

The Belt and Road Initiative: Securing Energy in the 21st Century

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IR 344: The International Politics of Oil

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10 December, 2021

Within the last couple of decades, Beijing has placed an emphasis on promoting economic growth within China. Alongside planned economic growth comes the need for secure and stable energy sources. As a result, the Communist Party of China (CPC) has strived to increase domestic production of energy. In 2019, "... preliminary calculations show that China's primary energy production reached 3.97 billion tons of standard coal, making it the world's largest energy producer."¹ Although China continues to produce large amounts of coal, domestic oil production has dwindled, "... by 2040, its production could further fall to 3.1 mb/d, while its oil demand will increase by another 35 per cent up to 15.5 mb/d."² Yet, as the standard of living has continued to improve, so has the country's energy needs, making it difficult to meet domestic energy demands. Currently, China's energy demands have already surpassed its domestic production (see Figure 1). According to Daniel Yergin "... it has become the world's largest importer of oil: by the beginning of 2020, 75 percent of total demand."³ In addition to becoming the globe's largest importer of oil, China also holds the title for world's largest energy consumer, accounting for around 21% of the world's total energy consumption.⁴ China's oil and coal consumption levels are expected to continue to grow within the coming decades. Therefore, Beijing officials have already started to realize the importance of having a diverse set of energy sources. Prioritizing energy security is now more important than ever for Chinese leaders. While insecurities over the ability to secure enough resources exist among Chinese officials, other vulnerabilities showcase the need for a strategic energy plan; these vulnerabilities include weak Chinese influence in major oil-producing countries, the disposition of rival countries to use oil as

¹ China's State Council Information Office, "Energy in China's New Era," China Daily, 2020.

² China's State Council Information Office.

³ Daniel Yergin, *The New Map: Energy, Climate and The Clash of Nations*. (New York: Penguin Books, 2021), 155.

⁴ Shi, Benye, and Tian Cai. "Has China's Oil Investment in Belt and Road Initiative Countries Helped Its Oil Import?" *Energies*, 13, no. 12 (2020), pg. 2.

a weapon, and a weak ability to defend the Chinese oil supply chain. In particular, because of its geographic surroundings, China is very vulnerable to blockades. Currently, around 90% of the oil that is imported to China travels by sea. As a result, the CPC has a limited ability to prevent sophisticated attacks. Furthermore, the energy supply route through which China imports most of its oil is controlled by the U.S. Navy.⁵ These factors and perceived vulnerabilities have created serious concerns among Chinese leaders.

In 2013, during a tour through central Asia, Xi Jinping announced the One Belt One Road Initiative (OBOR), otherwise known as the Belt and Road Initiative (BRI). The objectives of the OBOR include policy coordination, infrastructure connectivity, unimpeded trade, financial integration, and connecting people. As a result, China has currently been pursuing infrastructure and economic projects in Asia, Europe, and Africa. Throughout this paper, I will argue that although the BRI aims to promote trade and infrastructure initiatives, the motivation behind pursuing OBOR projects in strategic locations is to enhance Chinese energy security alongside other geopolitical goals. First, I will begin by inspecting the origins of the BRI, alongside an examination of Chinese BRI plans near strategic oil-producing countries. Next, I will be examining BRI policies relating to various energy sources deemed critical to ensuring Chinese energy security, such as oil, coal, and liquid natural gas. The analysis will be followed by a discussion of the BRI as a tool towards achieving energy security. Then, I intend to analyze “green” components of the BRI, and whether the efforts of the Chinese government to make the BRI more sustainable will be enough to include renewable energy sources as critical to the Chinese energy strategy. Finally, I will conclude my argument by analyzing the social, economic, and political ramifications of ongoing and future OBOR energy projects. These details will

⁵ Lind, Jennifer and Press, Daryl G. "Markets or Mercantilism?: How China Secures Its Energy Supplies" *International Security*, 42, no. 4 (2018), pg. 188.

provide a more nuanced and complex understanding of whether investment in BRI countries can contribute to a Chinese energy security strategy.

Figure 1

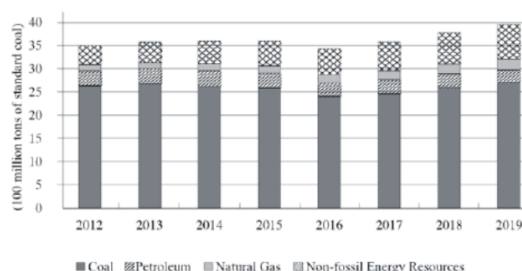


Figure 1 China's Energy Production (2012-2019)

Source: National Bureau of Statistics

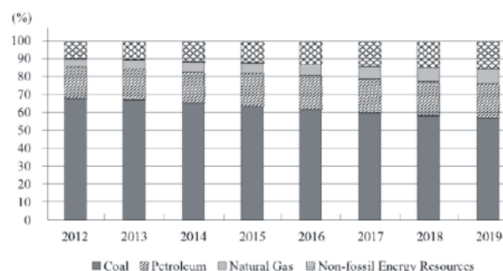


Figure 2 China's Energy Consumption Structure (2012-2019)

Source: National Bureau of Statistics

Source: China's State Council Information Office

China and the BRI

Chinese President Xi Jinping first announced the Belt and Road Initiative (BRI) in September of 2013 during official visits to Kazakhstan and Indonesia. Inspired by the Silk Road of the Han Dynasty, the Belt and Road initiative aims to link China to various parts of the world. The Belt and Road Initiative has two primary components, “... the Silk Road Economic Belt (丝绸之路经济带) and the 21st Century Maritime Silk Road (21世纪海上丝绸之路).”⁶ The

⁶ Mobley, Terry. “The Belt and Road Initiative: Insights from China’s Backyard” *Strategic Studies Quarterly*, 13, no. 3 (2019), pg. 52.

