



**The Geopolitics of Japan's Energy Transition:
Case of the Middle East and Russia**

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Abstract

With the recent release of the IPCC Working Group report of 2021 alerting code red for humanity, the prominence of the future climate ambitions of nations has risen exponentially. One of the most significant contributors to global carbon emissions, the energy sector, will play a prominent role in achieving a net-zero emission target to control global warming. In this context, Japan being one of the top five global carbon emitters is set to be a crucial player on the international green stage.

While the economic and technological aspects of the Japanese energy transition are often discussed in detail, the role of geopolitics in this regard is often overlooked. As an island country with no energy interconnections such as those existing in Europe, Japan's energy choices are often determined by underlying geopolitical dynamics. This paper, therefore, attempts to bridge the existing research gap within Japanese energy policy literature by bringing to the forefront the role of bilateral relations of Japan with Russia and the Middle East in the evolution of Japanese energy policy and energy transitions. Furthermore, it traces the historicity of the impact of geopolitics on energy policy since the oil crisis and the transformation ushered by the Fukushima disaster of 2011. The energy transition process of Japan will hence be understood from the geopolitical perspective as well as the opportunities and challenges these bring for Japan.

Keywords: Energy Transition, Paris Agreement, energy geopolitics, fossil fuels, Ukraine crisis

Introduction

Energy today not only drives economies it also lies at the heart of sustainable development. However, the global scenario is defined by fuel shortages, skyrocketing energy prices, climate change, nuclear contamination, catastrophic oil spills and energy wars (Kamal, 2013). Moreover, the security question has always been intertwined with energy policies, as without a reliable and affordable energy supply, no industrial economy can function (Shiroyama et al., 2015). Hence, it is believed that every country's quest for energy security drives the geopolitics of energy (Sasakawa USA, 2018).

However, the pivotal role of energy is not a newly discovered phenomenon, but the perspective through which nations look at energy sources is in transition. The geopolitics of energy come into play in the relations between energy importing countries and energy-exporting countries, in competition between importing countries for adequate and secure energy sources, and they often affect other issues between importing countries (Sasakawa USA, 2018). This geopolitical interplay forms the background of policymaking and decision-making processes regarding energy across nations.

During the 1920s, Great Britain and France found oil in their Middle Eastern colonies, and since then, the importance of oil has risen exponentially over time. This was the beginning of the role of energy politics wherein a country would align its policies in order to secure and safeguard its energy interests. However, the political-economic aspect of energy dates back to the 1970s and 1980s, when scholars sought to answer why nations responded differently to the oil shocks (Cherp et al., 2017).

The 1973 oil crisis exemplified the immense dependence on oil for energy requirements and how any hindrance to its procurement could have extensive repercussions. This period thus showcased the realised prominence of energy resources in an increasingly industrialising world. Even to date, it is widely accepted that political instability in the Middle East could severely impact the oil supply, sending crude oil prices soaring and delivering a severe blow to economies in Asia (Toichi, 2003). The geopolitics of energy in Asia, specifically Japan, boils down to the quest of individual countries to ensure a reliable and affordable flow of imported energy into their economies under a range of conditions from peacetime through natural disasters through conflict (Sasakawa USA, 2018).

As a result, even foreign policy has emerged with a new dimension of Energy Diplomacy, which helps a country promote and safeguard its energy security through diplomatic means of coordination, collaboration and sometimes coercion. Also, embargoes, sanctions and military intervention have become tools for politicising energy and energy interests. Energy policy is thus profoundly affected by these and with recurring environmental and financial crises, continuing widespread poverty and inequality, and deepening concerns about climate change, the need for sound public policies has never been greater (Xun Wu, M. Ramesh, Michael Howlett, 2018).

There is a wide divergence in regard to the self-sufficiency ratio and energy security of nations across the globe. Some major players like the United States, China, and India use mostly domestic coal for electrical power generation, while Japan and Korea must import a variety of fuels to supply power plants (Sasakawa USA, 2018). This paper focuses on Japan and its quest to balance political perspectives of maintaining an alliance with the USA with its resource dependency and energy security with its major suppliers such as the Middle East and Russia.

It is believed that Japan's energy policy for over a century has sought to compensate for geographic and resource vulnerabilities while supporting economic growth. As a result, Japan's energy policy has centred on lowering risk, maintaining security, and safeguarding an uninterrupted supply. As seen in the figure below, the Middle East continues to be one of the major crude oil suppliers while Qatar, UAE and Oman also contribute to LNG supply; Russia is

among the top five countries supplying oil, coal and natural gas to Japan. Thus the two form crucial pillars of support for Japanese energy needs.

