IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

The Strait Of Hormuz As A Strategic Maritime Chokepoint In Global Trade

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Abstract- The Strait of Hormuz is one of the most important maritime chokepoints in the world, connecting the Persian Gulf with the Gulf of Oman and the Indian Ocean. Beyond its geographical identity, the strait functions as a vital artery of global commerce, carrying a significant share of the world's oil and liquefied natural gas passes through this narrow waterway to international markets, making it crucial for global energy trade. This study explores the strait not only as a geographical feature but as a dynamic intersection of economic importance**,** geopolitical significance**,** and strategic vulnerability. It examines how the narrowness of the passage, combined with its centrality to energy flows, makes it both a lifeline and a potential flashpoint. The analysis highlights the dependence of Gulf nations on this route, the global ripple effects of any disruption, and the ways in which political tensions, territorial disputes, and security risks transform the strait into a stage for international power struggles. The study underscores the need for cooperative security frameworks and resilient energy strategies to safeguard this indispensable corridor for generations to come.

Keywords- Strait of Hormuz, Gulf, Geopolitics, Global energy, Strait, Trade.

Introduction:

The Strait of Hormuz is far more than a narrow stretch of water, it is the lifeline of global energy trade. Nestled between Oman and Iran, this strait connects the Persian Gulf with the Gulf of Oman and ultimately the open ocean. Its importance lies in the fact that it is the only maritime passage for oil-rich Gulf nations to transport their petroleum and liquefied natural gas (LNG) to international markets. Every single day, nearly 20 million barrels of oil that is about one-fifth of the world's total daily production flow through this corridor. The US Energy Information Administration (EIA) rightly calls it a "critical oil chokepoint," because any disruption here would ripple across the global economy.

What makes the Strait truly fascinating is its dual identity: it is both a geographic marvel and a geopolitical pressure point. Countries like Saudi Arabia, Iran, Iraq, Kuwait, Qatar, Bahrain, and the UAE depend on it to move their energy exports, especially to Asia's booming economies. Tankers carrying crude oil and LNG navigate this narrow passage daily, making it one of the busiest and most strategically sensitive waterways in the world. Beyond oil, it also serves as a vital route for general maritime trade, reinforcing its role as a global artery of commerce.

Economically, the Strait of Hormuz is indispensable. A sudden blockade or military tension here could send shockwaves through international markets, spiking energy prices and destabilizing supply chains. The significance of the Strait is not limited to its economic aspects. It also plays a important role in global geopolitics, as major powers closely monitor and maintain an availability in the area to secure the uninterrupted flow of energy resources. Politically, it is often at the center of power struggles with nations. Political tensions, military activities, and regional rivalries often centre around this strategic waterway, highlighting its influence on international relations and security. In essence, the Strait is a symbol of how geography can shape global destiny, reminding us that a few miles of ocean can hold the balance of world trade and security.

