1980s, the Tanker War, between Iran and Iraq, also created complications in the Gulf and impacted the International Supply Chain of Oil & Gas. After back-and-forth advancements by Saddam Hussein, from Iraq, and Ayatollah Ruhollah Khomeini, from Iran, throughout the early 1980s, the situation had reached a war attrition by 1984. Which is when Hussein decided to attack Iranian oil tankers, an attempt to damage Tehran's economy and try to make world powers to intervene to protect the access to oil (CNN - 2026). As a consequence, there were routes shift and delays to deliver to Asia and Europe transports. In addition, the Operation Ernest Will enabled a partial flow restoration, however, there was a raise of military escort costs across the Gulf. The Tanker War of the 1980s links to the conflicts occurring in 2026 for the reason that there were attacks to Oil Tankers in the Gulf currently, moreover, countries and companies are scrambling to find alternative routes for their exports (Hellenic Shipping News – n.d.).

Conflicts cause instability. Their occurrence makes other countries of the globe uncertain of what is going to happen in the future, therefore, generate instability. The Gulf War, between Iraq and Kuwait, in 1990-91 and the Iraq War in the 2000s are clear examples of this uncertainty. According to Aber in his journal, the Gulf Crisis of 1990-91 was the first major international crisis on the post-Cold War era. Another argument made by the author is how the conflict cast itself as an important moment for “worldmaking”, in which the United States, under the Bush administration, refashioned foundational concepts like interdependence, sovereignty, and humanity in warfare (Aber - 2023). In the other hand, the U.S.-Iraq war in 2003 has one of its main causations the 9/11 attacks in the American territory. The period of occupation was highlighted by terror in the region and uncertainty of future actions. The United States brought more instability to the International Supply Chain of Oil & Gas originated in the ME (Saleh - 2020).

Not only conflicts near the Gulf affect the International Supply Chain of Oil & Gas. For example, on July 13th and 15th of 2006, that Israel attacked the Jiyeh power plant, situated at around 30 km south of Beirut, Capital of Lebanon. This attack resulted in major consequences for the entire region (MOE – n.d.). Nonetheless, geographically, Lebanon is close to the SUMED pipeline and to the Suez Canal, therefore, such impact caused this region to become more unstable and riskier. The Lebanon War Spillover hiked the insurance costs for oil transport in the region, to impact the routes as a whole and the delivery times.

Another major conflict with several consequences was the Arab Spring in Bahrain in 2011. The protests generated uncertainty around the possibility of a reform in the government of Bahrain (Ulrichsen - 2012). All of the protests and the fall of organization generate speculations and impact how the world outside of the ME looks at the region. Else than increasing the instability, there was a deterioration of logistics conditions and slowed the movement of naval patrols, fleetling LNG shipment halts.

Around 2014 there was another incident in the ME region that spiked the uncertainty and the instability, the presence of black-market oil theft and pipeline attacks that caused a cut of over a million of bpd. These events were caused primarily by the Syria and Yemen wars and the Islamic State of Iraq and Syria (ISIS). This combination created an export disruption, furthermore, building up the speculation of oil prices. (Marcel - 2014)

Already getting to more recent years, in 2019 the Yemen's Houthis performed a drone strike in two of Saudi Aramco's key oil installations. These facilities process a majority of the country's crude output, furthermore, raised the risk of a disruption in the supplies of oil (Hubbard, Karasz & Reed - 2019). The attacks knocked out 5.7 million bpd of Saudi's oil production and 0.7 million barrels per day of gas liquids production. Oil prices immediately spiked from \$60 to \$69 per barrel (Krane & Finley - 2019).