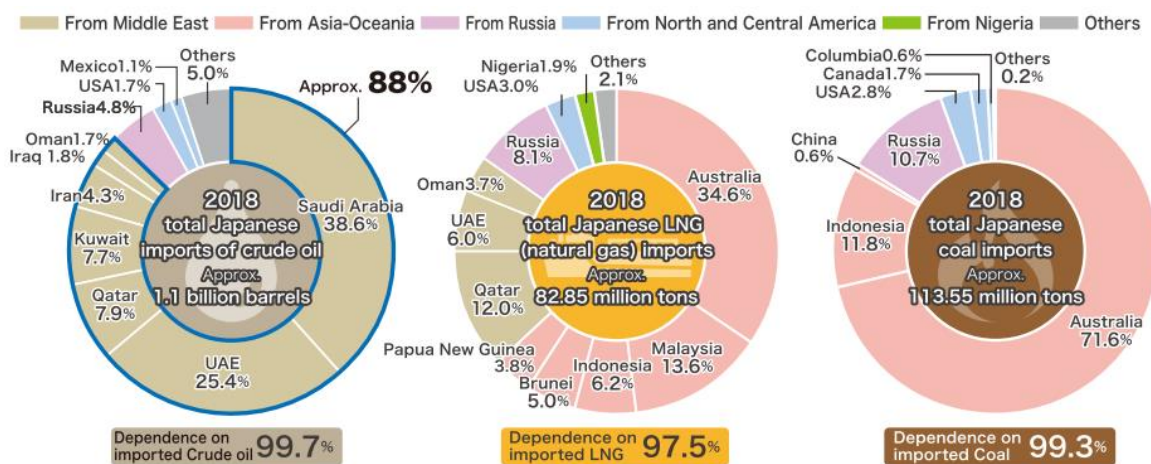


Figure: Sources of Japanese fossil fuel imports,
Source: ((ANRE), 2019)

Japan has, over time, encountered challenges of such size and scope that it was forced to change policy direction dramatically and seek a new base energy source (Sasakawa USA, 2018). Amidst heavy investments in and dependence on regions with high political risk, primarily the Middle East, accompanied by diminishing domestic energy production, Japan’s diversification of energy supplies becomes critical in an increasingly competitive global energy market. This strive for diversification, in turn, encourages energy cooperation with countries rich in LNG, oil, and coal resources (Gracheva, 2021). It is herein that we attempt to trace the underlying role of geopolitics and the implications it has had on Japan to steer its energy transition. We focus broadly on two significant events, the oil crises of the 1970s and the Fukushima Disaster of 2011, which forced Japan to restructure its energy policy.

The events mentioned above have directly or indirectly led to a shift in the Japanese energy policy; therefore, we assess these shifts and the role of geopolitics that urged such a transition. This paper's methodological approach involves a review of primary sources (public documents, speeches and press releases), as well as academic journals, books, policy papers and newspaper articles. Using a deductive approach, an analysis of energy policy documents has been conducted with a primary focus on bilateral relationships of Japan with major energy suppliers.

Setting the Stage: Historicity of Energy Geopolitics and Oil Crises

Historically energy resources have played a critical role, especially since the advent of the Industrial Revolution. It has even been contended that one of the prime reasons for colonisation was indeed to secure resources necessary for industrialisation, especially energy resources like coal which fueled the revolution. The energy colonialism scholarship has thus traditionally approached the study of energy from the perspective of resource extraction and resulting exploitation of the local population, environment, and labour involved (Basu, 2020).

Scholars like Dr Yoshida emphasise the US Navy's need for a coaling station which led to Commodore William Perry's expedition with the goal of "opening of Japan" (Sasakawa USA, 2018). While domestic coal remained Japan's primary energy source for industrialisation and economic growth until after World War II, by the early 1900s, Japan faced the energy challenge of an increased need for oil for air and naval power; a resource almost non-existent in Japan (Sasakawa USA, 2018).

Japan produced only seven per cent of the oil it consumed by the late 1930s, comprising about two million barrels of oil yearly from fields in Akita, Niigata, and Nutsu; with most of the remainder coming from the USA (80 per cent) and the Dutch East Indies (10 per cent) (Sasakawa USA, 2018). These formed the background to the steps Japan eventually took in nationalising its oil refining industry as well as the evolution of the relationship between Japan and the USA until WWII. However, in this paper, we limit our assessment from the post War period as it is then that Japan is considered to have entered the new modern age post-occupation.

During the mid-1950s, Japan faced its new energy challenge of finding a new cheap energy source to support rapid economic growth and fuel Japan's new, internationally competitive,

energy-intensive industries such as iron and steel (Sasakawa USA, 2018). By then, Japan had exhausted its small oil reserves, and the price of domestic coal had come to exceed that of imports due to advances in mining and falling shipping costs. This urged Japan to look into available and reliable international alternatives for energy imports.

With the onset of the first oil crisis in 1973-1974, oil became both far more expensive and far less reliable. As Japan was more dependent on oil than any other advanced economy at the time, it had to reinvent its energy policy and diversify its energy mix away from oil. The second oil crisis of 1979 emanating from the Iranian Revolution and furthered by the Iran-Iraq war also solidified Japan's decision to focus on energy diversification rapidly (prior to the revolution, Japan was importing close to 20 per cent of its oil from Iran).

