COMPARATIVE PLANNING FOR PORT CITIES IN SOUTHEAST ASIA AND PERSIAN GULF

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ABSTRACT

The present-day challenge is the inability of most coastal cities to absorb rapidly expanding port developments and population growth. Today, the city and the port are cut off from each other. Ports seem to become less and less dependent on their geographical location. They have no historical or cultural ties to the host city and base their decision solely on managerial or financial considerations. As a result, the former role of ports in local urban life has faded, and ports have lost any sense of local identity. This paper highlighted the complexity of comparative urban planning for port cities in Southeast Asia and the Persian Gulf based on the existing literature on the economic, environmental, and physical aspects. The authors develop a perspective on comparative planning research's value and methodologies in this article. Through comparative study, similarities and differences between planning cases and experiences can be disentangled. This opens possibilities for learning across planning systems and possibly even transferring the best planning and policy practices across systems, places, or countries.

Keywords: Comparative Planning, Malaysia, Port Cities, Persian Gulf, Urban Planning

1.0 INTRODUCTION

Due to the changes in maritime transport at the beginning of the twentieth century, also to adapt to industrial conditions, most ports from the main ports (medieval) became efficient and modern transit ports. Because transit ports require logistics and additional services, host cities can play a role in the domestic and international transportation network. This new structure changed the bodies of cities after the Container Revolution; the transportation industry became continental and eventually global, and international maritime transport networks were formed. Due to the competitive nature of transportation, which reduced costs, significant changes in the size of terminals and ships led to economies of scale. (Van den Berghe, 2015) However, a lack of understanding of the challenges will make the port city uninhabitable. Rapid development and population growth have incapacitated coastal cities (Boulos, 2016). Heavy port ship traffic has caused abnormal pollution, congestion, and waste generation. Other challenges include noise pollution, which has increased dramatically. Other effects of congested ports include the presence of extensive equipment. and they have named operational activities that need to raise the level of safety (Jeevan et al., 2019). The development and expansion of ports, the increase in the number and size of ships, and the change in the mooring structure of ships have had devastating effects on the port. The case of oil pollution, such as the discharge of ship debris at sea, is part of marine pollution that threatens the environment (Majidi et al., 2021) and is facing serious challenges. Global warming, rising sea levels, increasing military forces to maintain maritime security, and the dangers of tsunamis and tropical storms are some of the serious challenges facing coastal areas (Fattahi, 2008).

The gap between the level of development, especially in the local backgrounds, is increasing with the main centres of national backgrounds and regions, ports, and even continuous backgrounds (Dadashpa & Arasteh, 2017). In the industrial age, the relationship between the coast and the city was cut by creating users such as major ports, commercial uses, industrial activities, warehouses, and transportation. Developing industrial activities in coastal areas has environmental problems such as pollution and aesthetics and social and economic effects on the surrounding urban communities (Rafiei, 2018). The following two points express the importance of studying the relations between the Persian Gulf and Southeast Asia. Persian was known as the common land and sea language of the Silk Road, even the official language of the Mongol court, until the thirteenth century. The Persian language covered the Indian Ocean from the 15th to the 18th century. It may not be a coincidence that Suprahmaniam's Borobudur in Java, Angkor in Cambodia, and the Ananda Temple in Bagan, Myanmar, were all built during this period of an Iranian city-state. (Guan, 2016). The Persian Gulf is one of the leading regions in oil production, accounting for 30% of the global oil supply. According to the Energy Information Report (EIR), the East Asian region consumes the Persian Gulf and supplies 85% of its oil from this region. he does. The main route for oil transportation between the Persian Gulf and Southeast Asia is through the Strait of Hormuz, the Indian Ocean, and the Strait of Malacca (Friedman, 2017).