Between 2019 and 2020, the U.S.-Iran Shadow War is one of the pioneers causes that created the tension for the current conflict and instability. Can be considered as the pre-2026 tension. Since May 2019, the tensions between the United States have heightened significantly. An U.S. airstrike in Baghdad on January 3rd, 2020 could be seen as one of the major contributors to the rise in tension (Katzman, McInnis & Thomas - 2020). Nonetheless, during this period, the world was also going through the COVID-19 pandemic which made the oil prices to freefall, making deals to even reach negative values. Throughout this time frame, the International Supply Chain of Oil & Gas was affected by the lack of demand in the globe (Cgep - 2023).

So far in this decade, it's been hazardous to transit at Hormuz. Since November 2023, the Houthis have been attacking the region, there were over 190 attacks by October 2024, to cause a significant disruption in the

area of the Red Sea and Aden Gulf, compromising shipping. As a consequence, insurance costs skyrocketed, with several shipments rerouting via the Cape of Good Hope. These events impacted Europe, Asia, Africa, all of the International Supply Chain. Naval coalitions have been formed, and some strikes and sanctions also occurred. (Sainz - 2025)

All of these events contributed and have their own specific impact that caused the current U.S.-Israel-Iran War, the 2026 Hormuz crisis. As an impact to the international supply chain of Oil & Gas, 20 million bpd have been blocked; more than 40 assets have been hit, and a major increase of oil prices have come as one of its main consequences. (Hidayat - 2026)

IV.Instability in the Gulf in 2026

Subsequent of the understanding that the 2026 Crisis is not a particular case of conflicts in the Middle East because of Oil and power over the region, the situation can be seen as a part of something larger. As previously presented in this paper, there has been a series of conflicting moments that have very well led to the 2026 Gulf Crisis. With the Historical Context acknowledged, the paper will lead to the causes and the presumable consequences of the 2026 Gulf Crisis.

Firstly, how would a blockade affect the countries in the gulf region? According to *EIA* (2024), 42% of the crude oil that goes through the Hormuz strait is of Saudi oil, while Iraq and Kuwait accounted for approximately 21% and 10% respectively (*EIA* - 2024). Therefore, the use of the strait for these countries is almost vital for their economy to keep rolling. According to *Lott and Kawagishi (2022)*, the Strait of Hormuz is a central chokepoint to the global market of oil and gas, in which, events can lead to disruption in the flow. Any conflict that might place this form of transportation to risk is an obstacle for these countries. The attacks from Israel and the United States to Iran is one of the events not wished by Saudi Arabia, Iraq and Kuwait. Because, this region has become more than only a logistics resource, it is a geopolitical resource affected by the changes of international politics (*Sayin & Kılıç*). Therefore, by the shortage, or blockade, of oil being transported through the Hormuz Strait, the international supply chain of oil & gas is highly affected.

Secondly, as much as the Western World, Europe and the Americas, is reported by the mainstream media and seem to be the centre of all the occurrences, Asia should be specifically portrayed in this case. As already presented in the second section of this paper, Asian countries are among the ones that most use both the Hormuz and the Bab El-Mandab straits. The impacts of the 2026 Crisis in Asia will support the understanding of how this instability affect the international supply chain of oil & gas. To note the importance, in 2024, the *EIA* estimated that 84% of Hormuz crude oil and condensate flows were destined to Asian markets (*EIA* - 2025). Moreover, China, which is the largest economy in the continent by nominal GDP (*World Bank*), has received 4.78 million barrels per day (*EIA* - 2025), which is equivalent to 33.4% of the total flow classified by destination from Hormuz. Furthermore, a study by the *Columbia University* (2026) estimates an indication of 45% to 50% of China's crude oil imports transit the Strait of Hormuz. Nonetheless, several other Asian countries depend on imported oil, such as Taiwan, Japan and South Korea. The *CPC Corporation* (n.d.) reports that they import almost all oil that is refined in Taiwan. Japan has registered a dependency of 99.7% of imported crude oil (*METI* - 2026). *EIA* (2023) also affirms that that South Korea almost fully depends on imported crude oil. A disruption in the supply of Middle Eastern oil brings the necessity of these countries to look for alternatives, LNG from Australia or the United States.

