

## Energy Security in the Malaysia-Thailand Joint Development Area: Political and Economic Risk Factors

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### ABSTRACT

*The Malaysia-Thailand Joint Development Area (MTJDA) Authority was legally formed in 1979 by a Memorandum of Understanding (MOU) and a 1990 Agreement on the Constitution and Other Matters of MTJDA between the Malaysian and Thai governments. The MOU's main goal is to explore and exploit oil and gas resources in a contested maritime area. According to the agreement, the Joint Development Area (JDA) is located in the North Malay Basin, off the coast of Thailand. This was a bilateral agreement permitted by the UNCLOS. Since production began in 2005, the area has significantly aided Malaysia and Thailand's economic and energy security. The goal of this research is to look into the issues and challenges in political and economic aspects that could affect the bilateral agreement once it expires in 2028. The perspectives of decision-makers, industry participants, and government officials were gathered through qualitative methods, which included secondary data and interviews. The results show that the Malaysia-Thailand Joint Development Area has been a close partnership for the past 40 years, and both countries should keep the agreement because the JDA is defined as joint efforts by Malaysia and Thailand to explore and exploit natural gas resources through enhanced bilateral diplomatic relations, as well as contribute to global economic growth. Under the current JDA, the emphasis is on strengthening bilateral diplomatic relations through cooperative cooperation. Because the current arrangements benefit both countries in terms of strengthening their partnership, Malaysia and Thailand should keep the agreement in place.*

*Keywords: Malaysia-Thailand Joint Development Area; bilateral arrangement; oil and gas resources; issues and challenges; political and economic factors*

## INTRODUCTION

The Malay Basin is a tertiary trans-tensional rift basin located offshore Peninsular Malaysia (see Figure 1). The North Malay Basin is a semi-enclosed navigable waterway in Southeast Asia, located in the western region of the South China Sea, and is bounded by three coastal states: Thailand, Cambodia, and Vietnam. Geographically, the Gulf of Thailand is relatively small, covering about 320,000 km<sup>2</sup>, and its mean depth is 45 m; the maximum depth is only 80 m. The border of the gulf is defined by the line from Cape

Bai Bung in southern Vietnam to the city of Kota Bharu on the Malaysian coast. The International Hydrographic Organization (1953) defines the southern limit of the gulf as “a line running from the western extreme of Cambodia or Camau Point (8° 36'N) to the northern extreme of the point on the east side of the estuary of the Kelantan River (6° 14' N 102° 15' E).” The Gulf is known for its complicated coastal geography. This, along with overlapping claims to maritime jurisdiction, has resulted in conflicting maritime boundary claims (Schofield 2007).

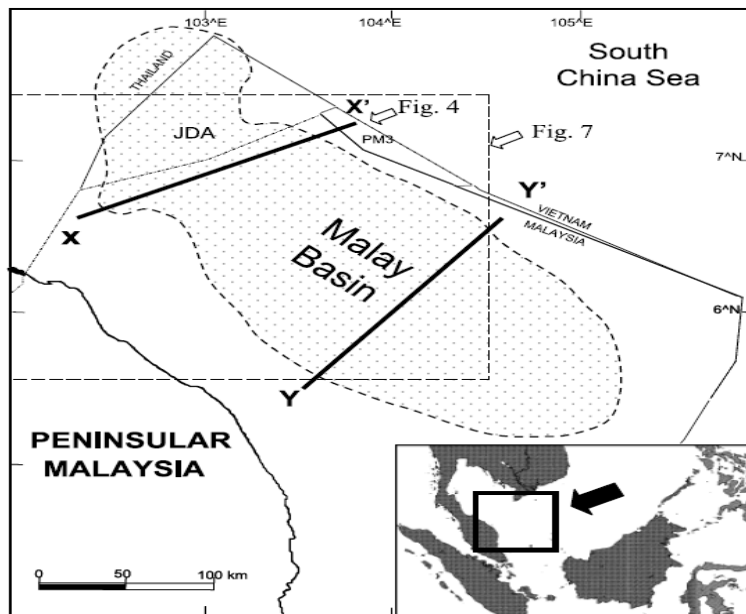


FIGURE 1. Location map of the Malay Basin, offshore Peninsular Malaysia  
Source: Madon (2007)

The Gulf of Thailand is abundant with marine life, and the fishing sector contributes significantly to Thailand's economy. Thailand is one of the world's top fish producers due to the shallow seas in the gulf's coastal sections (FAO 2019). The North Malay Basin also has known offshore oil and gas resources, with the majority of Thailand's crude oil and condensates coming from tertiary offshore basins in the Gulf. The western part of the Gulf is divided into ten major basins of varying sizes. The western section is made up of the Chumporn and Songkhla basins, while the eastern part is made up of the Pattani, Khmer, and Malay basins. The Pattani and Malay basins are hydrocarbon-rich, complicating maritime border delimitation negotiations. Since that natural resources are currently shared by two or more states, this development raises some questions about the legal implications of collaboration between adjacent states (Lagoni 1979). The Gulf of Thailand's parties have regularly chosen to establish marine joint development zones to exploit hydrocarbon resources believed to be

located in areas with overlapping claims and to alleviate the bottleneck in maritime border disputes. Potential oil deposits beneath Southeast Asian seas exacerbate the region's island and maritime disputes. The number and complexity of claims increase as exploration moves farther offshore and into deeper water (Dzurek, 1994). Thailand and Malaysia have had a long relationship and have shared components of culture, society, and history for millennia, while also keeping a common philosophy of peace and cooperation. Perhaps, Malaysia and Thailand have strong bilateral ties in areas such as trade, investment, security, education and vocational training, youth and sports, tourism, and connectivity (Dubey 2017). The Malaysia-Thailand Cooperative Authority (MTJA) was established in 1990 to supervise and coordinate cooperative operations pertaining to the development of the Joint Development Area (JDA). The authority was established in 1990 and the headquarters are located in Malaysia's capital city of Kuala Lumpur.