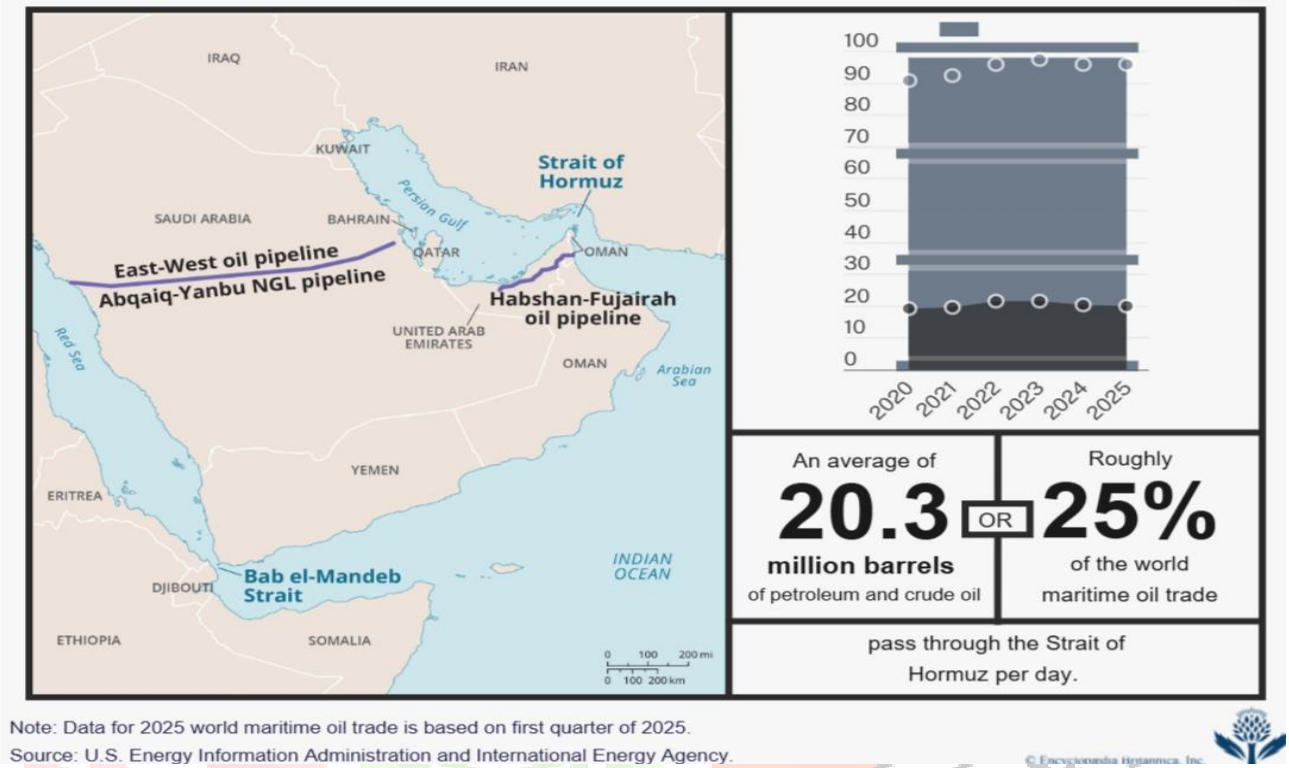

Figure 1. The volume of oil passes through the Strait of Hormuz
Source: Encyclopaedia Britannica

Location and Physical Characteristics of the Strait of Hormuz:

The Strait of Hormuz is a sensitive and strategically important waterway in the modern world. It is an international strait located between Iran in the north and Oman in the south, particularly the Musandam Peninsula. According to the 1974 agreement between Iran and Oman, both countries share the responsibility for controlling ship transit and ensuring the security of this important sea route. Because of its strategic position and heavy maritime traffic, the strait has historically attracted the attention of many regional and global powers seeking to maintain influence over this critical route. The Strait of Hormuz further leads to the Arabian Sea and the Indian Ocean. It is the main gateway between the Persian Gulf region and international shipping routes of the open seas. Due to this role, the strait is often described as the economic lifeline of the region and a crucial artery for global trade and energy transportation.

According to Strait of Hormuz (n.d.), the strait is crescent-shaped and approximately 104 nautical miles long. Its wideness varies from place to place. At the narrowest point, it is 20.75 nautical miles (approximately 38 km) wide to 52.5 nautical miles (about 97 kilometres) at its widest. At the same time, its usual width is around 55-78 km between Bandar Abbas in Iran and the mountain peaks of northern Oman. The territorial waters from the coasts of Iran and Oman extend up to 12 nautical miles (about 19 km). Because these waters meet within the strait, there is almost no area that can be

considered completely free sea. The water boundary between the two countries is defined along a median line based on the 1974 agreement.