Finally, the 2026 Crisis in the ME also affects a third product that is exported to all over the world, the fertilizers. Brazil is a country that is still heavily dependent on imported fertilizers, around 85% total (*IPEA* - 2022). Countries such as China, Russia and Nigeria respond to 70.4% of total Brazil's imports of fertilizers (*Comex Stat* – n.d.). By this scenario, the first disruption of the international supply chain of oil & gas becomes clear: the middle east extracts oil and exports to China, for example; China uses the imported oil & gas to produce the fertilizers that are going to be exported; Brazil imports the fertilizers to use in the Agribusiness, the most important component of the Brazilian economy. Therefore, a simple shortage in supply of oil & gas could negatively impact the production of agriculture in Brazil that will also be exported to several other countries. A punctual criticality, early in the supply chain, can explain a traffic disruption in another stage, to quantify the reason behind why all the transportation is crucial for the destination (*Verschuur, Koks & Hall* - 2022). To expose one of the ways that the 2026 ME crisis impact the international supply chain of oil & gas.

A combination of all of these aspects contributes to the impacts caused by the 2026 Gulf crisis, moreover, the delays in shipping are a clear consequence (*Carrière-Swallow, et al* - 2022). Else than the complications in the strait of Hormuz, the strait of Bab El-Mandab has caused these delays in shipping. The strait of Bab El-Mandab, together with the Suez Canal and the Red Sea, has become a bottleneck in these recent conflicts. 22% of container traffic goes through the Red Sea and utilizes the Bab El-Mandab strait and eventually the Suez Canal to reach the Indian Ocean and Mediterranean Sea (*UNCTAD* - 2024). In addition, another obstacle that should also be taken into consideration is the region of Yemen, near the Red Sea, that is controlled

by the Houthis. Their presence is another component that raises the instability in the region (Bolat - 2025). The aspects that increase the amount of certainty around the Bab El-Mandab strait have made the ships route to the Cape of Good Hope instead (Owoche, et al - 2024). The adjustment has made the ships take much longer to arrive to their destination. For example, basing the calculations on an ultra large container in which the average speed is of 16.48 knots, in a route from Taiwan to the Netherlands. If the ship used the Red Sea/Suez Canal, which is around 10,000 nautical miles, they would arrive in 25.5 days, while, if the ship went around the Cape of Good Hope, which is around 13,500 nautical miles, they would arrive in 34 days. This delay of 8.5 days, in average, could impact several different parts of the International Supply Chain.

The literature on maritime chokepoints and supply chain resilience expose that disruptions in strategic transportation routes could tend to produce asymmetric effects, such as reconfiguration routes, increase in costs and cascade industry pressure.

V.The Impact on the Industry

By the understanding of what implicated in the 2026 Gulf Crisis, moreover, the obstacles that the industries face, becomes possible to analyse how each industry is impacted. This is the aim of this section, to look for the industries that utilize the most fossil fuels to maintain their operation, furthermore, how they were impacted by the shortage and delay in shipment.

According to the U.S. Department of Energy, petrochemicals derived from oil and natural gas make the manufacturing of over 6,000 everyday products and high-tech devices possible (U.S. Department of Energy – n.d.). The list goes from ballpoint pens and glue to spacesuits and boats. The array of products that are derived from oil and natural gas expose how important this raw material is for the entire world. Therefore, a disruption in the supply can affect several industries and cause a multi-sector crisis.

