



Law and Humanities Quarterly Reviews

Riansyah, R. B. A., & Juned, M. (2024). Analyzing Arabia and Japan's Energy Security Activities within Saudi-Japan 2030 vision. *Law and Humanities Quarterly Reviews*, 3(1), 119-128.

ISSN 2827-9735

DOI: 10.31014/aior.1996.03.01.108

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

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Analyzing Arabia and Japan's Energy Security Activities within Saudi-Japan 2030 vision

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Abstract

Bilateral cooperation between Saudi Arabia and Japan takes various forms. As an illustration, the two countries have demonstrated their long-term commitment to working together in multiple fields, which ultimately sparked the Saudi-Japan Vision 2030. In this context, collaboration in the energy security sector is essential, especially with Saudi Arabia, which wishes to switch from fossil to renewable energy. This study will review further the implementation of Saudi Arabia-Japan bilateral cooperation through Saudi-Japan Vision 2030 in energy security. Next, the research will explore the various projects, activities, and types of collaboration that have been undertaken between the two countries under the vision they share.

Keywords: Saudi-Japan Vision 2030, Energy Security, Bilateral Cooperation

1. Introduction

The Kingdom of Saudi Arabia (KSA) is the largest country in the Middle East Asia region, with only around 1% of productive land. Arid deserts dominate other areas of KSA. Due to the desert conditions, KSA has an uneven population distribution. Most of the KSA population is gathered in urban areas and centers of economic growth, experiencing high urbanization rates. Government programs, such as infrastructure development and job creation in urban areas such as Makkah, Riyadh, and the east, have encouraged significant economic growth. The KSA area in the middle of the Arabian Peninsula has a strategic position with sufficient air, sea, and land access. The KSA area is also squeezed by the two busiest shipping lanes in the world, namely the Red Sea for the Suez Canal and the Persian Sea.

The KSA financial system has changed since the discovery of oil in the Middle East region, which advanced Saudi Arabia as a world oil producer while supporting Western countries. In 2016, KSA became the world's most prominent supporter and the ruler of oil production in the Middle East region. This oil production resulted in significant economic growth and provided huge profits for the country. Therefore, KSA is currently known as a rich country thanks to the discovery of oil (Kartini & Ghafur, 2019).

Recognized as a country with an absolute monarchy system of government led directly by the King and royal family, the character of the KSA government tends towards an oligarchic form. This can be seen from the composition of the cabinet in the government, which is identical to that of the royal family. As a result, all KSA policy authority rested with the monarchy. Therefore, with the emergence of various decisions, the KSA community can only accept what has been taken by the government. This system is closely related to the culture of the KSA community, which prefers to be led by respected people. Because the state's status is passed down from one family, the royal family has special powers, allowing them to control all sectors of the KSA state. In this context, KSA can realize their dreams according to their wishes. However, the impact is to give the impression that the KSA community does not have the freedom to innovate according to their wishes, and they are expected to comply with the policies set by the government.

In the history of KSA, in the 1970s, policy leaders had attempted to reduce dependence on petroleum and make it a significant contributor to Gross Domestic Product (GDP). The strategy implemented by Arab governments did not meet expectations, as oil remained the main commodity, contributing around 73% of state revenues. Even though world oil prices experienced fluctuations, the KSA Government could not eliminate its dependence on oil. Ultimately, King Salman Bin Abdulaziz showed courage by planning an energy diversification program directly supported by Crown Prince Mohammed Bin Salman (MBS). This program aims to reduce KSA's economic dependence on the oil sector and create alternative sources of income to increase the country's financial stability (Roji, 2017).

On April 25, 2016, Vision Saudi 2030 was launched, Saudi Arabia's effort to reduce its dependence on the oil sector, diversify the economy, and expand the public sector, including tourism, education, infrastructure, health, and recreation. KSA, one of the conservative countries, views Vision 2030 as a solution to overcome its economic challenges and reduce its dependence on oil. As the initiator of reform, the Crown Prince of Saudi Arabia initiated a change from the country's image, which was initially identified as conservative, to more moderate. With Vision Saudi 2030, Crown Prince Mohammed Bin Salman (MBS) believes and promises that this will transform Saudi Arabia into a more open and modern country. This program is expected to open the door to economic problems and form a new direction for the government to reduce dependence on oil resources (Nugraha, 2018).

