

Study the Necessities and Solutions for Sea-based Development in Iran: A Comparative consideration of Some Asian Countries

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Received: 27 August 2023 Accepted: 24 March 2024 Published: 26 September 2024

Abstract

Background and Theoretical foundation: The size of the world's maritime economy (ocean goods and services) reached a record \$2.2 trillion in 2023. Iran's share of this large economy is about one percent, including offshore oil and gas activities, between two and two-seven percent. With 310,000 square kilometers of maritime area and about 5,300 kilometers of coastline, which constitutes about 30 percent of the country's borders, Iran is considered a maritime country and has access to the sea from the north and south, but it ranks last in the world in terms of exploiting this God-given blessing.

Methodology: This research has studied the necessities and solutions for seaborne development in the Islamic Republic of Iran and a comparative study of the situation of some Asian countries using a descriptive-analytical method.

Findings: According to statistics from the United Nations Conference on Trade and Development (UNCTAD), and according to statistics from the Ocean

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Economy, it will be a business with a population of 3 billion and a value of over \$6 trillion in 2024. Therefore, it is essential for Iran to take fundamental steps to create ocean economy structures.

Conclusion: The ocean economy is worth between \$3 and \$6 trillion and offers huge opportunities for developing countries to build resilience. The United Nations Conference on Trade and Development (UNCTAD) says in its latest report, “Trade and Environment Review 2023,” that ocean-related businesses support the livelihoods of nearly 3 billion people. The share of the sea in the gross domestic product in the coastal countries of the European Union is 50 percent, but in Iran, despite its nearly 3,000 kilometers of coastline, this figure is only 2 percent. Therefore, Iran can institutionalize the basis for sea-based economic development by investing in its southern coasts, especially the Makran coast.

Key words: Necessities and Solutions, Sea-based Development, Comparative consideration, Some Asian Countries

Introduction

The Size of the marine economy (ocean goods and services) in the world is estimated to be more hit a record \$2.2 trillion in 2023, which is about one percent for Iran, and between two and two-seventeenths percent when including offshore oil and gas activities. Iran, with 310,000 square kilometers of maritime area and about 5,300 kilometers of coastline, which constitutes about 30 percent of the country's borders, is considered a maritime country and has access to the sea from both north and south; but it ranks last in the world in terms of exploiting this God-given blessing (Taghavi Kotenaei, Mohammad Hossein, 2023, p. 166).

The ocean economy is worth between \$3 and \$6 trillion and offers enormous opportunities for developing countries to build resilience. Business related to the use of the oceans provides the livelihoods of approximately 3 billion people, says UNCTAD in the latest report “Trade and Environment Review 2023”. UNCTAD calls for a move towards seaweed and plastic substitutes (MAREK GRZYBOWSKI, 2024).

Examining the position of the Islamic Republic of Iran in the maritime domain is a very important issue that affects the way to determine the general



policies of sea-based development for the country. An analysis of the various dimensions of this issue and the type of approach to the problem and its solution is presented in this report. In the first part, the importance of the sea is stated from the perspective of the Quran, narrations, the Supreme Leader, and Western scholars, and then the global importance of the sea as a source of power and wealth and the place of maritime transportation in the world economy are examined.

In the second part, the extent of use of sea capacity by countries in the world and examples of successful experiences in the world and the situation of our neighbors (UAE, Iraq, Kuwait, Bahrain, Saudi Arabia, Qatar, Oman, Turkey, Pakistan) and their plans for using the sea are explained.

The most important questions that we will answer in this article are as follows:

On what principles is the importance of the sea based in different perspectives?

To what extent is the use of sea capacity by countries in the world and the region?

1. The importance of the sea from different perspectives

1.1. The importance of the seas from the perspective of the Quran

God Almighty says in verse 14 of Surah An-Nahl: "Is He Who has made the sea subject, that ye may eat thereof flesh that is fresh and tender, and that ye may extract therefrom ornaments to wear; and thou seest the ships therein that plough the waves, that ye may seek [thus] of the bounty of Allah and that ye may be grateful".

Almost all the facilities available in the sea and the advantages that can be used are fully mentioned in this verse. One of the important points in the Quran is the proportionality of the repetition of the words "land" and "sea" in the Quran with the situation of the extent of land and water on the surface of the Earth. In the verses of the Holy Quran, the word "land" is used 13

times and the word "sea" is used 32 times. The extent of land on the Earth is 29% and the extent of seas on the Earth is 71%. The extent of land is 148 million square kilometers (the Northern Hemisphere is 116 million square kilometers and the Southern Hemisphere is 29 million square kilometers). Thus, the division of the Earth's surface between land and water is proportional to the proportionality of the repetition of these two words in the Quran.

2.1. The importance of the seas from the perspective of narrations and Hadiths

Imam Ali (peace be upon him) says: "Allah has made water subservient to your command. It goes out in the morning and returns in the evening to organize your life, and He has made the sea a means of abundance and abundance of your wealth." (Majlisi, 97:202).

Imam Ja'far al-Sadiq (peace be upon him) says: "If you want to know the vastness of the Creator's wisdom and the shortness and insignificance of human knowledge, think about what is in the seas; the types of fish, aquatic animals, shellfish, and countless other species of marine animals whose usefulness is not known, except gradually, as people come to know about them with the emergence of means" (Majlisi, 60:90).