Therefore, considering the historical background and the vast volume of economic exchanges between these two regions, it seems necessary to identify the challenges of ports in the two regions (especially Malaysia and Iran). Because by recognizing the challenges, it is possible to establish stable economic and social relations. On the other hand, it seeks to answer this question due to the increasing development of ports in the Persian Gulf and Southeast Asia and the huge volume of government investment in these areas: Has sustainability been considered in the general sense and caused economic, physical, and environmental crises? It should be noted that separating these three is not easily possible, so it should be looked at systematically. Therefore, in this research, the ports of Southeast Asia will be compared with the ports of the Persian Gulf, especially the southern ports of Iran (adjacent to the Persian Gulf) and the ports of Malaysia, and will be studied economically, environmentally, and physically.

2.0 THEORETICAL REVIEW

The history of Iran-Malaysia dates to pre-Islamic times. Wolters’s focus on the issue of Asian maritime trade and the origins of the kingdom of Srivijaya accentuated the role of Malay shipping in taking Persian goods to the Chinese market and the instances of Persian trading presence on the Malay Peninsula in the fifth and sixth centuries (Zeiny, 2020). These relationships continued until they entered the new era of the industrial age, which took on a new form. In the 19th and 20th centuries, in southeastern and southeastern Asia, the cities of Penang, Malacca, and Singapore along the Straits of Malacca, Aden, Karachi, Bombay, Modarres, Colombo, and Calcutta along the Indian Ocean and Batavia, Samarang, Surabaya, and Macassar Sea. And Saigon, Hong Kong, and Manila were in the South China Sea. The important straits such as the Strait of Malacca, the Strait of Singapore, and the Sunda Important straits and four of the sixteen global sea lanes are in this area (Lombok, Malacca, Ombai-Wetar, and Sunda). In particular, the Strait of Malacca is the second busiest strait in the world (after the Strait of Hormuz). About 200 ships pass through this sea area daily (Dang & Yeo, 2017). Each city has its problems, for example, Penang has a difficult path to reaching a creative city. Issues such as increasing the viability of Penang State are vital elements that must be carefully considered before making any decision (Xu et al., 2015).

Bahrain, Qatar, Saudi Arabia, and the UAE. On the northwest, are the Iraqi Delta, and the Iranian Rivers. And the northern coast ends by the Zagros Mountains. The maximum depth of the Persian Gulf is 120 meters, and its average depth is 40 meters. Its maximum depth is near the Strait of Hormuz, which connects the Sea of Oman to the Persian Gulf. Its width is 350 kilometres, its length is 1000 kilometres, its volume is 8780 cubic kilometres, and its area is 239,000 (Pous et al., 2015). According to the morphology of the Persian Gulf, pois- et al Persian Gulf and water mass formation and exchange through only the Strait of Hormuz do it. this is a threat to economics, and the environment (Pous et al., 2015). There are 80 commercials, and recreational and fishing ports around the Persian Gulf. The largest container port in the Persian Gulf is Jabal Ali Port in Dubai, followed by Shahid Rajaei Port in Iran and Shah Abdul Aziz Dammam Port in Saudi Arabia, respectively (Mohammadi & Diva, 2018). For a society's members to be productive and alive healthily, they must have a sustainable community that seeks to maintain and improve its economic, environmental, and social characteristics.

2.1 Port Cities Challenges

Table 1 provides an overview based on the authors' views on the challenges of port cities in Southeast Asia and the Persian Gulf. In the first step, the current and future challenges of ports have been identified in two separate geographical areas, which reminds us that if they are not considered, there will be great dangers in the Persian Gulf and Southeast Asia. Then, based on the content of 48 articles, the author's views and opinions on the challenges of port cities are identified. The main challenges are divided into economic, physical, and environmental. Depending on the subject and purpose of the research, one, two, or three groups have examined the above. Here, an author may refer to all three sections (economic, physical, and environmental), but in this arrangement, the author emphasizes the section that highlights the most. According to Table 1, the economic, physical, and environmental sections have 11, 16, and 21 topics related to the articles, respectively.