economic belt seeks to connect China with strategic areas of Southern Asia, Central Asia, Europe, and Russia through land. Additionally, the land-based initiatives of the economic belt include “... a series of land-based infrastructure projects including roads, railways, and pipelines.”⁷ Conversely, the maritime silk road aims to connect Chinese coasts with other major coastal regions including parts of Asia, Europe, the Middle East, and Africa. It is important to note that both the economic belt and the maritime silk road are designed to complement each other in order to connect China with as many strategic areas as possible, “... both routes, again recalling the old Silk Road, will have a series of loops and branches, with the two main routes also meeting at important junctions, such as Gwadar, Istanbul, Rotterdam and Hamburg.”⁸ Therefore, when announcing the initiative, President Xi toured Kazakhstan — a country found on the economic belt — and Indonesia — a strategic country for the maritime silk road — in order to convey the scale of the project.⁹

Previously the project was known as the One Belt, One Road (OBOR) initiative. Although the name of the OBOR plan was revised to better suit foreign audiences, the goals of the project have not changed, “this initiative is commonly known as One Belt, One Road (OBOR) or Belt and Road Initiative (BRI) and five key areas of cooperation, including policy coordination, facilities connectivity, trade, financial integration and people to people bonds, have been identified.”¹⁰ Since the announcement of the BRI in 2013, the project has expanded quickly over the years. The BRI is viewed by many experts as China’s most ambitious project yet. Seen as an expansion of Chinese peripheral diplomacy, “the Chinese government is pursuing BRI

⁷ Lokhande, Sumedh A. “China’s One Belt One Road Initiative and the Gulf Pearl Chain” China Daily, 2017.

⁸ Lockhande.

⁹ He, Alex. “The Belt and Road Initiative: Motivations, Financing, Expansion and Challenges of Xi’s Ever-expanding Strategy” Journal of Infrastructure, Policy and Development, 4, no. 139 (2020).

¹⁰ Tang, Loon C. and Low, Joyce M. “Strategic Intent of OBOR: Enhancing Energy Supply Resilience” *Journal of Shipping and Trade*, 5, no. 3 (2020), pg. 1.

projects in 138 countries ... Despite Xi's claims that BRI "is an open and inclusive process, and not about creating an exclusive China club," the initiative is viewed by many as the centerpiece of China's foreign policy aspirations."¹¹ Xi Jinping and other Chinese officials describe the Belt and Road Initiative as "an important platform for building a global community of shared future."¹² Additionally, the Communist Party of China (CPC) describes the importance of "follow[ing] the Silk Road spirit characterized by peace and cooperation, openness and inclusiveness, mutual learning, and mutual benefit."¹³ Other goals, as explained by Chinese officials include extensive consultation, joint contribution, shared benefits, and the pursuit of "open, green, clean, and close cooperation" to improve people's lives while promoting sustainable development.¹⁴ In recent years, the CPC has stressed the importance of mutual benefit, win-win results, green development, and international cooperation. The BRI goals and efforts help portray a favorable image of China to the global community. Yet, critics of the BRI argue that when implemented, the policies are not as friendly as they appear: "while these efforts are intended to improve China's influence and image, a look at some of its actions appear to indicate that China often desires shared community and cooperation only to the extent that others are willing to defer to it."¹⁵ Ultimately, the CPC views the BRI as a global strategy which can be used as a means for economic and diplomatic gain.

The motivations behind the creation and implementation of the BRI can be found during a period of uncertainty for China. In particular, during the early 2000's Chinese society faced issues of overcapacity. While economic growth helped China face and combat a global financial

¹¹ Anwar, Anu. "Belt and Road Initiative: What's in It for China?" *East-West Center*, 2019, pg. 2.

¹² Publicity Department of the Communist Party of China Central Committee. "The CPC: Its Mission and Contributions" China Daily, 2021.

¹³ Publicity Department of the Communist Party of China.

¹⁴ Publicity Department of the Communist Party of China.

¹⁵ Mobley, 56.

crisis in 2008, the sustained growth led to excessive capacity. Therefore, as Xi Jinping took the position of party chief in 2012, one of his main concerns was restructuring the economy, “the new Party chief Xi Jinping listed overcapacity as the top priority for strategic economic restructuring at the first Central Economic Work Conference in December 2012, two months after the Party’s 18th National Congress was held.”¹⁶ In this context, the BRI was a solution to excessive capacity. The BRI was designed as an infrastructure initiative which would help China participate in the global economy and expand outwards. Not only would the BRI help address domestic issues of overcapacity, the BRI would also help address a growing U.S. presence in the Asian continent. In 2010, then U.S. President Barack Obama proposed an East Asian strategy which incorporated a “pivot to Asia”. Chinese officials perceived a growing U.S. presence in the region as a threat to Chinese influence. Therefore, the CPC deemed it necessary to tailor foreign policy plans to include an opening-up strategy, “the idea of a new Silk Road plan was believed to be an adjustment of China’s grand strategy in foreign policy in response to the US ‘pivot to Asia’ policy since 2010.”¹⁷ In order to address present economic and political issues, the BRI was promoted as a tool to help secure contemporary China’s spot as a global power. According to Terry Mobley, “the BRI is further explained as a response to “trade protectionism, unilateralism, isolationism, and other virulent trends” that have damaged the global economy and multilateral trading system, a thinly veiled effort to paint China as a positive alternative to the United States.”¹⁸ As previously mentioned, the BRI quickly grew to become one of the CPC’s leading initiatives. In particular, the BRI has helped Xi Jinping establish and cement himself as a Chinese hero, “... the BRI is Xi Jinping’s flagship project and has become inseparable from his personal image within China. In 2017, the BRI was enshrined in the Chinese Communist Party Charter,

¹⁶ He, 3.

¹⁷ He, 3.