The MTJA is the commencement of a significant collaboration between two countries to work on behalf of both governments in the JDA. MTJA is one of the most distinctive oil and gas exploration partnerships in the world, and it has been prosperous from the start (Baradari 2014). The authority is recognised as a legal entity in both nations and is granted complete powers to utilise and develop non-living natural resources within the joint development region. The agreement does not exclude either country from pursuing legal rights in the area. This is one of the earliest implementations of the joint development memorandum of understanding in Chiang Mai, Thailand on February 21, 1979, for the establishment of the joint development area and authority to govern the area. This was followed by an agreement on May 30, 1990, in Kuala Lumpur, Malaysia, to establish the joint development

authority. The Malaysia–Thailand Joint Development Area (MTJDA) is a 7,250-square-kilometer area in the North Malay Basin that was established as a temporary solution to exploit natural resources on the seabed or continental shelf claimed by both countries and split the profits equally. The MTJA administers the joint development region (Figure 2) on behalf of the two governments. The agreement also includes sharing the costs and benefits of petroleum exploration and production over a 50-year period under the Production Sharing Contract, which divides obligations and earnings 50:50 between the two governments. This agreement is a globally recognised example of countries sharing a maritime border partnering to cooperatively develop what was previously a conflict zone.

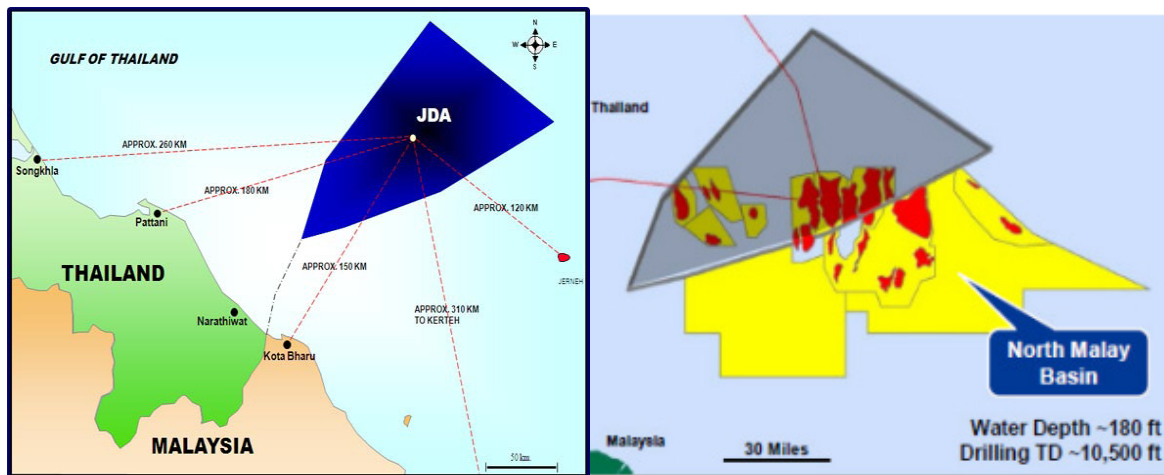


FIGURE 2. Joint Development Area location map Source: Malaysia-Thailand Joint Authority Official website. (2018), from <http://www.mtja.org/>

In the lower Malay Basin and the northern section of the North Malay Basin, the MTJDA is one of the most prolific sites for natural gas exploration and production. More than 1.5 trillion cubic feet of natural gas and over 20 million barrels of condensate are found in the North Malay Basin. Each of the nine fields in Block A-18, Block B-17, and Block C-19 (see Figure 3) had been recognised by 2014, bringing the total number of natural gas fields designated to 27. Block A-18 has been producing natural gas since 2005, with a contract level of about 290 billion cubic feet per year. Following that, in 2010, Block B-17 and Block C-19 went into production. Between 2010 and 2026, Blocks B-17 and C-19 were contracted to deliver 120 billion cubic feet of processed natural gas per year for the first ten years, then 90 billion cubic feet per year for the following six years. Overall, MTJDA's average natural gas output in 2015 and 2016 was slightly greater than 400 billion cubic feet per year of refined natural gas. The Block B-17-01 gas field began production in 2017, with the first

gas delivery in 2018. Cakerawala Field, one of the four major natural gas fields, is still being explored by MTJA in the hopes of finding additional hydrocarbons. In 1999, the Cakerawala Field produced 300 million cubic feet of gas per day. In 2016, the PGU system received 327 mmscfd of gas from JDA via a tie-in in Padang Besar, Perlis. Gas was treated in Songkhla before entering the Peninsular Gas Utilization (PGU) system. In February 2000, the Trans Thailand Malaysia (TTM) gas pipeline and separation project were launched to transport and treat natural gas from JDA's gas deposits. The JDA is located about 255 kilometres east of Songkhla Province in the Malay Basin, and it spans 7,250 square kilometres. The territory is split into three blocks: A-18, B-17, and C-19, and is managed by the MTJA, with each nation receiving 50% of the MTJDA's hydrocarbon resources. JDA has 290 development wells, including 130 wells in Block A-18 and 160 wells in Blocks B-17, C-19, and B-17-01, respectively (Adnan et al. 2016)

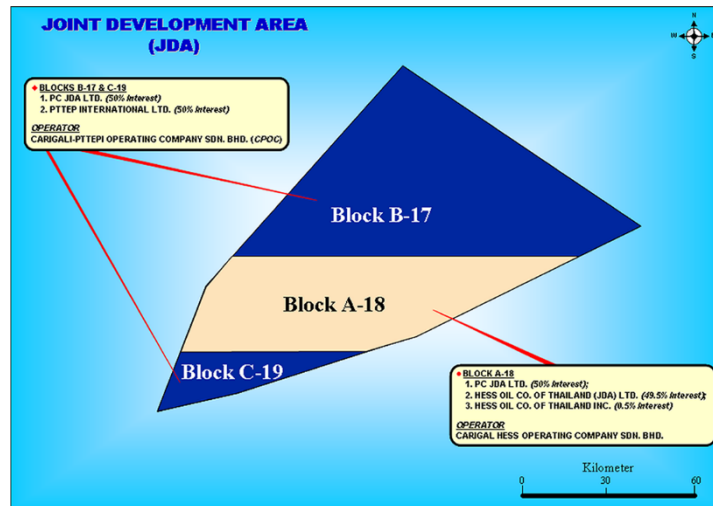


FIGURE 3. Blocks in Joint Development Area  
 Source: MTJA Contractors and Operators

#### BLOCK A-18

Hess Oil Company of Thailand (JDA) Limited received 49.5 percent of the block, and Hess Oil Company of Thailand Ltd. Co. was awarded 0.5 percent. Cakerawala, Bulan, Bulan South, Suriya, Bumi, Bumi East, Senja, Samudra, Wira, and Samudra North were the 10 gas fields proclaimed in Block A-18, which were operated by the Carigali Hess Operating Company Sdn. Bhd.