Table 1 The challenges of port cities based on cross-review analysis

No	Authors	Challenges of ports
1	Liaqaita et al. (2020)	Inadequate infrastructure
2	Sahin et al. (2021)	Damage of containers
3	Kawasaki, et al. (2021)	Challenge between primary and secondary ports
4	Hsu & Wang (2020)	The berth allocation, quay crane assignment, and quay crane scheduling
5	Roh et al. (2016)	Implementing improved environmental standards
6	Boulos (2016)	The inability of coastal cities, to absorb rapidly expanding port developments
7	Dang & Yeo (2017)	Container port systems concentrate or deconcentrate
8	Tonby et al. (2019)	The capacity and quality of infrastructure compared with other regions.
9	Jeevan et al. (2019)	Unusually crowds in the ports and the waste amount
10	Ignatius et al. (2018)	Technical inefficiency of Asian ports
11	Monroe (2016)	Active ports three decades ago have grown slowly
12	Parnian & Nazarpour (2019)	Imbalance in the share of domestic imports and exports (Iran)

13	Dadashpour & Arasteh (2017).	The gap between the level of development, the local, national backgrounds and regions, ports
14	Amiri (2017)	Political instability leads to economic turmoil
15	Idris & Ramli (2018)	Traffic congestion at the Straits
16	Majidi et al. (2021)	Increasing the number of ships and size of ships, the capacity of the mooring structure, and operational and & port activities
17	Potter (2017)	After oil discovery - the small Gulf sheikhdoms surge in revenues - the modern era.
18	Rafiei (2018)	Relationship between the coast and city
19	Li (2018)	Containerization and globalization, Complex relationship of port – city
20	Mohammadi & Diva (2018)	Locating ports without using scientific methods
21	Lotfi & Karami (2017)	Inequalities of ports social and economic conditions of each geographical
22	Mirzajani (2018)	Security of shipping lines
23	Soheili et al. (2020)	Petroleum states in the Persian Gulf are irresponsible, especially about the environment
24	Karimipour et al., 2016)	Iran's dependence on the shores of the Persian Gulf
25	Chen et al. (2016)	Malaysian ports are inadequate rail for transport.
27	Van den Berghe (20 15)	Ports lost any sense of local identity
28	Sayed (n.d.)	Non-participation of the community in the protection and maintenance program
29	Zhao et al. (2019)	A port is not merely a geographic space
30	Jeevan et al. (2015)	Shahid Rajaei terminal(Iran) is the only container terminal in the country
31	Yang et al. (2020)	The intensity of urban development on both sides of the Maleka Strait
32	Le et al. (2020)	The absence of deepwater seaports
33	Dawood (2019)	Industrialization and urban growth have put a toll on environmental welfare and social wellbeing
34	Chahshori et al. (2020)	Some ports are not connected to the entire railway
35	Rastegary (2017)	Shahid Rajaei terminal(Iran) is the only container terminal in the country
36	Mohammadi & Diva (2018)	The growth of port trade in Malaysian ports an exponential over the last decade
37	Tabatabaie & Amiri (2019)	Mangrove Forests Change in the Coastal Areas of Bushehr
38	Arasteh (2016)	Lack of the cycle port-hinterland spatial structure
39	Asghari & Vafaei, 2015)	Ignore traditional local design patterns

40	Yu et al. (2020)	The rapid development of port-disordered resources and environmental pollution
41	Pous et al. (2015)	The Persian Gulf and water mass formation and exchange through the Strait of Hormuz
42	Schipper et al. (2017)	Lack of green port policies
43	Xiao & Lam (2017)	A port city that does not act as a link between the local economy and the global economy
44	Wagner (2019)	Lack of communication between clusters: • Port activity, • Environment and population, • Architecture, • Stability.
45	Lee et al. (2014)	Failure to perform port operations by the port city.
46	Chan et al. (2017)	Economic instability in a long time
47	Han & Beisi (2016)	Some port cities have not transitioned from closed to open and from traditional to modern.
48	Zhao et al., (2018)	Lack Plans Study Regard to the Conservation