The intertwining of geopolitics and energy can be seen vividly in the relationship of Japan with the Middle East. After being hit by the oil embargo, Tokyo abandoned its neutrality to side with the Palestinians in their conflict with Israel, a policy seen to be dictated directly by its immense need for Middle East oil (MEI, 2019). A step that has been termed "oil begging diplomacy" (Kimura, 1985, p. 28) emphasising the role of resource led diplomacy of Japan. Meanwhile, oil imports from the Middle East declined in price due to increasing standardisation and diffusion of technology and increased reliability due to the security afforded by the USA.

As a result, Japan lifted restrictions on oil use and expanded port facilities for its importation. It has been estimated that between 1951 and 1971, the share of imported and domestic coal as a primary energy source declined from over 50 per cent to 8 per cent, and by 1973, oil accounted for 80 per cent of total Japanese energy consumption (Sasakawa USA, 2018). Nonetheless, it has been noted that prior to the October War in 1973, Japanese policy toward the Middle East was governed solely by economic interests or interest to secure oil and did not touch upon political dimensions (Kimura, 1985).

It must be noted that even at the peak of the Iran hostage crisis in 1979-1980, Japan continued to buy Iranian oil on spot markets, an act which drew condemnation from Washington (MEI, 2019). The hostage crisis made visible the vulnerability of Japan relying heavily on Middle East oil and the dilemma of maintaining an independent policy governed solely by its interest

in the Middle East and its position as an ally of the United States (Kimura, 1985). Rather the Minister for Foreign Affairs Shintaro Abe took the initiative of visiting Iran and Iraq on 7-9 August 1983 in a serious effort to establish close contacts with the leaders of both the fighting parties to prevent further escalation of the conflict and create an environment to facilitate a peaceful solution of the problem (Katakura, 1992). The existence of smooth geopolitical relations in the middle east was seen as crucial by Japan to maintain its flow of oil supplies from the region.

Kimura (1985) notes that the Japanese reaction to the oil crisis only gave the Arab nations and Israel the impression that Japan had changed its posture only because of its desire to secure an oil supply. And by 1990, Japan relied on the Middle East for 70 per cent of its oil-based energy supply (Katakura, 1992), highlighting the continued dependence of Japan on the region.

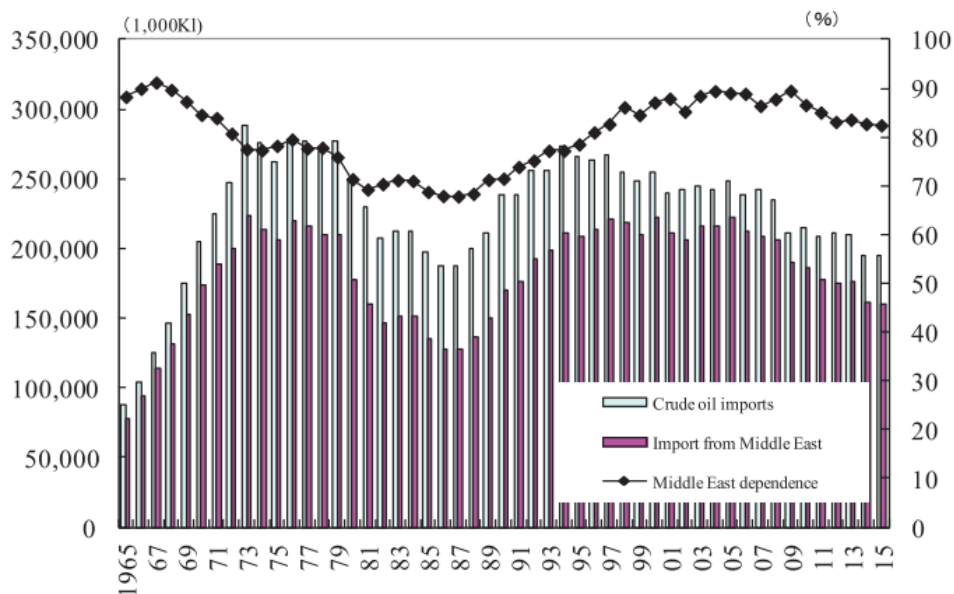


Figure: Trends in Japan's Dependence on Middle East Crude Oil,
Source: (Sasakawa USA, 2018, p. 39)

The following years saw a relative plunge in the Middle East dependence of Japan for crude oil as the nation began focusing on expanding nuclear energy production and consumption of liquefied natural gas (LNG). But by the time of the Gulf War of 1991, the economic growth of

Japan had led to increasing reliance on the region yet again, and despite the pressure from the USA, Japan's reaction was seen to be largely lukewarm (Hiroshi, 2011; MEI, 2019). Its Western allies were quick to point out that Japan, being most heavily dependent on Persian Gulf oil, should not be excused from sharing its due burden for guarding the safety of navigation (Katakura, 1992). Nevertheless, the fundamental interest of Japan was to secure a continued supply of oil from the Gulf countries and minimise any threat to the Japanese citizens and enterprises in Iran and Iraq (Kimura, 1985).