The physiography of the strait is also influenced by the rugged mountains of southern Iran and the cliffs of the Musandam Peninsula, which create a narrow maritime corridor. The depth of the water varies greatly; this is due to the steep slope of the seabed. Near Larak Island, the depth is around 36 meters, while near the southern coast of Oman, it reaches around 180-200 meters. The deepest part of the strait is around 223 meters deep, located roughly 45 km from Musandam. Several geographical features also mark the entrance of the strait, including the Daba peak on the eastern side near the United Arab Emirates and Al-Kuh Cape on the Iranian coast near Jask.

According to the study done by Amiri & Naderi (2020), several strategically located islands enhance the geopolitical importance of the region. Among them are the Iranian islands of Abu Musa, Greater Tunb, and Lesser Tunb, often referred to as the triple islands. Their position near the entrance of the Strait of Hormuz gives them significant geopolitical and strategic value. Because of these geographical and physical characteristics, the strait remains one of the most important maritime chokepoints in the world, playing a vital role in global trade, energy transportation, and regional geopolitics. The presence of the U.S. Fifth Fleet in Bahrain underscores its geopolitical value.

Figure 2. Strait of Hormuz
Source: Encyclopaedia Britannica

Economic Importance of the Strait of Hormuz:

The Strait of Hormuz serves as the only sea passage from the Persian Gulf to the open ocean, hence known as "energy artery" for the global economy, particularly for Asian markets.

1. Energy Transit and Global Market Share: As of early 2026, approximately 20 million barrels per day (bpd) of crude and refined products transit the Strait. This means roughly 20-25% of total global oil consumption and more than one-quarter of all seaborne-traded oil. The Strait is also the exclusive exit point for Qatari LNG. Qatar and the UAE together account for roughly 10 billion cubic meters (bcm) of LNG transit the waterway every month, which means nearly 20% of total

global LNG supply and countries like Kuwait and Qatar are nearly 100% dependent on this single passage for their hydrocarbon exports.

2. Market Vulnerability: The Strait of Hormuz is often called a "chokepoint." This means it is a very narrow and important route where a large amount of the world's oil passes. Because so much energy supply depends on this single route, even the possibility that ships might be stopped or delayed can make oil prices rise due to fear of shortages. According to estimates from 2026, if the Strait were closed for a long time, about 8–10 million barrels of oil per day could disappear from global supply. Other oil-producing countries and emergency reserves would not be able to fully replace this loss, which could create a serious shortage in the global energy market.

3. Geographical Pivot to Asia: The economic importance of Hormuz has shifted significantly toward the East. Roughly 80-90% of the oil and LNG transiting the Strait is destined for Asian markets. China is the single largest importer, accounting for 37.7% of the total. Together, India (14.7%), South Korea (12.0%), and Japan (10.9%) make up a combined 37.6%, almost equal to China's individual share.(Conte 2026).

Compared to Asian countries, Europe receives much less oil from the Gulf region about 3.8%. This is because Europe uses different energy sources and also buys oil from other regions instead of mainly depending on Gulf countries