Also, in the policies announced by the Supreme Leader on sea-centered development, based on a summary of research from global and domestic literature studies on sea-centered development, including the opinions of experts and, at a higher level, the insights of the Supreme Leader and upstream documents, a total of six main pillars have been selected for the scope of sea-centered development in defining this concept, which are: economic, socio-cultural, environmental, science and technology, security, and governance (Bek Mohammadloo, Hassan, 2023, p. 13)

3.1. The Seas in the Words of the Supreme Leader of the Islamic Republic of Iran

As we all know, the sea is a great opportunity for a country to progress and protect national interests. The benefits of the sea for a country and a nation are strategic benefits, they are great and huge benefits. (Khamenei, Seyyed Ali, 01/05/2013) (Khamenei, Seyyed Ali, , 2013)



4.1. The importance of the seas from the perspective of Western thinkers

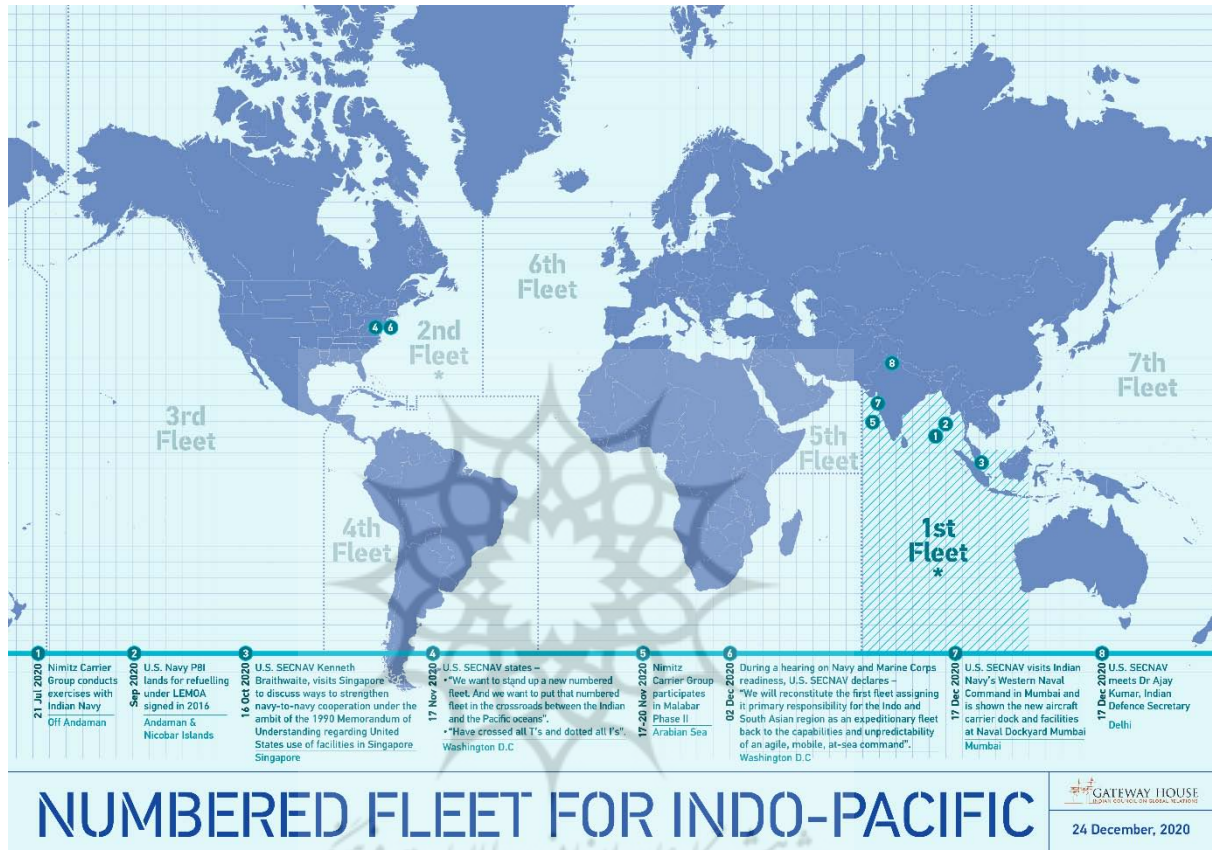
Alfred Thayer Mahan, under the maritime geopolitical theory that deals with the importance of the seas and the Indian Ocean, proposes the theory of sea power. Mahan, mentioning four characteristics of the waters of the world (1- The continuity of the waters and the possibility of the presence of sea power throughout the world, 2- The encirclement of the large landmass of Eurasia by a superior sea power, 3- The existence of seas sunken into the land such as the Mediterranean, Oman and the Persian Gulf, etc., which provide the possibility of the presence of sea power on land, and finally 4- The existence of safe islands in the seas that are far from land power such as England and Australia), emphasizes:

- The main condition for dominating the world and creating a global power is control over the seas.
- Ocean powers will always have the upper hand.
- Wealth is accumulated through the control and proper use of the sea.
- Sea and oceanic spaces are effective in the formation of sea power and the production of global power and the control and encirclement of maritime power.

This means that the power that dominates the sea is the world's superior power. Previously, England and currently, America have continued to use this theory as a criterion for action. America has deployed its naval fleet in

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all the waters of the world with a clear and planned division, which is clear in Figure (1).



Map No. (1): The formation of seven naval fleets by the United States worldwide (based on Mahan's theory) (Gateway House, 2020)

After Mahan, various theories have been proposed. As a result, in the overall discussion presented in the field of maritime studies, the effective factors in a country becoming a maritime power and benefiting from the sea are:

- Geographical location
- Government policy and political leaders
- National characteristics



- Population
- Natural characteristics
- Coastal length and territory

Iran's situation is favorable in terms of having the above-mentioned effective factors. One is the geographical location, which is unique because it is connected to the sea from both the south and the north. The other is the policy of the government and political leaders, which has this view and the emphasis of the Supreme Commander-in-Chief is a witness to it, and God willing, with the announcement of general policies, this will also come to the fore. The next discussion is national characteristics, which seems to require more work here and cultural development really shows itself here. The other discussion is population, which in terms of population, we have a good population, but in terms of distribution and planning, we have problems, as our coasts are now almost empty of people. The next discussion is natural characteristics, which is truly unique in Iran, and the last factor; The length of the coast and the breadth of the territory are such that we have the longest coastline in the region, and part of those water borders that we have are our islands, which unfortunately, we neglect this capacity; but neighboring countries are artificially creating islands and somehow covering up their weakness.