In this case, Saudi Arabia (KSA) has solid cooperative relations, one of which is with Japan. Japan is an essential investor in Saudi Arabia and often develops diplomatic ties through trade, product import and export, and technology cooperation. In contrast, Saudi Arabia has been Japan's most prominent oil supporter since 1955. Japan first imported oil from the Middle East in 1921, mainly from Iran. After World War II, Japan's oil demand increased to support postwar reconstruction and economic growth. Although Japan experienced failure in its efforts in Saudi Arabia and Iraq in the 1930s due to limited development funds and technical capacity, Japan's efforts to secure crude oil were successful in 1957. That year, the Saudi Arabian Oil Company obtained the Khafji field concession in the neutral zone. Despite this, most of Japan's oil is still imported through large Western companies controlling vast resources through concession agreements. A paradigm shift occurred in 1973 when the Organization of the Arab Petroleum Exporting Countries (OAPEC) imposed an oil embargo following the fourth Arab-Israeli War. Japan failed to be categorized as an Arab-friendly country and was notified of reduced exports. The oil crisis accelerated inflation, prompting the Japanese government to introduce a legal framework to prevent hoarding and arbitrary price increases. These events prompted a severe rethink of Japan's energy security and relations with the Middle East. In response to these challenges, in 1974, Japan established the Japan Institute for Middle Eastern Economics (JIME), which later became the predecessor of the JIME Center-IEEJ. This step was taken as a new initiative to understand the geopolitics of the Middle East and strengthen ties between Japan and the region (Yoshioka, 2018).

In energy security, Japan has secured national oil reserves for over 100 days, which did not exist in 1973. Energy-saving measures have also become standard practice in Japanese society. The Japanese government is increasing the use of nuclear energy and natural gas to diversify primary energy supplies. As a result, the share of oil among primary energy sources decreased significantly from 75.5% in 1973 to 41.1% in 2015. Despite the decline, dependence on oil from the Middle East remains high, with more than 80% of Japan's oil supplies

originating in the region in 2015. Since 1975, Saudi Arabia, the UAE, Kuwait, and Qatar have been Japan's most significant oil exporters.

Meanwhile, the UAE, Qatar, and Oman provide a quarter of Japan's natural gas supplies. In 2011, Saudi Arabia doubled its gas exports to Japan following the suspension of nuclear power operations caused by the Great East Japan Earthquake. Saudi Arabia is the third gas provider for Japan after Australia and Malaysia. The Ministry of Economy, Trade and Industry (METI) projects that oil and natural gas will still account for about half of Japan's primary energy in 2030, making relations with Saudi Arabia crucial for Japan's energy security. Apart from the energy realm, ties between Japan and Saudi Arabia have developed to involve exporting cars and machinery and infrastructure development by Japanese companies. The Japan International Cooperation Agency (JICA) was also engaged in reconstruction projects in Iraq in 2003. Japan's active political and economic involvement with Saudi Arabia aims to achieve peace and stability in both countries, primarily focusing on economic and human development (Yoshioka, 2018).

Since the beginning, the two countries have achieved benefits. Until now, they have maintained cooperative solid relations and expanded bilateral relations in various aspects, including cultural understanding between the two countries. In this context, Japan and Saudi Arabia realize the great benefits of collaborating to achieve their goals. To strengthen this cooperation, the Crown Prince of Saudi Arabia, Mohammed Bin Salman, and the Prime Minister of Japan, Shinzo Abe, formed the "Saudi Japan Vision 2030 (SJV 2030)" group to symbolize the partnership between these countries in the modern era. Implementation of Saudi Japan Vision 2030 began in the first meeting in Riyadh on October 9, 2016, involving five ministries, including the Saudi Arabian Ministry of Economy and Planning (MEP), Ministry of Trade and Investment (MCI), Ministry of Energy, Industry and Mineral Resources (MEIM), Ministry of Economy, Trade and Industry of Japan (METI), and Ministry of Foreign Affairs (MOFA). The meeting discussed cooperation opportunities allocated into five Sub-Groups (SG1-5) based on areas of cooperation, with the addition of one Sub-Group (SG0) to discuss potential new plans for collaboration in other fields. This reflects the commitment of both countries to maintain and expand mutually beneficial cooperation in various sectors (Ministry of Foreign Affairs of Japan, 2017).