#### Block B-17 & Block C-19

This block was split 50 - 50 between PTTEP International Limited and PC JDA Ltd., with Carigali-PTTEPI Operating Company Sdn. Bhd. (CPOC) as the contractor. There are 25 wells and 10 fields in both blocks, which include Muda, Tapi, Jengka, Amarit, Mali, Jengka South, Jengka West, Jengka East, Muda South, and Charas. (Kumnerdsiri, 2017)

#### BLOCK B-17-01

This block was similarly split 50-50 between PTTEP International Limited and PC JDA Ltd., with CPOC serving as the general contractor. Tanjung, Jinda, Andalas, Muda Southeast, Andalas East, Thanthong, and Melati are among the 15 and 7 fields in Block B-17-01. Minor oil accumulations can also be found in several of these fields (MTJA.ORG).

In Peninsular Malaysia, the largest petroleum supply base is the Kemaman Supply Base. The Royal Customs of Malaysia has granted KSB a one-of-a-kind licence under the Warehousing and Manufacturing Plan. For imported oil field equipment entering KSB and then travelling to offshore areas, taxes and fees are postponed and waived. As a result of this unique licence, Petronas, ExxonMobil,

Repsol, Sapura E & P, IPC, HESS, and other oil companies have been given additional incentives to operate in KSB. Apart from these massive oil firms, there are more than 200 support service companies on the base, with both global and local entrepreneurs having a presence and facilities. KSB is a trustworthy and comprehensive supply base for the oilfield trade, including drilling equipment and wireline contractors, well completion, production, and other maintenance firms, among its specialties. The MTJDA received material handling equipment such as cranes, prime movers, and forklifts, as well as maritime services, property leasing, cargo handling and labour supply, fuel bunkers and portable water supply, and complete mud plant facilities from the KSB. Thus, Carigali-HESS and Carigali-PTTEPI have hired KSB to supply MTJDA since they began functioning in the region.

Malaysia and Thailand established the JDA in 2008 with the signing of a 50-year agreement that would end in 2028. Thus, the current study focuses on the issues and challenges in the short- and long-term political and economic aspects and the risks affecting the bilateral agreement in order to determine if the agreement can be renewed once it expires in the year 2028. The JDA is seen as a model of bilateral collaboration between two countries that share a maritime boundary in order to cooperatively develop a previously undeveloped territory to the mutual advantage of both sides. Malaysia and Thailand signed the MOU in 1979 to reaffirm their commitment to the partnership's future development along the maritime boundary in the North Malay Basin. Furthermore, Petronas (Malaysia) and PTT (Thailand) have been designated as contractors for the exploration and exploitation of natural gas in the Joint Development Area (JDA). The two countries have previously worked together for 40 years and are now entering the final decade of

cooperation under the MOU, which is a collaborative development pact that will expire in the year 2028. The critical question is whether the partnership should continue under the terms of this agreement, and what are the issues and challenges for this extension? The MTJA found that there is still a large amount of natural gas in the area, which can provide future energy security for both Thailand and Malaysia for at least the next 20 years, as well as other connected benefits for the population and communities in the surrounding areas of both nations. These benefits include more jobs, a boost to economic and industrial growth, and the building of

infrastructure to go along with it. It also shows the rest of the world how to solve conflicts over disputed land and sea areas in a positive way.

This article portray a picture of both nations' political and economic perspectives on gas deposits in contested marine areas. The key issues are political and economic risk. The research will also look at how successfully Malaysia and Thailand's joint development pact has functioned since it was established on February 22, 1979. It will give recommendations on how to maintain the MTJDA in the long run. The findings should contribute to existing and ongoing research on petroleum or natural resource exploration and utilisation for the Joint Development Area.

## LITERATURE REVIEW

This section examines the joint development sector using comparative analysis from earlier studies and highlights the problems and difficulties for extractive industries of non-living ocean resources, particularly near the contested maritime boundary. According to Qi & Xue, (2020), boundary disputes in the South China Sea have long posed a threat to East and Southeast Asia's peace and security. Provisional arrangements to develop resources in the disputed area have become the preferred and most effective solution in the absence of agreed-upon boundaries. As a result, various countries have collaborated on joint development in the form of ad hoc arrangements with the goal of achieving positive outcomes for all parties involved. Furthermore, according to (Schofield 2007). The Gulf of Thailand is characterised by overlapping claims to maritime jurisdiction. These competing claims are the result of the Gulf's relatively small dimensions and complex coastal geography, combined with the coastal states' maximalist claims. Furthermore, the legal foundation and political will of the parties are critical in encouraging success in cooperative development agreements. In terms of economic issues, collaborative development ensures a compromise of "no gain, no loss,"

because the countries want to benefit from the disputed territory. When resources are fully utilised, delimitation does not appear to be a tough challenge to address. Malaysia and Thailand, both ASEAN members, have cordial diplomatic relations and strong bilateral cooperation in areas such as trade and investment, security, education and vocational training, youth and sports, tourism, and connectivity and socioeconomic developments in border areas. The benefits of the MTJDA are directly tied to energy supply security, reduced reliance on imported energy, and direct government revenue from contractors. This is reflected in royalties, petroleum revenues, and the indirect strengthening of Malaysia-Thailand links in the energy and other sectors. It helps the growth of exploration and development businesses and businesses that work with them, as well as the simulation of the economy (Valencia 1985).