۵,۱. The global importance of the seas

۱,۵,۱. Source of power and wealth

Two-thirds of the Earth's surface is covered by water, and the landmasses of the Earth are enclosed in water. Two-thirds of the population and 80 percent of cities live on or near the coast. Of all the countries in the world, only 44 are landlocked and do not have free access to the seas, but the rest of the countries use this capacity well (none of these 44 countries have significant power). The sea is a civilization-building platform and an opportunity to gain

regional and global status. Direct access to all adjacent lands is possible using the sea. The sea is the largest source of raw materials and food.

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2.2.5.1. The position of maritime transport in the world economy

Maritime transport is the backbone of international trade and the global economy (Gu, B., & Liu, J., 2023). Maritime transport is the cheapest method of transporting goods. To better understand the issue, we can refer to Table (1), which shows how much cargo can be transported with each horsepower of power and energy consumed in various vehicles.

Transportation Method	Cargo Handling Rate In kg
Plane (air)	8 kg
Truck (road)	100 kg
Train (rail)	800 kg
Ship (sea)	4000 kg

Table (1): Cargo movement rate in transportation methods

۳. 2.5.1. Comparison of oil transportation by sea and land



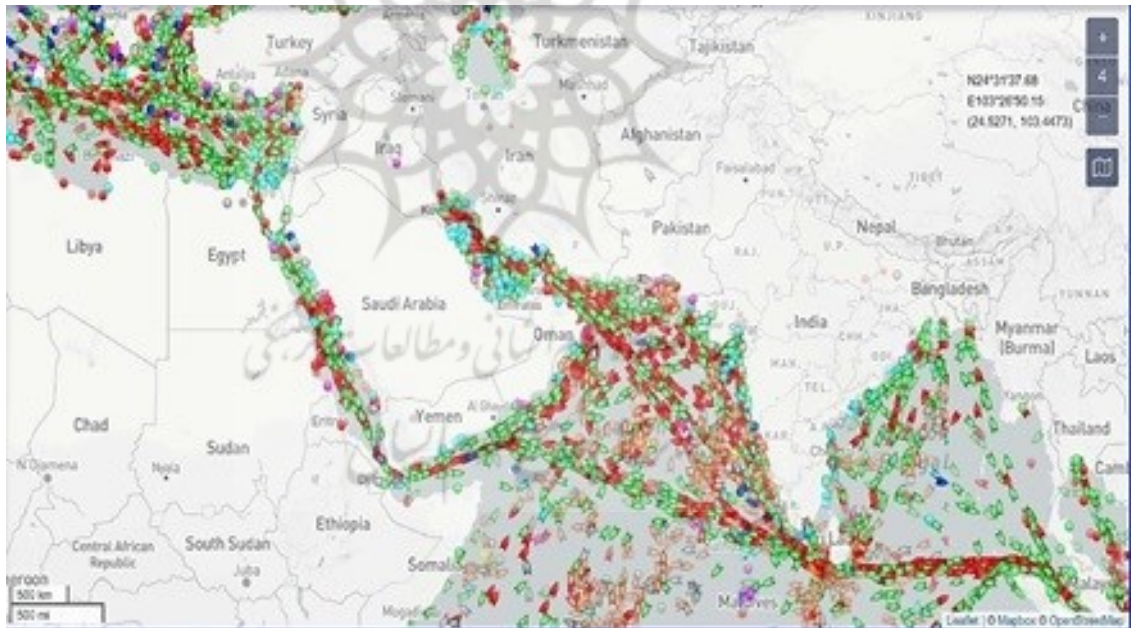
The volume of a barrel of crude oil is 159 liters and its approximate weight is 130 kilograms. The average value and price (in Esfand 1401) per barrel is 76 dollars. A tanker with a tonnage of 400 thousand tons carries the equivalent of 3 million barrels (477 million liters). The cargo value of a tanker with a tonnage of 400 thousand tons is 228 million dollars or 9 thousand and 120 billion tomans (based on the average price of the dollar of 40 thousand tomans). The approximate volume of a truck transporting oil is 20 thousand liters. The number of trucks required to move the cargo of a 400,000-ton tanker is about 24,000 trucks. If we consider the length of each truck to be 20 meters, the length of 24,000 trucks occupies a large distance. In fact, if we want to simulate this distance on earth, it is 480 kilometers long, which is actually equal to the distance from Tehran to Isfahan, which is actually about 480 kilometers. Therefore, the importance of maritime transportation and other sea talents in developing the economies of countries is of fundamental and strategic importance.

۴. 2.5.1. The importance of the sea in the world

- ۲۰% of the world's population is located within 25 km of the sea.
- ۳۹% of the world's population is located within 100 km of the sea.
- ۶۵% of the world's cities with a population of more than 6 million people live within 60 km of the coast and near the sea.
- About 2,800 ports have been built in the world, which are a factor in development (in our region, Karachi and Jebel Ali are among the most important).
- 9 of the world's top 10 metropolises are port cities, which means that 90% of the metropolises are located by the sea.
- ۹۰% of global trade in goods and transportation is carried out by sea, and without it, the import and export of goods, which is the basis of modern global trade, would not be possible.
- About 35% of crude oil production will be carried out at sea by 1404.