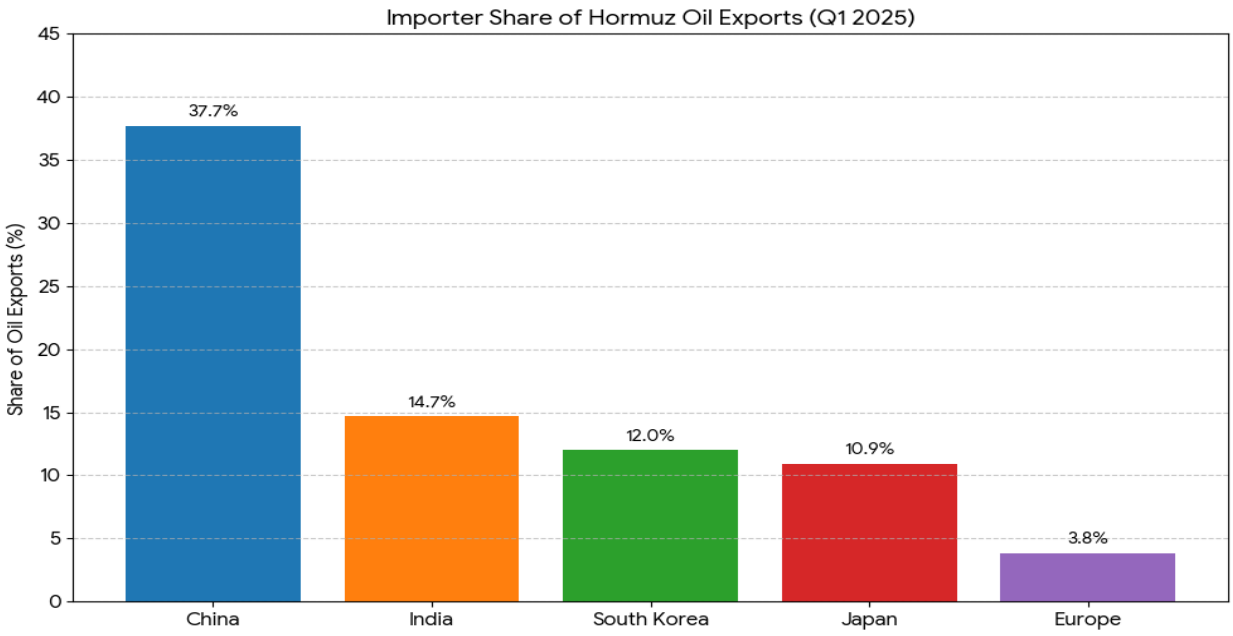

Figure 3. Oil exports transiting the Strait of Hormuz by major importer as of Q1 2025
Source: Author created using existing literature

4. Non-Energy Trade and Logistics: While energy dominates the discourse, the Strait is also a vital bridge for Global Fertiliser Trade. Approximately one-third of the global seaborne fertiliser trade originates in the Gulf. Apart from this, five Gulf nations, which lack substantial agricultural production, rely on the Strait for the import of essential food supplies. The strait serves as a major logistics hub linking Europe and Asia; disruptions to maritime security often spill over into increased costs for air freight and regional insurance.

Geopolitical Significance:

The Strait of Hormuz is a narrow stretch of water that acts as the world's most important "traffic jam" for energy. Because it is only 21 miles wide at its narrowest point, the countries bordering it, especially Iran, hold a massive amount of power over the global economy. In 2026, this area has become a military focal point: Iran uses its control of the coast and strategic islands like Qeshm and the Tunbs to threaten oil supplies as a way to get what it wants diplomatically. At the same time, the U.S. and its allies use the area to block Iranian trade. This tug-of-war forces superpowers like China and the U.S. into a tense standoff, making the Strait the main stage for global conflict.

The situation has also made countries like Oman and Pakistan very important, as they act as the messengers when the bigger countries aren't speaking. Because the area is so risky, nearby nations are trying to build pipelines over land to move oil without using the water, but these haven't been able to replace the massive amount of trade that flows through the Strait. For Iran, protecting the Strait means protecting its own front door at Bandar Abbas, which is vital for its national security. Ultimately, the Strait is like a global light switch, if it gets turned off, it causes immediate chaos and high prices all over the world.