¹⁸ Mobley, 35.

effectively extending and solidifying Xi's position as present and future leader."¹⁹ President Xi has dedicated a lot of time to promoting the idea of the "Chinese Dream" which includes building a prosperous nation with a prominent global role. The Chinese Dream aims to promote a unified global community and the role of Chinese leadership in helping build that community.

In 2016, the BRI was further solidified as one of the leading Chinese policies by being integrated into China's national economic blueprint, "it was designated as the leading program for the new vision of China's opening-up policy outlined in China's 13th Five-Year Plan (2016–2020) in March ... the BRI was written into the constitution of the Communist Party of China at the Party's 19th Congress in October. This action implied that the BRI is one of the key foreign policies in the Party's long-term grand plan, and that politically it will be carried out even after President Xi is no longer in power."²⁰ During the CPC's 19th Congress, President Xi described the next phase of the BRI as a traditional Gongbi painting, characterized by its realistic style and attention to detail. Therefore, it is clear to note that Chinese ambitions for the BRI are only growing stronger as years pass. Although the BRI has received a lot of praise from Chinese officials, there are prominent critics of the initiative. Many critics point to China's use of debt and market traps in order to hold partner countries accountable and dependent on China, "because of limited options, many of these countries are vulnerable to dependency and economic coercion ... Chinese loans typically lack such strings but instead often require that projects be given to Chinese companies and "at least 50% of material, equipment, technology, or services" be sourced from China."²¹ While the future consequences of the BRI loans are not clear yet, Chinese officials remain optimistic about the future economic and geopolitical impacts of the BRI.

¹⁹ Anwar, 3.

²⁰ He, 5.

²¹ Mobley, 53.

While the Belt and Road Initiative has very clear economic and political targets, a large aspect of the project focuses on energy. When describing the energy goals of the BRI, China's State Council Information Office states, "it [the BRI] is endeavoring to ensure energy security in an open environment, open its [Chinese] energy sector wider to the world, promote high-quality Belt and Road cooperation, actively engage in global energy governance, guide global cooperation in climate change, and build a global community of shared future."²² The BRI energy initiatives encompass a variety of energy sources including coal, oil, gas, liquid natural gas, electricity, and renewable energy sources. In order to generate the sufficient amount of energy needed to meet the growing energy demands of the Chinese population, the CPC has increased efforts to find and extract oil and gas resources, alongside increasing production and storage of coal and electric generated energy. Additionally, the CPC aims to "improve energy transportation networks, storage facilities, the emergency response system for energy storage, transportation and peak load management, and enhance its supply capacity for safer and higher-quality energy" in order to better utilize and store energy.²³ Yet, as previously mentioned, Chinese energy demands have surpassed domestic energy production. Therefore, an essential feature of the BRI is the creation of new infrastructure, which will allow for facilitated transport of energy sources into China. The economic belt and maritime silk road contain railways, highways, and ports, which will allow for the import of resources into China. The infrastructure projects of the BRI can therefore help meet domestic energy demands. As a result, a major component of the Chinese energy strategy includes investing into BRI countries, "since 2009, China has invested US\$27.1bn in natural gas and LNG projects in BRI countries. Chinese companies have also announced to invest some US\$102bn in building or acquiring power

²² China's State Council Information Office.

²³ China's State Council Information Office.

transmission infrastructure in 84 BRI countries around the world. In addition, another US\$21bn of loans has been granted for overseas power grid investments.”²⁴ It is important to note that BRI countries tend to contain a variety of resources. Consequently, investing in resource-dense countries will allow for greater access to a large amount of energy, “the OBOR initiative presents China an excellent opportunity to provide the needed resources, including infrastructure, to tap into existing and new oil and gas reserves. Out of a total of 29 oil resource-rich countries, 11 countries are along the twenty-first century Maritime Silk Road and 5 countries are along the Silk Road Economic Belt.”²⁵ Yet, the BRI ultimately aims to connect Asia, Africa, and Europe in order to bring about greater cooperation. Through railways, highways, power plants, oil and gas pipelines, seaports, airports, and other initiatives, the CPC aims to connect geographically distant countries to China.

In addition to increasing connectivity and cooperation, the BRI helps secure diverse energy sources, “following the Chinese oil imports it becomes obvious that countries from which China imports oil are pretty much in line with the One Belt, One Road initiative.”²⁶ Strategic energy projects have been proposed to BRI countries in order to increase cooperation in regards to energy, “a batch of landmark energy projects such as the China-Russia, China-Central Asia and China-Myanmar oil and gas pipelines have been completed and brought into operation. China has now connected its grid with the power grids of seven neighboring countries, giving a strong boost to energy infrastructure connectivity and realizing optimal allocation of energy resources on a larger scale, which facilitates economic cooperation within the region.”²⁷

²⁴ Umbach, Frank. “China’s Belt and Road Initiative and Its Energy-Security Dimensions,” *S. Rajaratnam School of International Studies*, 2019, pg. 3.

²⁵ Tang and Low, 4.

²⁶ Mustafić, Almir. “China’s One Belt, One Road and Energy Security Initiatives: A Plan to Conquer the World?” *Sarajevo Journal of Social Sciences Inquiry*, 2 (2017), pg. 155.

²⁷ China’s State Council Information Office.