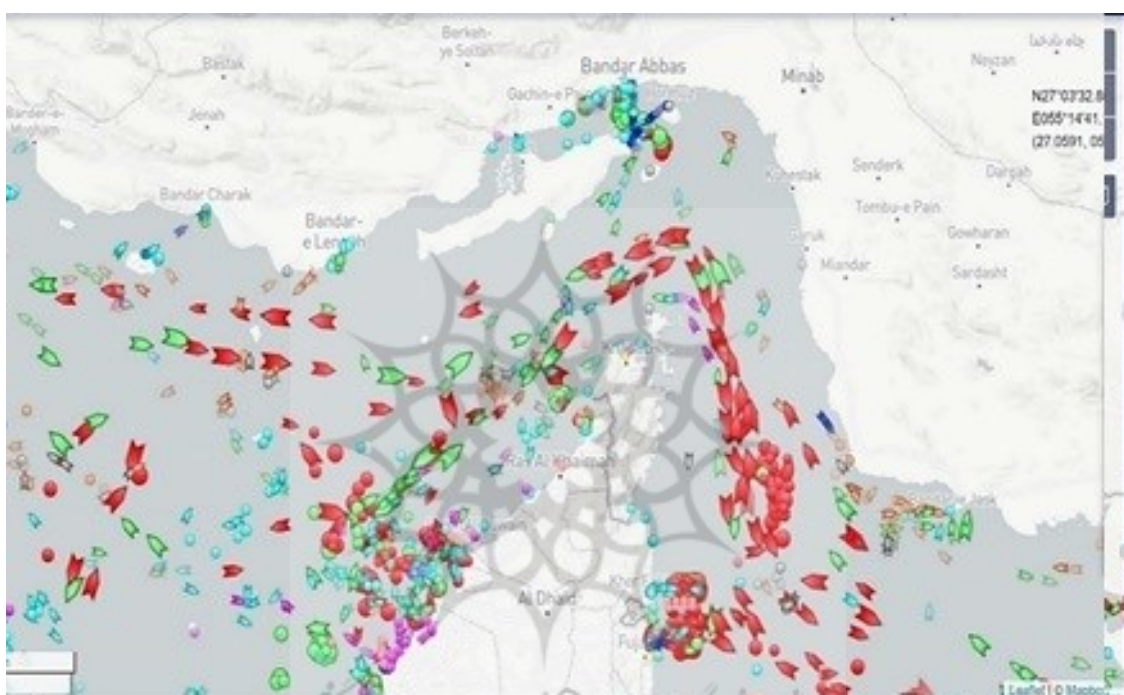
- All of the world's top 10 tourist destinations are coastal cities.
- About 10% of the world's gross domestic product is related to marine tourism.
- 50% of all tourists in the world travel to the sea and coastal areas.
- The average contribution of the global marine sector to GDP is 9 percent.
- Nearly 400 million jobs worldwide are linked to fisheries. 200 million jobs in Europe are maritime-based.
- About 10 million marine species live in the oceans.
- 90% of all living things on Earth live in the oceans.

Map No. (2): Map of maritime traffic in the region



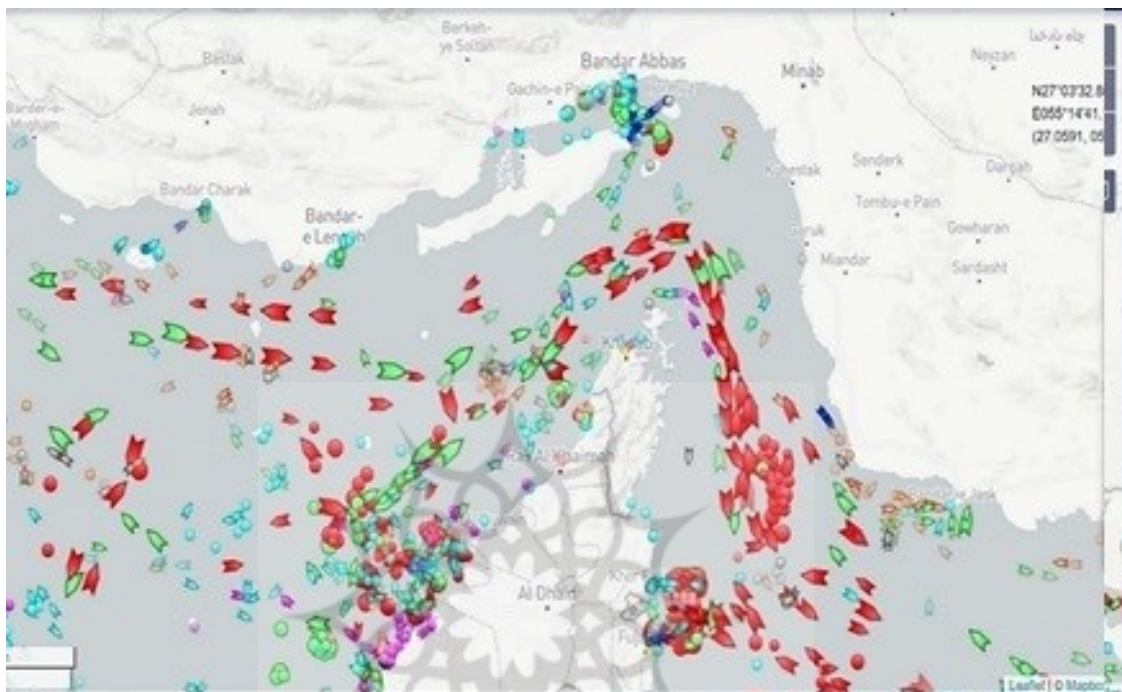
Map No. (2): Map of maritime traffic in the region based on the Marine Traffic website.

Map No. (3): Map of maritime traffic in the Persian Gulf



Map No. (3): Map of maritime traffic in the Persian Gulf based on the Marine Traffic website

(Map No. (4): Map of maritime traffic in the Strait of Hormuz



Map No. (4): Map of maritime traffic in the Strait of Hormuz based on the Marine Traffic website (Average traffic: three vessels per hour)

2. The rate of use of sea capacity by countries in the world and the region

- The world's maritime industries (shipbuilding, port construction, ship scrapping and decommissioning, etc.) have an annual global income of about 540 billion euros.

- Maritime services (fuel supply, port management, banking and insurance, etc.) have an annual global income of 1,000 billion euros.

- Shipping and maritime exploitation (have an annual global income of 1,400 billion euros).

- Marine resources (fishing, tourism, etc.) have an annual global income of 1,300 billion euros.

- 90 percent of world trade is carried out by sea, which is about 8.8 billion tons per year.