2. Method

The subject of this research is Saudi Vision 2030, and the object of this research is KAS and Japan's cooperation in energy security. In this research, the author chose to use a qualitative method, which is an approach to exploring and understanding the meaning of individuals and groups related to social problems. Meanwhile, according to Bryman (2016), qualitative research is a research strategy that emphasizes words rather than quantification in data collection and analysis. Where the approach taken places more emphasis on inductivity to connect theory and research. This qualitative research must carry out the norms of the natural scientific model and positivism in its preference for interpreting the social world individually. This research embodies the view of social reality as a constant. Apart from that, this research uses descriptive analysis, which can be understood as research that takes data in detail and clearly as it is in the field. This understanding is in line with the opinion of Leedy & Ormrod (2015), who explain that descriptive research is a type of research that describes new or rarely known phenomena and involves collecting the characteristics of these phenomena without changing the current situation.

To link the explanation above, the use of qualitative methods with this type of descriptive research was carried out to provide an overview and explore the essence of the meaning of KAS-Japan cooperation in the field of energy security and the policies carried out by the Saudi Arabian government regarding cooperation with Japan which are considered to have an impact. This is positive for the country's economy, which depends not only on oil. Using this method, the author will describe bilateral cooperation activities to realize Saudi Vision 2030.

2.1 Concept

In this research, the author will use the cooperation theory approach of Robert Axelrod and Robert O. Keohane to explain matters related to the implementation of cooperation between Saudi Arabia and Japan in the Saudi-

Japan Vision 2030 in the Energy sector. Using this cooperation theory, the author aims to explain three-dimensional situations allowing Saudi Arabia and Japan to collaborate on this topic.

Robert O. Keohane and Robert Axelrod explain three-dimensional situations that allow countries to collaborate, namely mutuality of interest, the number of actors, and the shadow of the future. Shared interests and goals significantly influence the forming of cooperative relationships because collaboration can run efficiently and effectively and produce satisfactory output for both parties.

Next is the number of actors or parties involved in a collaborative relationship. In this case, the state must consider the number of parties involved to avoid defectors and free riders in the cooperation relationship. In carrying out a cooperative relationship, an effective strategy is needed. The strategy here is reciprocity. According to Axelrod, reciprocity will be effective if players can identify defectors, focus retaliation on defectors, and have sufficient long-run incentives to punish defectors.

Countries involved in cooperation must know whether there are parties in it that have the possibility of hindering collaboration, providing retaliation and sanctions against the country, which is the obstacle. As in the case of Indonesia's relationship with the Middle East, it remains essential for radical movements, both for ideological support and financial funding. The shared Islamic identity of both nations underscores cooperation between Saudi Arabia and Indonesia. However, there is a warning that terrorism should not be associated with religion, particularly Islam. Indonesia has garnered global attention due to brutal terrorist attacks and the presence of terrorist networks related to Al-Qaeda. The country is also considered one of the largest suppliers of Islamic State fighters in the world. This indicates the presence of a radical Muslim community that believes Islam should be the sole guidance in life, even adopting extreme measures to reform existing conditions (Juned & Saripudin, 2017).

Finally, the shadow of the future is about whether the cooperation carried out can produce good protection in the future or not. This is also often referred to as concern for the future. A country will tend to collaborate if the results of the cooperation provide long-term benefits. Four factors make Shadow of the Future effective in building cooperation: long-time horizons, Regularity of stakes, reliability of information about the other actions, and quick feedback about changes in the different actions (Axelrod & Keohane, 1985).