On the other hand, the first Soviet-Japanese energy project proposals surfaced in the early 1970s. They focused mainly on the joint development of Soviet energy resources in Western Siberia (for example, Yakutia Natural Gas and Tyumen Oil Development Projects) and the Soviet Far East (for example, Sakhalin Continental Shelf Oil and Gas Exploration Project); these largely failed to materialise. Svetlana Vasiliouk (2008) notes that although Japan was interested in expanding its energy collaboration with the USSR, as a USA military ally, it also had to consider, and often side with, the US stance on its foreign and economic policy vis-à-vis the Soviet Union.

These considerations, exacerbated by the unresolved Kurile Islands dispute, resulted in the shift of Tokyo's policy toward the politicisation of its trade and energy cooperation with Moscow, which by the early 1980s evolved into the so-called policy of "inseparability of politics and economics" (*seikei-fukabun*) (Vasiliouk, 2008). Furthermore, the US and Japan's political rapprochement with China in 1972 also complicated the bilateral relations between Japan and USSR.

By 1984, Japan was also buying 72 per cent of the world's LNG exports (Sasakawa USA, 2018). As the prominence of LNG grew, so did the need to diversify the supplier base of the resource. As a result, Japan has been in long-term discussions with Russia concerning increased natural gas imports, either as LNG or even through an undersea pipeline. While part of Japan's motivation is political to provide alternative markets in Asia to Russia besides China and the Middle East, a major part is also economical to diversify sources of supply. But, this need for an enhanced relationship with Russia is often seen in opposition to the position of Japan's ally, the USA.

However, a geographical analysis reveals that Russia is the only key player significantly present in all three types of fossil fuel imports to Japan and is positioned among the top five importers for all three categories (Gracheva, 2021). This underlines the geopolitical implications of Japan's relationship with Russia, wherein energy and political interests can often be seen in opposition to one another.

It must be highlighted that between 1973 and 1999, domestic crude oil production remained reasonably static at 350–450,000 tonnes annually through fields predominately in Hokkaido (Phillips & Challacombe, 2003). On the energy security front, the national oil stockpile, which did not exist in 1973, is now secured for more than 100 days, and energy-saving measures have become prevalent in Japanese society (Yoshioka, 2018).

As a result of the oil crisis, Japan was also compelled to look inwards to enhance energy self-sufficiency paving the way for its dream energy or nuclear energy. The country's first commercial nuclear power reactor came online in mid-1966; in response to the 1973 oil crisis, Japan made nuclear energy expansion a national strategic priority. When the first oil crisis started, Japan had five nuclear reactors in commercial operation and several under construction. The number expanded to 54 commercial reactors by 2010, which provided approximately 30 per cent of electricity production with intentions of further expansion as per the SEP 2010.

Furthermore, Japan developed policies to increase energy self-reliance through expanded research, development, and utilisation of alternatives to oil. In 1974, the Ministry of International Trade and Industry (MITI) launched its Sunshine Project to foster new solar, hydrogen, coal, and geothermal energy technologies. The second oil crisis of 1978 reinforced Japan's shifting emphasis on LNG, nuclear power and energy efficiency. Through the Agency for Industrial Science and Technology, MITI launched its Moonlight Project to add energy conservation to the new energy technologies targeted by the Sunshine Project. Japan combined the two projects in 1993 along with work on environmental technologies to form the New Sunshine Program. It finally seemed that Japan had found its way around a lack of domestic conventional energy sources, balancing energy security, efficiency and economy. This framework, however, was to be completely overhauled with the Triple disaster of 2011.

The Triple Disaster and the emergence of a new energy reality

In the aftermath of the disaster at Fukushima, the country shut all its nuclear reactors, and the resulting intensified anti-nuclear sentiment, facing an immediate 30 per cent shortfall in electricity production. Over the longer-term, nuclear power seemed to have been ruled out as Japan's primary energy source for coping with geographic and resource vulnerabilities or enhancing environmental sustainability.

The Japanese energy landscape completely changed the share of coal in the nation's power generation increased from 23 per cent to 31 per cent between 2010 and 2015, and the nation's coal consumption increased by about 20 per cent (Sasakawa USA, 2018). Moreover, Japan's shift from nuclear to LNG in power generation after the Fukushima accident in March 2011 increased LNG imports by 25 per cent in just two years (Motomura, 2014).

By 2011, oil had declined to 43 per cent of Japan's total energy consumption from 80 per cent in the 1970s (Sasakawa USA, 2018). But this was set to change drastically in the aftermath of the triple disaster, as can be seen from the fact that in 2021 Japan relies more than 90 per cent on imported energy resources.