۱,۲.Examples of successful experiences

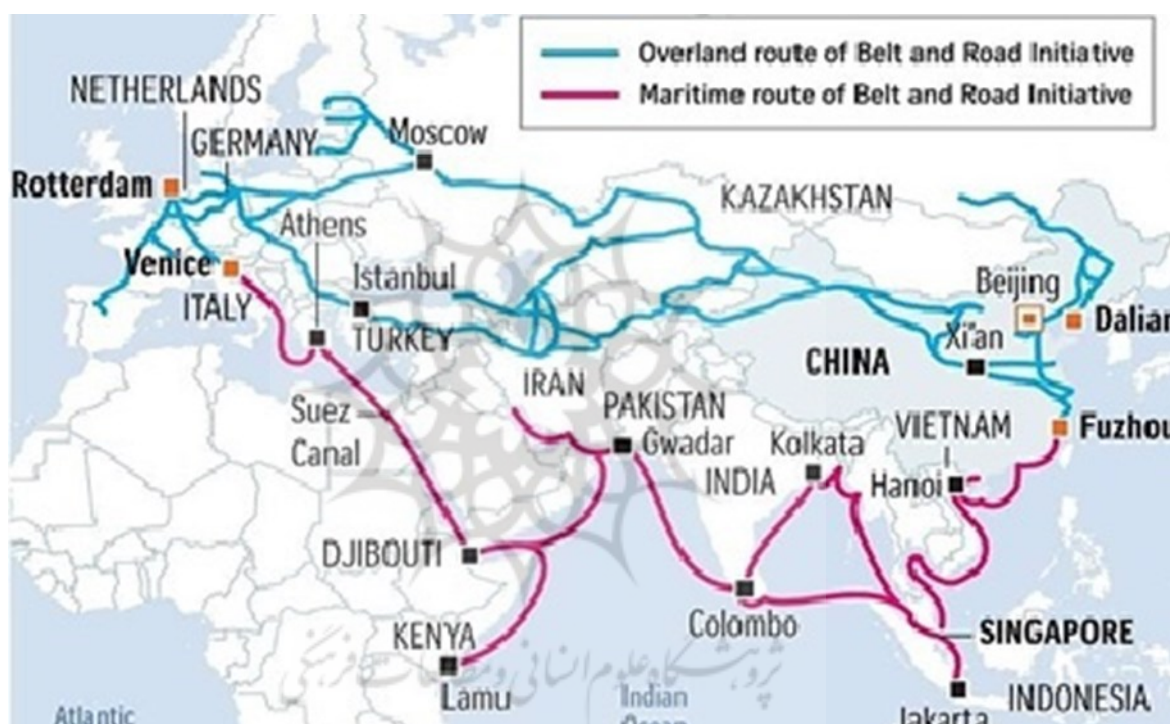
1.۱,۲ .Singapore; a successful example of global sea-based development.

- Population: five and a half million people
- Coastal length: 176 km (less than the width of Qeshm Island)
- It gained independence 50 years ago.
- The second busiest container port in the world (40 million containers per year)
- The largest bunkering port for ships with a volume of 50 million metric tons (income of \$50 billion), while this country is not an oil country at all; that is, it imports oil from other countries.
- The fifth country in the world with 250 container ships (7% of the world's ships).
- Annual reception of 5 million sea tourists
- %۲۰ of the world's share of aquaculture and export of aquatic fish
- %۲۰ of the world's share of ship repairs

2.1.2. China

- One of the main reasons for China's development is its focus on the coast. The country has a slogan: One Belt, One Road, which is shown in the map below. On the land route, a section leads to the Caspian Sea and our coasts in the north, and on the sea route, it ends at the Makran coast, which becomes a highway both to the south and into the Persian Gulf.
- The Port of Shanghai is the largest port in China and the world. The port has won numerous international awards, one of the most prominent of which is the title of "Best Connected Port" by UNCTAD (United Nations Conference on Trade and Development). The Port of Shanghai covers an area of more than 3,500 square kilometers.

The Belt and Road Initiative (BRI or B&R) known in China as the One Belt One Road[a] and sometimes referred to as the New Silk Road (James McBride, Noah Berman, and Andrew Chatzky , 2023) is a global infrastructure development strategy adopted by the government of China in 2013 to invest in more than 150 countries and international organizations (World Bank, 2018).



Map No. (5): China's Belt and Road Initiative (BRI)

In addition, the Chinese have built artificial islands about 800 kilometers long. The South China Sea is shallow. In some parts, they went 800 kilometers further, reclaimed the islands, dug them up with cranes, built runways, and connected them. Now the US fleet wants to threaten the coast of China, a thousand kilometers from the coast of Shanghai, Guangzhou, and Shenzhen.

۳. The situation of Iran's neighboring countries from the perspective of sea-based development



The Persian Gulf is the third largest gulf in the world, 40% of the world's energy passes through the Strait of Hormuz (17 million barrels of crude oil per day). The total length of the Persian Gulf coast is 5,117 km, including islands. Six ports of the Persian Gulf countries (Dubai, Jeddah, Salalah, Abu Dhabi, King Abdullah and Dammam) are among the 100 largest container ports in the world. The population of the Persian Gulf countries is about 2.3% of the world's population, equivalent to 80 million people. The GDP of the 8 Persian Gulf countries is over 5 trillion dollars, or 5% of the world's total.

۱,۳.UAE

Population: 10 million. Area: 83,000 km² (less than Kerman Province). Two of the world's 50 container ports belong to the UAE (Jebel Ali Port is among the top 10 ports in the world). 70% of the cargo of the Persian Gulf countries is transported through the ports of the UAE. The UAE's Fujairah Port is the third largest ship-serving port in the world (annual revenue of \$30 billion). Dubai is home to 5,500 international shipping companies. In 2020, oil accounted for only 1% of the UAE's GDP, 20% of which was related to tourism, especially maritime tourism. The UAE has spent more than \$70 billion to build artificial islands, creating 40 km² of space for itself. The total capacity of the UAE's ports is over 40 million TEU (about five times the total number of ports in Iran). Emirati shipping companies operate about 10 ports in the world. The map below shows the UAE's artificial islands and facilities and their distance from Iranian territorial waters. (Irani, Shahram, 2023)

۲,۳.Iraq

Iraq has a population of 44 million. Iraq covers an area of 437,000 square kilometers. In 2022, as the second largest oil exporter, it exported \$115 billion in energy (oil reserves are estimated at 145 billion barrels). Iraq has access to the Persian Gulf from Basra province, and its only connection is to the sea, and it has only 58 kilometers of coastline. However, 80 percent of Iraq's imports from here take place at the port of Amal-e-Laqsir (100 ships

visit this port monthly). The Basra oil port is the terminal for Iraq's oil exports, and 80 percent of Iraq's GDP is generated at this port. Basra port has the capacity to produce three million barrels of oil per day.