2.2 Comparison of Economic, Physical, and Environment Aspects

According to the Association of Southeast Asian Nations (2008), the average anal growth rate of ASEAN trade from 1993 to 2013 was 9.2 percent, as shown by the average growth rate of 9.6 percent from 1993 to 2013. This growth was reflected in the increase in container trade from TEU900000 in 1990 to 20.8 million TEU in 2013. Penang's ports are the backbone of the Malaysian economy in the international economy. Because the connection of ports to the mainland contributes to the economic development and sustainability of the region (Chen et al., 2016). According to the available evidence, trade growth in Malaysian ports has grown exponentially in the last decade. However, in the previous three years, the growth rate has decreased slightly (Jeevan et al., 2015). Since 2000, Malaysia has seen a 400 percent increase in container capacity. Approximately a quarter of the containers shipped in Southeast Asia belong to Malaysia, up from 10 percent 20 years ago. Malaysia is strategically located precisely on the intercontinental and offshore trade routes; although Singapore is the region's leading port, but has limited room for development. Klang Port is the largest and most important port in Malaysia. Klang Port is a general-purpose port that handled about 221 million tons of cargo in 2018, accounting for 39% of all shipments to Malaysian ports (Van der Heide, 2019).

Shahid Rajaee terminal of the Bandar Abas is the only container terminal in the country with world-class port facilities and equipment, from the capacity and power required to accept and operate the new generation. It has container superships. Container terminal No. 2 Shahid Rajaei is practically the only container terminal in the country Its volume of operations is more than one million TIU. In the operation of this terminal in 2016, 69% of the volume of evacuation operations and Container loading in Shahid Rajaei port and 60% of the total volume of operations unloading and loading containers constitute the ports of the Islamic Republic of Iran (Asghari & Vafaei**,** 2015). The economic dependence of the Gulf States on oil has made them irresponsible to the environment. The Persian Gulf is the most polluted sea in the world. Oil spills from ships and oil rigs and industrial waste have increased the temperature and salinity of the water. What is certain is that in addition to the above factors, the marine ecosystems of the western part of the Persian Gulf, especially the coral

reefs, are being destroyed. The construction of coral islands is one of the factors that pollute the environment of the Persian Gulf. Contaminated coastal lands, fires, and climate pollution are caused by tanker oil spills. In 1991, about 6 to 8 million barrels of Kuwaiti crude oil entered the Persian Gulf, causing severe damage to the marine environment of Kuwait and Saudi Arabia. The effects of this large leak contaminated the Persian Gulf for many years (Soheili et al., 2020). Weak government and judicial oversight, especially in ports and, in some cases, violations by local customs inspectors, have led to the abuse of local people and the smuggling of goods (Dadashpour & Arasteh, 2017). Intense conflict between city-port: In Bushehr and Bandar Abbas ports, the conflict between the development of banner space is sometimes seen and urban space seen, and the accumulation of containers and heavy vehicles in the entrance view has caused a visual disturbance in urban landscapes and environmental qualities and the traffic in Bandar Abbas has decreased. In Bushehr, the opposite has happened, so the body and the development of urban space have sometimes prevented the development of port space and have enclosed it in a compact space (Dadashpour & Arasteh, 2017).

2.2.1 Physical Aspect

Many space planners emphasize the benefits of significant ports and the establishment of special economic zones in the surrounding areas. While the ports of Asian countries are involved in many conflicts with urban areas, the southern ports of Iran do not have a particular problem with the establishment of equipped infrastructure for cargo, storage, and transit of goods due to the vast lands and continuous shores on the shores of the Persian Gulf (Dadashpour & Arasteh, 2017). The two-lane network increased to 774 km (47%) in 2014. Railroads use gauges that limit cans to container services (Chen, 2016). Population growth in recent decades has led to the expansion of cities to peripheral areas. Malaysia is currently one of the countries with a high proportion of urban population among Southeast Asian countries. The rate of urbanization is constantly increasing, from 65% in 2010 to 75% in 2020. According to the Malaysian Bureau of Statistics, the population will reach 33.8 million in 2040, 85% of whom will live in cities (Samat et al., 2020). Based on recent experience, George Town's urban landscape should be guaranteed through conservative policies. Due to the implementation of inefficient policies and programs, urban identity and cultural integration have deteriorated. Although many protection laws have been written, there is no specific protection law, urban planning, and plans are in transition, what to preserve and how to preserve to do (Zhao et al., 2018).