3. Result and Discussion

Relations between Saudi Arabia and Japan existed before World War II, marked by a pilgrimage to Mecca carried out by Muslim Kotaro Yamaoka with a Mongolian group in 1909. Official contacts between Saudi Arabia and Japan began with a visit to Japan by a Saudi Arabian envoy. For England, Hafiz Wahab to attend the opening of a mosque in 1938 in Yoyogi, Tokyo. On the other hand, Japan returned to Saudi Arabia in 1939, represented by the Japanese envoy to Egypt, Yokoyama, and met with King Ibn Saud. After World War II, the first Japanese economic delegation was sent to Saudi Arabia in 1953, and the official establishment of diplomatic relations was carried out in the following years, precisely in 1955. The Saudi Arabian embassy was officially opened in 1958 in Tokyo, while Japan began opening its embassy offices in 1960 in Jeddah before being moved to Riyadh in 1984 (Ministry of Foreign Affairs of Japan, 2019).

One of the main points in the bilateral relationship was the granting of oil field concessions by Saudi Arabia to the Japanese company, Arabian Oil Co., and the subsequent successful oil extraction. The concession agreement was signed in December 1957, and oil extraction trials proved successful in January 1960. The agreement then ended in February 2000. However, relations between the two countries that have existed since 1955 continue to show positive and smooth results, which are marked by various visits from both Japan and Saudi Arabia as well as various Cooperation agreements such as the Economic and Technical Cooperation Agreement in 1975, the Air Services Agreement in 2009, the Convention on the Avoidance of Double Taxation and the Prevention of Tax Avoidance about Taxes on Income in 2011, and the Investment Agreement in 2017 or the Saudi Japan Vision 2030 program. From a general economic perspective, the author sees that the existence of the Saudi-Japan

Vision 2023 program is profitable and worth considering, considering that Japan is a potential trading partner for Saudi Arabia and vice versa.

Data shows that over the last four years, Japan has become a very potential and profitable market for Saudi Arabia in exporting its products. For at least four consecutive years, Saudi Arabia's export value has been in a trade surplus with Japan; for example, in 2021, Saudi Arabia will gain a trade balance surplus of USD 21,455,054 with Japan.

Apart from that, based on data collected through ITC Trademap, Saudi Arabia's exports to Japan are currently dominated by crude oil exports, which will reach 52 million tonnes per year in 2022 and have increased from the 2021 period, which reached 48 million tonnes. Meanwhile, Japan's exports to Saudi Arabia are dominated by vehicles and accessories, amounting to 3.5 million tons in 2022 and increasing from the period in 2021, which reached 2.9 million tons. Nevertheless, there has been an increase in exports of other commodities such as aluminum, organic chemicals, bronze, plastic, and gems (International Trade Centre, 2022).

The Saudi-Japan Vision 2030 program has been launched at least since 2016 between Saudi Arabia's Crown Prince Prince Muhammad bin Salman and Japanese Prime Minister Shinzo Abe to increase cooperation based on mutual benefit and not limited to the petroleum sector. Saudi Arabia also emphasizes its goal to become the center of Islam and the heart of Arabia through investments to create a more diversified and sustainable economy. It also utilizes Saudi Arabia's strategic geographic location to drive international trade connecting three continents.

There are at least three pillars in the Saudi-Japan Vision 2030 program: Diversity, achieving sustainable growth by establishing a broad industry, increasing economic competitiveness by utilizing technology and innovation, Soft Values through cultural revitalization, and social development by establishing a solid basis for cooperation. In the Saudi-Japan Vision 2030 program, nine themes will be the focus, namely, industrial competitiveness, energy, entertainment and media, health, infrastructure, agriculture and food security, MSMEs, culture, sports and education, investment and finance (Ministry of Foreign Affairs of Japan, 2017).

For example, a project currently underway is Petro Rabigh, a joint venture between Saudi Aramco and Sumitomo Chemical worth more than \$10 billion and is an investment by the Japanese company. Currently, the value of the partnership between the two companies has been increased by \$9 billion to \$19 billion to expand refineries and production. Additionally, there are plans to build a state-of-the-art conversion facility alongside the existing plant, which is expected to attract at least \$1 billion in investment from the private sector (The Japan Times, 2017).

3.1. Implementation of Saudi-Japan Vision 2030 through Multiple Projects

Through Saudi-Japan Vision 2030, the two countries are following up on various initiatives they have. With the existence of Saudi-Japan Vision 2030, the targets to be achieved also become more apparent. We must emphasize that Japan and KSA have made three crucial MoUs. The three MoUs are MoUs in the field of energy efficiency. The MoU is related to the MoU on Cooperation in the energy sector. KSA's further plans in the manufacturing sector will seek to localize the renewable energy and industrial equipment sectors (Yamada, 2017).