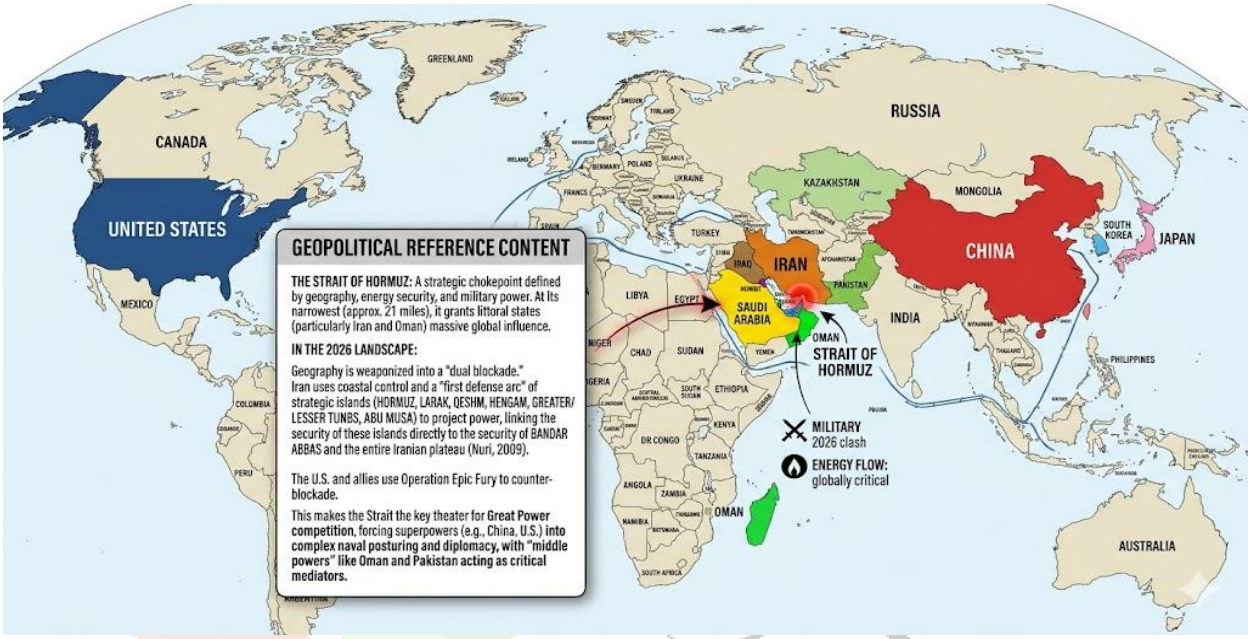

Figure 4. Geopolitical Map
Source: Existing Literature

Significance of the Strait of Hormuz from the viewpoint of Western Countries:

The greed of foreign powers increased in the Persian Gulf after the First World War and with the discovery of oil. The United States and its allies are the most important superpowers that play a role in the region. The United States, as well as other international powers, sought to exploit the Persian Gulf facilities, and in particular its oil, an area that is both geopolitically and geo-economically important. The US policy making system, the country's interests, including the security of moderate Arab countries and the free flow of oil from the region, are threatened by various sources. An energy expert mentioned that if Tehran closes the strategic Strait of Hormuz in reaction to the Western oil sanctions, there will be no alternative to compensate it for the West. Shipping Analyst in the Baltic and the International Maritime Council, Peter Sand, Chief mentioned the use of longer alternative ways to transport oil will increase transportation costs and cause oil to reach international markets, in the long run, and to a lesser extent, said .Below are some of the reasons for the importance of the Strait of Hormuz for the West:

- **Only seaway of the West to the Persian Gulf:** There are various strategic goals of the United States and the West in the Persian Gulf from which most important are the protection of oil resources and shipping lanes and the maintenance of the security of the GCC states, which are American allies. In war, it is very important to maintain the connection with the operational units

with their bases. Interrupting the connection means facing a threat of siege, failure and surrender. The base of operating units in the Persian Gulf is located in the Indian and Pacific Oceans, and their connection with the Seventh Fleet and Diego Garcia's strategic base in the Indian Ocean is through the Strait of Hormuz. To cut off this connection, the easiest way and the most appropriate place is the Strait of Hormuz. Achieving these goals requires a military presence near the site. As a result, the Persian Gulf waters are of particular importance to naval powers. In the past few years, naval forces have invaded the Persian Gulf through the Strait of Hormuz twice. During the Iran-Iraq War, when Iraq war intensified against Iran, about 70 to 80 battleships from six countries came to the area under the pretext of security and following the Kuwaiti demand for escorting oil tankers.