Both sides of the Straits of Malacca have experienced urban growth over the past 30 years. Between 1990 and 2018, the area occupied by urban land uses increased 1.51 times on the east coast and 1.76 times on the west coast, so in 2018, the area of urban land on the east side has almost quadrupled. On the other hand, development in the West Bank has been slower. Areas with low growth are 98.73% . Only Madan has achieved more outcome. The development of both beaches follows the same regional patterns (the area decreases with increasing distance from the coastline). Cities are mostly spread over 60 km of coastline. Singapore and the port of Duma are highly developed; other ports have more development patterns on the coast. West Bank development lags behind the East Coast because factors influencing urban growth such as natural resource conditions, economic and industrial structures, port development, and government policies, have all fueled such a pattern. In addition, problems such as environmental pollution, water shortages, and ecological deterioration often occur during the current urban expansion process (Yang et al., 2020).

At present, it has 14078 km (end of 2017) of the standard railway network and 96 km (Mirjaveh-

Zahedan) of railway lines. The company for the construction and development of transportation infrastructure carries out the construction and development of railway lines in Iran. The maintenance, repair, and operation of this network are the responsibility of the Railway Company of the Islamic Republic of Iran (Figure 1). The most critical specific challenges of Bushehr city's development that can be considered in local indicators and internal development of the city are linear city development and improper urban location because of the Bushehr Peninsula and being surrounded by sea on three sides. As a result, the city's physical development is restricted. The location of the nuclear power plant at the southernmost point of the city and the violation of its protection zone in exchange for population growth. Large military barracks in the centre of the city result in problems including spatial separation of urban areas and inadequate population distribution. The problem of providing urban services; problems in military areas; noise pollution due to hunting and training aircraft; land ownership problems under the control of these areas, the discharge of sewage from the bases to the sea, and inadequate water management. Due to the very low land slope, there is a high groundwater level and a lack of proper drainage and surface water management systems (Mahmoud & Sougal, 2015). Bushehr's future urban development strategy at the regional and social levels shows a very strong relationship with traditional development patterns. Plans for the future of Bushehr have followed a heated debate over urban saturation and urban development. To move away from dispersion as a basis for urban growth and focus more on intensification (Fattahi, 2008).

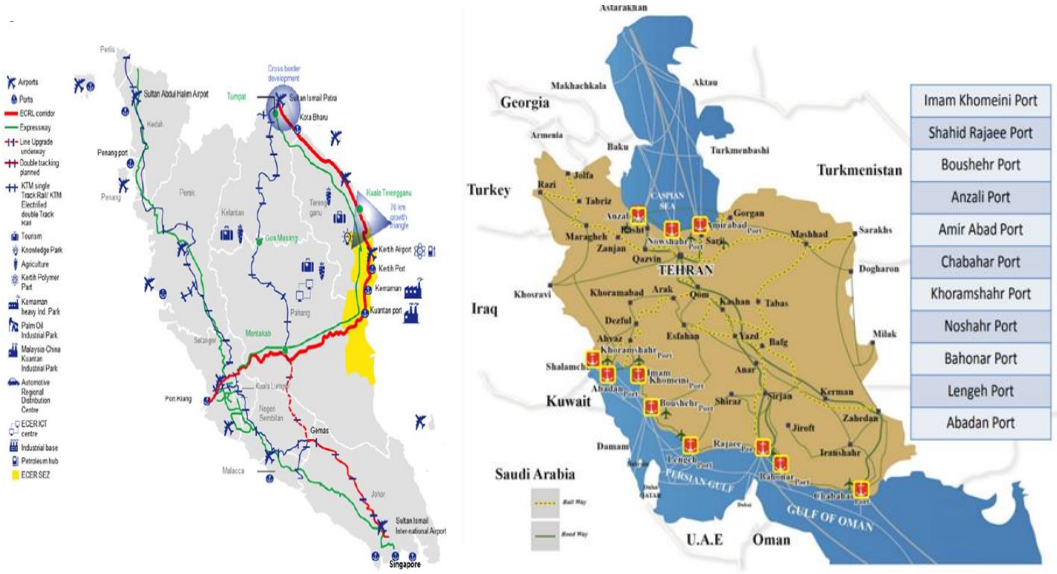

Fig 1: The railway connection between the port cities in Malaysia and Iran
Source: Sa'adin et al. (2016) and Serajian et al. (2019)