As previously stated, the Asian continent imports a large amount of oil to be able to fully operate their factories and manufacture the products. However, the disruption of oil shipments in the ME has constrained supplies of naphtha (MB Energy – n.d.), an untreated petroleum distillate from the refining of crude oil or natural gas. The prices have spiked since the beginning of the conflict, going from a closed price on February 24th, 2026, of \$561.58, to as high as a closed price of \$1,010.5 on April 7th, 2026, in the futures market (Trading Economics – n.d.). As a consequence the prices of bags, containers, cups and utensils soaring, sparking fears of shortages as manufacturers struggle to source packaging for products such as instant noodles, beverages and cosmetics. In Indonesia, which is one the world's most populous countries, as well, one of the largest consumers of plastic (World Population Review - 2026), suppliers have warned retailers they might need to force to cease production due to scarcity of naphtha (Lakshmi, et al - 2026). Another case that exposes the implications that the 2026 Gulf crisis has caused in the international supply chain of oil & gas.

Another industry that was affected by the disruption in supply is the Brazilian agribusiness, which was already commented in this paper. The importance of the agribusiness to Brazil is very significant, one of the main sectors in the Brazilian economy, in 2025 represented 6.1% of Brazil's GDP (Ministério da Agricultura e Pecuária - 2026). As stated, the delays in the arrival of fertilizers have negatively impacted the productions and the operations, however, this situation began before the ME crisis and was only intensified by the conflict. The devaluation of several commodities in 2025 (Brasilagro – n.d.), furthermore, the rise of farmer's debt were the pioneering causes (Portal CNA Brasil – n.d.). Nonetheless, even with some pre-occurred causes, the ME conflict has negatively affected the Brazilian agribusiness.

In addition, Brazil was not the only country affected, world food prices have been rising ever since the start of the conflict. An example was the increase in price of the vegetable-oil, which hit their highest level since July 2022 (Petroni - 2026). Another reason that exposes how the 2026 instabilities in the Gulf affected the international supply chain of oil & gas.

Else than the decrease in traffic and, therefore, less supply available in the market that impacts the entire construction of the international supply chain, there is another key disruption. The 2026 Gulf conflict began on February 28th, since then, Iran has reportedly closed the transit in and out of the strait (Reuters - 2026). Nonetheless, the shipments that left the Gulf prior to that day were still navigating, therefore the real impact of the Gulf crisis in the international supply chains will only be fully felt afterwards. Around a month and half later, the strait was briefly reopened, in which allowed to several shipments to leave the region (Burke & Christou - 2026) (Staff - 2026). The period in which the ships were not arriving impacted to companies and countries to make use of their own reserves. The short period of the strait back open did support to speedily backup the reserves and let the countries and companies with more to work with. Since then, the Hormuz strait was partially reopened and completely closed several times, which leads to the disruption. The alternation of open and closed in one of the main oil chokepoints in the world, could potentially lead to a major bullwhip effect in the supply of oil, natural gas and fertilizers all over the world. Completely impacting the international supply chain.

VI. Conclusion

The 2026 Gulf crisis affected oil & gas supply chains through four mutually reinforcing mechanisms: physical restriction of maritime flows through Hormuz; risk-driven increases in insurance, freight, and rerouting costs; feedstock shortages in petrochemical and fertilizer value chains; and inventory amplification effects consistent with the bullwhip effect.

Through the research process, the 2026 Gulf crisis is a clear result of a series of previous conflicts in the Middle East region. Since 1970, there have been several occurrences that spiked uncertainty, moreover, impacted the prices and availability of oil & gas. Each conflict has left scars and consequences that have piled up to get to the point of an international conflict such as the one in 2026. The Middle East region has two of the most important chokepoints in the transit of oil & gas. These are important for the Middle Eastern countries that sell, one of their main sources of revenue, and for the countries that purchase, an important product to potentialize their economies.

The world in 2026 is globalized. Meaning that what eastern countries are selling, oil & gas, does not stop in just one transaction. For example, China uses the oil to produce fertilizers, and Indonesia uses to produce plastic. As this paper has presented: the world, in 2026, went through a shortage of fertilizers and plastic. Therefore, implications in the transit of oil & gas in the middle east affect other industries. Taking into consideration all of the historical patterns, moreover, the consequences in other industries and possibility of a Bullwhip effect in the supply of oil & gas, this paper concludes that the 2026 instabilities in the Gulf affects the international supply chain of oil & gas.