National Transformation Program (NTP), KSA, has set an electricity production target of 3.45 gigawatts or 4 percent of total power consumption in KSA. To achieve this target, Saudi Aramco - an oil refinery company owned by Saudi Arabia - agreed with Showa Shell to study solar module production in KSA. Showa Shell is a Japanese refinery company that is 15 percent owned by Saudi Aramco (Saudi Arabia, 2020). KSA has set a target of using wind and solar power plants of 9.5 gigawatts in other sectors by 2023. In addition, the Saudi government also aims to increase renewable energy production to 60 gigawatts, including 40 gigawatts from solar energy and 20 percent from wind energy and other sources by 2030. In 2019, twelve projects were pre-developed with a total capacity of up to 3.1 gigawatts (Zohbi & AlAmri, 2020).

All forms of goods and services related to energy production have been initiated by Saudi Aramco since 2015. This is proof of Saudi Arabia's seriousness in handling energy-related matters. Saudi Aramco itself plays a role in providing 70% of goods and services related to energy production. Furthermore, just as Saudi Aramco collaborates with Showa Shell, Saudi Aramco also collaborates with Sumitomo Corporation in producing tubular goods used in oil and gas fields (Saudi Arabia, 2020).

The interests between the two countries have been guaranteed through the existing Memorandum of Understanding. With the commitment demonstrated through the MoU, mutuality of interest has been realized. The number of actors involved is also quite clear from the data obtained by the author and based on the actors mentioned by the author. By knowing who the (domestic) actors are involved in a collaboration, it is hoped that clarity, accountability, and transparency will be created. With targets also determined, factors such as long-time horizons can be seen more clearly. A clear target means there is less dilemma between actors; therefore, cooperation will run more smoothly.

3.1.1. Initiative Manar

Furthermore, KSA and Japan announced establishing the Manar initiative for cooperation in clean energy. The Manar initiative aims to provide supply chain security and flexibility while realizing the goals of both countries in the field of clean energy and sustainable, innovative materials. This initiative will strengthen Saudi Arabia's ongoing efforts to become a hub for clean energy, mineral resources, and energy component supply chains (Asharq Al Awsat, 2023b).

One of the cores of the Manar initiative is the production of various environmentally friendly materials, and leading companies from Saudi Arabia and Japan are expected to participate and increase their cooperation. Leveraging their joint efforts, the two countries aim to develop components in the energy supply chain, including renewable energy components, thereby supporting the realization of energy projects under this initiative. This will then help the various actions explained in the previous paragraphs.

The initiative will include projects driving the transition to clean energy, focusing on hydrogen and ammonia technology, synthetic fuels, circular carbon economy, carbon recycling, direct air carbon (DAC) capture, and technologies related to essential minerals. To ensure the smooth running of this cooperation, experts from companies and governments between the two countries will be used to develop the market for clean energy and further strive to ensure more affordable prices. And once again, the author emphasizes increasing the flexibility of the energy supply chain (Al Arabiya, 2023).

The Manar initiative also connects the King Abdullah Petroleum Studies and Research Center (KAPSARC) — a research institute that specializes in economics, climate issues, and energy under the Government of Saudi Arabia — with the Institute of Energy Economics, Japan (IEEJ) — a research institute Japan is the same as KAPSARC — Of course, the two institutions exchange knowledge in terms of research and other applied sciences which are carried out through the implementation of shared activities such as joint workshops, international conferences, researcher exchanges, to activities related to joint evaluation of research activities and publications between both research institutions (Asharq Al Awsat, 2023a). The research also emphasizes research on hydrogen, ammonia, synthetic fuel (methane), energy storage technology, carbon recycling, and nuclear issues.