- **Oil Pipeline**: The Strait of Hormuz is the world's most important crude oil artery, next to the Malacca Strait, the Suez Canal, Bab Al Mandab, the Straits of Turkey (Bosphorus and Dardanelles), Panama and Denmark. In past times, most of the Persian Gulf oil exports passed over the Strait of Hormuz, but now it is declining due to the increasing use of pipelines for oil exports. But with the security situation in the Strait of Hormuz, exporting oil is much more economical than using pipelines. Because of the high dependence of Western industrialised countries on the Persian Gulf oil Industry, the current and future security of the Strait and the safe transit of oil tankers is a priority for the naval powers.

Alternative Export Route Ways:

According to IEA (2025), available capacity on alternative export routes is limited. Only Saudi Arabia and the UAE have operational crude pipelines that could potentially re-route flows to bypass the Strait of Hormuz, with an estimated 3.5 to 5.5 mb/d of available capacity. While additional capacity may exist in major pipelines to bypass the Strait, the logistics and supply chains needed to re-route and export substantial flows have not been robustly tested.

- **UAE, the Abu Dhabi Crude Oil Pipeline (ADCOP)** runs 400 km from onshore oil facilities at Habshan to Fujairah. The original nameplate capacity of the line is 1.5 mb/d with a reported current capacity close to 1.8 mb/d. The UAE exports around 1.1 mb/d of domestic crude via this route, leaving room for up to 700 kb/d of additional volumes in the case of a Strait closure.
- **Saudi Arabia, the Abqaiq-Yanbu pipeline system (East-West Crude Pipeline or Petroline)** crosses Saudi Arabia, connecting Abqaiq to Yanbu on the Red Sea. The system is composed of two lines with a total design capacity of 5 mb/d of crude oil. In March 2025, Aramco reported that it had increased capacity to 7 mb/d, but sustainable flows have not been tested at this level. As of early 2026, it is estimated that about 2 mb/d of the pipeline's capacity is used, leaving between 3 and 5 mb/d of spare capacity, depending on operational conditions and available export capacity on the Saudi West Coast.
- **The Abqaiq-Yanbu NGL pipeline** is also a natural gas liquids pipeline running parallel to the Petroline, the Abqaiq-Yanbu NGL pipeline, with a capacity of 300 kb/d, which is fully utilised.
- **Iran, the Jask oil terminal** was officially inaugurated in 2021 to transport crude oil from the Goreh-Jask pipeline to Jask on the Gulf of Oman. The pipeline has a reported capacity of 1 mb/d. However, the pipeline and port effectively remain non-operational. A test load was exported from Jask in late 2024, but no further oil has been exported from Jask since then. The terminal is currently not considered a viable crude export option for Iranian crude.