However, there has been a few limitations in the writing process of this paper that should be acknowledged. The reliance on secondary sources could be seen as an issue, because the information has gone through editing, peer review and affected by biases, which could, in some cases, depreciate the importance of the source. Another limitation is the fact that the 2026 Persian Gulf crisis is still occurring, therefore, early-stage data does not expose the full impact of the crisis. There are several companies that make use of the Middle Eastern channels to transport oil, gas, fertilizers and several other products, thus there is an uncertainty around shipping volumes and how much is being shipped. Lastly, the world still has not fully recover from other crisis, financials and COVID-19, consequently, there is a limitation to isolate the impact of the Persian Gulf crisis from other macroeconomic variables. These limitations, and others that were not mentioned, should be taken into consideration when studying this topic and reading this paper.

Bibliographic References:

- [1]. Aber, S. L. (2023). Worldmaking at the end of history: The Gulf Crisis of 1990–91 and international law. *American Journal of International Law*, 117(2), 201–250. <https://doi.org/10.1017/ajil.2023.8>
- [2]. Abu Dhabi Crude Oil Pipeline Project | UAE Embassy. (2026, April 20). *UAE Embassy*. <https://www.uae-embassy.org/news/abu-dhabi-crude-oil-pipeline-project>
- [3]. *Amid regional conflict, the Strait of Hormuz remains critical oil chokepoint*. (2025, June 16). EIA. <https://www.eia.gov/todayinenergy/detail.php?id=65504>
- [4]. Arabian Business. (2009, November 5). Abu Dhabi eyes \$15bn infrastructure spend by 2012. *Arabian Business*. <https://www.arabianbusiness.com/real-estate/abu-dhabi-eyes-15bn-infrastructure-spend-by-2012-11202>
- [5]. Bloomberg L.P. (2026 b). *Usage of the Hormuz Strait by nations of the region* [Bloomberg Database]. <https://www.bloomberg.com/news/articles/2026-08-27/hormuz-oil-flows-rising-as-gulf-giants-ramp-up-accelerates?accessToken=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJjb3VyY2UiOiJlTldWJzY3JpYmVyR2lmdGVkQXJ0aWNsZSIsImVudCI6IjE2NDkzQUZGQjc1NDg0RUU4QjI2M0M0YRERFODM4Mzk0QyJ9.A9-dlp60p8XLNymDG14JvEcMZAaKKwgde-068iFMCdA>
- [6]. Bolat, F. (2025). Modeling the impact of Houthi attacks on Red Sea trade routes with the GEO-SHIP framework. *Transactions on Maritime Science*, 14(3). <https://doi.org/10.7225/toms.v14.n03.004>
- [7]. Burke, J., & Christou, W. (2026, April 18). Iran says Strait of Hormuz “completely open” but sounds warning on US blockade. *The Guardian*. <https://www.theguardian.com/world/2026/apr/17/strait-of-hormuz-now-open-to-commercial-vessels>
- [8]. Carrière-Swallow, Y., Deb, P., Furceri, D., Jiménez, D., & Ostry, J. D. (2022). Shipping costs and inflation. *Journal of International Money and Finance*, 130, 102771. <https://doi.org/10.1016/j.jimonfin.2022.102771>
- [9]. Center on Global Energy Policy. (2023, January 26). *The 2020 oil crash's unlikely winner: Saudi Arabia*. Columbia University SIPA. <https://www.energypolicy.columbia.edu/publications/2020-oil-crash-s-unlikely-winner-saudi-arabia/>
- [10]. Center on Global Energy Policy at Columbia University SIPA, CGEP. (2026, March 4). *Implications of the conflict in the Middle East for China's energy security - Center on Global Energy Policy at Columbia University SIPA* | CGEP %. <https://www.energypolicy.columbia.edu/implications-of-the-conflict-in-the-middle-east-for-chinas-energy-security/>
- [11]. Chutel, L., & Richer, S. (2026, February 28). What to know about the U.S. attacks on Iran. *The New York Times*. <https://www.nytimes.com/2026/02/28/world/middleeast/iran-attacks-what-to-know.html>
- [12]. Confederação da Agricultura e Pecuária do Brasil. (n.d.). *CNA alerta para gravidade do endividamento rural e defende aperfeiçoamento das regras de crédito*. Portal CNA Brasil. <https://cnabrasil.org.br/noticias/cna-alerta-para-gravidade-do-endividamento-rural-e-defende-aperfeiçoamento-das-regras-de-credito>
- [13]. Congressional Research Service. (2026, April 20). *Iran conflict and the Strait of Hormuz: Impacts on oil, gas, and other*