According to the findings of early studies, the optimal agreement and manner of cooperation are a joint development agreement and international unitization governed by a joint authority used by several countries. The shared production of transboundary resources in marine zones is one of the most recent key breakthroughs in global practise as well as in the law of the sea. (Cherepovitsyn et al. 2016)

## POLITICAL SYSTEMS IN MALAYSIA AND THAILAND

Malaysian politics has remained reasonably steady over the last few decades. Perikatan has been ruled by Perikatan's coalition parties since gaining independence from Britain in 1957. However, in the most recent general election in Malaysian history, it lost its majority in Parliament. Tun Mahathir Mohamad, the former Prime Minister, has returned to power as the leader of the Pakatan Harapan coalition. At the age of 92, he became the world's oldest head of state. Malaysia is a constitutional monarchy governed by a multiparty federal parliament. Malaysia has 13 states with a reasonable level of federal decentralization. The rate of progress was high, but 2019 has been a year of setbacks and backsliding in the face of a cooling economy, resolute political enemies, and reinforced ethnic fault lines. The new administration, on the other hand, has had certain triumphs, including a smooth transition and the launch of a series of federal corruption investigations into past leaders. The Prime Minister is Malaysia's Head of Government, with executive duties that include law enforcement and conducting the country's everyday affairs. The Cabinet is nominated by the Prime Minister from among the members of Parliament, with the permission of the Yang Di Pertuan Agong (the King). Malaysia's

legislative power is split between the state and federal legislatures. Each state has its own administration, executive cabinet, and legislature to deal with topics that do not fall under the purview of the federal government. According to Freedom House (2019), Malaysia has a political freedom score of 4 out of 7, indicating that it is partially free.

Meanwhile, through the factors of invention and creativity, technology development is one of the mentioned features that has an impact on the national political system. Malaysia's political structure has stabilised, allowing for tremendous economic development and progress. Both the government and the elements of the political landscape play a role in the stability of a democratic structure. The influence of the national political system in developing Malaysia is strongly linked to the factors of social development and national governance. According to Kunal Sen and Matthew Tyce (2017), the climate of dualism accorded in Malaysia was the outcome of a strong, dominant party-political settlement that aimed to combine the need for political stability with the need for economic development. In the case of Thailand, however, the current scenario results in a transition to a competitive clientelist political settlement in the 1970s, as well as a means of assuring the military's and monarchy's support for the Thai political elites' expansion strategy. The dualistic trade environment benefited Malaysia and Thailand in the early stages of their economies since the export-oriented manufacturing sector expanded rapidly, resulting in strong growth and quick structural transformation. However, negative feedback loops have been seen in both countries since the early 1990s. Malaysia's political settlement has shifted from one dominated by a powerful party to one dominated by a vulnerable authoritarian regime. Thailand's competitive-clientelist political system has gotten worse over time, and in the 2000s, it gave way to a weak authoritarian system.

Thailand's political freedom score is 7 out of 7, indicating that it is not democratic. Thailand has a multi-party system, but since the military-led coup in 2014, conventional political parties have seen their influence in Parliament diminish. The military currently controls the Parliament. Thailand is ruled by a monarchy that is based on the rule of law. The monarchy is hereditary, and the King is the Head of State. He has traditionally had limited direct power, but he has acquired immense social respect and moral authority, which he has used to help settle political crises and maintain national stability on several occasions. In addition, the Prime Minister is the Head of Government and wields all executive authorities, including enforcing the law and overseeing day-to-day operations. Individuals outside of Parliament can serve as Prime

Minister under the new Constitution, which was ratified in April 2017. The King appoints the Cabinet on the Prime Minister's proposal. Thailand's 76 provinces are divided into districts, sub-districts, and villages, each of which is overseen by an appointed governor. The executive arm of government is directly or indirectly reliant on Parliament's support, which is frequently expressed in the form of a vote of confidence. Acts passed by Parliament cannot be vetoed by the government. However, according to assessments from the International Maritime Bureau (IMB), piracy and armed robbery against ships remain a serious concern in territorial and offshore waterways. While traditional areas of friction and worry continue, non-traditional security challenges have become more prominent in Malaysia and Thailand. Sea piracy and armed robbery against ships, particularly in the Strait of Malacca, illegal labour migration at sea, smuggling of tariff-violated goods and oils at sea, illicit drug trafficking, natural disasters, marine environmental concerns, and disputes over fishing rights are among the maritime security concerns. Thailand has stated that enhancing marine law enforcement capabilities and increasing military support to civil authorities in dealing with maritime security and natural catastrophes are both essential. Modalities for military-civilian collaboration in the face of non-traditional threats As part of this, Thailand is developing a maritime law on its own to upgrade the Thailand Maritime Enforcement Coordinating Center (Thai MECC) to a coast guard-like force. In this regard, Thailand could share knowledge and expertise, create capacity, and enhance collaboration efforts in the prevention and suppression of illicit maritime operations.

According to Looi (2013), identifying a structurally stable political system is dependent on several important factors. Manpower development, economic development and growth, governance, political culture, technology development, security environment, and social development are some of the specific variables. Furthermore, certain moderate variables, such as inflation control, leadership, invention and innovation, and citizen support, impact and balance the Malaysian political system. An external component termed inflation control and leadership, consisting of politicians and economists, controls and balances the link between the factors of economic development and growth and a stable political system.

## RESEARCH METHODOLOGY

This section describes how the study was carried out and fulfilled. There is an explanation of the research design,

data sources, data gathering technique, data collection procedure, data processing, and analysis. This methodology is based on the study objectives and to ensure the reliability of the data obtained, the methodology for this study is a comparative analysis and qualitative method. A qualitative method is essential for gathering the information required to meet the proposed research objectives. A qualitative method is the best way to gather the information required to meet the proposed research objectives (Jeevan et al. 2022). Secondary data was used to interpret research, which was supported by insights and opinions from decision-makers, industry participants, and government officials. Semi-structured questions are used consistently throughout the interview in this study, regardless of the depth. The structured interview has the advantage of producing data that is consistent, verifiable, and comparable. The data set for this study, which spans the years 1996 to 2020, was provided by the World Bank. Economic indices such as GDP growth, gas output, gas value, tax revenue, and political stability provided the data for this study. The data collection activity lasted about 4 months, from October 2020 to January 2021, in order to collect the necessary data and interview two experts for the qualitative technique. The respondents were chosen based on their maritime industry knowledge and experience. Some variables were recorded in this study, while others were defined to aid in analysis and interpretation. GDP growth, gas output, gas value, tax revenue, and political stability are among the variables considered in this report's comparative study. This is to determine the economic impact of the MTJDA on its long-term viability. However, due to the COVID-19 outbreak, the government has imposed restrictions on migration, and people are not permitted to work without a permit. This limits the analysis process as well as the researcher's difficult circumstances in gathering data and scheduling expert interviews. It takes time to collect data and input. The approaches for analysing the data in this paper will be critical analysis and examination of literatures related to the main idea, and it will provide a valid and significant contribution to this field of study. Variables identified through the literature review are listed below. A major methodological tool for answering research questions is a review of the literature for the current studies. Throughout the literature review, researchers frequently employ a diagram called as a conceptual framework to