Under Manar's initiative, a sub-initiative called the Saudi-Japan Lighthouse Initiative was also created. As the name suggests, the initiative is designed to be a beacon of light for other countries that want to reduce their carbon emissions. Saudi Arabia's ambition can be seen through this initiative, where Saudi Arabia wants to pioneer the development of clean energy in the Arabian Peninsula (Saeed, 2023). Just like the Manar initiative, the Lighthouse Initiative also focuses on areas of cooperation related to hydrogen and ammonia, e-fuels, carbon recycling, circular carbon economy, Direct Air Capture, cooperation in the minerals sector and supply chain resilience, sustainable advanced materials and exchange of research and knowledge results. In the presentation of

the sixth Saudi-Japan Vision 2030 Joint Ministerial Meeting, it was also explained that Saudi Arabia plans to increase gas production capacity and LPG exports, which are needed for the Japanese economy. Saudi Arabia also plans to develop blue and green hydrogen as part of its agenda. Japan assisted in the execution of this project. Likewise, Minister Nishimura added that since the fifth ministerial meeting two years ago, there have been significant improvements in the energy sector. He emphasized that it was essential to eliminate Saudi Arabia's dependence on the petroleum sector. In October, JOGMEC and Aramco signed a Cooperation Agreement in hydrogen and ammonia to accelerate achieving a sustainable society (Arab News Japan, 2022).

Dr. Sultan bin Ahmed Al-Jasser, Minister of Energy from Saudi Arabia, stated that the Lighthouse Initiative will create business opportunities for both countries and accelerate clean energy technology development. What actors have been mentioned in this initiative, and in what sectors is the cooperation intended to be carried out? Some of the collaboration focuses mentioned above include research collaboration on hydrogen, ammonia, synthetic fuel (methane), energy storage technology, carbon recycling, and nuclear issues. By looking at examples of this research collaboration, both countries have specific goals regarding what they want to develop. Therefore, the author argues that the factors that enable two actors to work together are sufficient. These factors are the mutuality of interest, long-time horizons, and the reliability of quick feedback on each other's actions. This is because the constant feedback obtained by exchanging information and research results can measure the success of the cooperation between two countries. The author also emphasizes that if more factors are met, the shadow of the future and dilemmas that occur will also be reduced. As a result, cooperation between two countries can be considered as successful cooperation and has the possibility of being able to work together for a more extended period.

3.1.2. Hybrid Renewable Energy Supply Infrastructure

Since July 2019, the Saudi Electricity Company (SEC) and Japan's METI have been working together to introduce infrastructure in Saudi Arabia that can supply renewable energy stably and in the most suitable form through renewable energy, the Internet of Things. Companies from Japan supported by the New Energy and Industrial Technology Development Organization (NEDO) have conducted various surveys to demonstrate this project since August 2020. In this project, PV solar panels, an energy storage system, and an energy management system (EMS) will be packaged together in a hybrid system. METI aims to introduce this project "package" to a wind power plant site called Huraymila as a "Hybrid Renewable Energy Supply Infrastructure," which will be connected using network technology, including IoT.

The hybrid "package" that will be sent will use technology from Japan. The existence of this project package will be a historical milestone for Japanese companies wishing to do business in Saudi Arabia in the future. Apart from that, this project will undoubtedly contribute actively to the existing energy policy in Saudi Arabia, where the latest plans and other cutting-edge technologies will be introduced. It will contribute to implementing the Saudi-Japan Vision 2030 and help Saudi Arabia achieve the Saudi Vision 2030 (Ministry of Economy, 2020).

All cooperation carried out in various fields, whether through capacity building programs, seminars, workshops, information exchange, technology transfer, expert exchange, and research results exchange, has shown that the form of bilateral cooperation has certainly been adapted to the needs and capabilities of each actor. Furthermore, this bilateral cooperation is not only limited to government entities. As mentioned, many other non-governmental actors help, including research institutions between the two countries, academics, and the private sector.

3.1.3. Cooperation in National Grid Development

National Grid Saudi Arabia (NG) Saudi Arabia's national network and the Japanese government are collaborating in developing electricity network infrastructure. Some of the focus areas in this collaboration are as follows: 1) Development of standards and specifications; 2) Engineering and Design Optimization; 3) Asset Management by international standard ISO55000; 4) Training and capacity development for staff; 5) Localization of industry in Saudi Arabia; 6) Making a technology road map.