- commodities (Report No. R45281). <https://www.congress.gov/crs-product/R45281>
- [14]. Country Analysis Brief: Saudi Arabia. (2024). In *EIA*. https://www.eia.gov/international/content/analysis/countries_long/Saudi_Arabia/pdf/Saudi-Arabia.pdf
 - [15]. Country Analysis Brief: South Korea. (2023). In *EIA*. https://www.eia.gov/international/content/analysis/countries_long/South_Korea/south_korea.pdf
 - [16]. Country Analysis Brief: World Oil Transit chokepoints. (2024). In *EIA*. CPC Corporation, Taiwan. (n.d.). *Downstream operations*. <https://www.cpc.com.tw/en/cp.aspx?n=2610>
 - [17]. Federal Reserve History. (n.d.). *Oil shock of 1978–79*. <https://www.federalreservehistory.org/essays/oil-shock-of-1978-79>
 - [18]. Gross Domestic Product 2025. (n.d.). In *WorldBank*. <https://datacatalogfiles.worldbank.org/ddh-published/0038130/DR0046441/GDP.pdf>
 - [19]. Guerra amplia atraso na comercialização de fertilizantes no Brasil. (n.d.). *BrasilAgro*. <https://www.brasilagro.com.br/conteudo/guerra-amplia-atraso-na-comercializacao-de-fertilizantes-no-brasil.html>
 - [20]. Gray, N. (2021, May 27). The Tapline: A legacy of triumph. *Aramco*. <https://www.aramco.com/en/news-media/elements-magazine/2021/the-tapline-a-legacy-of-triumph>
 - [21]. Hellenic Shipping News. (n.d.). Oil exporters scramble for routes beyond Hormuz—but there are no easy options. *Hellenic Shipping News Worldwide*. <https://www.hellenicshippingnews.com/oil-exporters-scramble-for-routes-beyond-hormuz-but-there-are-no-easy-options/>
 - [22]. Hidayat, M. (2026, March 12). Strait of Hormuz supply emergency threatens global energy security. *Discovery Alert*. <https://discoveryalert.com.au/strait-of-hormuz-crisis-2026-supply-emergency/>
 - [23]. Hubbard, B., Karasz, P., & Reed, S. (2019, September 14). Two major Saudi oil installations hit by drone strike, and U.S. blames Iran. *The New York Times*. <https://www.nytimes.com/2019/09/14/world/middleeast/saudi-arabia-refineries-drone-attack.html>
 - [24]. Instituto de Pesquisa Econômica Aplicada. (2022). *Carta de Conjuntura* (No. 54, Nota de Conjuntura 34: Visão geral da conjuntura). https://portalantigo.ipea.gov.br/agencia/images/stories/PDFs/conjuntura/220331_cc_54_nota_34_visao_geral.pdf
 - [25]. Islamic Republic News Agency. (2026, March 1). Assassination of Ayatollah Khamenei “an international crime”: Foreign Ministry spox. <https://en.irna.ir/news/86090866/Assassination-of-Ayatollah-Khamenei-an-international-crime>
 - [26]. Katzman, K., McInnis, K. J., & Thomas, C. (2020). *U.S.-Iran conflict and implications for U.S. policy*. Congressional Research Service. https://www.congress.gov/crs_external_products/R/PDF/R45795/R45795.25.pdf
 - [27]. Krane, J., & Finley, M. (2019, October 29). *The U.S. response to attacks on Persian Gulf oil infrastructure and strategic implications for petro-states*. Rice University’s Baker Institute for Public Policy. <https://www.bakerinstitute.org/research/us-response-attacks-persian-gulf-oil-infrastructure>
 - [28]. Lakshmi, A. A., Mariska, D., Dempsey, H., & Tudor, D. (2026, May 6). “Plastic shock” hits Asia as Iran oil crisis strangles supplies. *Financial Times*. <https://www.ft.com/content/36748028-f0ba-418b-a643-aab88afffa9f>
 - [29]. Lott, A., & Kawagishi, S. (2022). The legal regime of the Strait of Hormuz and attacks against oil tankers: Law of the sea and law on the use of force perspectives. *Ocean Development & International Law*, 53(2–3), 123–146. <https://doi.org/10.1080/00908320.2022.2096158>