illustrate the relationship between variables. A conceptual framework is a graphical or written depiction of the conceivable or anticipated relationships among variables (van der Waldt, 2020). A conceptual framework aids in determining the most appropriate method for testing the relationship between two variables. Thus, the presentation of variables in the conceptual framework should state the combination of variables and their relationship, based on previous research.

## COMPARATIVE ANALYSIS BETWEEN COUNTRIES

This study employs a comparative analysis to analyse the Malaysia-Thailand joint development region. This study's indicator is an economic concept that includes GDP growth, gas output, gas value, tax revenue, and a country's political stability. These are used to determine whether both countries' oil and gas industries have a significant impact on their economies.

### GDP GROWTH

GDP growth is one of the most commonly used indicators to track a country's economic strength. The calculation of a country's GDP growth takes several different economic factors into account, including consumption and investment. Figure 4 depicts the volatility of GDP growth in Malaysia and Thailand. In 2019, Malaysia's GDP growth increased by 4.3 percent, while Thailand's increased by 2.62 percent. This shows that Malaysia's GDP growth appears to be higher than Thailand's. Thailand's GDP growth in 2018 was 4.31 percent, while Malaysia's GDP growth was 4.77 percent, which was slightly higher than Thailand's. Thailand's economy is heavily reliant on tourism, which has been harmed by the COVID-19 pandemic, resulting in a lower GDP growth in 2019. GDP growth is possibly the most important economic statistic for both economists and investors because it measures the total dollar value of all products and services generated by an economy during a given period. It is frequently used to calculate the overall size of an economy.

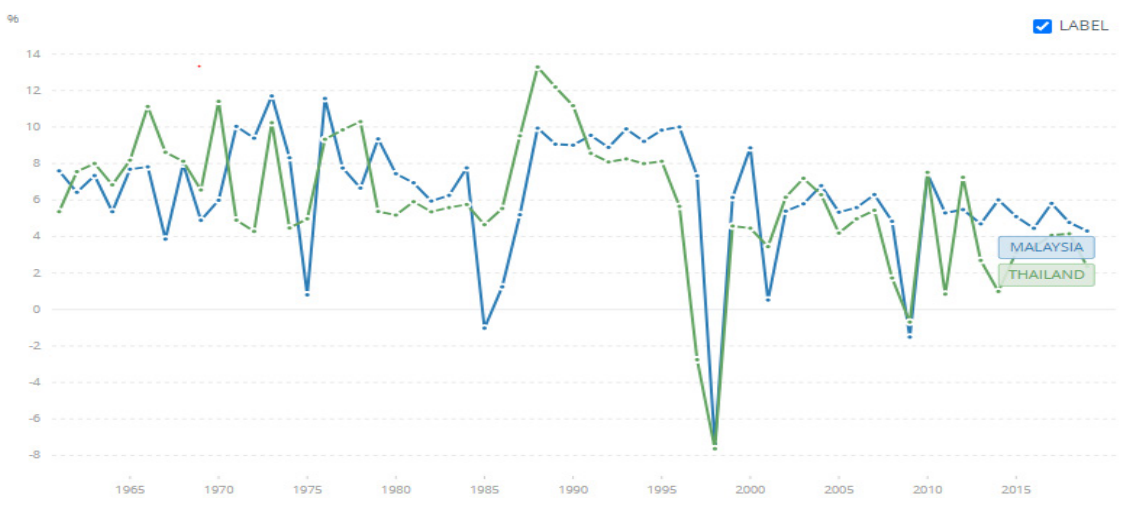


FIGURE 4. GDP growth in Malaysia and Thailand  
 Source: (World Bank 2020)

PRODUCTION OF GAS

In Malaysia, conventional oil and gas exploration has been going on for over 50 years, overseen and regulated by PETRONAS under the Petroleum Development Act 1974. Exploration and exploitation would then take place further and further into the deep sea, and beyond 200 nautical miles (nm), the normal limit of natural jurisdiction, where geological conditions are conducive for hydrocarbons to

occur, such as the presence of sufficiently thick sediments on the continental margins. So far, Malaysian oil and gas exploration and exploitation have primarily occurred within 200 nm, with only recently explored wells drilled beyond 200 nm but generally within Malaysia’s 1979 map boundaries (“Peta Baru 1979”). Drilling outside of Malaysia’s 200 nautical mile limit has already occurred recently (since 2016), but within Peta Baru.