Therefore, in order to predict what a future Chinese energy strategy may look like, it is crucial to understand past and current investments in BRI countries. Originally the OBOR aimed to ease transportation and connectivity between China and its immediate geographical neighbors, but since then, BRI ambitions have expanded geographically, “as initially presented, China’s new Silk Road was supposed to stretch over land from East Asia to western Europe and include sea routes from the Chinese port of Fuzhou to Jakarta, Kalkuta and Colombo in Asia to Nairobi in Africa and Athens and Venice in Europe. However, the African continent is becoming increasingly involved in this initiative.”²⁸ In addition to investments found in East Asia, Africa, and Europe, Chinese investments span Central Asia, the Middle East, and even parts of the Arctic.²⁹ The investments currently span five integrated land and maritime routes. Currently there are three land routes pertaining to the economic belt which cover Western Europe, Central Asia, the Middle East, and Russia. Additionally, there are two main maritime silk roads which link the Indian Ocean and the South China sea to Chinese ports.³⁰ Major investments can be found in Myanmar’s Sittwe port, Sri Lanka’s Colombo Port City projects, and Pakistan’s Gwadar port. Although the BRI provides clear political and economic benefits to an ambitious China, the projects mentioned above indicate that the BRI is more than a regional alliance. Planned BRI routes are expanding, investments along the routes are growing, and integration among the routes is increasing as years go by and the Belt and Road Initiative continues to grow. As more countries agree to participate in BRI projects, and as collaboration in areas that originally were not part of the OBOR increases, it is clear that the BRI has become a source of energy security for China.

²⁸ Mustafić, 161.

²⁹ Mustafić, 161 - 165.

³⁰ Damuri, Yose R. et al. “Belt and Road Initiative: An Overview” *Centre for Strategic and International Studies*, 2019, pg. 5.

The BRI as a Tool Towards Energy Security

Securing energy has been a pressing concern for modern Chinese leaders and officials since the founding of the People's Republic of China. Originally, the Chinese favored a strategy of energy independence, due to a perceived vulnerability in dependence, “traditionally, China has interpreted energy import dependencies as vulnerabilities and, therefore, opted for ‘energy independence’ and self-sufficiency.”³¹ In particular, sanctions against the People's Republic during World War II from the U.S. and the U.N. impacted Chinese strategies. Even though U.N. sanctions were removed after the end of the war, the U.S. continued to block trade until the 1970s. Moreover, China was forced to rely on Russia for imports after the U.S. imposed sanctions. Yet, this reliance only lasted until the 1960s when relations between Russia and China soured and the Chinese faced energy shortages and economic disruptions. The two events impacted Chinese officials and “Chinese writers suggest that these two experiences created an appreciation of China's vulnerability that has lingered for generations.”³² Since then, Chinese officials have realized the importance of securing enough energy. It is particularly important to note that any cut-off from energy supplies — which could be enforced during a period of hostility — could lead to a collapse of the Chinese economy and could paralyze its military forces.³³ As a result, Chinese leaders have pursued a wide range of policies relating to energy security. Some scholars argue that by seeking to enhance national power through the securing of energy supplies, China has been pursuing energy mercantilist policies, “China is pursuing a wide range of policies that are consistent with the logic of energy mercantilism, and Chinese officials

³¹ Umbach, 4.

³² Lind and Press, 189.

³³ Lokhande.

and analysts often explain these policies by pointing to threats to the country's energy security."³⁴ The Chinese "Going Out" policy, which includes encouraging firms to invest in foreign energy ventures, and the BRI are seen as the primary strategies to exert influence and secure energy sources.

Chinese concerns are also centered around the transportation of energy and diversification of available routes. Current oil imports are primarily being transported by sea. Therefore, not only is securing a steady supply of resources necessary, it is also crucial to ensure that the transportation of the sources is secure and diversified, "the fact that China was now heavily reliant on Africa, as well as, the Middle East means that it depends more on a single choke point—the Strait of Malacca—than it had been before, with nearly 77% of its oil imports flowing through the Strait."³⁵ The Strait of Malacca is a concern for many Chinese officials (see Figure 2). As nearly 80% of oil imports flow through the Strait of Malacca, the Strait is seen as a vulnerability, "despite rising oil imports from Russia, China will remain dependent on half of its oil imports from the Middle East and, therewith, on unstable SLOCs and the congested Strait of Malacca."³⁶ Coined as the "Malacca Dilemma" by then Chinese President Hu Jintao, the dilemma exists in the fact that most trade and oil from the Persian Gulf passes through the Strait. Yet, the Strait of Malacca is frequently patrolled by the U.S. Navy. Therefore, the narrow strait could be blocked by Chinese rivals during times of hostility, thereby blocking access to an estimated 80% of oil imports. Even minor disruptions to the Strait, such as piracy or naval blockades, would immediately affect Chinese energy supplies. In order to prevent any disruption to energy resources, Chinese officials have been working on initiatives to diversify routes and areas of access, "as part of its effort to bypass Malacca, the Chinese government is also pursuing

³⁴ Lind and Press, 196.

³⁵ Tang and Low, 2.

³⁶ Umbach, 17.

closer ties with the countries that have ports along the Southeast Asian sea-lanes; the so-called string of pearls strategy would allow Beijing to build more pipelines ... to avoid the narrow naval choke points.”³⁷ As part of the Belt and Road Initiative, the CPC has been building infrastructure in Cambodia, Myanmar, Sri Lanka, and Pakistan, specifically meant to give China strategic access to Eastern and Western sides of the Malacca Strait. Furthermore, key pipelines in Myanmar have given China a supply route which allows for the bypassing of the strait entirely.³⁸ Yet, efforts to diversify transportation do not end there, “moreover, Gwadar Port and the Gwadar-Kashgar gas pipeline that will link the Bay of Bengal to Yunnan Province in China are key aspects of CPEC that can help China overcome its Malacca Dilemma.”³⁹ The China-Pakistan Economic Corridor (CPEC), an initiative under the BRI, is considered by Beijing to be one of the most important aspects of the Belt and Road Initiative, “by building the Gwadar port for China’s civilian ships ... [returning] from the Persian Gulf, Africa and Europe, it [the Gwadar port] allows Beijing to ... reduce its dependencies on longer sea routes through the Indian Ocean and the South China Sea/Malacca Strait.”⁴⁰ While goods and resources can be shipped through a land route from Gwadar to China, the Pakistani port can also be used to expand Chinese naval forces in the region. Therefore, overcoming the Malacca Dilemma and introducing new BRI projects in the region contribute to a larger strategy of energy security.