In the plan to develop the port of Faou, this port is supposed to play the role of the largest port in the region to create a transit corridor and transport goods to Europe. Operation Wal-Fajr-8 was carried out ahead of the city of Faou in the same area of the Faou peninsula. South of Faou, which did not exist; The Iraqis are designing a port whose investment has begun, and it will be higher than all the ports of the Emirates, Oman, Qatar, and Bahrain, and they expect Iraq to be more advanced than these countries in 20 years. This is a port that will become the largest container port in the region in the future. One of the reasons why they are resisting the Shalamchah-Basra railway is perhaps that they say that if this is done, the Faw port will become less important, and Iran will be connected to the Mediterranean by rail, and Iran's ports will develop. Iran has a 2,200-kilometer coastline on the Persian Gulf, the Sea of Oman, and the Strait of Hormuz, which is unparalleled in the world. The Chabahar coast is an oceanic coast, and the water depth in the Chabahar region, two hundred meters ahead of the coast, is 300 to 400 meters; that is, the largest ships can dock. US aircraft carriers were supposed to be stationed in Chabahar port. The plan is in the army. Three ports were supposed to be designed for the stationing of US aircraft carriers, and the Fifth Fleet was supposed to be here, but it has now gone to Bahrain.

In Bahrain, the water is shallow, and dredging is ongoing. A pilot vessel is in front of the vessel to prevent it from getting stuck in the mud and it barely makes it to the harbor. But Luxor is also completely inside a so-called strait and, in a way, it can be said to be closed. It is also suffering from geopolitical suffocation, and they want to get out of it through this.

۳,۳ Kuwait

Has a population of 4 million and covers an area of 17,000 square kilometers, the size of Ardabil Province. It is the fifth richest country in terms of oil reserves. The country wants to launch the world's largest oil research center by the end of this year. The country's important ports include: Al-Ahmadi Oil Port, Shuaiba Container Port, Al-Shuyukh Old Port, and Al-Zawri Port. Kuwait plans to produce 3.65 million barrels of oil and 1.5 billion cubic feet



of gas per day by 2040. The Kuwaiti government has announced that its investment capacity in its ports and the implementation of a macroeconomic development plan will exceed \$100 billion, and Chinese companies have held extensive negotiations to engage with the Kuwaiti side in this regard.

٤.٣. Saudi Arabia

It has a population of 36 million and covers an area of 2 million square kilometers (the largest country in West Asia). Saudi Arabia has several ports. The Port of Jeddah, the Dammam Oil Port, the Port of Jiran and the Port of Ras Tanura. Saudi Arabia exports about six million barrels of oil per day. Saudi Arabia is trying to become an intercontinental maritime logistics hub and a hub for attracting investment in ports. In 2020, it was the fifth fastest country in the world in terms of unloading and loading container ships. Saudi Arabia, with the help of Japanese, American and Singaporean companies, is implementing the Land Bridge Railway Project and its associated dry ports; which will connect the port of Dammam in the Persian Gulf to the port of Jeddah in the Red Sea on one side. On the other side, it will provide a connection of the Saudi railway to the UAE rail network and then Oman to connect to the port of Sohar on the coast of the Indian Ocean and outside the Strait of Hormuz.

The Saudi Ports Authority has agreed to establish the largest maritime logistics park in the Middle East with investment from Maersk. The Saudi city of Neom, with an area of approximately 26,000 square kilometers along the Red Sea and the Gulf of Aqaba, is located at the intersection of three continents: Asia, Europe and Africa, and along one of the world's busiest economic arteries; where more than 70 percent of the world's population can reach it with just a flight of approximately eight hours. The Vertical Line City is one of Saudi Arabia's ambitious projects in the new city of Neom.

This urban area will be home to about 450,000 people by 2026. It is predicted that this number will reach two million people by 2030 and nine

million by 2045; according to the plans, this project will be completed between 2025 and 2030.

۵,۳ Qatar

۲,۵million people and 11,000 square kilometers in area (the size of Qom province). It is the third largest holder of liquefied natural gas and the first exporter of LNG. Its tourism revenue is four million dollars. Hamad Port is the main commercial port of Qatar with a capacity to handle 8 million containers per year. Qatar's Ras Al Afan Energy Port is the largest artificial port in the world, serving 1,000 ships annually. One of the largest ship repair and construction ports has been established in Qatar.

۶,۳ Oman

۵million people and 310,000 square kilometers in area, the size of our ancient Khorasan. 53% of Oman's maritime trade is energy exports (5.5 billion barrels of oil reserves). The ports of Duqm and Salalah are Oman's showcase in the geopolitical order of the region and they want to present this as an international maritime corridor and are concluding many memorandums of understanding and agreements and taking advantage of this opportunity.

۷,۳ Turkey

This country, with a population of about 84.5 million people and an area of 783,356 square kilometers, in addition to developing ports located on the Black Sea, is investing in a second canal to connect the Black Sea with the Mediterranean Sea, parallel to the Bosphorus. The canal is about forty-five kilometers long. It is discussing the development of its huge oil and gas resources in the Mediterranean Sea. The country expects to become one of the ten largest economies in the world and is taking extensive measures in cooperation with American, Israeli, Russian and Chinese companies to develop oil and gas interests. In the photo below, the dotted section is the same canal that is to be built parallel to the Bosphorus. Bosphorus One and Bosphorus Two, one for going and the other for coming, and transportation will be carried out quickly and without delay.