2.2.2 The Environmental Aspect

Given the Malaysian government's policy of economic development based on coastal tourism, it should be borne in mind that: In addition to its benefits, tourism can also cause problems for ports, such as congestion of ships on the water or land transport, which can also cause pollution and reduce the quality of the environment. Tourists' disregard for safety points poses dangers to tourists and tort safety in general. To overcome these weaknesses, the government and responsible agencies should establish specific policies focusing on maritime tourism (Jeevan et al., 2019). Given that urbanization in Malaysia is expanding, it is necessary to have a sustainable approach to maintain a balance

between urban and rural population center. This phenomenon has caused a large part of agricultural lands and forests to change their use for residential construction. However, some believe that the development of built-up areas will lead to economic development and growth (Samat et al., 2020). Studies have shown that Malaysia lags in terms of assessing climate risks. For example, the lack of studies in this field has caused railway lines and infrastructure to be constantly damaged. Rising sea levels have put coastal facilities at risk (Sa'adin et al., 2016). Another environmental problem in Malaysia is the import of waste. In 2016, 20,000 tons of waste entered Malaysia. This amount reached 110,000 tons in 2018. This phenomenon hurts the health of local people such as the spread of lung cancer and asthma (Tonby et al., 2019). To protect the historical heritage, community participation in conservation programs can prevent the failure of these plans and programs. For example, the lack of involvement of local stakeholders in the development of George Town Tourism, especially after the World Heritage Site (WHS) approval, has had negative consequences. As inadequate laws, regulations, guidelines, and structure have led to increased living costs, indigenous immigrants, and low-income service occupations, urban security has declined, especially at night. Using new materials and special reconstruction construction techniques has made Georgetown's natives more expensive (Sayed, n.d).

One of the most important regions of the world is the Persian Gulf. The countries bordering the Persian Gulf are Iran, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, Bahrain, Qatar, and Oman. The above countries are dependent on oil revenues. Due to their dependence on oil, their economy is mainly rent-seeking. This economic structure has made the Persian Gulf governments irresponsible, so they do not care about sustainable development. Therefore, irresponsible governments (Soheili et al., 2020) threaten environmental security in the Persian Gulf region. According to Abdurrahman Manif (Saudi novelist), oil cities are the most beautiful cities today, salt-like cities that dissolve like salt in water. However, the hell that awaits the oil cities after the oil runs out, in twenty or thirty years, we will find out that oil has been a sad story for the Arabs, and the giant oil cities are becoming uninhabited (Potter, 2017). Table 2 shows the top ports in the Middle East from 2011 to 2015. Statistics show that the port of Dubai in the UAE is ranked first in the Middle East as the most stable port with an excellent growth rate from 2011 to 2015, followed by the ports of Jeddah (Saudi Arabia), Sharjah/Khorfakkan (UAE), Said (Egypt), Salalah (Oman), Damman (Saudi Arabia), Shahid Rajaee (Iran), and Alexandria (Egypt).

Table 2 Middle East Top ports 2011-2015 (1000TEU)

No	Port	2011	2012	2013	2014	2015	Growth Rate (2011/2015)	Country
1	Dubai	13,000	13,270	13641	15,249	15,592	120%	UAE
2	Jeddah	4,040	4,738	4.561	4,218	4,188	104%	Saudi Arabia
3	Sharjah/ Khorfakkan	3,229	3,996	3,800	3,800	4,142	128%	UAE
4	Port Said	4,269	3,631	4,100	3,959	3,850	90%	Egypt
5	Salalah	3,200	3,620	3,340	3,034	2,569	80%	Oman
6	Damman	1,596	1,622	1,660	1,748	1,954	122%	Saudi Arabia

7	Shahid Rajaee	2,839	2,317	1,763	1,842	1,678	59%	Iran
8	Alexandria	1,490	1,463	1,508	1,678	1,688	113%	Egypt
	Total	33,363	34,657	34,373	36,666	37,165	110%	
	Share among world Total	6%	6%	5%	5%	N/A	N/A	
	World Total	587,487	624,480	651,201	684,429	N/A	N/A	