Since the diversification of routes is a critical aspect of the Belt and Road Initiative, the CPC has been connecting with as many BRI countries as possible in order to build infrastructure that can integrate and link existing economic belt and maritime silk road routes. As a result, the BRI initiative already offers different energy supply routes that prevent the need to pass through

³⁷ Lind and Press, 194.

³⁸ Mobley, 59.

³⁹ Mobley, 63.

⁴⁰ Umbach, 28.

the Strait of Malacca, “more specifically, the Kazakhstan–China oil pipeline was completed in 2009 ... The Russia–China oil and gas pipeline was built since 2011 and expanded in 2015 ... The Chinatrans-Myanmar oil and gas pipeline started operations in 2015 and provides an alternative supply route to import crude oil from the Middle East ... a deep-sea Gwadar Port and railway is being built for shipping of oil from the Middle East and Africa to avoid the Strait of Malacca or South China Sea. In addition, a study is being conducted to determine the feasibility of building the Kra Canal to avoid using the Strait of Malacca for shipping of energy resources. Furthermore, to avoid sea shipping completely, an energy bridge for oil and gas to link the Middle East to Central Asia is also being considered.”⁴¹ The diversification of energy sources and routes would prove to be beneficial in the event of a disaster or blockade, which would prevent oil from flowing across the Strait of Malacca. These initiatives would help reduce the perceived vulnerability Chinese officials face. Additionally, as pipelines continue to be built, there will be a decreased dependence on seabased trade. Overall, these infrastructure projects provide energy security through their ability to supply China with the energy resources it needs during a situation of temporary or permanent disruption.

Besides bypassing geographical vulnerabilities and diversifying transportation routes, the BRI promotes a Chinese energy security strategy by providing access to large amounts of energy. Countries along the Belt and Road have been found to contain large amounts of resources, “ ... countries along OBOR account for more than 65% of the world’s remaining proved and probable reserves and more than 55% of the world’s total recoverable energy. Furthermore, it has also been estimated that OBOR member countries house 35.6% of the worldwide newly discovered oil resource and 67% of the worldwide newly discovered natural gas resource.”⁴² Investing in

⁴¹ Tang and Low, 4.

⁴² Tang and Low, 4.

BRI countries and infrastructure initiatives within them, has allowed China to take advantage of the vast amount of energy resources found within these countries, “the estimations show that China’s overseas investment in energy in a BRI country is positively associated with the probability of importing oil from the country as well as the volume of imports from that country.”⁴³ In this sense, China’s “Going Out” and BRI projects have, so far, been successful as a strategy for energy security. Increasing investment in these countries can only further enhance China’s energy security as they will increase various types of energy imports. Therefore, the BRI projects can be viewed as tools towards Chinese energy security. Scholars who have studied the impact of the BRI on Chinese energy security state that “our empirical results confirmed that China’s overseas investment in these countries has enhanced China’s energy security both extensively and intensively.”⁴⁴ As CPC objectives continue to grow, it will be imperative that Chinese officials continue pursuing stable relationships with BRI countries. The relationships between the CPC and OBOR countries will not only determine Chinese energy security, the relationships will also determine the future of the Belt and Road Initiative strategy.

Throughout my analysis of the BRI thus far, I have argued that the BRI serves as a tool towards energy security based on the ability of the initiatives to connect Beijing with greater geographical regions, to secure a greater supply of resources, and for the ability of the project to diversify routes of transportation. While I agree with scholars such as Benye and Cai, Lind and Press, and Tang and Low, who similarly argue that the BRI has been used to diversify routes and secure a diverse set of energy sources, there are critics who argue that the implementation of initiatives and diversification of routes is done to benefit Chinese National Oil Companies (NOCs). According to Benye and Cai, “opposing arguments have also been raised. Chinese

⁴³ Benye and Cai, 11.

⁴⁴ Benye and Cai, 10.

NOCs, the major players in overseas investment, are profit-seeking investors and, thus, do not prioritize energy security above their business operations .. Protecting Chinese energy security could be a nominal argument that they use to persuade Beijing to actively support their global investments through energy diplomacy.”⁴⁵ In particular, when mentioning the BRI, scholars such as Eugene Gholz argue that “while some particular deals may have sensible economic or energy-security rationales, as a whole they seem unlikely to achieve China’s goals. Perhaps the loan-for-oil initiative reflects a complex effort to provide foreign aid through back-handed, hidden channels. Or perhaps China is simply trying a wide variety of oil-related investments, experimenting with the resources in international affairs it derives from its increasing wealth, or responding to pressures from NOCs and policy banks that serve their special interests at the expense of the Chinese public interest ... the most widely cited reasons for the Chinese loan-for-oil deals – that they are economic, diplomatic, or energy security investments – make little sense.”⁴⁶ Yet, the validity of these arguments are called into question when analyzing the actions and investments of NOCs. Rather than solely seeking profit and other business considerations, NOCs and the CPC often invest in areas with an energy security motivation, even if the areas are not projected to hold immediate value, “for example, they often pay a higher price to acquire energy resources than competitors do, choose locations with poor institutional quality or even suffer great losses at face value to acquire foreign assets. These behaviors show that overseas energy investment by the NOCs is more likely driven by national security concerns rather than pure business motives.”⁴⁷ Gholz et al. go on to argue that only a few of the BRI deals will diversify China’s oil import routes. They also mention that many of the newly acquired oil

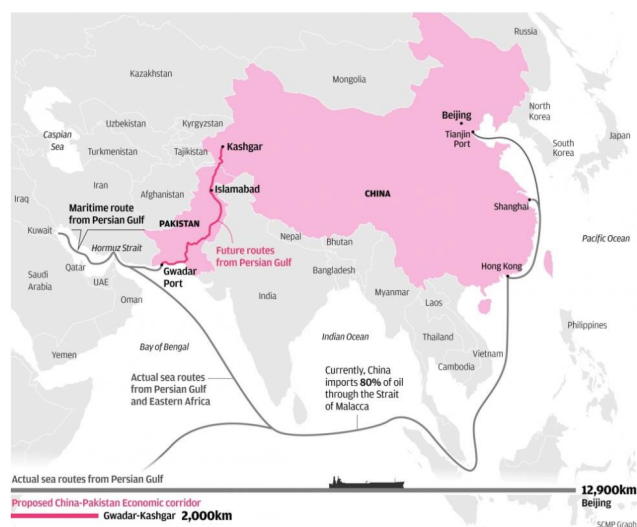
⁴⁵ Benye and Cai, 5.