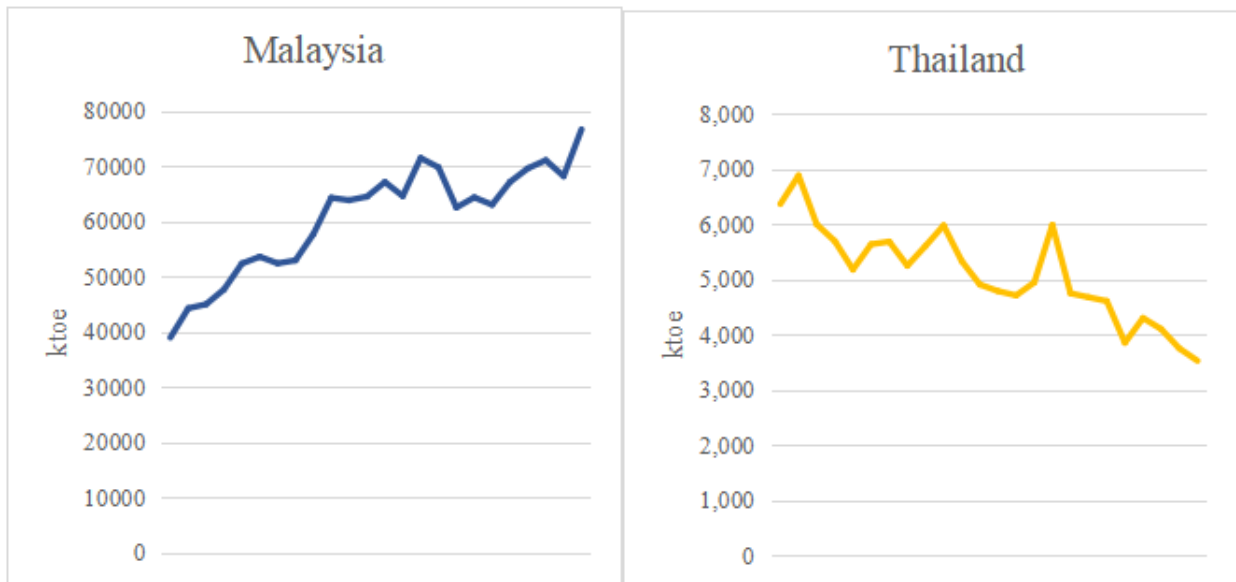


FIGURE 5. Production of gas in Malaysia and Thailand from 1996 to 2019  
 Source: (Malaysia Energy Commission, 2020)



Malaysian gas production increased from 1996 to 2019, as shown in the graph in Figure 5. From 1996 to 2019, Thailand's gas production has been declining. Malaysia's gas sector encompasses the entire value chain, from upstream production to end-consumers. Under a production sharing agreement with Petronas, Malaysia's national oil and gas company, upstream companies generate gas in offshore blocks. The shallow water oil and gas deposits off Peninsular Malaysia and Sarawak, which have been the focus of development activity since the 1960s, have served as the foundation for Malaysia's upstream sector. Much of the gas found in Peninsular Malaysia has been associated with oil discoveries as associated gas. This made it easier to develop low-cost gas reserves.

The downstream component of Malaysia's natural gas industry is primarily comprised of domestic consumption and exports. In Sarawak, the domestic gas market began in the early 1960s, with the installation of domestic and commercial piped gas. Peninsular Malaysia did the same in 1984. Malaysia's gas consumption is primarily driven by the electricity industry, followed by the industrial and non-energy sectors. Since Malaysia's independence in 1957, the energy sector has played an important role in the country's transition to an industrialised economy (Basri et al. 2021). Peninsular Malaysia consumes the vast majority of the country's gas. Meanwhile, a large portion of the natural gas produced offshore Sarawak is exported as liquefied natural gas (LNG). Malaysia's energy and economic policies are aligned with the development of gas infrastructure. Pragmatic policies and regulatory frameworks were put in place to ensure growth and sustainability. Thailand's gas business is controlled by the Petroleum Authority of Thailand (PTT) on the supply side and the Electricity Generating Authority of Thailand

(EGAT) on the demand side. Both are majority-owned by the government, with PTT currently being a publicly traded corporation with 49 percent of its equity shares traded on the stock exchange and the Ministry of Finance holding the remainder.

In Malaysia, PETRONAS has implemented a growth strategy to explore clean energy and adopt commercial renewable energy technologies that use solar and wind for power since 2013. This is in response to rising energy demand and resource depletion. Climate change concerns have accelerated the push for cleaner, more sustainable energy. Fossil fuels would continue to be the primary source of energy for the world. As a result, the establishment of the Malaysia Mineral Development Board, which focuses on the development of Malaysia's mineral industry, including offshore areas, is critical to the development of the extractive sector of non-living ocean resources, particularly in disputed maritime boundary areas.

#### VALUE OF GAS

The value of gas in Malaysia and Thailand has been compared because it affects supply and demand. When gas production increases, the value rises the most because it benefits the government in terms of income and tax revenue. As shown in the graph, Malaysian gas values are lower than those in Thailand (Figure 6). This is due to Thailand's lower oil prices compared to Malaysia. Oil price fluctuation has negatively impacted the oil and gas industry due to resources availability, transportation costs, and uncertainties (Menhat et al. 2019). As a result, the value of their oil and gas has increased.

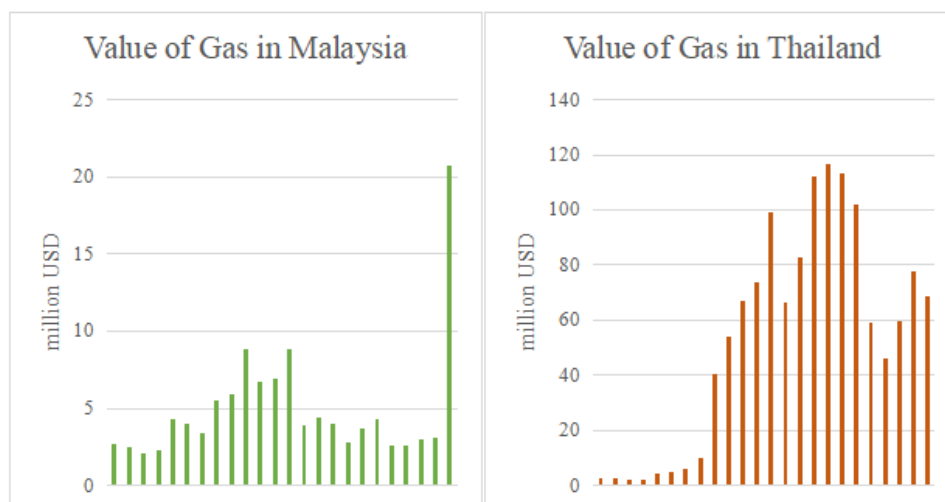


FIGURE 6. Value of gas in Malaysia and Thailand from 1996 to 2019  
Source: (Malaysia Energy Commission, 2020)

TAX REVENUE

Malaysia receives a 38% tax on petroleum earnings, while Thailand receives a 50% tax. As a result, the tax revenue in both countries was compared to the tax-to- GDP growth ratio. Figure 7 depicts the negative trend in Malaysian tax revenue as well as the irregular pattern in Thailand, but the

downward trend in 2019 is stronger than in previous years. It could be argued that as Malaysian gas production increased, so did consumption, resulting in an increase in gas value but a decrease in tax revenue. Thailand, on the other hand, shows a difference when gas production is lower and demand is higher, causing the value of gas to rise and tax revenue to rise in 2019.