 - [30]. Marcel, V. (2014, July 18). ISIS and the dangers of black market oil. *Middle East Economic Survey*. <https://www.mees.com/2014/7/18/op-ed-documents/isis-and-the-dangers-of-black-market-oil/e569c6e0-4932-11e7-a223-5d1c0e735012>
 - [31]. METI. (2026). Japan’s Energy. In *Enecho*. https://www.enecho.meti.go.jp/en/category/brochures/pdf/japan_energy_2025.pdf
 - [32]. Ministério da Agricultura e Pecuária. (2026, March 3). *PIB da agropecuária cresce 11,7% e impulsiona resultado da economia em 2025*. <https://www.gov.br/agricultura/pt-br/assuntos/noticias/pib-da-agropecuaria-cresce-11-7-e-impulsiona-resultado-da-economia-em-2025>
 - [33]. Ministério do Desenvolvimento, Indústria, Comércio e Serviços. (n.d.). *Comex Stat: Sistema oficial para extração das estatísticas do comércio exterior brasileiro de bens*. Secretaria de Comércio Exterior. <https://comexstat.mdic.gov.br/pt/home>
 - [34]. Ministry of Environment, Lebanon. (n.d.). *Oil spill catastrophe*. <https://www.moe.gov.lb/>
 - [35]. Naphta. (n.d.). *MB Energy*. <https://www.mbenergy.com/en/glossary/naphta>
 - [36]. Oil and gas majors and traders suspend shipments via Hormuz, sources say. (2026, February 28). *Reuters*. <https://www.reuters.com/business/energy/oil-gas-majors-traders-suspend-shipments-via-hormuz-us-attacks-iran-sources-say-2026-02-28>
 - [37]. Owoche, A. G., Aidonjje, P. A., Mukhlis, M. M., Maskun, M., Tajuddin, M. S., & Yeyeng, T. (2024). The crisis in Red Sea region: Legal and socio-economic impact on international commerce. *Al-Risalah Forum Kajian Hukum Dan Sosial Kemasyarakatan*, 24(2), 17–35. <https://doi.org/10.30631/alrisalah.v24i2.1597>
 - [38]. Petroni, G. (2026, May 8). World food prices rise for third straight month, U.N. says. *The Wall Street Journal*. <https://www.wsj.com/finance/commodities-futures/world-food-prices-rise-for-third-straight-month-u-n-says-f5fec1fe>
 - [39]. Podeh, E. (2004). Making a short story long: The construction of the Suez–Mediterranean oil pipeline in Egypt, 1967–1977. *Business History Review*, 78(1), 61–88. <https://doi.org/10.2307/25096829>
 - [40]. Products from oil and natural gas. (n.d.). *U.S. Department of Energy*. <https://www.energy.gov/sites/prod/files/2019/11/f68/Products%20Made%20From%20Oil%20and%20Natural%20Gas%20Infographic.pdf>
 - [41]. Sainz, V. (2025, March 27). The Red Sea shipping crisis (2024–2025): Houthi attacks and global trade disruption. *Atlas Institute for International Affairs*. <https://atlasinstitute.org/the-red-sea-shipping-crisis-2024-2025-houthi-attacks-and-global-trade-disruption/>
 - [42]. Saleh, Z. (2020). *The human cost of U.S. interventions in Iraq: A history from the 1960s through the post-9/11 wars*. Costs of War. <https://costsofwar.watson.brown.edu/sites/default/files/papers/Saleh-US-Interventions-in-Iraq.pdf>
 - [43]. Saudi Aramco. (n.d.). Foundations: The underpinning. *Saudi Aramco World*. <https://archive.aramcoworld.com/issue/198206/foundations-the-underpinning.htm>
 - [44]. Sayin, Y., & Kılıç, F. (2020). The Strait of Hormuz and Iran’s international relations. *Eurasian Research Journal*, 2(1), 29–59. <https://dergipark.org.tr/tr/pub/erj/issue/52212/685102>
 - [45]. Schumacher, D. (1985). The 1973 oil crisis and its aftermath. In *Energy: Crisis or opportunity?* Palgrave. https://doi.org/10.1007/978-1-349-17797-4_2
 - [46]. Staff, A. J. (2026, April 18). Iran closes Strait of Hormuz again over U.S. blockade of its ports. *Al Jazeera*. <https://www.aljazeera.com/news/2026/4/18/iran-closes-strait-of-hormuz-again-over-us-blockade-of-its-ports>
 - [47]. The 1973 oil embargo: Its history, motives, and consequences. (2005, May 2). *Oil & Gas Journal*. <https://www.ogj.com/pipelines->