⁴⁶ Gholz, Eugene and Awan, Umul and Ronn, Ehud. “Financial and Energy Security Analysis of China’s Loan-for-Oil Deals” *Energy Research and Social Science*, 24 (2017).

⁴⁷ Benye and Cai, 5.

sources — particularly in countries such as Angola and Ghana — will still travel through the Strait of Malacca, and that other maritime-based sources will be subject to U.S. Navy interdiction. Yet, as mentioned before, strategic ports in Myanmar, Pakistan, and Sri Lanka will not only help diversify oil import routes to avoid the Strait of Malacca, they will also provide land-based alternatives which will help avoid the Malacca Dilemma. Avoiding the Strait will not only maintain the flow of resources during a blockade, it will also help avoid maritime issues. Ultimately, the BRI and the energy projects undertaken through the initiative aim to diversify existing routes and bypass perceived vulnerabilities. Additionally, rather than solely being an economic tool, “the energy-related projects along OBOR route are seemingly linked to the current and proven oil and natural gas reserves locations, such associations propound that the OBOR initiative is more than just to facilitate trade. Rather, the probable motivation is to enhance China’s energy supply resilience.”⁴⁸ Therefore, when understanding the greater Chinese energy security strategy, the BRI is an essential component.

Figure 2



Source: South China Morning Post

⁴⁸ Tang and Low, 5.

The “Green” BRI

In order to address rising climate concerns the CPC has begun promoting a “green” BRI. In this context, the BRI still maintains the same goals as mentioned above, yet it aims to achieve them in a “greener” manner. In particular, these efforts have been promoted at the Belt and Road forums, “Chinese leaders will continue efforts to improve the image of the BRI, as Xi Jinping recently did at the Second Belt and Road Forum when he noted that cooperation “will be open, green and clean.”⁴⁹ In more recent years, green and low-carbon development has been mentioned in the 2015 BRI Road Map and sustainable development was an important segment of Xi’s speech at the Belt Road Forum in 2017. Furthermore, at the 2017 Belt Road Forum, Xi proposed to establish the BRI International Green Development Coalition with the United Nations Environment Programme.⁵⁰ Additionally, Chinese officials have released documents and given statements which conveyed to the public their intentions of addressing the impacts of climate change. Notably, efforts towards the prevention of climate change aim to promote greater cooperation on energy governance, lead reform towards low-carbon development, and seek sustainable energy. A recent Chinese energy report states that “comprehensive cooperation with other countries [is necessary] to realize energy security in an open environment. Under the principle of equality and mutual benefit, China is opening its door wider to the world. China promotes green and sustainable energy under the Belt and Road Initiative (BRI), and endeavors to improve energy infrastructure connectivity.”⁵¹ While the BRI initiatives mainly focus on fossil fuel energies, Chinese officials claim to support and promote the production of renewable energy sources. Through the Belt and Road Initiative, the CPC aims to develop new energy technologies which will help promote the investment in greener sources, “although traditional fossil energy,

⁴⁹ Mobley, 67.

⁵⁰ He, 18.

⁵¹ China's State Council Information Office.

especially oil and gas projects, is the main area of China's Belt and Road region, new energy has been developing rapidly in recent years. The investment volume of new energy, such as solar energy and wind energy, has increased significantly."⁵² Solar power in particular has been receiving a lot of attention by Chinese leaders. Since China has access to a lot of the materials needed to construct solar facilities, the CPC has placed an emphasis on increasing solar energy production, "as of the end of 2019, China's total installed capacity of power generation using renewable energy resources reached 790 million kW, accounting for about 30 percent of the global total."⁵³ The report provided by China's State Council Information Office goes on to breakdown the 790 million kW target by stating that the total installed capacity of hydropower in 2019 reached 356 million kW, the capacity of wind power reached 210 million kW, solar power 204 million kW, and biomass power 23.69 million kW. Additionally, the report mentions investments in energy power which total around 818 billion U.S. dollars.

The CPC has also been focusing on exporting green sources, and materials for manufacturing, to BRI and other select countries. China has specifically been exporting solar and wind equipment, "In 2019, the output of polysilicon accounted for 67 percent of the global total. The figure for solar PV cells was 79 percent, and for solar PV modules 71 percent. Solar PV products were exported to more than 200 countries and regions. The production of complete wind power assemblies accounted for 41 percent of the world total, making China a key player in the global industry chain of wind power equipment manufacturing."⁵⁴ Therefore, it is clear to note that China plays a big role in promoting clean, green development among BRI countries. If BRI investments can remain green and low carbon, they can help promote and lead the way for environmentally sustainable and resilient infrastructure development. Achieving this sort of

⁵² Benye and Cai, 3.

⁵³ China's State Council Information Office.

⁵⁴ China's State Council Information Office.

development would greatly benefit the fight against climate change and global progress towards the Sustainable Development Goals set forth by the United Nations. Yet, conversely, if the BRI initiatives are “brown and carbon-intensive, it could result in significant carbon lock-in, exacerbating the climate change threat.”⁵⁵ Currently, the CPC has stated that it is committed to ensuring that BRI investments meet environmental sustainability standards. Creating and enforcing green standards for current and future projects would allow for the realization of a “green” BRI. Yet, many question as to whether the Chinese government will be able to follow through with their statements considering the size of the initiative. Not only do BRI projects span many countries, the initiatives can be found in a variety of terrains and ecosystems. Therefore, a one size fits all approach will not be inclusive enough to account for the variety of projects found along the economic belt and the maritime silk roads.