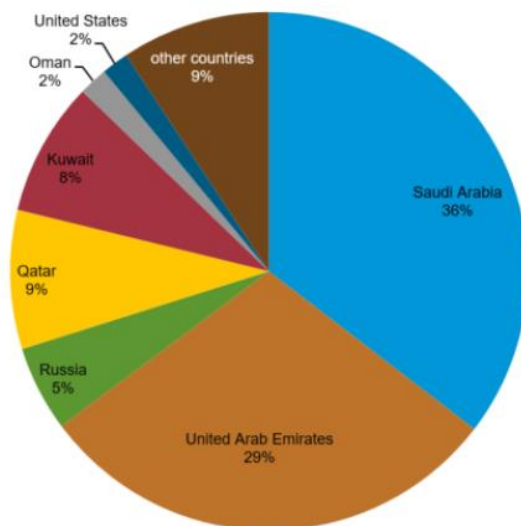


Figure: Japan's crude oil imports by source, 2019;

Source: (EIA, 2020)

But the risks that existed in relation to the Middle East during the oil crisis continue to be present and now exist in an enhanced form, given the lack of domestic reliance on nuclear power by Japan. This was recently highlighted in June 2019 with the Gulf of Oman incident wherein two Japanese ships bearing the Japanese flag were attacked by mines from Iran that heavily damaged the ships. The incident was especially sensitive to Japan's relations with the Middle East because it occurred during Shinzo Abe's visit to Tehran (Sasakawa USA, 2018).

On September 14, 2019, there was a large-scale attack, presumably using cruise missiles and drones against the oil facilities in Saudi Arabia while Iran's involvement was suggested, but this was not proved, and Brent crude oil prices rose sharply from around \$60/barrel to \$69/barrel (Kobayashi, 2020). Nonetheless, it is difficult for Japan to disassociate its energy needs with political relations, especially when it comes to Iran, as the lower price of Iranian crude is attractive for Japanese companies. Japan imported US\$3.5 billion worth of Iranian crude in 2017, making Iran its sixth-largest source that year (MEI, 2019). However, Japan's oil imports from Iran stopped by June 2019 after the US reimposed sanctions on Iran's oil exports and sanctions waivers expired. Iran's share of Japan's oil import portfolio fell from 7 per cent in 2016 to 2 per cent in 2019 and was replaced by other Middle Eastern crude oil grades (EIA, 2020).

Since January 2020, the Japanese government has dispatched the Self-Defense Forces to the northern part of the Arabian Sea, the Gulf of Aden, and Djibouti for information gathering (Kobayashi, 2020). Thus, Japan is making more efforts to actively engage in securing these exponentially critical energy supplies. Additionally, with Japan's political proximity to the US, tensions with the Middle East make Japanese tankers passing through the Strait of Hormuz increasingly vulnerable to retaliation from political challengers. With 88 per cent of Japan's crude oil imports originating from the Middle East, the fine line between crude investment and political intentions makes it a high risk for Japanese foreign policy in the region. Although tankers passing through the Strait of Malacca in Malaysia are less susceptible to political conflict, the Japan-bound tankers must pass through the South China Sea to reach their destination (Sasakawa USA, 2018). These critical chokepoints have been highlighted in the figure below. Despite the risk of political instability and OPEC's ability to dictate world oil

prices by tailoring production to stabilise oil prices, Japan remains heavily dependent on the region for its energy supplies.

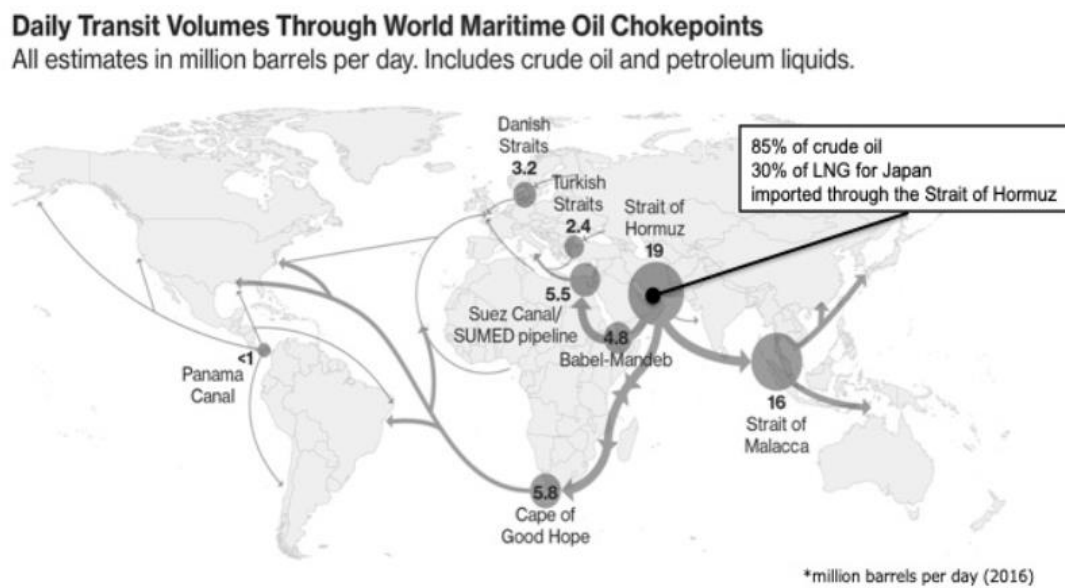


Figure: World Maritime Oil Checkpoints,
Source: (Kobayashi, 2020)