- transportation/tankers/article/17235810/the-1973-oil-embargo-its-history-motives-and-consequences
- [47]. The Tanker War: How history is repeating itself on the Strait of Hormuz. (2026, March 22). *CNN*. <https://edition.cnn.com/2026/03/22/middleeast/iran-war-history-tanker-wars-intl-hnk-ml>
- [48]. TIME. (2026, March 21). Energy: The oil squeeze of '79. <https://time.com/archive/6881534/energy-the-oil-squeeze-of-79/>
- [49]. Trading Economics. (n.d.). *Naphtha—Price—Chart—Historical data—News*. <https://tradingeconomics.com/commodity/naphtha>
- [50]. U.S. Energy Information Administration. (2026, February). *Short-term energy outlook*. <https://www.eia.gov/outlooks/steo/archives/feb26.pdf>
- [51]. U.S. Energy Information Administration. (n.d.). *Analysis based on Vortexa (Note: 1H25 = first half of 2025)*.
- [52]. Ulrichsen, K. (2012). *After the Arab Spring: Power shift in the Middle East? Bahrain's aborted revolution*. LSE IDEAS.
- [53]. United Nations Conference on Trade and Development. (2024). *Navigating troubled waters: Impact to global trade of disruption of shipping routes in the Red Sea, Black Sea and Panama Canal* (UNCTAD/OSG/INF/2024/2). <https://unctad.org/publication/navigating-troubled-waters-impact-global-trade-disruption-shipping-routes-red-sea-black>
- [54]. Verschuur, J., Koks, E. E., & Hall, J. W. (2022). Ports' criticality in international trade and global supply-chains. *Nature Communications*, 13(1), 4351. <https://doi.org/10.1038/s41467-022-32070-0>
- [55]. World Population Review. (2026, May 7). *Plastic pollution by country*. <https://worldpopulationreview.com/country-rankings/plastic-pollution-by-country>