National Grid Saudi Arabia has been operating since January 2012. The electricity network and various existing infrastructure are wholly owned and managed by the Saudi Electricity Company. National Grid Saudi Arabia aims to plan, operate, and maintain the electricity grid transmission system in Saudi Arabia. Currently, this project has an active role in developing the energy sector in Saudi Arabia. It is also interesting to know that through this project, Saudi Arabia, through the various operations it has carried out and the investments it has made, wants to guarantee electricity interconnection in the Middle East. With a very strategic location, Saudi Arabia wants to ensure the affordability of electricity throughout the country and to other regions of the Middle East. This project also supports Saudi Arabia's efforts to reduce pollution levels and carbon emissions from power plants (Saudi Electricity Company, n.d.).

3.1.4. Joint Crude Oil Storage Project

Another ambitious project can be seen in the Joint Crude Oil Storage Project. This is a follow-up project from 2010 by Saudi Aramco and Okinawa CTS Corporation in the Japanese prefecture. Saudi Aramco uses This shared oil tank commercially as a base for their oil to distribute to nearby "markets" or countries. Seeing more benefits from this collaboration, in October 2019, this project was finally renewed. As one of the projects that we can see in concrete terms, this project can help Japan guarantee its energy security, especially amid the current geopolitical tensions. For Saudi Arabia, this project will provide faster, more accessible, and more efficient access to crude oil supplies to their East Asian buyers (Kumagai, 2019; Ministry of Economy, 2020). The supplies in the tank are ready to be marketed to Pacific Rim countries from closer locations. In exchange for providing storage space, Japan gets priority to purchase all the crude oil in the tanks in the event of an unexpected shortage.

Isshu Sugawara, former Minister of Economy, Trade, and Industry of Japan, said that Japan will continue to support Saudi Arabia in maintaining the stability of its crude oil supply. Through this project, Saudi Aramco leases around 1.30 million kiloliters or at least 8.18 million barrels of natural oil capacity in Okinawa. More specifically, Saudi Aramco rented the crude oil tank from JOGMEC (Japan Oil, Gas and Metals National Corporation) or the Japan Oil, Gas and Metals National Company. It is also known that this project has commercial objectives and aims to provide priority supplies for Japan should a crisis occur (Kumagai, 2019).

For Japan, storing oil domestically from strategic suppliers such as Saudi Arabia is critical, considering recent events in the Middle East. This storage is also a form of prevention if there is an attack on Saudi Arabia's oil storage facilities. It is typical for a country with rich energy resources to conduct energy diplomacy similar to this through a project. Saripudin et al., through their publication, also emphasize that energy-producing countries tend to focus on how they could expand their market globally (Saripudin et al., 2023).

Japan depends on imports for almost 90% of its crude oil needs. Crude oil imports from Saudi Arabia averaged 1.09 million barrels, accounting for around 35% of total oil imports from January to August 2019. The author reiterates that the storage located in Okinawa could be a source of reserve oil supplies for Japan if an incident were to happen; it is also possible that Japan would gain some advantage in gaining access to crude oil if Saudi Arabia wanted to withhold distribution of its crude oil to the international community.

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4. Conclusion

Saudi-Japan Vision 2030 begins with the common interests of the two countries, where, in short, Saudi Arabia feels that project development and political and economic cooperation with Japan is essential, as well as on the

Japanese side, which Japan also needs to increase their involvement among the Arab Gulf countries, one of which is Saudi Arabia.

Saudi Arabia is the world's leading crude oil supplier, making it a significant player in the energy sector. This has led to increased interest in discussing cooperation in this field. Energy security is also crucial for countries engaging in bilateral cooperation, especially in the energy sector.

The author has explained how it is implemented and elaborated on how this bilateral cooperation has been implemented in such a way through various activities to ensure energy security. If we discuss energy security, many processes must be considered; therefore, it is natural that the author has described several collaborations, projects, and training programs as a form of effort between two countries to develop their energy sector and achieve energy security. It is essential to know that regardless of existing implementation, various challenges and opportunities can be analyzed further by stakeholders and academics who will discuss similar topics.

Author Contributions: All authors contributed to this research.

Funding: Not applicable.

Conflict: The authors declare no conflict of interest.

Informed Consent Statement/Ethics Approval: Not applicable.

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