۸,۳ Pakistan



Its population is 240 million, its area is 881 thousand square kilometers. Its main port is Karachi, which has a population of 16 million. 60% of Pakistan's maritime trade passes through Karachi (with a capacity of 65 million tons and 3,000 vessels per year). There are 25 shipyards on the Pakistani coast (ranking third in the world). The shipyard industry in this country has created about 100,000 jobs.

Gwadar Port, 72 km from Chabahar Port, also plays an important role in China's "One Belt, One Road" initiative. The Chinese have invested fifty billion dollars here. The three main ports of Karachi, Gwadar and Muhammad Benghasim handle more than 95% of Pakistan's maritime trade. Gwadar Port is being transformed into a smart port city and China is developing smart port ships. Pakistan has traditional and local fisheries and fisheries.

Pakistan's maritime development program can be summarized in the following areas: developing Gwadar Port in cooperation with China, developing Balochistan Province, breaking the monopoly of Karachi Port, expanding connections with the Persian Gulf region, playing a role in the global oil market, compensating for the backwardness of the navy, expanding trade relations with Afghanistan and Central Asia, developing trade relations with Iran, playing the role of a transshipment for China's access to the waters of southern Pakistan and the high seas and the booming markets of Europe, the Middle East and Africa, and trying to address security and military concerns.

4. Overview of the maritime trade situation based on available statistics for 2024:

According to the analysis of the Secretary-General of the United Nations Conference on Trade and Development, building sustainable and resilient maritime transport and forward-looking global supply chains is not just an option, but a strategic imperative (Rebeca Grynspan, 2024).

Global maritime trade grew by 2.4 percent in 2023, recovering from the slump in 2022, but the recovery remains fragile. Key bottlenecks such as the Suez and Panama Canals are increasingly vulnerable to geopolitical tensions, conflicts and climate change. These disruptions expand shipping routes, strain supply chains and raise costs, with profound impacts on food security, energy supply and the global economy, as more than 80 percent of global trade is carried by sea. Vulnerable economies, particularly small island developing states and least developed countries, are most affected by rising shipping costs caused by ship rerouting. The Maritime Transport Review 2024 highlights these challenges and calls for urgent action to strengthen the industry's resilience, accelerate decarbonization and support vulnerable economies. The report stresses the need for new sustainable and resilient infrastructure, a faster transition to low-carbon shipping and tackling fraudulent ship registration to protect global trade.

5. Analysis of sea-based development in Iran:

First of all, it is necessary to define sea-based development precisely, which is essential for preparing the upstream document, and it seems that sea-based development is a concept beyond the sea-based economy that needs to be considered. And based on the existing procedures of sea-based development, specifying medium-term and long-term goals will be very helpful in defining the roadmap. For example, it should be determined by the year 1425 what percentage of gross national product, employment, food production, renewable energy from the sea, etc., will be provided from the sea?

It also seems that the following prerequisites for sea-based development, based on the opinions of the country's lawyers, can be helpful:

١. Positive interaction: Sea-based development requires direct and constructive communication with other countries.
٢. Stability and security: A safe, stable and tension-free environment should be the first priority of the Persian Gulf and the Sea of Oman.
٣. Regional convergence and cooperation: Efforts to adapt and harmonize security-oriented and regional policies with economic-oriented policies
٤. Non-interference of foreign forces in the region: The existence of military alliances and the presence of foreign military forces, along with continuous



tension, especially in the Persian Gulf and the Sea of Oman, cannot provide a suitable environment for sea-oriented development.

۵. Addressing the challenge of sanctions: The continuation of numerous and various sanctions is a major obstacle to adopting a sea-oriented development strategy. Sanctioning ships and imposing restrictions on institutions providing services to them, the inability to obtain insurance and related investments in this sector, etc., are issues that must be addressed.

۶. Supplying and equipping the naval fleet: Providing facilities and equipment related to the surface, subsurface and ocean-going fleets

۷. Resolving controversial issues: Issues such as the Iranian tri-islands, the legal status of the Strait of Hormuz, and the dredging of Arvand, which have potentially negative effects on sea-oriented development.

۸. A focused and integrated approach to the issue of the seas and the establishment of a single management of the coasts and seas: Homogeneous, integrated and comprehensive management of activities taking place in coastal and marine areas. Establishing an inter-institutional structure whose decisions are decisive and enforceable. Preventing overlapping tasks and parallel work of multiple organizations and institutions responsible for the coasts and seas (Legal and Political Working Group on Ocean-Based Development, 2023).

Currently, there are 843 maritime structures in the Islamic Republic of Iran, including commercial, oil, industrial, petrochemical, tourism ports, etc. In terms of tourism, 12 million people travel by sea in the country annually, and especially during Nowruz, three million people travel by sea, and very modern vessels carry out this movement. If there is no foreign tourism, it is because we are under sanctions, but there is domestic tourism. The shipping industry of the Islamic Republic of Iran has the largest regional shipping fleet in West Asia; including the navy, both in the army and the IRGC, container ships, bulk ships, and miscellaneous ships. The development we have had in the fisheries sector in relation to shrimp and fish farming ponds has been

very large. We have 700,000 tons of fisheries catch and we are planning for 1.5 million tons.

There are 34 main ports active in the country, with a capacity of 400 million tons. They say that the UAE has a capacity of 20 million containers, while our capacity is 8 million containers. The total capacity of our oil and non-oil ports is 400 million tons. The oil and non-oil performance of our ports is 210 million tons per year, which is a remarkable performance under sanctions. It should be noted that all of this was done after the revolution. Of course, there is still a lot of work to be done compared to the capacity we have. Some of the factors that have caused us to not be in a position commensurate with our capacity are:

- The maritime industry requires heavy investments. For example, the cost of building a wall on land, with the best materials, is a maximum of ten million tomans per meter; but when the same wall is built in the sea, called a pier, it costs over one billion tomans. No investment in the sea is economical except with finance; why? Because the maritime industry requires a lot of capital. All the cases that happen in other countries, 80 percent of it is financed by international banks. No one can buy a \$150 million ship in cash; 80% of it is finance, and it should be noted that our country has problems in this regard due to sanctions.