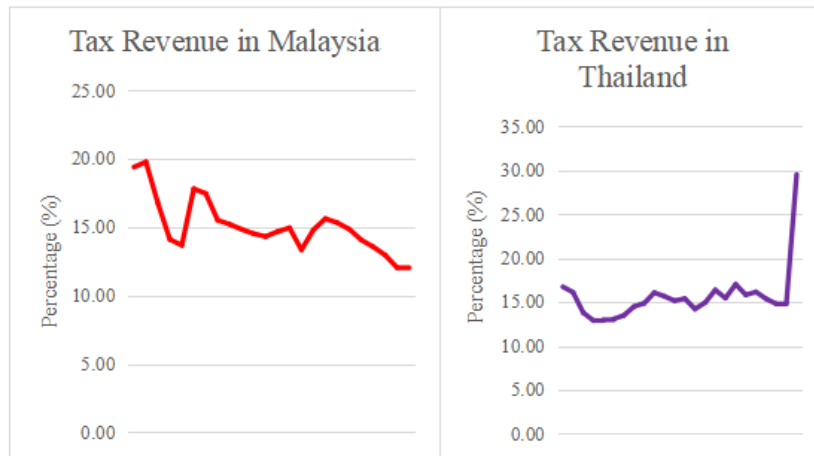


FIGURE 7. Tax revenue in Malaysia and Thailand from 1996 to 2019  
 Source: The World Bank Data

POLITICAL STABILITY

Figure 8 depicts Malaysian and Thai political stability from 1996 to 2019. It depicts the political situation in both countries over a 23-year period. Malaysian politics appear to be more stable than Thai politics. Thailand’s political situation remained stable for four years in the early 1990s, but the political index then fell to a negative level. Thailand has a less stable political situation than Malaysia. Thailand

ranks 155<sup>th</sup> in the world in terms of political freedom, while Malaysia ranks 83<sup>rd</sup>. In general, the current situation favours both countries’ efforts to strengthen their alliances. Malaysia’s economy benefits from vast natural resources like oil and natural gas, which its neighbours do not have. However, if Malaysia is to become a high-income economy, it must open its services sector and improve the business environment for foreign firms.

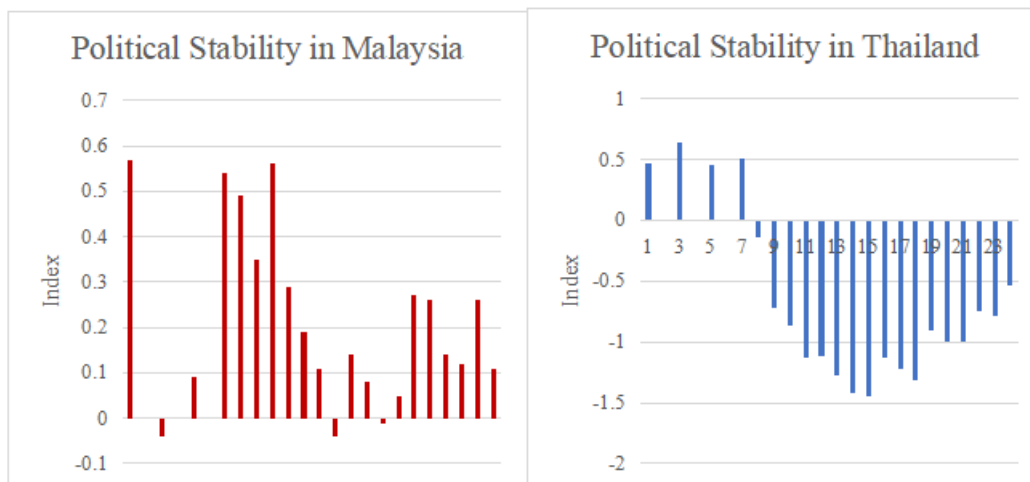


FIGURE 8: Political stability in Malaysia and Thailand from 1996 to 2019  
 Source: (Statista 2022)

Thailand has been mired in a protracted political crisis, with no clear indication of when things will return to normal. The increase in violence in southern Thailand will have an impact on Bangkok politics as well as Thailand’s relations with Malaysia. In order for the region to be peaceful and stable, both countries must be in command of a variety of aspects of their relationship.

RESULTS AND DISCUSSION

This paper summarises the qualitative findings of an interview with an MTJDA corporate representative. The goal of this research was to gather feedback and insight into the MTJDA’s operational, political, and economic perspectives. Table 1 depicts the demographic information of the participant.

TABLE 1. Demographic profile of participants

Respondent	Position	Gender	Business Operating Location	Type of business
A1	Operations Officer	Male	Kemaman, Terengganu	Supply base
B2	Academician	Male	UMT, Adjunct Professor	Maritime Industry
C3	Senior Researcher	Male	Kuala Lumpur	Oil & Gas
D4	Officer	Male	Kemaman	Authority
E5	Manager	Male	Tok Bali	Supply Base

For this paper, two people from a supply base firm, one from the oil and gas sector, and one from academia were interviewed. They were chosen for their background in both the maritime and land-based industries. Respondents were contacted via email and requested for their views on the JDA.

In the report, three main factors as highlighted mainly focuses are on risk, political and economic view.

THEME 1: RISK FACTOR

The risk factor was emphasised to ensure that no difficulties arise that demand action on the part of the governments involved. This should be considered, considering it included two massive national oil firms, Malaysia’s Petronas and Thailand’s PTT.