Even though Chinese leaders are aware of logistical difficulties, the CPC continues to advocate for the pursuit of green strategies, “in the spring of 2014, China declared a “war on pollution” with plans to improve air quality and reduce CO₂ emissions per capita by 40 to 45 per cent by 2020 from 2005 levels ... But China will still remain the largest emitter through 2040 and may produce more than twice the amount of GHGE set to originate in the US by 2030. In 2012, China already emitted some 60 per cent more CO₂ than the US. In 2014, for the first time, China was producing more CO₂ per capita than the EU.”⁵⁶ Even as President Xi continues to oversee China’s renewable energy transformation, China continues to consume concerning amounts of fossil fuels. Many environmentalists have pointed to Chinese coal consumption as an area for concern. While China continues to try and push a green image, “according to the IEA’s

⁵⁵ Hong, Chen-Sheng and Johnson, Oliver. “Mapping Potential Climate and Development Impacts of China’s Belt and Road Initiative: A Participatory Approach” *Stockholm Environment Institute*, 2018, pg. 1.

⁵⁶ Umbach, 10.

“New Policy Scenario”, China will still account for almost 45 per cent of the worldwide coal demand by 2040.”⁵⁷ Furthermore, in addition to consuming energy derived from coal, Chinese BRI plans have also led to the creation of coal-based plants abroad. Many new coal mines have been financed, built, or explored by Chinese companies. Therefore, it is difficult to view the BRI initiatives as “green” when they are directly contradicting Chinese climate change policies. Perhaps one of the greatest problems when it comes to the “green” BRI is that many of the desired climate policies are not properly enforced, “externally, the BRI’s environmental policies are characterized by ‘soft’ governance and non-binding, target-setting documents, instead of specific regulation. Despite the narrative promoted by the Chinese government of a ‘Green Silk Road’, the environmental impact of many BRI-related projects continues to cause controversy.”⁵⁸ In order for the promotion of sustainable development in BRI countries to be successful, it is imperative that the CPC enforce their goals towards greener energy systems.

It is also important to consider the impact Chinese initiatives have on countries who are attempting to enforce their own climate policies. In Pakistan, one of the BRI’s target countries, “the largest part of China’s Pakistan investments — around US\$37bn – will be used for various energy projects. These energy investments will focus on electricity, and mostly on building new coal-fired plants.”⁵⁹ While building coal-fired power plants may prove to be beneficial for economic and energy security purposes in the short-term, it will promote energy pathways of high-emissions. Once these infrastructure initiatives are complete, it will be difficult to reduce the environmental consequences. Additionally, introducing many high-emissions energy pathways will bring about problems for the development of sustainability of the partner countries as the globe moves towards renewable energy and the cost of entering the renewable market

⁵⁷ Umbach, 15.

⁵⁸ Politi, Alice. “How Green is China’s Belt and Road Initiative?” *Istituto Affari Internazionali*, 2021.

⁵⁹ Umbach, 29.

increases. Furthermore, it is important to assess who will reap the benefits and who will suffer the consequences of increased high-emissions energy pathways. According to Hong and Johnson, “while this may offer many economic benefits to China and Southeast Asian countries, these benefits may not be equally distributed and there may be significant negative consequences for society and the environment. This challenge is particularly evident in energy infrastructure, where negative consequences accrue in areas close to large infrastructure sites, such as hydropower dams and coal fired power plants, while positive consequences accrue further away in major urban centers.”⁶⁰ As the BRI initiative progresses and as the CPC continues to contemplate how to achieve more sustainable initiatives, it is important to take the opinion of the partner countries into consideration. Partner countries and their members of civil society should be asking for more sustainable alternatives. More importantly, Chinese leaders should take these opinions into consideration and reflect on ways in which the Belt and Road Initiative can achieve its primary goals while remaining environmentally sustainable.

As the globe begins to embrace and prioritize environmentally friendly practices, the future of the BRI as a green solution is uncertain. As previously mentioned, if the CPC fails to properly enforce sustainable practices, BRI partner countries and the rest of the world may turn their backs on the initiative. Yet, if the Chinese government is able to enforce sustainable initiatives while increasing renewable energy investments, the BRI may continue to draw attention from non-partner countries. Many countries are still in the process of negotiating partnership agreements under the BRI, therefore, if the CPC is able to show the validity of a green BRI it is feasible to imagine that more relationships will be formed. As environmental regulations and social advocacy efforts continue to push supply and demand of oil and other fossil fuel resources, a truly green BRI strategy may help produce partnerships key for sustained

⁶⁰ Hong and Johnson, 6.

energy security throughout the duration of the 21st century. Currently, the BRI initiatives which show promising results include, “... projects such as the Kaleta hydropower project in Guinea, the Kaposvar PV power station project in Hungary, the Mozura wind park project in Montenegro, Noor Energy, the CSP+PV solar power project in Dubai of the UAE, the Karot hydropower project and the first phase of the solar PV power project in the Quaid-e-Azam Solar Park in Pakistan.”⁶¹ With a focus on accelerating the green transition process, the BRI has also seen promising results in terms of Renewable Energy Systems (RES), “with more than one-quarter of the world’s RES capacity (totalling some 564 GW, incl. 305 GW of hydropower), it has become the world leader in investments for RES and production of solar panels as well as batteries for electric mobility.”⁶² As previously mentioned, the IEA estimated that China may still account for almost 45% of worldwide coal demand by 2040. Yet, a different report also released by the IEA suggests that, “... reliance on coal for China’s primary energy and generation mix may drop to 45 per cent by 2040 as projected by the IEA.”⁶³ While it remains likely that the CPC energy security strategy will continue to incorporate non-renewable sources, and that the present Chinese demand for energy will not be able to be satisfied by renewable sources alone, the future for a viable “green” BRI remains distant yet present.