Source: El Khayat (2016)

Table 3 below compares the countries of the Persian Gulf in creating various types of environmental pollution. The six indicators are respectively (Oil leak, Gas leak from oil well burner, Construction of artificial islands, Damage to aquatic animals, and Sea pollution in port development) have been compared. The Persian Gulf is the world's most polluted body of water. Discharge of oil stains and industrial wastes has increased the fluctuations of temperature as well as salinity. The facts indicate that, in addition to such complications, particularly the marine ecosystems of the western part of the Persian Gulf, such as coral reefs, are severely disturbed and degraded. One of the reasons is built of artificial islands. But the UAE has ignored building artificial islands and damage to the Persian Gulf environment. Oil spills, damaged land, accidents and fires, and air and water pollution incidents have all been recorded at various times and places. Intentional 1991 Gulf Oil Spill, the largest oil spill in history with an estimated release of 6–8 million barrels of Kuwait Crude oil, caused large–scale devastation to the marine environment of Kuwait and Saudi Arabia. This Spill has been damaging to the environment of the Persian Gulf region for many years (Soheili et al., 2020).

Table 3 Comparison of production of various types of environmental pollution by Persian Gulf countries

Country	**Oil leak**	**Gas leak from oil burner**	**Construction of artificial islands**	**Damage to aquatic animals**	**Sea pollution in port development**
UAE	Yes	Yes	6	-	
IRAN	Yes	Yes	-	Yes	-
BAHRAIN	Yes	Yes	6	-	-
IRAQ	Yes	Yes	-	-	-
SAUDI ARABIA	Yes	The Most	-	Yes	Yes
OMAN	Yes	Yes	-	-	-
Qatar	Yes	The Least	1	-	-
KUWAIT	The Most	Yes	1	-	-

Source: Sayers et al. (2021**)**

3.0 METHODOLOGY

A comprehensive search started in October 2021 using the Science Direct, Research Gate, Springer, ACADEMIA, Scrip Science, EBSCO, SCIELO, SID, Sci, NOMAG, and SCOPUS databases. At this point, the selected articles have been reviewed and organised into three tables highlighting aspects of The Challenges of Port Cities, Middle East Top Ports, and Comparison of Persian Gulf

Countries' Production of Various Types of Environmental Pollution. "Comparative planning" and "port cities" were used as search phrases in the title, abstract, and keywords. These descriptive keywords restrict alternatives by focusing on comparative planning for Southeast Asia and the Persian Gulf port cities, which will be utilized as qualifying criteria. Source relevance is determined through cross-review analysis. Finally, the list of publications was obtained and analyzed based on the pre-determined parameter as listed. These are the number of publications per annum and the number of publications by different subject areas.

4.0 RESULTS AND DISCUSSION

The relationship between the Persian Gulf and Southeast Asia dates to pre-Islamic times according to historical evidence. The historical relationship between Iran and Malaysia has led to many cultural commonalities between the two countries. Both regions have been under the control or influence of European states until recent decades. Colonial cities are relics of European governments in Iran and Malaysia. Due to oil exploration in Iran, although the process of modernization began earlier, political, and economic changes in Malaysia have intensified. Economic security and distance from regional and international conflicts are effective factors in shaping this process. The Persian Gulf and Iran have access to open waters only through the Strait of Hormuz, so the Persian Gulf is polluted compared to the Strait of Malacca. Residential and port construction has taken place in both coastal and land areas, and much of the environment has been destroyed. Deforestation is taking place in Malaysian ports. In the southern parts of the Persian Gulf, artificial islands have been built without regard to international conventions. Social instability and social disruption are more common in Malaysian coastal cities than in the Persian Gulf. In Iran, rail links have led to the development of the coast, but in Malaysia, this is less common. However, some ports in both countries do not have railway ports. In the Persian Gulf, relying only on oil, the sustainability of many cities is in question, and many cities will become unviable soon. One of the highlights of the position of Iran and Malaysia is being located next to the Strait of Hormuz and Malacca. The strategic importance of these two straits and the role of these two countries in international equations are of great importance. In the last few years, due to sanctions, the amount of investment in Iranian ports has greatly decreased.