As a result, in 2015, Abe announced a new, activist Middle East policy under which Tokyo was to now play a more significant role in shaping the future of the Middle East through engagement on a host of issues ranging from humanitarian assistance and development to security (MEI, 2019). When setting out the core tenets that guide Japanese policy, Abe used three Arabic terms to describe Japan's approach: al-tasaamuh (harmony and tolerance), al-ta'aaish (coexistence and co-prosperity) and al-ta'aun (collaboration). This can be seen as a step toward creating a more holistic approach to the Middle East, but the undercurrents of Japanese energy dependency continue to drive its relationship with the region.

There are also logistical reasons that hinder the diversification of suppliers since Japan has for long imported large quantities of crude oil from the Middle East; many Japanese refineries are designed and operated to chiefly refine the Middle Eastern crude oil. Therefore, it is not easy technically and economically to increase imports of crude oil from areas other than the Middle East. In addition, the Japanese government is legally not in a position to impose restrictions on private oil companies to reduce their dependency on the Middle East (Kobayashi, 2020).

It is important to note that to date, the crude oil imports in Japan are vastly dominated by sources from the Middle East, with Saudi Arabia accounting for 38.6 per cent, the UAE for 25.4 per cent, and Qatar and Kuwait for a combined 15.6 per cent of oil imports to Japan (Gracheva, 2021). Even for LNG imports, the Middle East continues to play a vital role accounting for a combined total of 21.7 per cent of Japan’s energy imports, namely from Qatar, the UAE, and Oman (Sasakawa USA, 2018). The energy dependence clearly dominates and drives the geopolitics of energy for Japan. METI itself highlights the dominant share of the Middle East, amounting to 88 per cent of crude oil imports, while emphasising that the situation is expected to continue for the foreseeable future (METI, 2020).

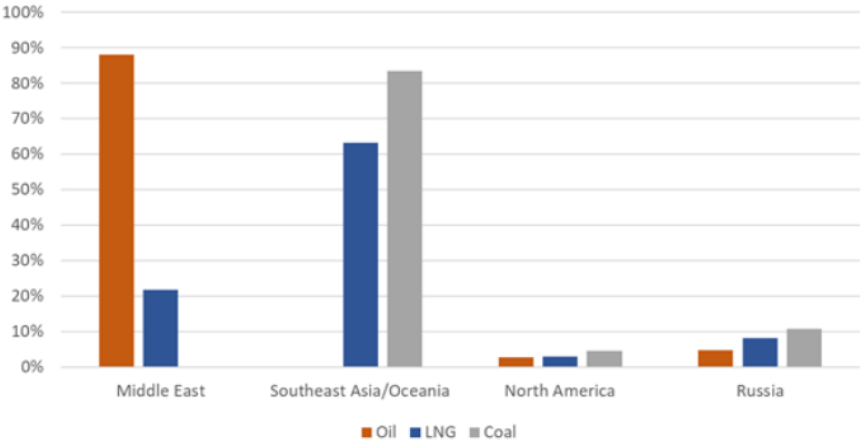


Figure: Japan’s Import of Hydrocarbons,
Source: (Gracheva, 2021)

Similarly, since the triple disaster in Japan in 2011, the energy dimension of Japan–Russia relations has developed at a more rapid pace as it paved the way for a longer-term deepening of

bilateral energy relations and also provided a quick fix to Japan's precarious energy position in the wake of the disaster (Yennie-Lindgren, 2018). The recent development of Russian crude oil exports from its Sakhalin projects and the ESPO (Eastern Siberian Pacific Ocean) pipeline is contributing to lowered Middle East dependence (Sasakawa USA, 2018). The enhanced share of imports from the Russian peninsula can be seen in the figure below.



Figure: How Russian oil flows have changed in the last decade,
Source: (Motomura, 2014)

Accounting for half of the state's revenues, Russia's energy sector is a crucial market for the national economy as well as for establishing political clout (Yennie-Lindgren, 2018). At the same time, scholars like Yennie-Lindgren (2018) note that energy integration with Russia can present Japan with an opportunity to semi-counter burgeoning Russia-China relations as well as Beijing's growing regional impact. Moreover, the Sea of Japan contains no choke points like the Hormuz or Malacca Straits, which represents the safest route for energy transportation from the point of view of energy security (Motomura, 2014). While it takes almost 20 days to ship Middle East crude to Japan, Sakhalin and ESPO crude can be brought into the Japanese market in just two to three days. However, the handline and approach of Russia towards the ongoing Ukraine crisis could act as a deterrent in furthering energy cooperation with Japan in the near future.