- Another point that has caused us to not be in our position is that all regulations, the business environment of the maritime industry, must be subject to international regulations. Even a simple cook on a ship who does not have a certificate under the STCW international convention; cannot work. Before the sanctions, the Islamic Republic had 37 international shipping lines, which were cut off overnight (Safaei, Ali Akbar, 2023).

- The last point is that we have more than twenty maritime organizations in the country, and nowhere in the world is there integrated management, but rather integrated policy-making. Can't an integrated management complex come to take responsibility for fisheries, the navy, the Ports and Maritime Organization, the Ministry of Industry, the Ministry of Energy, the Islamic Republic of Iran Shipping, oil tankers, and... all of them (Safaei, Ali Akbar, 2023)?



Conclusion and Suggestions

A) Conclusion:

Most countries try to make maximum use of the coasts and marine commons of the planet for the comprehensive development of their own country. The share of the sea in the gross domestic product in the coastal countries of the European Union is 50 percent, but this figure in Iran, despite its nearly three thousand kilometers of coastline, is only 2 percent.

- The sea has a very high employment potential, and countries such as India, Japan, the United States and China have created four side jobs for every job created in the maritime economy. Despite having long coastlines, high human capacity and a high percentage of unemployment, Iran has a small share of the world's shipbuilding industry; Iran's share of ship production in the world is only one percent.
- The countries of the region, especially the Persian Gulf, are working with all possible speed and intensity to develop ports and coasts and gain a significant percentage of the maritime economy. Falling behind in this competition will cause us to lose our share of the maritime market in the future. Of the 56 islands in Arab countries, all of them have been used for wealth generation (tourism, trade, attracting foreign capital, etc.), but Iran has only succeeded in developing 2 of its 34 islands, Qeshm and Kish.
- With the transfer of the Navy's mission area from the Persian Gulf to the Makran Sea in 2007, the manpower, along with their families and some equipment, were transferred to JASK, but the primary and basic support for manpower and major equipment (due to the slow pace of development of the required infrastructure) still relies on Bandar Abbas

and the Persian Gulf coasts. The slowness and delay of the relevant agencies in developing the required infrastructure on the Makran coasts (including road and rail transportation networks, port facilities, welfare services, etc.) has imposed exorbitant costs on the armed forces, especially Nadaja, over the past 15 years.

- Long, uninhabited beaches, lack of basic facilities and incentives for people to stay and be more present along the coasts, failure to provide facilities for easy construction on the coasts, lack of development of Iranian islands in the Persian Gulf; despite the lack of preparation for increasing work and wealth generation, have had irreparable effects on the quantity and quality of combat of the armed forces.
- Also, the Caspian Sea in the north of Iran, which is a direct bridge between 5 countries and plays an important role in trade between these countries. There are five countries, along with 20 provinces or states, and more than 70 cities around this sea, which are surrounded by a population of about 17 million people. Undoubtedly, increasing the prosperity of trade in the Caspian Sea seems to be essential for Iran in order to circumvent sanctions and access rich economic resources, and consequently, and considering the trend of foreigners trying to be present in this sea, the need to strengthen the armed forces, especially the naval forces, is essential.
- According to the vision document, by the year 1404 AH, Iran should have the first economic position in the region, and in this regard, the resistance economy model has been defined, and the realization of the endogenous and exogenous approach as one of the strategies of this transcendent economic model in a maritime country like Iran requires homogeneous growth of "sea-oriented development".
- The current state of the components of maritime development in the Islamic Republic of Iran, compared to the global average and the countries of the region, is not desirable in most aspects of the commercial fleet, military fleet, and maritime industry. The only problems in this area are the weakness of the country's maritime culture, including the people's maritime spirit and conscious belief and the officials' recognition of the opportunities for maritime development.



This issue needs to be policy-making and guided by the efforts of the country's top officials, so that the country's neglect of the sea for many years can be compensated.

B) Suggestions and Solutions

In order to institutionalize sea-based development, which goes beyond the development of a sea-based economy, the following measures are necessary:

١. The government's serious focus on implementing approved projects for the development of the Makran coast and practical attention to the country's sea-based development
٢. Developing the necessary infrastructure, including communication routes, medical centers, educational centers, recreational and residential centers, etc., in order to create incentives for investment and population settlement on the coasts, especially the Makran coast
٣. Providing government facilities and incentives and tax exemptions to domestic investment companies in the development of the Makran coast in order to create a competitive advantage
٤. Reviving the valuable north-south transit capacity through Chabahar Port to gain a significant share of the transit capacity of Central Asian countries
٥. Developing maritime universities with specific disciplines of oceanography and marine resource management and maritime disciplines conservatories in coastal cities and affiliated villages
٦. Developing passenger shipping lines and related terminals for traffic between the coasts of Iran and the countries bordering the Persian Gulf and the Sea of Oman
٧. Helping to develop and expand fishing farms and aquatic production
٨. Amending the environmental law to establish paper factories and ship repairs

۹. Amending the laws related to issuing licenses for fishing and aquaculture vessels

۱۰. Developing a high-level document on maritime development and promoting a culture of attention to the sea and seafaring among officials and the public

۱۱. Developing appropriate strategies to create corridors from the southern coast to the northern and western countries of the country

۱۲. Designing incentive packages for domestic and foreign investors to develop the coasts and islands

۱۳. Creating a platform for private sector participation in providing bunkering services (fueling and refueling) and ancillary services in the country's ports and islands

۱۴. Developing plans to increase coastal provinces in national divisions to boost investment and development

۱۵. Providing financial facilities and tax breaks for the private sector to participate in maritime transportation projects

۱۶. Establishing and developing dry ports to distribute goods with a location appropriate to domestic demand, the North-South corridor and connecting the countries of Central Asia, the Caucasus and Afghanistan to the sea, and creating a new maritime silk road by the Islamic Republic of Iran

۱۷. Developing the capacity of the Makran coast with priority for using the capacity of the private sector

۱۸. Reforming tourism laws in order to increase the share of maritime tourism in the country

۱۹. Improving the attitude and approach of officials and society to promote a marine-based culture in Iran

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