Table 4 shows a combination of Tables 1 and 2, in addition to the challenging factors and the effects of the challenging factors in Southeast Asia and the Persian Gulf. Economic challenges arise from 6, physical challenges from 10, and environmental challenges from 9 factors.

Table 4 The comparison of Iran and Malaysian ports 'perspectives

Type of challenge	Creating factor	Persian gulf (Iran)	South east-Asian (Malaysia)
Economic	Economic instability	The least	Yes
	Imbalance in exports and imports	The least	Yes
	Congestion of containers in ports	Yes	Yes
	Globalization of the economy	yes	Yes
	Dependence on a particular part of the coast	Yes	Yes
	Changing the function of ports	Low	High
Physical	Inadequate infrastructure	Low	High

	Traffic in the straits	Low	High
	Incorrect location of ports and facilities	Low	High
	Lack of railways and unsuitable roads	High	High
	Container development	Low	High
	Incompatibility of architectural and urban planning patterns	Yes	Yes
	Different policies of governments regarding port development	High	Low
	Development of coastal cities	High	Moderate
	Heavy traffic in primary ports	Yes	Yes
	Industrialization	Low	Yes
Environment	High intensity of industrialization	High	Yes
	Enlargement of ports	Yes	Yes
	Oil - Increasing oil revenues	Yes	Yes
	Restriction of people's right of access to water	No	Yes
	Government irresponsible oil rents	IRAN No Persian Yes	No
	The sound of ship engines, cranes, vans, trucks	Yes	High
	Port- city Development: 1. Marine 2. Land	Yes	Yes
	Stacked containers, ship chimneys, large hoists	Yes	Yes
	Water balance, sedimentation, runoff	Low	Yes

Each of the above factors has different effects on three economic, physical, and environmental sectors, which have been identified here, especially on the coasts of Iran and Malaysia, using the texts of articles.

5.0 A WAY FORWARD

Ports are important for economic growth all over the world since they handle over 80% of world trade, make it easier for people to move around, build infrastructure, create direct and indirect jobs, attract investment, and lower costs for both producers and consumers**.** Although there is no agreement on the most successful strategy, much of the recent research has focused on ensuring a port's long-term viability. It was recommended that ports should specialize in order to stay competitive and withstand economic downturns better. Improving communication between key stakeholders and ports requires an awareness of the factors that drive and impede future port growth. Better foresight into the growth plans ports is likely to follow is necessary for city authorities to align interests and planning choices, as well as to identify chances for ports to include advantages for local stakeholders in their strategy. Strategies like specialization, diversification, growth, and migration

are the major tactics used in port expansions past and present. This will lead to more sustainable growth in port areas and stronger port-related enterprises.

6.0 CONCLUSION

In addition to the differences, many of the challenges of Iranian and Malaysian ports are common. Containers have cut the distance between the port and the city. The rapid economic growth of countries in these two regions has endangered many species of plants and coastal animals. The rapid physical changes of the port cities have destroyed the old and historical parts. Although at first the effects are seen in the environment and the body of the city, in the long run, it will lead to economic instability and cities will become biodegradable. Governments must therefore abide by international conventions, feel more responsible for society and nature, and oblige capitalists to abide by all protocols. All companies must do their part in their social responsibility to the host community. If governments and companies do not follow the principles of sustainable development, they will cause instability in all environmental pillars, which will ultimately lead to instability and economic insecurity. However, in the long run, projects that do not include sustainability will not be profitable. So, all the parts should be considered, and the projects should be viewed systematically. Economic projects must have a cultural attachment. Therefore, ignoring the challenges will sooner or later stop the activities of ports and port cities. The *Masjed Suleiman* in Iran is an example of ignoring sustainable development. At first, only oil was extracted, and the city was abandoned when the oil ran out. Therefore, the way out of the challenges is to comply with environmental requirements in the first step.

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