Also, with the US exporting LNG from its shale gas production and production in Australia continuing to increase, it is expected that the spot market and other flexible pricing mechanisms will grow, providing both stability and lower prices to Asian importers (Sasakawa USA, 2018). But this does not necessarily mean a decline in the prominence of Russia and the Middle East for Japanese energy imports.

However, with the ongoing energy transition towards renewable energy sources, will the tide of balancing energy geopolitics and bilateral relationships change? After looking into the intricate relationship of Japan with the Middle East and Russia, the following section attempts to analyse the perspective evolution of energy geopolitics within the contemporary dynamism ushered by the Paris Agreement.

New Commitments and the role of the Paris Agreement

The Paris Agreement was signed in 2015 with a global commitment to curb global warming and chart a path towards sustainable development through commitments to reduce greenhouse emissions along with other measures. Energy has been a pivotal player in this process. It has been observed that renewable energy is the fastest-growing source of global energy, with an average annual rate of 2.6 per cent (Su et al., 2021). Thus in recent years, growing international awareness of the dangers of climate change has introduced another influential factor into the geopolitics of energy. The energy geopolitics of climate change is primarily to convince other countries to drastically reduce their use of fossil fuels while evolving more slowly and less expensively in one's own country (Sasakawa USA, 2018).

Japan increased its role in climate change by hosting the 1997 conference that produced the Kyoto Protocol, which included its pledge to reduce greenhouse gas emissions six per cent below 1990 levels by 2012. This was expanded in 2009 to reduce 2020 greenhouse gas emissions by 25 per cent from 1990 levels. The 2010 plan sought to expand nuclear power from 30 per cent to 50 per cent in 2020 of total electricity consumption and to 70 per cent in 2030; to a much smaller degree, it also supported renewable energy.

But as discussed in the previous section, the Fukushima disaster altered the realities of the energy scenario in Japan. It was thus prompted to relook at the energy blueprint it set for itself

in light of the climate ambitions it was now supposed to set on the international stage. As a result, Japanese energy policy placed additional emphasis on climate and the environment, while public support for new climate-friendly technologies and industries increased.

Nevertheless, the geographic and technical characteristics of renewable energy systems are fundamentally different from those of coal, oil, and natural gas, which has implications for interstate energy relations (Scholten et al., 2020). With nations including Japan attempting to expand their share of renewable energy and thereby promote energy self-sufficiency, it is bound to have implications for future energy geopolitics. In this regard, it has been stated that renewables alter arenas of energy interaction, transforming markets and shifting trade partners, and reshaping patterns of cooperation and conflict among countries (Scholten et al., 2020).

One of the significant aspects of this energy transition is that traditional energy geopolitics is centred on significant energy suppliers and importers. While renewable energy generation technologies lend themselves to decentralised generation and utilise critical minerals and metals, coal, oil, and gas optimise economies of scale in centralised installations for production and processing (Scholten et al., 2020). The creation of a less oligopolistic global market may result in fundamentally blurring the classical distinction between importers and exporters.

Another crucial aspect is the rare earth metals that have been considered the most important input for renewable energy technologies are dominated by fewer producers and may reflect in the geopolitical risks. This concern became apparent in 2010 when China imposed an export ban on the earth elements in relation to Japan due to a territorial dispute. China used its increasingly dominant position in the global rare earth mineral market as a foreign policy tool (Su et al., 2021).

Thus, energy security concerns shift from getting access to foreign resources, diversification policies, and strategic reserves to make-or-buy decisions, availability at the right time, and access to geographically bound renewable sources and services (Scholten et al., 2020). In the near future then, the use of critical minerals and metals and specialised know-how in cleantech may increase competition for access to these among countries that compete for industrial leadership in renewable generation technologies.

Nevertheless, it is anticipated that oil and gas are likely to remain indispensable to Japan's energy security, at least for the next few decades considering that the transition process of decarbonisation is expected to be long and gradual (Mitsuka, 2021). It must be highlighted that Russia's weight as an international power builds on its position as an indispensable energy supplier, instrumentalising energy supplies to Europe as a foreign and economic tool and playing on energy in its relationships with China, Iran, and Venezuela (Scholten et al., 2020). Thus, any change in the dominant position of Russia in the energy market could have grave political implications for it. Russia, however, is focused on enhancing its energy infrastructure in the Far East as well as through critical international projects like the Nord Stream 2.

Similarly, while Middle Eastern countries like Saudi Arabia have been working on diversifying their economic dependence on energy exports, these nations are simultaneously looking to adapt to the changing energy demand. According to assessments, the Middle Eastern countries are well-positioned in producing blue ammonia, which is produced from fossil fuels using Carbon Capture, Usage and Storage (CCUS) (Mitsuka, 2021). Already the Institute of Energy Economics, Japan (IEEJ) and some Japanese companies collaborated with Saudi Aramco, Saudi Arabia's state-owned oil company, to pioneer in Saudi Arabia's blue ammonia production and exports. And in August 2021, the Japan Oil, Gas, and Metals National Corporation (JOGMEC) also signed an agreement with the Abu Dhabi National Oil Company (ADNOC) to jointly conduct a feasibility study for clean ammonia production in the UAE (Mitsuka, 2021).