A1 made the following comments:

*“We faced no risk at all.”*

*“Everything goes smoothly and professionally; we just follow the Agreement”*

B2 mentions:

*“There are more pros than cons for Malaysia to continue the JDA with Thailand”*

C3 added:

*“The JDA needs to be looked at in totality and not just from an oil and gas perspective as it is also intended to address overlapping claims between Malaysia and Thailand in the Gulf of Thailand”*

D4 response:

*“The operations in terms of supplying to the JDA must be supervised by authorities, and the client, which is the offshore companies, must agree.”*

*In other words, they follow the rules and regulations of the area in order to maintain a positive reputation, as specified in the Agreement. To resolve overlapping claims, the JDA must be viewed from all perspectives.*

THEME 2: POLITICAL PERCEPTION

B2 made the following statement:

*“The success of the JDA, agreed upon by KL and Bangkok in 1979, stands testimony to this close bond and has always been made as a glowing representation of the cordial relations and mutual trust between them.”*

*“By maintaining the JDA, Malaysia and Thailand will send a very positive signal to other ASEAN members to resolve disputes amicably and set aside differences by cooperating in areas of mutual interest and benefits instead of taking a hardened, immovable and even belligerent position.”*

*“The MTJA is among the world’s first such state-backed cooperative model which is looked upon by other countries as a successful platform for bilateral cooperation.”*

According to the interviewee, the agreement’s success since 1979 will serve as a prime motivator for politicians in both countries to believe that despite Thailand’s turbulent political history over the last three decades and Malaysia’s weakening federal government over the last two decades, the success of the MTJDA operations will not be negatively affected. In short, business as usual continues, and both countries profit financially from MTJDA’s gas production.

C3 added:

*“As such it is not just a question of continuing or not continuing with the JDA but also the appetite and policies of both countries with regard to the boundary dispute resolution. Also check the status of the other ‘JDAs’ that we have with Vietnam and Brunei and how these are progressing or not”*

Despite the fact that both countries prosper and benefit from the JDA, both countries’ policies should be reviewed to guarantee that the JDA’s progress is beneficial and successful.

### THEME 3: ECONOMIC PERCEPTION

The JDA is the solution for both countries to share the disputed area. Profit, production, and risk are all factored into the distribution. In terms of benefits and costs, this will increase both countries’ economic potential.

B2 made the following statement:

*“Exploration & Production projects are costly and technically challenging, hence by carrying them out together along with their Production Sharing Contractors (PSC), both PETRONAS and PTT can share resources (including financing, assets and human capital) while sharing equally the economic benefits of the riches in the JDA. This is especially relevant amid the challenging economic times triggered by the Covid-19 pandemic which the world is facing.”*

According to the statement, JDA has a greater advantage in terms of increasing the oil and gas industry’s efficiency. This will generate revenue and employment for local residents in both countries, as it is feasible to develop and grow the exploration of a particular region or state.

B2 also made the following statement:

*“JDA presents a symbol of ASEAN unity”*

C3 response:

*“Look at the status of the hydrocarbon reserve in the area in your study to assess the economic and financial viability of the agreement”*

Malaysia is Thailand’s major trading partner in ASEAN and the fourth largest in the world. Malaysia and Thailand enjoy amicable diplomatic relations and have developed strong bilateral relationship in areas such as commerce and investment, security, education and training, youth and sport, tourism, and connectivity and socioeconomic growth.

E5 response:

*“The service was required by a new company that had recently arrived. As a result, we see this as an opportunity to assist offshore companies in the North Malay Basin.”*

It indicates that the majority of MTJDA servicing and supply is handled by Malaysia’s supply base. That is, we must consider both the cost of providing the service and the return on the gas produced and divide the profit and return between the two countries. The effectiveness of a cooperative development agreement signed on February 22, 1979, by Malaysia and Thailand. MTJDA was a successful company model those other countries, particularly those in the ASEAN region, could emulate as a solution to the disputed area. The JDA appears to have been reached as a result of the parties’ strong bond. Strategic motivations include achieving the goal of becoming a major maritime power and actively contributing to the peace and development of the region. The way forward for Malaysia’s JDA with Thailand, which includes both maintaining relationships and expanding the agreement, as the findings show that this partnership benefits both countries. According to the findings, extending the MTJDA Agreement past its current expiration date of 2028 is a good idea. Because both countries’ economies will be more reliant on the energy industry, both countries must take this step to facilitate negotiations to extend the agreement. Following a successful demonstration of good operational coordination between the executives and engineers representing the two countries under MTJDA’s jurisdiction, it is expected that these political issues in both countries will not be a barrier to MTJDA’s activities’ sustainability.

The vast majority of South China Sea claimants have entered into at least one joint oil and gas exploration agreement. The goal is to keep economic growth going and disputed territory out of indefinite limbo, while also strengthening government relationships. Joint development could provide much-needed revenue as well as hydrocarbons

to the South China Sea's rapidly developing nations. With the exception of national champions, the majority of oil companies are unwilling to risk large capital investments in geological surveys and drilling in contested areas in the absence of a deal. JDA may also strengthen ties and reduce the risk of war by ensuring that all countries involved are committed to peaceful development. The majority of JDAs, on the other hand, are signed after the parties' relations have already begun to improve. The MTJDA's fictitious border line between Malaysia and Thailand remains unresolved, threatening both countries with a trip to the International Court of Justice (ICJ).

### CONCLUSIONS AND POLICY IMPLICATIONS

In conclusion, the study achieved its goal of portraying issues and challenges from both countries' political and economic perspectives on gas deposits and marine regions. The JDA is defined as Malaysia and Thailand working together to explore and exploit natural gas resources that cross maritime boundaries or overlap with other claims. According to the study, JDA stand to benefit the oil and gas industry and help to boost global economic growth. Malaysia and Thailand have also come to an agreement to collaborate in areas such as trade and investment. Both countries have prioritised economic growth along their respective borders. The emphasis is on strengthening bilateral diplomatic relations. It is presumed that if both countries can cooperate amicably under the current JDA, the matter of maritime delimitation between them will be solved easily once the area is no longer economically viable for oil and mineral exploration and production. Democratically, all parties must have the political will to act independently that may encounter internal opposition. The current arrangements are extremely beneficial to both countries in terms of strengthening their partnership. As a recommendation, Malaysia and Thailand should keep the agreement in place.

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### DECLARATION OF COMPETING INTEREST

None

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