Implications For the Future

In order to assess the Belt and Road Initiative as the primary Chinese energy security strategy, it is crucial to understand the various social, economic, and political implications the initiative will likely bring about. To begin, Beijing prefers not to meddle in the domestic politics of partner nations. In this sense, Chinese foreign policy selects to intervene only when necessary,

⁶¹ China's State Council Information Office.

⁶² Umbach, 11.

⁶³ Umbach, 16.

“China’s preferred means of securing predominance is not direct confrontation, but to improve its posture by bringing countries into its orbit while gradually expanding its influence and ability to project power economically, diplomatically, and militarily.”⁶⁴ Chinese officials state to follow principles of consultation, contribution, and shared benefits. These objectives are promoted as furthering common development. It is apparent to view the themes of global connectivity and unification that the CPC has ingrained into various aspects of their foreign policy. Furthermore, the Chinese government has placed an emphasis on multilateral energy governance, “China is an active participant in international energy cooperation under multilateral mechanisms such as the UN, G20, APEC and BRICS.”⁶⁵ China also claims to have set up intergovernmental energy cooperation partnerships with over 90 countries and regions. Additionally, the CPC boasts to have established ties with over 30 international organizations and multilateral mechanisms within the energy sector. Furthermore, China has built energy cooperation platforms with ASEAN, the League of Arab States, African Union, and Central and Eastern Europe.⁶⁶ As the Belt and Road Initiative continues to expand, China will continue to use the platforms and multilateral institutions to bring countries closer “into its orbit”. Consequently, the initiative can be used to align countries with Chinese positions. In the case of conflicts between the U.S. and China, the globe will experience “an ever-more-contested AsiaPacific region [that] will almost certainly be influenced by the votes of ASEAN and UN members.”⁶⁷ While taking into account China’s policy of not interfering with domestic issues of other countries, China’s influence across the world may be a source of concern.

⁶⁴ Mobley, 66.

⁶⁵ China's State Council Information Office.

⁶⁶ China's State Council Information Office.

⁶⁷ Mobley, 68.

Chinese initiatives focused on oil and energy production in the region alongside direct investment in “high risk” countries can provide relief to tense global energy markets and “hence drive prices down.”⁶⁸ Additionally, the money and knowledge that China would introduce to these regions could be highly beneficial, “without this aid and technology, some of these countries would be unable to realize the financial gain from oil within their boundaries.”⁶⁹ Yet, a growing Chinese influence in low-and-middle income countries may be a source of concern and may hinder progress towards human rights efforts. Since Beijing is not likely to interfere in domestic affairs, the CPC is not likely to halt relations with partner countries in the pursuit of the promotion of human rights or the abolishment of corruption. Western firms oftentimes hold their economic partners to ethical standards, yet this is not necessarily true of Chinese companies. Particularly because Chinese firms are not held to the same standards by non-governmental organizations and stakeholders, as Western firms.⁷⁰ Many nations who do not care for the promotion of human rights often are attracted to China as a partner due to their reluctance to do anything. In extreme scenarios, Chinese involvement in certain partner states may enable that country to violate human rights and engage in corrupt activities. In addition to social ramifications, the BRI projects will also entail critical economic implications. Since secure energy sources have become integral to meeting domestic consumer needs, an injured Chinese economy could result in a global economic and social crisis. The instability of the Chinese energy supply could begin a domino effect and threaten the economies of other countries. Additional economic implications include the valuation of the Chinese Yuan possibly increasing, “the Chinese have realized that having a global currency offers leverage in international financial markets. Since BRI projects are financed, constructed, and operated by Chinese

⁶⁸ Hurst, Cindy. “China’s Oil Rush in Africa.” *Institute for the Analysis of Global Security*, 2016, pg. 14.

⁶⁹ Hurst, 15.

⁷⁰ Mustafić, 171.

companies, payments can be made and received in Chinese currency. Indeed, use of the yuan has grown faster in countries with BRI projects than in the rest of the world.”⁷¹ Finally, the implications of the BRI as the primary CPC energy security strategy contain political consequences as well. In order to challenge a growing U.S. presence in the region, China aims to use the BRI to enhance its global leadership image. The initiatives and cooperation brought about by the BRI will help China cement itself as a steady partner in international development. Furthermore, an extended BRI will give China greater access to new borders, “a more general role for the BRI is to extend the Chinese government’s political and economic influence in other countries ... access to these ports [Hambantota port in Sri Lanka and the Gwadar port in Pakistan] could potentially allow China to dock its military vessels and patrol the surrounding areas, effectively checking India’s maritime dominance in the region.”⁷² While many of the implications that will arise as a result of the BRI energy initiatives remain unclear, the BRI countries and the rest of the global community should continue to monitor the impacts.

In conclusion, throughout this paper I have argued that the BRI is not only meant to facilitate trade and diplomacy, rather it has been used as a tool by Xi Jinping to promote Chinese energy security. While it would be naive to ignore that the BRI has grown to become a renowned CPC policy due to the variety of benefits it encompasses, it is still crucial to recognize the energy goals the BRI works towards. Through investing in the BRI and BRI countries, China is “[investing] in the local networks, economy and energy sector, as well as in security, healthcare and education ... China is also developing foreign markets ... It is very obvious that China is strengthening its diplomatic ties with many countries.”⁷³ From the OBOR origins, to overcoming

⁷¹ Anwar, 3.

⁷² Anwar, 3.

⁷³ Mustafić, 182.

the Malacca Dilemma, to perhaps providing energy security in a “greener” future, the Belt and Road Initiative has secured energy for China in the 21st century through strategy and innovation.

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