Scholars like Scholten et al. (2020) also highlight the emergence of what they term 'Grid politics' within the arena of the geopolitics of energy as we enter the world of grid communities, the size of continental super grids where according to them, prosumer countries operate an integrated electricity network and balance between secure domestic production and cheap imports. Projects like The Asia Super Grid or the North Eastern Grid have been in discussion for a long time but are marred by geopolitical risks of Japan's reluctance to have an integrated grid with Russia and China; these seem to remain paper projects (REI, 2019).

We, therefore, already find some form of geopolitical adjustments taking place in response to the ongoing energy transitions. This would be a two-way process where importers, as well as exporters, prepare for varying levels of geopolitical realignment. This is not to say that the traditional energy geopolitics would be eroded anytime soon; on the contrary, with the energy crisis in Europe and blackout scare in China and India recently, traditional players like the Middle East and Russia have become highly relevant players for dependent nations like Japan.

Conclusion

Energy geopolitics is the idea that does not necessarily assume classical strategic competition between nations but provides perspectives combining geopolitics, international security, and national strategies, as the stable energy supply is essential for the survival and prosperity of nations (Kobayashi, 2020). The global crises, such as the 2008 financial crisis or the 2020 coronavirus pandemic, have exposed vulnerabilities in global energy supply chains.

With Japan's 99.7 per cent, 97.5 per cent, and 99.3 per cent dependence in FY2017 on imported crude oil, LNG, and coal, respectively, relations with importing countries and an awareness of their dependency and political risk are crucial to the stability of Japan's energy imports (Gracheva, 2021). Furthermore, over the years, Japan has faced many energy challenges and successfully managed to make necessary transitions in its primary energy sources through an oligopolistic commercial market tempered by a persistent government presence. After March 2011, the global energy market was made more complex by changes in supply from the North American unconventional oil and gas revolution, changes in demand, particularly in China and Southeast Asia, and increased market competitiveness of renewable energy due to technological advances. (Sasakawa USA, 2018).

The relationship between the Middle East and Russia has been critical over the years in shaping the political position of Japan on the international stage as well as in its attempt to balance its relationship with a critical partner, the USA. It is observed that even on those rare occasions when Japan has shown signs of a more activist foreign policy in the Middle East, the pendulum tends to swing back to a cautious, energy security-focused approach that reflects caution, neutrality, and the avoidance of military entanglements (MEI, 2019).

Also, the historic collision between Japan and Russia is evidenced in the lack of a peace treaty, and Russia's drift towards greater isolationism in international relations accompanied by Western sanctions makes it challenging for bilateral ties to progress (Gracheva, 2021). Adding to this, the "Ukraine effect" emerging from the ongoing Ukrainian crisis can further lead Japan to walk a diplomatic tightrope in an attempt to balance energy needs and dynamic political relations in the near future. It has nonetheless been contended that Russian actions in Ukraine will lead to a "new world energy order" (Crawford & Smith, 2022). Japan has reiterated its support for Ukrainian sovereignty, and there are claims that PM Kishida has promised Japanese support for USA sanctions. However, it will be difficult, to say the least, for Japan to pull the plug on energy projects with Russia, given its intricate dependence on them. Since the situation is still unfolding while this paper is being written, it is not possible to assess the full extent of the implications of these events.

At the same time, Japan's plans for diversification of its energy sources, including a greater dependence on imports from North America and Australia and the growing interest in highly price-competitive shale gas imports from the US, will not only be a direct challenge to Japan's current suppliers in the Middle East but also to Russia (Yennie-Lindgren, 2018). However, we find that the reliance will continue to exist in the coming decades as Japan strives to push forth its renewable energy transition. The IEA has estimated that the growth of renewable capacity is forecast to accelerate, accounting for almost 95 per cent of the increase in global power capacity through 2026 (IEA, 2021). As a result, the need for a stable baseload in its energy supply is critical for the Japanese nation.

Industrial competition, stranded assets, shifting trade alliances, redeployment of military hardware to secure new energy bottlenecks etc., might well reinforce geopolitical rivalry and fierce geo-economic competition among states (Scholten et al., 2020). It is anticipated that while Middle Eastern countries remain a cornerstone in Japan's energy security through their oil and gas exports, the weight in bilateral energy cooperation gradually shifts towards carbon-free energy sources, including blue ammonia (Mitsuka, 2021). Nonetheless, energy geopolitics continue to play in both the Middle East and Russia when it comes to their relationship with Japan. While its nature might alter due to increased reliance on renewables, its existence and prominence are expected to stay.

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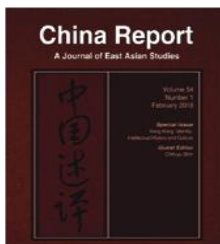


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