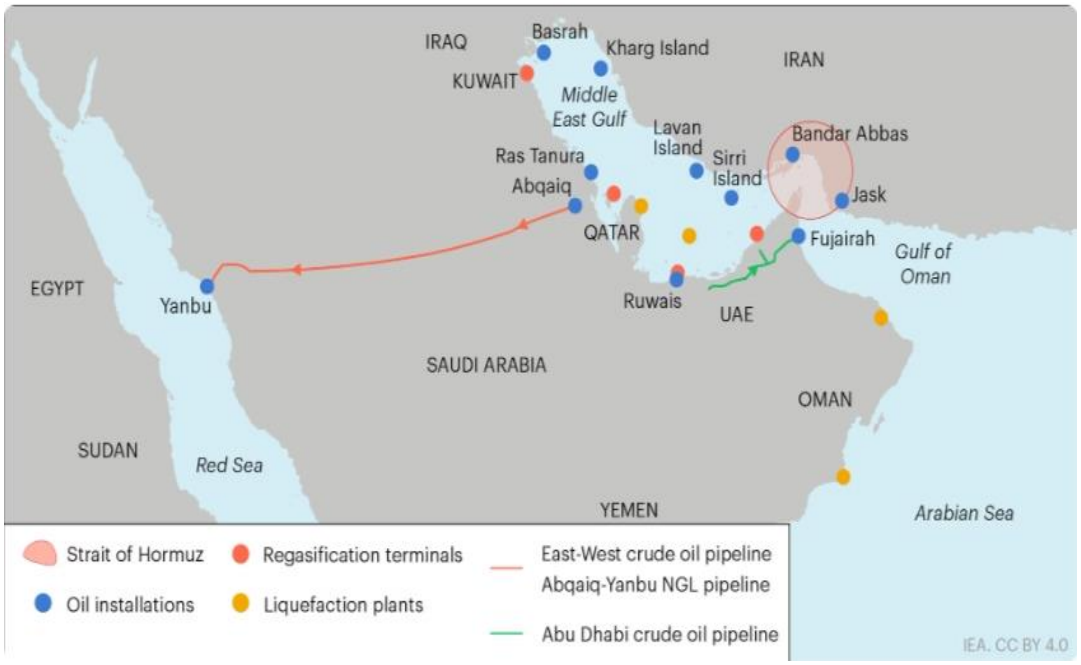

Figure 5. Alternate Export Routes
Source: IEA (2025)

Future prospects of the Strait of Hormuz:

Changing Global Energy Demand and Renewable Energy Transition: The future importance of the Strait of Hormuz is closely connected to global energy demand. At present, the world heavily depends on oil and natural gas transported from the Persian Gulf through this strait. However, many countries are gradually shifting toward renewable energy sources such as solar and wind power to reduce dependence on fossil fuels and address climate change. This transition may reduce long-term global demand for oil and gas. Nevertheless, fossil fuels are expected to remain an important energy source for several decades. As a result, the Strait of Hormuz will likely continue to play a significant role in global energy transportation, especially for energy-importing countries in Asia such as China, India, and Japan.

Strategic Shifts in Global Power Dynamics in the Middle East: The geopolitical landscape of the Middle East is constantly changing, and these changes influence the strategic importance of the Strait of Hormuz. Regional powers such as Iran, Saudi Arabia, and the United Arab Emirates continue to compete for influence in the region. At the same time, global powers including the United States and China are increasingly involved in regional security and trade. New diplomatic agreements, regional cooperation initiatives, and economic partnerships could reduce tensions in the region. On the other hand, political rivalries and conflicts may continue to affect the stability of maritime routes passing through the strait.

Long-Term Relevance in Global Geopolitics: Despite changes in energy systems and geopolitical relations, the Strait of Hormuz is expected to remain strategically important for global geopolitics. Even if alternative pipelines and shipping routes are developed, they are unlikely to fully replace the large volume of energy transported through this passage. Therefore, maintaining stability and security in the Strait of Hormuz will remain essential for international trade, global energy security, and geopolitical balance in the Middle East.

Conclusion:

The Strait of Hormuz remains one of the most important maritime chokepoints in the world. Its location makes it the main route for oil and gas exports from Gulf countries to global markets, especially to Asian countries. A large share of the world's energy supply passes through this narrow waterway, making its stability very important for global energy security and economic balance. Although some alternative pipelines and routes have been developed, their capacity is limited, and they cannot fully replace the huge volume of oil and gas transported through the strait. At the same time, geopolitical tensions, regional rivalries, and security threats continue to create risks for safe navigation in the area. Any disruption in this route can quickly affect global oil prices and international trade. In the future, the gradual shift toward renewable energy may reduce dependence on fossil fuels, but oil and natural gas will still remain important energy sources for many years. Therefore, the Strait of Hormuz will continue to play a key role in global geopolitics and energy transportation. Maintaining maritime security and encouraging cooperation among countries will be essential to ensure the smooth flow of trade through this vital waterway.

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